Study on the mandatory indication of country of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

Final report

Prepared by Food Chain Evaluation Consortium for the Directorate General for Health and Food safety

September 2014

© European Union, 2015
The information and views set out in this study are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.

ISBN: 978-92-79-47124-7
DOI: 10.2875/415662

European Commission
Directorate General for Health and Consumers

Study on the mandatory indication of country of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

Final Report

Framework Contract for evaluation
and evaluation related services - Lot 3: Food Chain

Submitted by:

Food Chain Evaluation Consortium (FCEC)

Civic Consulting - Agra CEAS Consulting-

Arcadia International - Van Dijk Management Consultants

Project leader: Agra CEAS Consulting

Brussels, 10 September 2014

Contact for this assignment:

Dr Maria Christodoulou
Agra CEAS Consulting

maria.christodoulou@ceasc.com

Study on the mandatory indication of country of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

Final Report

Framework Contract for evaluation and evaluation related services - Lot 3: Food Chain

Prepared by the Food Chain Evaluation Consortium (FCEC)
Civic Consulting – Agra CEAS Consulting –
Van Dijk Management Consultants – Arcadia International –

Project Leader: Agra CEAS Consulting

fcec

Food Chain Evaluation Consortium

c/o Civic Consulting Alleweldt & Kara GbR Potsdamer
Strasse 150 D-10783 Berlin-Germany
Telephone: +49-30-2196-2297 Fax: +49-30-2196-2298

E-mail: **alleweldt@civic-consulting.de**

Project team

Agra CEAS Consulting (team leader):

Dr. Maria Christodoulou
Dr. Dylan Bradley
Anne Maréchal
John Nganga

Civic Consulting:

Rémi Béteille

Bureau Van Dijk Management:

Jan Moens
François Lejeune

Arcadia International:

Francesco Montanari

Table of Contents

List of Tables

List of Figures

List of Boxes

Acronyms

AT:	Austria
B2B:	Business-To-Business
B2C:	Business-To-Consumers
BAU:	Business As Usual
BE:	Belgium
BEUC:	The European Consumer Organisation
BTSF:	Better Training for Safer Food
CAs:	Competent Authorities
Cat.	Categories of food examined in the study
CATI:	Computer Assisted Telephone Interviewing
CAWI:	Computer Assisted Web Interviewing
COM:	European Commission
COOL:	Country-Of-Origin Labelling
CZ:	Czech Republic
DE:	Germany
DK:	Denmark
DG AGRI:	Directorate General for Agriculture and Rural Development
DG ENTR:	Directorate General for Enterprise and Industry
DG SANCO:	Directorate General for Health and Consumers
DG TRADE:	Directorate General for Trade
EC:	European Community
ES:	Spain
EU:	European Union
FAO:	Food and Agriculture Organisation
FBO:	Food Business Operator
FIC:	Food Information to Consumers (Regulation (EU) No 1169/2011)
FDE:	Food Drink Europe Association
FCEC:	Food Chain Evaluation Consortium
FR:	France
FTE:	Full-Time Equivalent
GMP:	Good Manufacturing Practices
GR:	Greece
IO:	Information Obligation
IT:	Italy
MCOOL:	Mandatory Country-Of-Origin Labelling
MS:	Member State
MS CA:	Member State Competent Authority
NL:	Netherlands
PDO/PGI:	Protected Designation of Origin/Protected Geographical Indication
PFP:	Primary Food Processors
PL:	Poland
PT:	Portugal
RFID:	Radio-frequency identification
RO:	Romania
SCM:	Standard Cost Model
SE:	Sweden
SG:	Steering Group (for this study)

SME:	Small and medium enterprise
TCs:	Third Countries
ToR	Terms of Reference
UK:	United Kingdom
VCOOL:	Voluntary Country-Of-Origin Labelling
WG:	Working Group
WTO:	World Trade Organisation
WTP:	Willingness to Pay

Acknowledgements

The FCEC team would like to thank all authorities and stakeholders contacted during the project for their contribution to this study. We would also like to thank the members of the steering group and the various Commission services as well as international organisations involved for their valuable assistance and support throughout the study.

Executive Summary

S.1 Background and scope of the study

This study by the Food Chain Evaluation Consortium (FCEC) for DG SANCO under the leadership of Agra CEAS Consulting aims to provide evidence for the Commission to draft a report on the mandatory indication of country of origin, or place of provenance, of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food. The Commission must submit its report to the European Parliament and the Council by 13 December 2014[1]. According to the Terms of Reference (ToR), the purpose of the study is to investigate:

a. the need for consumers to be informed on the origin of foods falling within the scope of the three categories covered by the study; and,

b. the operational feasibility of providing the mandatory indication of the country of origin or place of provenance, and an analysis of the costs and benefits of the introduction of such measures including the impact on operators along the food supply chain (additional costs, competitiveness), and implications for the internal market and international trade.

In terms of the first point, the aim is to explore potential market failures that may currently be in place. These may be due, for example, to a disparity of information between producers and consumers which works to the detriment of consumers, hence the need to investigate consumer attitudes towards origin labelling.

In terms of the second point, this study outlines the main issues with regard to the impact which would need to be explored further in a more detailed impact assessment. This study is **not** meant to provide an impact assessment as such.

The scope of the study covers pre-packed foods sold to the final consumer (including catering), except foods for which vertical legislation already exists[2]; as such, it extends over a large and diverse range of products. A broad classification of the three categories of food products has been followed for the purposes of the analysis[3].

The FCEC data collection strategy has involved the use of a wide range of data collection tools including literature review; structured interviews with consumer organisations, Member State (MS) Competent Authorities (CAs) and relevant food business stakeholders (i.e. EU food supply chain representatives including processors, farmers and retailers; hereinafter referred to as Food Business

[1] Regulation (EU) No 1169/2011 of 25 October 2011 on the provision of food information to consumers (the 'FIC Regulation') introduced a set of provisions on origin labelling of foods; it also required the Commission to draft reports to assess the feasibility of mandatory origin labelling for several food categories (Art. 26(5)).

[2] Product specific origin labelling rules currently exist for: honey, fresh fruit and vegetables, fish, unprocessed beef and beef products, olive oil, wine, eggs, imported poultry and spirit drinks.

[3] The study differentiates - to the extent this is relevant and possible - between the three categories of foods, as each category includes a diverse range of products, as follows:

- ***Cat I: Unprocessed foods*** is defined by reference to Article 2(1)n of Regulation (EC) No 852/2004 on the hygiene of foodstuffs. Example, covered by case studies: flour, rice, cut green vegetable salads);
- ***Cat II: Single ingredient products*.** As there is no definition in the EU legislation, for the purposes of this study, a common sense approach of the term has been followed for this category, i.e. what could be commonly considered to be single ingredient products, particularly by consumers. Examples, covered by case studies: sugar, vegetable oils other than olive oil, frozen potato fries;
- **Cat III: Ingredients that represent > 50% of a food** fall within the scope of what is defined in Article 2(2)q of the FIC Regulation as a "*primary ingredient*" with respect to the quantitative criterion of that definition Examples, covered by case studies: fruit juices, tomato passata, flour in bread (bakery sector).

Operators - FBOs); a consumer survey[4]; and, an EEN SME panel hosted by DG Enterprise and Industry to provide evidence on specific impacts for SMEs. The results and main findings of the study were discussed by theme and endorsed by the Focus Group on this study, and comments have been incorporated throughout the Report as applicable.

S.2 Key findings of the study per Theme

Theme 1: Consumers' attitudes towards geographical origin labelling

The analysis covers consumer interest, understanding, awareness, and willingness to pay (WTP) in relation to information on the geographical origin of various food products within the scope of the study. Despite the caveats of making detailed comparisons between the various studies/surveys[5], general conclusions can be drawn as follows.

From the reviewed evidence base[6], it can be concluded that **consumer interest in origin labelling is strong** and that consumer understanding of origin requires significant detail in terms of the geographical level provided, generally referring to the country of farming and the country of processing.

Amongst the 11 food products covered by the 2014 FCEC consumer survey, interest in origin labelling was highest for pre-packed fresh cut salads, bread, fruit juices, frozen vegetables and vegetable oils: the survey results indicate that more than 70% of consumer respondents find it important that origin is labelled for these top five products. However, **no particular pattern emerges from these results for each of the three categories examined**. Origin was defined as being the place where the food product was produced and/or processed.

Nonetheless, existing studies indicate price and quality/sensory aspects to be the most important factors affecting consumer choice, well ahead of the origin of food: according to the evidence base, **origin of food products is the fourth or fifth** (depending on the study) **most important** aspect influencing food purchase decisions, generally listed **after taste, best-before/use-by dates, appearance, and price**.

Furthermore, despite the existence of a **large number of voluntary labelling schemes** the available evidence[7] suggests that **consumer awareness of these schemes (including PDO/PGI/TSG) remains relatively low** across the EU-28 and particularly low in some MS.

The **reasons behind consumer interest in origin information** were explored in a number of studies (including: the FCEC 2014 consumer survey; and, BEUC's 2013 consumer research) and **quality and food safety issues** are key. The FCEC 2014 consumer survey also highlighted that for a large proportion of EU consumers (42.8%), origin labelling would be used **to favour national or local production** over other food origins. The available evidence therefore suggests that consumer attitudes to origin labelling are more generally connected to their overall trust and confidence in the food industry and the supply chain more generally. However, the importance of this issue was to some extent affected by the 2013 horsemeat scandal, although geographical origin is unconnected to this particular fraud case.

[4] The FCEC consumer survey was carried out for the purposes of this study in April-May 2014 and involved a total sample of 5,250 in 15 MS (the selected MS account for 88% of the total EU28 population).

[5] The various existing consumer surveys are using a variable number/range of factors to gather consumers' answers on this point, as well as different methodologies (notable, prompted or unprompted questions), therefore results on the ranking of each factor in the various surveys are not always directly comparable.

[6] Including existing consumer research and literature, in particular BEUC's 2013 consumer survey, the 2013 DG SANCO study on voluntary food labelling, the FCEC consumer surveys (2013 and 2014) and information provided as part of the FCEC consultation process with MS CAs, food business operators and consumers.

[7] Including Eurobarometer 389 and 410, and the 2013 DG SANCO study on voluntary food labelling.

While those consumers that are interested in origin labelling perceive a strong link between the origin of food and food safety, quality and compliance with other standards (e.g. animal welfare) and support of local/domestic economies and environmental impacts ('food miles'), there is concern that this is actually a misperception. Origin labelling does not actually convey this information (although there are some exceptions) and using origin labelling in this way is misleading and will not improve consumer information. For food safety and other EU quality standards in particular, the perception that there is a difference between food produced in different Member States undermines the strong safety/quality framework established in EU law.

A common criticism of existing consumer research is the lack of evidence on consumer willingness to pay (WTP). This is confirmed by the fact that most studies emphasise that sensory aspects and price are significantly more important factors influencing consumers' food purchase decisions than geographical origin. **WTP is a highly complex issue**, which can be addressed through different methodologies/models of consumer research and results tend to vary substantially between products. These two factors mean that results of the various studies are not directly comparable.

Where results exist (including: 2013 SANCO study on voluntary food labels; FCEC 2013 consumer survey; and some MS/sector specific studies) they point to the **generally low level of WTP**. The FCEC 2014 consumer survey addressed WTP across the diverse range of products covered by the present study on the basis of a Discrete Choice Model (DCM) approach. Results indicate that consumers are largely willing to pay more for origin information. Nonetheless, this reflects a declared or expressed interest in origin information rather than a confirmed purchase choice, i.e. consumers may not actually pay more if confronted by origin information and price increases. On average, 22% of EU consumers actually selected the *status quo* option ('*no information and no price increase'*) in this survey, although there are variations between products and MS.

Other evidence that consumer WTP for additional origin information for food is relatively weak is the fact that **voluntary schemes remain confined to particular MS and product groups**. It is argued that if consumers were willing to pay more for additional origin information, there would have been a bigger proliferation of such schemes for commercial gain but this has not been the case up to now. Moreover, analysis of the uptake of such schemes demonstrates that a key constraining factor for consumers is the fact that these products are sold at a price premium. The extent to which origin labelling schemes currently exist for the products covered by this study is explored in Theme 2.

The contrasting findings of Theme 1 point to a **'paradox' in consumer attitudes**, in particular in terms of the stated strong interest in origin labelling versus actual purchasing behaviour.

Our findings on consumer attitudes to origin labelling apply across the range of products covered by this study. Given the fact that each of the three categories includes a diverse range of products and levels of processing, no further conclusions can be drawn that are specific to each category. The only additional observation for Cat III products (ingredients that represent more than 50%), is the complexity of origin labelling for some products, in particular whether the origin of an ingredient is the relevant information for consumers when this is not the characteristic ingredient and of 'borderline' cases with ingredients, otherwise potentially considered as characteristic by consumers, that are present at just below 50%.

As an overall conclusion which was confirmed by the Focus Group discussion, there are **differences in consumer interest and approaches to origin labelling between Member States and between products**. Consumer interest is also related to the extent to which voluntary origin labelling occurs in MS and products and levels of awareness of such schemes. This suggests that a **harmonised horizontal approach across products and Member States may not be appropriate**.

Theme 2: Characteristics of the supply and processing chain

Even though no specific sourcing practice characterises the EU food and drink supply chain as a whole, the FCEC collection of data and evidence reveals that in most of the EU food and drinks sectors, **manufacturers tend mainly to procure primary ingredients and raw materials from**

multiple sources, whether EU only or EU/non-EU or non-EU only. Generally, food supply chain stakeholders indicated that, excluding PDO/PGI products and some niche products, single sourcing practices are limited, if not negligible. In order to maximise efficiency, the industrial production of food and drinks products requires an adequate volume of raw materials from different suppliers which are able to ensure desired quality regardless the origin of these raw materials. This is particularly the case for ingredients that are bulk commodities[8] with standardised quality parameters. **FBOs using multiple supply sources also tend to change their mix of suppliers frequently**.

Most of the supply chain stakeholders emphasised that the flexibility offered by multiple sourcing practices is essential for companies operating in the EU food and drink sectors in order to respond quickly to any factor that may threaten the supply of raw materials[9]; neither multiple sourcing nor the switch in the mix of suppliers has a bearing on product quality or safety and, therefore – in their view – on product labelling. Thus, the **business reality of the EU food and drinks supply chain is that the various stages of production often take place in different MS** and there is significant trade of raw materials among the MS and with third countries. Typically, FBOs further down the chain are not informed about the origin of ingredients by suppliers, who in turn usually rely on multiple sources. Furthermore, in some specific product sectors e.g. flour, rice, pasta, the EU does not produce raw material in sufficient quantities and therefore is forced to rely on a mix of EU and non-EU sources.

The complexity of the various sectors and of their sourcing practices has significant implications in terms of the extent to which they currently practice voluntary origin labelling (VCOOL), which is also linked to traceability issues. The collected evidence[10] indicates, generally across the EU, a **low presence of VCOOL in most sectors covered by the scope of this study**; where VCOOL occurs, it tends to be in the **high value segment of the food and drinks market**. Nonetheless, there appears to be a growing proliferation of private schemes, i.e. developed by producers or retailers, regarding the origin of food products. Although the specifications and conditions of the various schemes tend to be different, generally 'origin' refers to the place of processing of the ingredient and/or final product, the 'know-how' or 'recipe' and, less so to the provenance of the agricultural raw material.

VCOOL tends to occur where a) there is significant consumer interest; <u>and</u> b) traceability to the indicated level of origin is feasible and can be ensured at a reasonable cost. Our broad consultation with food supply chain stakeholders revealed that their demand and need for origin information varies greatly, largely depending on the type of products. In general terms, unless the above two conditions are met, there is currently very limited demand from food and drinks processors for information on the origin/provenance of ingredients.

[8] According to the results of the FCEC FBO survey, nearly 60% of the sector concerns mostly standard quality, commodity 'bulk' trading products with the remaining 35-40% being mostly high value products. In practice, every product sector has a combination of these two market segments.

[9] Currently, food business operators' (FBOs) sourcing practices reflect a procurement strategy that provides the flexibility to source raw material amongst a range of available geographical origins to ensure the required volumes at competitive prices and the appropriate quality specifications. Sourcing strategies are dependent on a wide range of external factors (i.e. factors beyond FBOs' own control) that influence the availability, price and quality of raw materials, such as seasonality of supplies, weather, phytosanitary conditions, and the impact of those on yields, microbiological/safety issues, and changes in the availability of growing areas/regions (which in third countries can also depend on policy reforms and macro-economic/political instability). Furthermore, FBO sourcing strategies are adapted to the type of ingredients, country specificity and company size.

[10] This study covers only schemes developed and approved at national or concerted industry level. It intends to provide an overview of the most commonly found current voluntary origin labelling practices. As such, it does not provide a systematic or exhaustive list of ad hoc, sometimes uncertified or with no further information provided, existing initiatives of individual actors involved in the food production and distribution chain across the EU28. Voluntary origin labelling is understood within the meaning of Article 26(3); for the purposes of this study it is assumed to refer to explicit indication of origin, such as '*made in (country)*', '*products of (country)*' or '*produced with (country) ingredient/s*'. The difficulty of ascertaining what is a voluntary indication/claim as such is noted, for which the implementing rules of Article 26(3) would provide further guidance.

Traceability is currently set up only '*one step back - one step forward*' which according to the General Food Law principles (Regulation (EC) No 178/2002) is the necessary and sufficient level for food safety purposes. Furthermore, the *'one step back - one step forward'* provides information at the level of the immediate supplier and subsequent recipient, not at the level of the product's geographical origin. As such, existing traceability systems do not gather all the product information that has accumulated through the supply chain ("*cumulative traceability*"), nor the geographical origin information which would be required for origin labelling purposes[11]. **The more detailed the origin labelling** (e.g. options/modalities requiring information on the country/region of harvest of the agricultural raw material), **the more extensive the supply chain adaptations required.** For each of the options/modalities, the structure of the supply chain will determine the nature and extent of impacts in terms of ensuring traceability for the various products. As a general principle, **the more complex the supply chain and the more advanced the level of processing** (i.e. passing through several stages in the production process)**, the more difficult traceability becomes** for the purposes of origin labelling. One of the critical factors determining the extent of the impacts for FBOs of the potential options/modalities for indicating the origin is the nature of their production processes, i.e. whether it is **batch** or **continuous**; the food industry is characterised by a combination of these two basic production models.

In the case of bulk commodities with continuous production processes and extensive blending (e.g. flour, vegetable oils, sugar), ensuring traceability for origin labelling purposes would involve re-designing the production process to ensure segregation by origin. In most cases, **the segregation required is in addition to segregation for quality reasons,** therefore increasing the complication and multiplication of storage and production adaptations needed**.** These challenges are further amplified for more complex products, in particular multi-ingredient and further processed foods with longer supply chains, for which origin labelling becomes more complex and burdensome.

The conclusions reached under Theme 2 are independent of the product category, and no specific conclusions can be drawn for each of the three categories covered by this study. *A priori*, unprocessed or single ingredient products would be expected to face fewer challenges to ensure origin traceability than ingredients representing >50% of a product, but the results of the analysis indicate that this depends on the product and the situation varies on a case-by-case basis. For example, the increased complexity of origin labelling for bulk commodities with continuous production processes and extensive blending transcends the three categories examined by the study: e.g. flour (Cat I; ingredient in Cat III), vegetable oils and sugar (Cat II; ingredient in Cat III).

Theme 3: Impact of the potential options/modalities of mandatory origin labelling

A range of options and modalities were assessed, including the '*no policy change'* option.

Options and modalities
Options *on geographical level of origin labelling based on:* 1. *i) EU/non-EU origin or ii) EU/third country;* 2. *Member State or third country;* 3. *Other geographical entities as place of provenance (region).*
Modalities *considered for each of the 3 above options:* *a. Place of the last substantial transformation of the product (i.e. as determined in accordance with the EU Customs Code);* *b. Place where the main ingredient was harvested;* *c. Both of the above.*

[11] Less than a third of the sectors/FBOs that responded to the FCEC FBO survey indicated that they practice traceability beyond '*one step back - one step forward*', mostly in relation to existing voluntary quality assurance schemes; over three quarters (78%) of the sectors/FBOs indicated that the current traceability system is not suitable for origin labelling purposes and that significant adaptation or a total change of the system is needed.

According to the majority of consulted MS CAs and FBOs (across the food supply chain), ensuring the effective implementation of voluntary origin labelling rules under Article 26(3) of Regulation (EU) No 1169/2011 would provide a sufficient and satisfactory solution for responding to EU consumer calls for geographical origin labelling for the three categories of food covered by the study. Moreover, most of the MS CAs and food supply chain stakeholders are against the introduction of mandatory rules on a horizontal basis for the three categories, due to the diversity of products potentially covered and the lack of common understanding for the 'single ingredient' category. It was therefore generally considered **more appropriate to determine whether mandatory rules need to be introduced on a case-by-case basis**, i.e. for particular products / product sectors, as is the case with other existing vertical legislation in this field (e.g. olive oil, honey, fresh meat, etc.).

Article 26(3) is therefore considered as a partially or entirely satisfactory solution by 15 MS CAs (out of the 24 MS CAs that responded to the consultation), on condition that implementing rules for voluntary origin labelling are clear and meaningful to consumers and that costs of implementation are taken into consideration in all cases[12].

In terms of the potential options/modalities, both MS CAs and FBOs generally indicated that **the higher the level of processing and sector complexity** (particularly for products with multiple sourcing practices and continuous production and blending processes), **the lower the level of detail that it is feasible to provide** on the origin/provenance of foods, with Option 3 considered to be not feasible[13].

On the basis of evidence collected during the consultation with **FBOs**, the following conclusions can be drawn on the **technical feasibility** of the options and related modalities:

1. **Option 1** is **always considered more feasible** (or at least less challenging) than Option 2. However, all of the consulted stakeholders along the food supply chain pointed out that in the case of continuous production process and blending of EU / non EU ingredients, mandatory origin labelling even under Option 1 would pose serious operational challenges and require radical adaptations.
2. **Generally, mostly modality 'a'** (origin as determined in accordance with the EU Customs Code - mainly corresponding to the country of the last substantial transformation) **under Option 1 is considered technically more feasible** by FBOs.

The main reasons why some **options/modalities** are considered **not feasible relate to current business practices,** in particular: incompatible sourcing patterns and practices (multiple sourcing, frequent changes, extensive blending from early on in the supply chain in some sectors); need to switch to smaller production batches and/or to interrupt continuous phases of the production process in order to achieve segregation by origin within the plants; and, systematic adaptation of labelling/packaging to changes in the origin(s) of food ingredients. The most crucial elements are the need to perform very significant adaptations in the production processes and sourcing practices (both for suppliers of raw material and for processors of the final product), in order to ensure traceability for origin labelling purposes.

[12] On the other hand: as implementing rules for Article 26(3) are not known yet, seven MS CAs could not assess the necessity to introduce origin labelling rules on a mandatory basis, while this also depends on the products; furthermore, for two MS CAs Article 26(3) is not sufficient/satisfactory, as it only covers the primary ingredient and could be difficult to establish this for certain categories of multi-ingredient foods, while there could still be a significant gap where voluntary schemes are not widespread or do not exist.

[13] **Option 3** (label indicating other geographical entities as place of provenance *[region]*) was generally **considered by both MS CAs and FBOs to be not feasible**, for the following reasons: 1. there is no universally accepted definition of '*region'*; 2. traceability is more complicated than in the other options and is even considered not feasible in some cases; and, 3. there is potential for overlap/confusion with existing EU quality schemes (PDO/PGIs) that could undermine the added value of these schemes.

In terms of implementing those **options/modalities considered technically feasible**, the **costs of the required adaptations are a key concern**. By and large, the consultation of FBOs has revealed **two main scenarios** that would emerge, so as **to achieve full (cumulative) traceability along the supply chain** for the purposes of origin labelling[14]:

A. In scenario A (adaptations in sourcing practices), there would be a loss of flexibility in sourcing with implications in terms of the availability, quality and prices at which raw materials can be obtained. This is one element of the estimated operational costs.

B. In scenario B (adaptations in the production process), there would be:

   i. Additional costs for investment in duplicating/extending production capacity, e.g. in silos, storage and new production lines. The costs of this scenario are particularly high, to the point that it is considered not feasible from an economic point of view (and in many cases not feasible from a technical point of view).

   ii. Where possible, instead of undertaking such an investment, FBOs would opt to convert to batch production, or shift to smaller batches. In this case, there would be efficiency losses resulting from the discontinuation of the previous (continuous or larger batch) production process model due to the required disruptions when switching between origins. In addition, there would be cleaning costs between batches (to avoid origin cross-contamination), and additional logistics/stock management/waste costs; these costs, which are less substantial than efficiency losses, depending also on the tolerance level that would eventually need to be set, are another element of the estimated operational costs.

The evidence collected on **the potential additional operational costs[15]** that would emerge from the above scenarios is **very heterogeneous between products / product sectors, MS and individual FBOs,** due to the diversity of the sectors and situations that can prevail. Even though caution is required in extrapolating and drawing general conclusions[16], the following overall patterns emerge:

- **For each option/modality, the extent of additional costs can vary considerably**, and will depend on the specific operational situation prevailing for each FBO at the time of the potential introduction of the rules, therefore the adaptations that would be considered most feasible to pursue. This will depend on the current features of the particular supply chain, as determined by the factors highlighted in Theme 2, i.e. including sourcing practices, the production model (whether continuous or batch), the degree of vertical integration, the presence of SMEs and scale of operations, the competitive structure and resulting bargaining power along the supply chain, and the current status of traceability systems and practices. Thus, plant-level or MS-level estimates can differ significantly. For this reason, in most cases, no EU-average level estimates could be provided in the present analysis.
- From the case studies conducted under the study it can be concluded that **adapting the structure of the supply chain** (such as: simplifying sourcing practices, reducing batch sizes, reducing intermediaries, increasing scale, repositioning product range) is **more cost effective**

[14] In both scenarios, there would be additional labelling/packaging costs, administrative costs and burden, and further impacts in terms of competitiveness, internal market, international trade and environmental issues.

[15] The specific aspects considered in the study were as follows: adaptation of sourcing practices and possible changes in the mix of suppliers; adaptation of production process of the final food product; adaptation of packaging and labels/labelling process; adaptation of marketing practices of the final product; adaptation/implementation of traceability systems; implementation of additional internal controls required to ensure compliance with mandatory origin labelling rules; any other possible aspects specified by FBOs.

[16] Despite our attempts to harmonise the data collection and the scenarios/assumptions followed in the analysis of the options/modalities, this is inevitably subject to the specificities and data availability in each sector. This makes it difficult to carry out a systematic analysis of the data and not possible to compare quantitative estimates, as they refer to specific product sectors and assumptions.

than investing in the adjustments that would be required in the production process to ensure for example complete segregation of the supply chain under current sourcing practices.

- The **most impacted cost items** have been identified by food supply chain stakeholders to be as follows: adaptation of sourcing practices and possible changes in the mix of suppliers; adaptation of production process of the final product; and, adaptation of packaging and labels. Traceability costs could not be distinguished as such; as to ensure full traceability would require the above adaptations, **traceability costs** are **embedded in the costs related to adaptation of sourcing practices/production process** in particular.
- Bearing in mind the above issues, the **additional costs under Option 1 are generally lower**, or much lower, **than under Option 2**. Similarly, **additional costs under modality 'a' are generally lower**, or much lower, **than under modality 'b'.**
- **In principle,** costs would likely be mitigated if rules allowed for the labelling of 'EU and non EU' (Option 1) or several countries (e.g. a group of MS in Option 2). The extent to which labelling a group of MS would enable the mitigation of costs depends on the specific operational situation of FBOs, notably on their sourcing practices. Similarly to the other options examined, the extent of **additional costs can vary considerably** depending on the sector / plant. There were concerns that these alternative options could mislead consumers if not all labelled countries are always involved in production, leading to potential consumer mistrust. Moreover, the added value to consumers was questioned in this case.
- With all due caveats relating to the limited comparability of data, the scale of impacts can be distinguished between the two broad scenarios of required adaptations (A and B) as follows:
    a. A **scenario where the adaptations pertain to duplicating/expanding the production process** (scenario B.i): in particular, for 'bulk' commodities with continuous production process, and extensive blending of EU/non-EU sources (e.g. sugar, vegetable oils, flour). In these cases, the required investment costs - even under Option 1 - are too high for the scenario to be feasible in economic terms, while they are often also not feasible in technical terms (e.g. planning permission not possible for plants located in urban zones).
    b. A **scenario where feasible adaptations of the existing production process can be made** (scenarios A and B.ii/iii). **Additional costs under Option 1 range from negligible** - where there is no mix of EU and non EU origins (e.g. tomato passata; pre-packed cut green salads; some products in the rice sector) - **up to +30% of production costs**, where there is a mix of EU and non EU origins. **Additional costs under Option 2 range from +15% to +>35% of production costs**. These costs are specific to the production of the final products, and are – at least partly - in addition to the costs likely to be incurred at the earlier stages of the supply chain (where the latter were not the place of the last processing of the final product).
- In most cases (i.e. under the various options/modalities and for the range of products/product sectors), the **additional costs exceed the current levels of profitability** as the consulted sectors indicated that operating margins are generally tight (i.e. <5%).

Even though it is difficult to identify clear trends, in the event that rules need to be introduced, the **preferred policy options/modalities of <u>MS CAs</u>** are as follows:

- Option 2 (label indicating the MS or third country) is considered more relevant in some cases for consumers than Option 1 (label indicating EU/non-EU origin or EU/third country), This depends on products: Option 2 was supported by 13 MS CAs, and Option 1 by 8 MS CAs.
- Those supporting Option 1 indicated that, since all standards in the EU should be applied in the same way, an "EU / non EU" indication would indicate a high level of quality and safety

for all food, particularly for ingredients that represent more than 50% of processed multi-ingredient foods, which is more important for consumers than their origin.

- For most of the MS CAs that supported Option 2 (and Option 3), the appropriateness of modality 'a' or 'b' would depend on individual products concerned and can only be established on a case-by-case basis. Generally, if food products are processed: mostly modality 'a'; if unprocessed: mostly modality 'b').
- Some MS questioned the relevance of origin information for certain products as established under the Community Customs Code. A food product's last, substantial, economically justified processing or working in some cases also includes packaging, while in other cases it may not include processing as this might be understood by consumers (e.g. sugar refining is not considered as substantial transformation).

A key concern of MS CAs and FBOs remains the **feasibility and effectiveness of enforcement based on paper documentation**, as there are no other methods to control origin of food products. In third countries, this would be very hard to enforce. Within the EU, in the context of constrained budgets allocated to official controls, the need to prioritise to maintain focus on food safety would jeopardise the enforcement of any new rules. **The complexity of enforcement and lack of effective controls would increase the risk both of genuine errors and potential fraud**.

In terms of the **additional administrative costs and burden**[17], the general observation is that mandatory origin labelling would lead to an increase in costs; the greater the level of detail the higher the cost. Additional costs of controls for the three categories covered by the present study are expected to be higher than previous estimates of such costs in the case of meat, as for the latter there is an established system of traceability starting from animal identification –and this is most developed in the beef sector – which can serve as the basis for the MC CA controls. In particular:

- For MS CAs, **familiarisation with the IOs/training and data inputs/record keeping related to inspections and audits (verification checks)** are the main areas expected to be affected. The resulting increase in control costs is in terms of the **number of staff needed to perform verification checks at FBO point**. However, only seven MS CAs provided some quantitative estimates of the scale of the anticipated additional costs. In particular, two MS CAs indicated that the introduction of mandatory origin labelling rules for the three categories of products covered by the study would result in **up to a 3-fold and 10-fold increase** in their current levels of control costs. The other five MS CAs that provided some data indicated that the **increase in costs could range from 5% to 20-30%.** No further distinction in terms of costs per option/modality was provided, beyond the general observation that the greater the level of detail the higher the cost.
- In the case of **FBOs**, additional costs are also expected, beyond BAU. These costs are in addition to any potential cost transfer from MS CAs to FBOs through (increased) fees charged to perform controls. In some of the examples provided the **total control costs** are **negligible in the case of Option 1, but become more substantial in the case of Option 2** (ranging from €16,000 to €210,000 per plant per year) **although they account for a relatively small share of the total additional costs of mandatory origin labelling.**

It is **not considered possible**, at least in the short to medium-term, **to mitigate the traceability and control costs through** advances in **technology** (e.g. radio-frequency identification (RFID), isotope analysis), as the technology uptake, effectiveness and efficiency, is virtually non-existent[18].

[17] It has not been possible, neither for MS CAs nor for FBOs, to separate the costs resulting from what might be the new information obligations (IOs) generated by future legislation on mandatory origin labelling from control costs more generally (following the Commission's Standard Cost Model).

[18] By and large, both MS CAs and FBOs, remain unconvinced that isotope analysis can provide a cost-effective solution for wider implementation of origin verification controls, as the costs of this testing are high, the

Certain **factors *de facto* mitigate the severity of the anticipated impacts for micro/small-enterprises (SMEs)**: smaller companies tend to source raw material locally where possible, particularly in perishable food sectors (e.g. processed fruit and vegetables), and are not as present in sectors relying on the generally higher investment continuous production models which are the prevailing models in these sectors to optimise efficiency/ competitiveness (e.g. sugar, vegetable oils, flour, starch-based products etc.)**.** However, **where these mitigating factors do not occur, SMEs and micro-enterprises are considered likely to be particularly/disproportionately affected** by mandatory origin labelling rules, as also indicated by the response of 17 MS CAs (out of the 22 MS CAs the responded to this question in the FCEC MS CA survey).

In terms of potential impacts on the **internal market**, available evidence suggests that Options 2 and 3 would affect the competitive position of FBOs particularly in terms of: MS that are not self sufficient in raw materials (which will vary by product / product sector); FBOs using a range of ingredients and producing a range of products, as the complexity of providing origin labelling would multiply in this case; and, FBOs sourcing from third countries in sectors where imports play a key role (i.e. EU is not self sufficient). In addition, potential changes in intra-EU trade flows (with a particular disadvantage for FBOs situated in MS border regions), and the risk that patterns of "food chauvinism'' may emerge, have been identified by stakeholders as potential impacts in terms of disturbing the free movement of goods in the EU.

In terms of **international trade**, the potential impacts identified are in terms of changes in the geographical structure / volume of trade flows between the EU and third countries, a risk that patterns of "food chauvinism" may emerge, and reduced export competitiveness of EU FBOs vis-à-vis third country competitors. The need to ensure compliance with international WTO/TBT obligations was also highlighted as a key concern in the event that implementation of any new rules creates conditions of discrimination vis-à-vis imports from third countries.

In terms of potential **environmental impacts**, although views on these tend to be less unanimous amongst stakeholders, the following were identified as the most important: mandatory origin labelling could provide an incentive to consume products produced in proximity; on the other hand, it carries the risk of creating packaging waste where frequent/unforeseen changes in sourcing result in obsolete packaging costs. Other potential environmental impacts include the increase in actual food waste, in the case of errors and recalls (the occurrence of which was considered likely to be frequent due to the complexity of ensuring traceability and controls), which contradicts ongoing joint EU food supply chain initiatives to minimise food waste.

S.3 Overall conclusions

On the basis of the study findings (Themes 1 to 3), as validated by the expert Focus Group, the following conclusions can be drawn.

The analysis of consumer attitudes towards geographical origin labelling (Theme 1) indicates evidence of a **'*paradox*' in consumer attitudes towards origin labelling, in that there is a discrepancy between declared strong interest and actual purchasing** behaviour. The findings also indicate that there are differences in consumer interest and approaches to origin labelling by Member State, as well as between products. This suggests that a harmonised horizontal approach across Member States and products may not be appropriate. Member States where there is greater interest in origin labelling might want to come forward with specific vertical legislation as is currently the case with voluntary origin labelling. In this context, it is noted that there is no uniform pattern across the EU or food products in terms of consumer understanding of origin labels (particularly whether these should refer to place of harvest or processing), or awareness/uptake of voluntary origin labelling schemes; this partly explains why voluntary schemes remain confined to particular Member States and product groups. While those consumers that are interested in origin labelling perceive a strong

available test methods are not widely tested yet, and the technology is not applicable across the range of food products, particularly where ingredients are mixed.

link between foods' origin and food safety, quality and compliance with other standards (e.g. animal welfare) and support of local/domestic economies and environmental impacts ('food miles'), there is concern that this is a misperception. Origin labelling does not actually convey this information (although it will sometimes do so) and using origin labelling in this way is misleading and will not improve consumer information. For food safety and other EU quality standards in particular, the perception that there is a difference between Member States undermines the strong safety/quality framework established in EU law.

Overall, on the basis of the available evidence on the EU food supply chain structure (Theme 2) and potential costs and impacts of the possible options/modalities of mandatory origin labelling (Theme 3), the study concludes that the **technical feasibility, costs and impacts of the various options/modalities differ significantly by product/product sector**. For many options/modalities and product/product sectors assessed, mandatory labelling would entail considerable increases in cost.

For certain sectors, in particular 'bulk' commodities with continuous production process and extensive blending of EU and non-EU supplies (e.g. sugar, vegetable oils, flour) and those with complex supply chains involving trade on the world spot market, the required investment and operational costs - even under Option 1 (EU/non EU or EU/third country) - are often not technically feasible and, where feasible, costs are too high. For other products/product sectors, the challenges posed may not be as extensive, but can still be considerable, as shown by the analysis of each sector in Theme 3. An indication of the extent to which origin labelling can be feasible is provided by the prevalence of voluntary origin labelling; as concluded in Theme 2, this generally tends to occur: a) where there is significant consumer interest; and, b) where traceability to the indicated level of origin is feasible and can be ensured at a reasonable cost, that consumers are willing to cover in a premium or that manufacturers are prepared to cover.

As the three categories covered by the study include a diverse range of products, no further conclusions on costs and impacts can be drawn for each of the three categories. For example, in the case of 'bulk' commodities, these can be found in all three categories (e.g. flour: Cat I and ingredient in Cat III; sugar/vegetable oils: Cat II and ingredient in Cat III). Furthermore, there is lack of common understanding as to which products the 'single ingredient' category includes, while the definition of ingredients that represent >50% of a food is too general and raises boundary issues vis-à-vis the same/similar products with the same ingredients present just <50% in a product. Thus, an **extrapolation from any considered product product/sector case to a 'category' as a whole** is considered not only impossible, but could also be **potentially biased**. **Therefore, introducing rules on a horizontal basis for the diverse range of products** potentially falling within the scope **of the three categories covered by the study is, in practice, not feasible.** In conclusion, the adverse effects that the generalised introduction of mandatory origin labelling on a horizontal basis of the three categories of foods covered by the study may have on costs, the internal market and EU trade and competiveness would outweigh the benefits that it could possibly bring to consumers.

Furthermore, a key constraining factor in the introduction of generalised rules on origin labelling on a mandatory basis is the difficulty in enforcement, as also highlighted by the expert Focus Group. There is therefore considerable concern that the challenges to effectively enforce any new rules could create a risk for potential fraud. The question of liability along the supply chain also arises.

All stakeholders noted the **need for a full scale impact assessment** in the event regulatory measures should be envisaged. It was also highlighted that any future rules will need to **ensure consistency with implementing rules for voluntary origin labelling under Article 26(3) and with existing mandatory origin labelling rules in specific sectors.**

1 Introduction

1.1 Context and objectives of EU legislation

The European Commission has been developing legislation concerning origin labelling since the creation of the Common Market Organisations in the early 1960s. The adoption of the first "horizontal" legislation on food labelling (Directive 79/112/EC) was mainly aimed at regulating the labelling of foods as a tool for the free circulation of foodstuffs in the Community. The adoption of the first European legislation on geographical indications and protected designation of origin for agricultural products and foodstuffs (Council Regulation (EEC) No 2081/92 of 14 July 1992) represented another milestone in this legislative process, together with the adoption of mandatory rules on origin labelling for honey, fruit and vegetables, fish, beef and beef products, olive oil, wine, eggs, imported poultry and spirit drinks ("vertical" legislation on food labelling).

Regulation (EU) No 1169/2011 of the European Parliament and of the Council on the provision of food information to consumers ("the FIC Regulation"[19]) introduced a set of provisions on origin labelling of foods, namely:

- framing the voluntary origin indications;
- providing for the mandatory indication of country of origin or place of provenance of unprocessed meat of pigs, poultry, sheep and goats; and,
- requiring the Commission to produce reports to assess the feasibility of extending mandatory origin labelling for other categories of foods.

1.2 Current EU legislation on mandatory origin/provenance labelling for food

EU mandatory rules on origin/provenance labelling now exist for several sectors: honey, fruit and vegetables, unprocessed fish, (unprocessed) beef and beef products, olive oil, wine, eggs and imported poultry. Implementing acts for the mandatory indication of country of origin or place of provenance for unprocessed meat of pigs, poultry, sheep and goats were adopted on 13 December 2013 as foreseen by the FIC Regulation[20]. Moreover, specific rules on origin labelling for spirit drinks and aromatised wine products are in the process of adoption. It is noted that, under Article 26 (3) of the FIC Regulation, in the case of foods where origin labelling is provided on a voluntary basis, the country of origin or place of provenance of the primary ingredient/s must either be indicated as such *or* it must be stated that this is different to the origin of the final food; implementing acts for this provision are to be adopted in 2014[21].

[19] Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004, OJ L 304, 22.11.2011, p. 18.

[20] Following an impact assessment focused on the feasibility and costs of various Options for implementing the rules of origin labelling with respect to place of birth, rearing and slaughter of an animal.

[21] Following an impact assessment focused on the feasibility and costs of various Options for implementing the rules on voluntary origin labelling.

In the context of the FIC Regulation, the European Parliament and the Council consider that there is a need to explore the possibility to extend mandatory origin labelling to seven other categories of foods. DG SANCO has launched a study to collect data for the Commission to draft a report on the mandatory indication of origin or place of provenance for three of these categories of foods, namely, unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food. The Food Chain Evaluation Consortium (FCEC), under the leadership of Agra CEAS Consulting, was selected to carry out the study.

Based on the conclusions of these reports, the Commission may submit proposals to modify the relevant EU provisions or may take new initiatives, where appropriate, on a sectoral basis. The deadline for the Commission to present its report is 13 December 2014[22].

1.3 Definitions provided in current EU legislation

Article 2 of the FIC Regulation introduces the definitions of "place of provenance", "country of origin" and "unprocessed products", as follows:

- "**Place of provenance**" means any place where a food is indicated to come from, and that is not the "country of origin" as determined in accordance with Articles 23 to 26 of Council Regulation (EEC) No 2913/92 establishing the Community Customs Code[23]; the name, business name or address of the food business operator on the label shall not constitute an indication of the country of origin or place of provenance of food within the meaning of this Regulation.
- "**Country of origin**" is determined in accordance with Council Regulation (EEC) No 2913/92, which provides the following rules :
    - Article 23 defines goods "wholly obtained" in a country:
      "1. Goods originating in a country shall be those wholly obtained or produced in that country.

      2. The expression 'goods wholly obtained in a country' means:

      (a) mineral products extracted within that country;

      (b) vegetable products harvested therein;[…]

      (d) products derived from live animals raised therein;

      (e) products of hunting or fishing carried on therein;

      (f) products of sea-fishing and other products taken from the sea outside a country's territorial sea by vessels registered or recorded in the country concerned and flying the flag of that country;

      (g) goods obtained or produced on board factory ships from the products referred to in subparagraph (f) originating in that country, provided that such factory ships are registered or recorded in that country and fly its flag; […]

[22] Article 26(5) of the FIC Regulation requires the Commission to prepare seven reports covering the following foods: (1) types of meat other than beef, swine, sheep, goat and poultry; (2) milk; (3) milk used as ingredient in dairy products; (4) meat used as an ingredient; (5) **unprocessed foods**; (6) **single ingredient products**; and (7) **ingredients that represent more than 50% of a food**. The deadline for the Commission to present its reports is 13 December 2014 with the exception of the report on the meat as ingredient that was presented in December 2013.

[23] OJ L 302, 19.10.1992, p. 1

(j) goods which are produced therein exclusively from goods referred to in subparagraphs (a) to (i) or from their derivatives, at any stage of production.

3. For the purposes of paragraph 2 the expression 'country' covers that country's territorial sea. "

- Article 24 clarifies that "goods whose production involved more than one country" shall be:
  "deemed to originate in the country where they underwent their last, substantial, economically justified processing or working in an undertaking equipped for that purpose and resulting in the manufacture of a new product or representing an important stage of manufacture".

- "**Unprocessed products**" is defined by reference to point (n) of Article 2(1) of Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs[24], as follows: "*foodstuffs that have not undergone processing, and includes products that have been divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep-frozen or thawed*".

In terms of the "**ingredients that represent more than 50% of a food**", these fall within the scope of what is defined in Article 2(2)q of the FIC Regulation as a "*primary ingredient*" with respect to the quantitative criterion of that definition.

There is no definition in the EU legislation for "**single ingredient products**". For the purposes of this study, a common sense approach of the term has been followed for this category, i.e. what could be commonly considered to be single ingredient products, particularly by consumers. This approach ensures an appropriate reflection of the product/market reality and consumer understanding in the present analysis.

As agreed with the SG, it is not the aim of the study to provide definitions for these categories (Cat.); a working hypothesis of their scope has therefore been used only for the purposes of the study. Thus, our aim is to assess the potential impacts of the introduction of origin labelling rules on a mandatory basis using *representative* examples of products/product sectors that fall within one of more of the categories covered by the study.

1.4 Objectives and scope of the study

According to the Terms of Reference (ToR), the main objectives of this study are as follows:

a) to collect data that would allow the Commission to consider the **need for consumers to be informed** regarding the origin of the three categories of foods;

b) to examine the **operational feasibility and the costs and benefits** of providing mandatory indication of the country of origin or place of provenance of those foods. This includes the impact on operators along the food supply chain (additional costs, competitiveness), on the internal market, and on international trade.

[24] OJ L 139, 30.4.2004, p. 1

The feasibility and costs are examined with reference to **different options** of indicating the country of origin or place of provenance for the three categories of foods. The options for indicating origin/provenance on the label are set out as follows:

Option 1: i) EU/non EU origin or ii) EU/third country;
Option 2: Member State or third country;
Option 3: other geographical entities as place of provenance (region).

For each of these options, different possible **modalities** origin information are considered, as follows:

a. Place of the last substantial transformation of the product (i.e. determined in accordance with the EU Customs Code);

b. Place where the main ingredient was harvested;

c. Both of the above.

The **status quo option** is the implementation of voluntary origin labelling, as provided in Article 26(3) of Regulation (EU) No 1169/2011.

The **impact** of introducing such origin labelling is assessed considering the following areas:

- **Consumer behaviour:** attitudes to origin labelling including consumer interest, understanding of such information and willingness to pay (WTP)**;**
- **Food supply chain:** feasibility and costs, including administrative costs and burden;
- **Competitiveness of enterprises:** cost and price competitiveness, capacity to innovate, flexibility in sourcing and international competitiveness;
- **Internal market**;
- **International trade**;
- **Environment**.

The study is structured around three **key themes**:

- Theme 1: Consumers' interest in the origin of the three categories of foods;
- Theme 2: Characteristics of the food supply and processing chain in relation to the three categories of food products;
- Theme 3: Identification, description and analysis of economic, social, and environmental impacts of the main options/modalities of origin labelling for the three categories of food products.

1.5 Main challenges and issues addressed

During the study, a number of **issues and challenges** emerged while carrying out the data collection and consultation with the relevant stakeholders. In particular:

1. Due to the **diversity of the range of products covered by the study**, a large number of organisations have been identified as being potentially interested and affected by the issues examined by this study. The consultation has been addressed to all relevant sectors and at various levels of representation within sectors, e.g. to associations at EU and national levels, and to firms of various sizes, ranging from multi-national companies to SMEs, as well as the entire supply chain from farmers to

retailers/catering. The purpose of ensuring full consultation of these organisations has been to allow all relevant stakeholders to provide inputs, so that the FCEC develops a complete understanding of the potential impacts of the options/modalities under review. This has made the **process of data collection and consultation complex and extensive**, but was seen as a necessary step to ensure that all sector specificities and relevant impacts and data are taken into account.

2. In order to obtain concrete data and evidence, we have had to take the **analysis at the company and in certain cases at plant level**. In view of the range of products/sectors affected by this study, this has put additional pressure on the data and evidence gathering process and on the overall consultation effort.

3. Due to the **complexity of the issues and lack of clarity on some provisions** of the legislation (including the lack of common understanding in the case of the 'single ingredients' category), we undertook repeated consultations in some cases to improve and validate the data and evidence provided. Moreover, as legislation is not yet in place (including implementing rules for voluntary origin labelling under Article 26(3) of the FIC Regulation), it has been difficult for stakeholders to consider potential *'what if'* scenarios in the event that origin labelling becomes mandatory.

4. **Data gaps**: efforts have focused on the need to collect, in an as detailed and structured a manner as possible, **quantitative data and estimates**. However, in several cases it has not been possible to carry out quantitative analysis due to the lack of suitable information. Moreover the data available sometimes refer to very specific situations (individual company/plant level) and hence it may not be possible to generalise the analysis at sector level, i.e. **to extrapolate from plant level to product sector/food category level.** In terms of the use of data from official databases (e.g. production and trade data) it is noted that both the trade (HS) and industrial classifications (NACE) do not necessarily follow the same definitions and scope as the product sectors/food categories under review, and this creates problems for the use of such data for the analysis. Furthermore, where data exist at private (company) level there can be **confidentiality issues** for their use. In such cases a more qualitative assessment is provided for the analysis of impacts.

These challenges and difficulties incurred by stakeholders (both by the industry and by MS CAs) in their data collection have been **addressed through**:

- An intensive interactive consultation process, which has involved additional meetings to support stakeholders in their data collection as well as to cross check and validate the collected data; and,

- In some cases, where genuine difficulties have been encountered and delays requested, the extension of the initially foreseen survey deadlines were agreed to allow a longer period for the consultation process.

In addition, attention has been taken to ensure maximum coordination and consistency in the approach for the analysis of impacts with the **parallel studies on milk, milk as an ingredient and minor meats for DG AGRI**.

Finally, to validate the results of the study, a **Focus Group** was convened with participants from each broader stakeholder group (consumers, farmers, processors, distribution, and enforcement authorities) and Commission representatives. Participants to the Focus Group indicated that the summary of the results of the study successfully provide comprehensive results on this difficult topic, while tackling the complexities of dealing with a very wide range of products and an extensive consultation process. They are also provided within the time frame required by the FIC Regulation. The full notes of this meeting are attached in **Annex 6**.

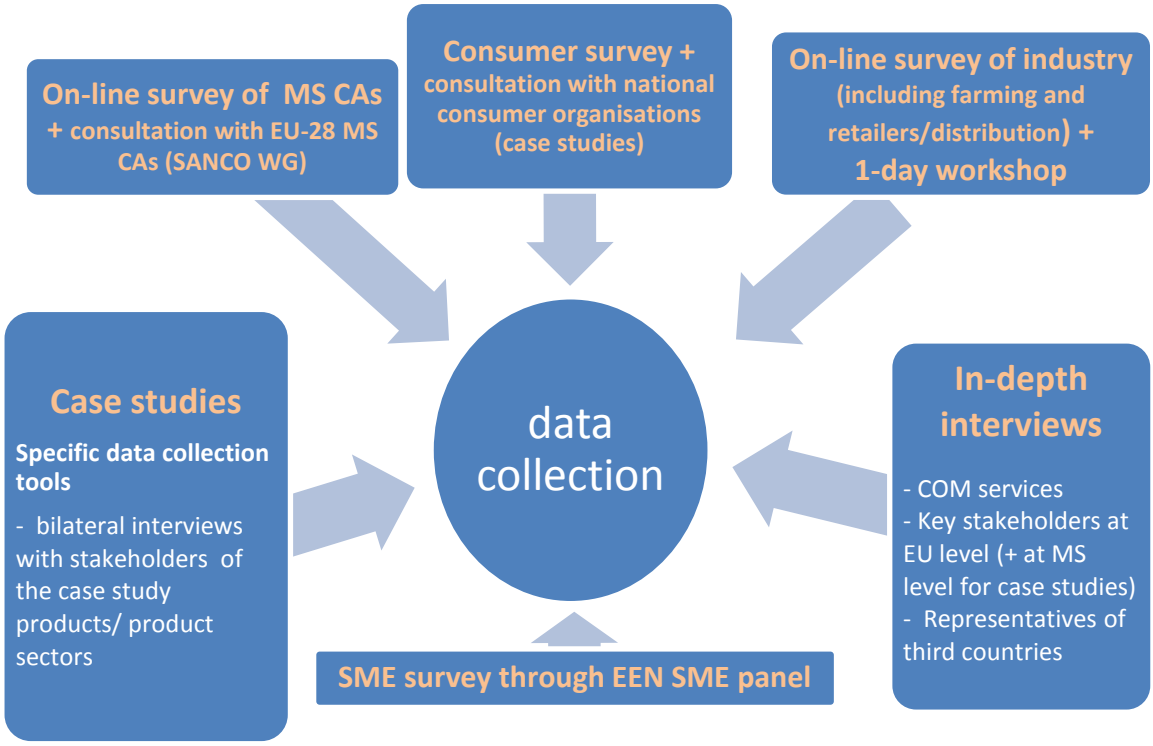
1.6 Overview of methodology

Our data collection strategy is based on a continuation of the tools successfully employed during our last studies on origin labelling for DG SANCO (FCEC, 2013). This involves an extensive consultation process, thus ensuring the availability of a fit for purpose and robust evidence basis from which we draw for the analysis of the Themes and expected impacts.

An overview of our data collection strategy is presented in **Figure 1** below. Direct sourcing of relevant data and information from stakeholders (mainly via structured interviews) plays a key role in our data collection strategy. Both EU-level and Member State level stakeholders are involved in this process, the latter mostly in the framework of the case studies.

Results were validated by a Focus Group meeting which was carried out at the end of the study (**Annex 6**).

Figure 1: Data collection strategy for the study



Source: FCEC (Agra CEAS Consulting)

1.6.1 Survey of the food supply chain and Member States' Competent Authorities

The FCEC (Agra CEAS Consulting) carried out two on-line surveys of Food Business Operators (FBOs) and Member States' Competent Authorities (MS CAs).

The FBO survey has allowed stakeholders involved in any of the sectors in the scope of this study to contribute and provide data on their particular industry/product sector. A list of relevant FBOs respondents is provided in **Annex 2** based on attendees to the Stakeholder Workshop organised by Agra CEAS Consulting as part of this study[25]. It is noted that this list does not intend to be exhaustive and contributions from many other professional organisations or different types of FBOs have been received and have been taken into account in the analysis (e.g. companies/industrial plants could contribute in their individual capacity).

A dedicated survey of SMEs was carried out through the EEN SME Panel on the basis of a questionnaire developed by the FCEC (Agra CEAS Consulting) in cooperation with DG ENTER.

The results of these surveys were processed by Agra CEAS Consulting and are presented within the analysis of Themes 1, 2 and 3.

1.6.2 Case studies

For the purposes of our assessment**,** three product sector-focused case studies have been carried out for each of the three categories (Cat.) of foods, i.e. nine case studies in total. The final selection is presented below and has been validated by the SG at the inception meeting.

The case studies have been selected on the basis of two main criteria:

- The importance of the product in the EU consumer food basket (i.e. consumer expenditure): the focus of our selection has been on significant and staple foods for the average EU consumer (this product selection also features in the consumer survey questionnaire;
- The (common sense) consumer interest in the origin of these products and their ingredients: depending on the food, this can be the place of harvest of the raw material or the place of the last substantial transformation (or both).

The selection of product sectors on this basis is presented in the **Table 1** below. This includes the MS on which the analysis was focussed, although data concerning other MS were also taken into account where available.

[25] The Stakeholder Workshop took place on 10 February 2014, at the Albert Borschette Conference Centre. The invitation to attend the stakeholder workshop was sent to a wide range of industry/supply chain organisations and consumer organisations (including members of the Advisory Group on the Food Chain and Animal and Plant Health, and the Advisory Group on Quality of Agricultural Production).

Table 1: Selection of case study products

Category	**Cat I: Unprocessed foods**			**Cat II: Single ingredient products**			**Cat III: Ingredients that represent more than 50% of a food**		
EU level organisation	EFM	FERM	Freshfel	CEFS ESRA	FEDIOL	EUPPA	AIJN	OEIT	AIBI
Products	Wheat flour	Long grain rice	Pre-packed cut green salads	Sugar	Sunflower oil	Frozen potato fries	Orange juice	Tomato puree (passata)	Wheat flour in bread
Member States	*UK, DE*	*IT, NL*	*FR, ES*	*DE, IT*	*FR, PL*	*DE, BE*	*ES, UK, BE*	*ES, IT*	*UK, DE, BE*

Note: the organisations, products and MS listed in the Table were the focus of the case studies; however, the final analysis includes data and feedback received from other relevant EU-level organisations, from organisations present in other MS than those initially listed (as provided through FBO survey and directly to EU-level organisations) and also cover more products than the case study products.

Source: FCEC

1.6.3 Consumer survey

In line with the requirements of the ToR, a consumer survey was carried out. The survey played a crucial role in collecting data on consumer preferences and willingness to pay (WTP) for origin labelling, thus providing strong evidence to support the conclusions of the study. The survey had an EU-wide coverage and was based on CAWI (Computer Assisted Web Interviewing). The questionnaire included questions on WTP, which were developed according to the discrete choice modelling (DCM) methodology[26].

On the basis of an appropriate sampling method (probabilistic samples at national level) in order to provide a robust evidence base, the survey covered an initial total sample of 5,250 across the EU, with 350 consumers in each MS and 15 MS covered[27]. The selected MS account for 88% of the total EU population and adequately represent the main food consumption habits in the EU (for the missing MS, the inclusion of at least one neighbouring MS with broadly similar consumer profiles, food sectors and socio-economic content are taken as a proxy). The main features of the survey design are illustrated in the Table below.

[26] DCM can be used to derive estimates of the amount of money an individual is willing to pay (or willing to accept) to obtain some benefit (or avoid some cost) from a specific action/policy. More in detail, having defined the attributes (i.e. the characteristics to be valued by consumers) and the levels that these take (the range over which one expects respondents to have preferences), respondents are asked to compare a set of alternatives (bundle of attributes) and select the one providing the highest utility. Therefore, consumers' preferences are elicited using their choices between a set of alternatives. The theoretical basis is represented by the micro-economic theory of choice and random utility maximisation theory. In DCM, where each attribute in a utility expression is associated with a single taste weight, the ratio of two utility parameters denotes the marginal rate of substitution that, in the case of one of the attributes is measured in monetary units, represents an estimate of the willingness-to-pay/willingness-to-accept.

[27] Overall, 5,370 interviews were completed (with country quotas ranging from 350 – in IT and UK – to 390 in CZ): see **Annex 5**.

The questionnaire used for the consumer survey is presented in **Annex 4** and the full methodology and results of the survey, which was carried out by Pragma in April-May 2014, are presented in **Annex 5**.

Table 2: Sample design of the FCEC consumer survey (a)

EU 28 MS	Population* (Mio)	Rank	Sample of 15 MS			
			Rank	MS included	Population (Mio)	Sample size (units)
Germany	80.3	1	1	Germany	80.3	350
France	65.3	2	2	France	65.3	350
United Kingdom	63.5	3	3	United Kingdom	63.5	350
Italy	59.4	4	4	Italy	59.4	350
Spain	46.8	5	5	Spain	46.8	350
Poland	38.5	6	6	Poland	38.5	350
Romania	20.1	7	7	Romania	20.1	350
Netherlands	16.7	8				
Belgium	11.1	9	8	Belgium	11.1	350
Greece	11.1	10	9	Greece	11.1	350
Czech Republic	10.5	11	10	Czech Republic	10.5	350
Portugal	10.5	12				
Hungary	9.9	13	11	Hungary	9.9	350
Sweden	9.5	14	12	Sweden	9.5	350
Austria	8.4	15	13	Austria	8.4	350
Bulgaria	7.3	16	14	Bulgaria	7.3	350
Denmark	5.6	17				
Finland	5.4	18				
Slovakia	5.4	19				
Ireland	4.6	20				
Croatia	4.3	21				
Lithuania	3.0	22	15	Lithuania	3.0	350
Slovenia	2.1	23				
Latvia	2.0	24				
Estonia	1.3	25				
Cyprus	0.9	26				
Luxembourg	0.5	27				
Malta	0.4	28				
Total population	**504.6**			**Total population**	**444.7**	**5,250**
% of EU total population covered by the survey					**88%**	

(a) This Table presents the initial survey sample design. During the survey 5,370 interviews were completed, with country quotas ranging from 350 – in IT and UK – to 390 in CZ (see **Annex 5)**.

Source: FCEC based on Eurostat (2013)

1.6.4 Data and analysis validation process

This study has involved extensive data collection and analysis from the range of sources indicated in **Figure 1**. Data for the case study sectors in particular were collected on the basis of specific indicators/guidelines which were built in to the FCEC survey questionnaires and case study templates. The aim has been to harmonise data collection, especially in view of the diversity of product/product sectors covered by the study, and to collect fit-for-purpose data/analytical inputs[28].

Both the data/estimates collected on this basis, and the data/estimates produced by the analysis, have subsequently undergone a validation process to ensure both internal data consistency and external adherence to the study's scope and analytical framework (i.e. the options/modalities; scenarios of adaptations required; and, underlying assumptions). In particular, the data/estimates provided through the case studies were checked, and revised where needed/appropriate, through continuous consultation with the industry/supply chain stakeholders, involving the following steps (in line with a *Delphi-type* approach):

1. Data collected through the FCEC FBO survey and first round of industry consultation were subject to an initial check and any issues/errors identified were submitted to stakeholders for further verification/clarification, following which data were adjusted where necessary. For example, this step involved ensuring that correct units of measurement were used (in terms of: value (€); volume (tonnes/litres); one-off versus annual incurring costs; time period covered; etc.). It also involved verification of scope, in particular whether the data/estimates were referring to plant level or product level, the extent to which they were representative of the product sector as a whole, the extent to which they responded to the specific options/modalities, etc.

2. Where possible, extrapolations were made on the basis of the initial set of data/estimates, as verified and adjusted/clarified (step 1). For example, where data/estimates were provided for a specific plant, further extrapolations were made to provide data/estimates at sector/MS level; or, where data/estimates were provided for a specific option/modality, further extrapolations were made to provide data/estimates for other options/modalities where this was meaningful. The extrapolated estimates were submitted to stakeholders for further validation, and adjusted/corrected on the basis of the feedback and clarifications received.

3. The amended analysis and estimates were submitted to the industry stakeholders for a final verification and checks.

The data/estimates provided in this analysis aim to capture the **range** of costs and impacts that can be expected in the products/product sectors covered by the study. The actual costs/impact for each product and individual company, MS and product/product sector can only be determined by a specific impact analysis as it will depend on their particular operating context and market conditions. This is clearly not possible within the constraints of the current assessment. Nonetheless, these 'individual' costs and impacts are, largely expected to fall within the range of costs and impacts highlighted by the analysis.

[28] It is noted that some of the collected data are bound by data confidentiality.

Finally, the overall analysis and findings of this study were validated by a Focus Group meeting which was carried out at the end of the study (**Annex 6**).

2 Theme 1: Consumer attitudes towards the origin of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

This section has been completed with a comprehensive literature review on the topic of consumer interest in origin labelling of foods, supplemented by data and information provided by the FCEC consultation, including MS Competent Authorities (MS CAs), food business operators, and consumer organisations. The methodology of the present study has also included a dedicated consumer survey for the purposes of the analysis, designed in line with the ToR for the study.

Care should be taken when using or interpreting individual results of the quoted consumer surveys without relating them to the overall results of the surveys. It is also important to note that the results of the various consumer surveys/studies quoted in this report are not always comparable due to their different methodologies and scope, in particular the range of products covered and consumer interest/Willingness To Pay (WTP) analysis. A wide range of variables impedes comparison: the range of products, the sample size, the geographical coverage, the phrasing/definitions of questions, the method used to interview consumers, the period/context of the surveys, etc. It is finally noted that the 2014 FCEC consumer survey took place in the aftermath of the 2013 horsemeat scandal affecting consumer trust in food supply chains in general, and this is considered very likely to have influenced the outcomes of the survey.

For these reasons, the ***comparative analysis*** *provided below was carried out* ***only where feasible****. Furthermore,* ***care should be taken when extrapolating the findings of the analysis of Theme 1 outside the overall context of this study****.*

2.1 Consumer interest in the geographical origin

2.1.1 Evidence from consumer research literature

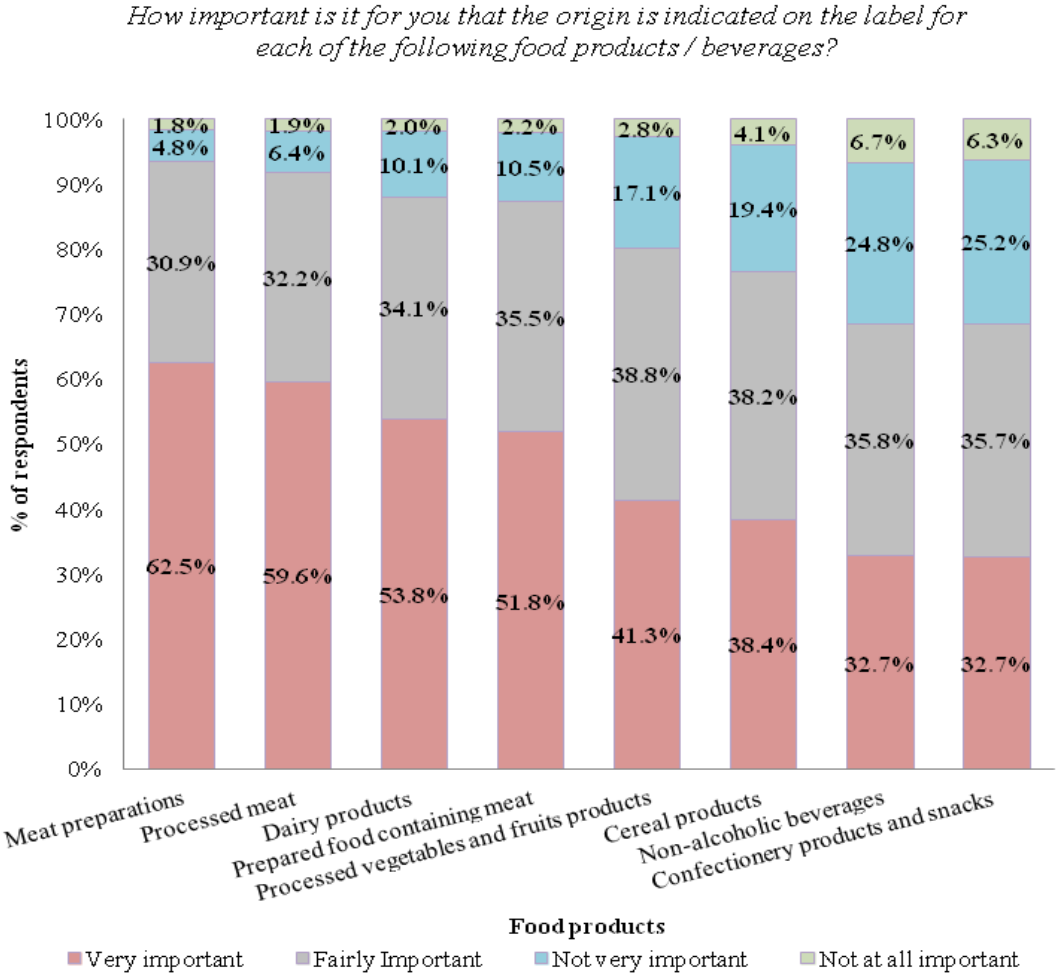
The results of the 2013 FCEC consumer survey[29] indicate that the **origin of food products is the fifth most important** aspect influencing consumers' purchase decisions (out of 11 aspects considered), behind (listed in order of importance) taste, best-before/use-by dates, appearance and price. In particular, 47% of respondents declare that the origin of food is '*very important*' and 37% find it '*important'* (while for only 13% of consumers the origin is '*not very important*' or '*not at all important*').

Amongst the processed food products covered by the survey (**Figure 2**), **interest in origin labelling was generally lower for products relevant to the present study.** In particular, while the highest interest was expressed for meat and dairy products, consumer interest was lower for the following food products (indicated in decreasing order): **processed fruit and vegetables, cereal products, non-alcoholic beverages and confectionary products and snacks**. The 2013 survey results indicated that, on average for the above mentioned food products, 73.4% of consumer respondents find it important that origin is labelled (36.3% find it '*very important*' and 37.1% '*fairly important*').

29 FCEC, 2013. Study on the application of rules on voluntary origin labelling of foods and on the mandatory indication of country of origin or place of provenance of meat used as an ingredient. The FCEC survey was carried out in February 2013 for the purposes of the DG SANCO study on the application of rules on voluntary origin labelling of foods and on the mandatory indication of country of origin or place of provenance of meat used as an ingredient and covered 3000 consumers in 15 MS (the selected MS account for 89% of the total EU population). The survey results are not yet published.

Nonetheless, the survey results reveal that there are significant differences at Member State (MS) level on this specific aspect. Respondents in Belgium, Sweden, Germany and Hungary tend to express less interest in the origin of processed vegetable and fruit products, cereal products, non-alcoholic beverages and confectionary products and snacks. Romanian and Bulgarian consumers indicated an overall interest higher than average in all four food categories. Consumer interest was also higher than average in Italy and Austria for processed fruit and vegetable products and for cereal-based products (e.g. bread, pasta, fine bakery wares).

Figure 2: Importance attached to the indication of origin on the food label (average data for 15 EU countries)



Note: percentages may not add up to 100% due to rounding
Source: 2013 FCEC consumer survey

In the 2013 FCEC survey, consumers were asked more specifically which ingredients they consider to be the most important in a range of food products for which they need to know the origin, and the level of detail that they would like to have. Two products examined by the 2013 FCEC survey are relevant to the scope of this study: *tomato sauce (tomato; salt)*, and *fruit juice (fruit; water; sugar).* The following findings emerge from their answers:

- In the case of *tomato sauce*, the majority (60%) of consumers consider it 'important' to know the origin of tomato in tomato sauce. On the other hand, about 95% of consumers indicate it is 'not important' to know the origin of salt. Finally, 65% of consumers indicate that both ingredients are 'important'.
- For *fruit juice*, consumers were mostly interested in knowing the origin of the fruit (52% considered it 'important'). Water and sugar were not considered important by respectively 85% and 95% of consumers. Some 60% consumers said that the origin of all of these ingredients taken together was 'not important'.

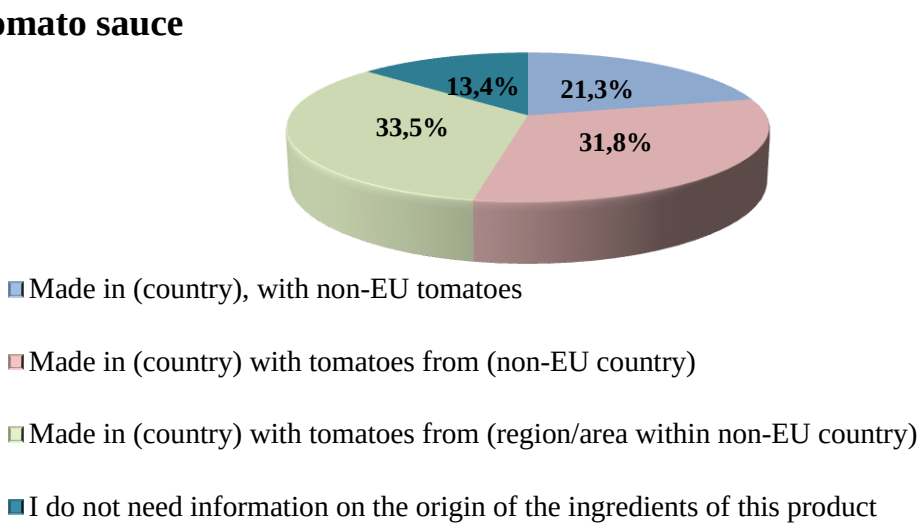
- **There are significant differences in all cases between MS**, with consumers in some MS consistently indicating more (or less) interest in origin information than in others.

Consumers were asked about the level of detail of origin that they find necessary to know for the ingredients for which they considered it important to know the origin, i.e. tomatoes in *tomato sauce* and fruit in *fruit juice*. It should be noted that the non-EU origin was tested in the case of tomato, whereas the level of EU origin was tested for fruit juice (**Figure 3**). In both cases, less than a quarter of consumers were content with the indication '*made in (country), with non-EU tomatoes'* or '*made in (country), with EU fruit'*. About two thirds of consumers indicated that they need more specific information, on the origin of the ingredients, i.e. at country or region level, whether the ingredient was coming from inside or outside the EU. Consumer preferences were distributed equally between the country level indication, i.e. '*made in (country) with tomato from (non-EU country)'* or *'made in (country) with fruit from (EU country)'*; and the regional level indication, i.e. '*made in (country) with tomatoes from (region/area within non-EU country)*' or *'made in (country) with fruit from (region/area within EU country)'*.

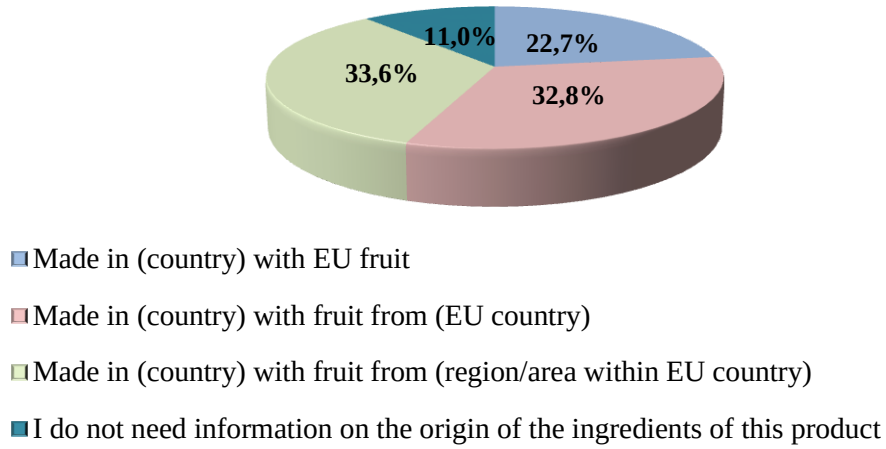
Figure 3: Level of detail on the origin which respondents would like to find on the label of food products (average data for 15 EU countries) % of respondents

*How much detail about the origin of the main ingredients do you find necessary to have on the label of the following food products***?**

Tomato sauce



Fruit juice



Source: 2013 FCEC consumer survey

Most of the earlier research carried out on this subject is conducted by, or on behalf of, consumer organisations, but there are also studies carried out by, or on behalf of, national

authorities and other organisations[30]. The key findings of this earlier literature are highlighted below; many of these findings are consistent with those of the 2014 FCEC consumer survey presented in section 2.1.2.

The 2013 **DG SANCO study on the functioning of voluntary food labelling schemes for consumers in the European Union[31]** assesses voluntary labelling schemes in various policy areas including origin, but also organic farming, traceability, animal welfare, etc. It is noted that PDO/PGI schemes were included in the origin labelling schemes considered by the study[32]. The study results indicate, *inter alia*, that **consumer interest in origin labels differs significantly by product**. When buying margarine, the only case study product examined by the SANCO study that falls within the scope of the present study[33], consumers ranked country of origin as the seventh out of nine factors they take into consideration when buying everyday produce[34]; consumer interest in the origin of margarine thus appears to be lower than that of other categories of foods. On the other hand, **use by/ best before date, price and brand were taken into account more often than origin** by respondents, across the range of examined products.

The European Consumers' Organisation's (BEUC) most recent (January 2013)[35] consumer research in four MS (Austria, France, Poland and Sweden) reveals that, overall, **food origin ranks as the fifth or sixth most important factor** for purchase decisions (out of eleven factors) behind taste, price, best before/use by dates, and convenience and/or appearance[36]. Other consumer surveys carried out independently by consumer organisations in other MS (in BE, CZ, DK, ES, GR, IT and PT) which have applied a similar approach to the BEUC survey show similar results[37]. These results are consistent with those of the 2014 FCEC consumer survey (**Figure 2**).

[30] A rather limited number of studies have distinctively examined the extent of consumer interest on the origin of food across EU MS. A wide range of existing literature has nonetheless addressed the issue of consumers' interest in food origin when shopping for different food products.

[31] Carried out by Ipsos and London Economics in 2013 and published by DG SANCO in 2014.

[32] "*The inventory adopts a consumer perspective, such that the schemes included are those that a reasonable consumer would perceive as a food labelling scheme. In this regard, the inventory includes PDO, PGI and TSG schemes that were identified by the surveyors. These schemes appear within the 'origin' and/or the 'traditional products or methods' policy areas as consumers would perceive them as these types of schemes*."

[33] The 2013 DG SANCO study on voluntary food labels covered the following products in the scope of the present study: fish products, fruit and vegetable products, cereal products, oils and fats such as margarine, sugar and confectionary products, wines and spirits. However, of the case studies providing more detailed findings, only margarine is of relevance to the scope of the present study. The other case studies covered minced beef, cheese, yoghurts, eggs and chicken filets.

[34] Country of origin received a higher score for most of the other products examined, i.e. minced beef, cheese, eggs and chicken filets. For yoghurts also, country of origin ranked seventh in the list of nine factors.

[35] BEUC (2013). *Where does my food come from?* BEUC consumer survey on origin labelling on food, released January 2013.

[36] The percentage of consumers considering origin as an important factor when buying food varies between the four MS covered by the BEUC survey, i.e. the higher consumer share is in Austria (77%) followed by France (71%), Poland (66%) and Sweden (61%), making it the fifth or sixth important factor according to the MS. By contrast, 95%-97% of respondents in those four MS find taste important, 89%-93% find price important, and 81%-94% find best before/use by dates important.

[37] In Denmark, the national consumers association used its own consumer panel based on the BEUC questions. In Greece and the Czech Republic, the consumer organisations used a similar questionnaire which was addressed to their members only (the questionnaire was the same, but the difference was the way the results have been presented). Similar consumer research was also carried out in Belgium, Italy, Portugal and Spain by the national consumer associations (Test-Achats/Test-Aankoop, Altroconsumo, OCU, Deco Proteste (2012):

Categories of food products[38] for which consumers find it important that the origin is labelled were examined by BEUC's survey. In all four MS surveyed, meat scored highest, generally followed by milk, dairy products, fresh fruit and vegetables and/or fish, which ranking varied among the four MS. In all cases, processed fruit and vegetables, coffee and tea, and staple foodstuffs were at the bottom of the ranking (although still over 50% of consumers found them fairly or very important in all four MS). Consumer interest in origin labelling was consistently lowest for staple foodstuffs, e.g. sugar, salt, flour (with 50% to 71% of consumers in the four MS finding it fairly or very important) and for coffee and tea (53% to 71%). Interest in knowing the origin of processed fruit and vegetables was slightly higher, with between 60% and 79% of consumers considering it '*very'* or '*fairly important*' to have the origin labelled on these products. The research carried out independently by consumer organisations in other MS using the same questionnaire as the BEUC survey has concluded with similar orders of magnitude on the relative importance attached by consumers in origin labelling between the various foods (although, again, there are differences between MS). Overall, **consumers appear more interested to know the origin of unprocessed/fresh produce than that of processed products.**

Earlier evidence from **Eurobarometer 389** (2012)[39] indicates that the vast majority of EU citizens say that **quality** (96%) and **price** (91%) are important to them when buying food, while a substantial majority (71%) says that the **origin** of food is important. Quality, price and origin are considered important in most MS, with **price being especially important for low income socio-economic groups[40]**. Although more than half the respondents in every MS, except the Netherlands (47%), regard the geographical origin of food products as important, there are significant differences between MS. The vast majority of respondents in Greece (90%) and Italy (88%) consider origin to be important, while in the UK (52%) and Belgium (56%) these proportions are substantially lower; there are no significant differences between EU-15 and NMS-12 countries on this question.

2.1.2 Evidence from the 2014 FCEC consumer survey

The 2014 FCEC consumer survey on origin labelling targeted purchasers of at least one of 11 target products within the scope of the survey resident in one of the 15 targeted MS[41] which together account for 88.2% of total EU population. Targeted products were: flour, bread,

Origin of Food, Final Version September 2012). Data were simultaneously collected in these MS through self-administered online questionnaires from 4th of September till 19th of September 2012.

[38] The food categories covered by the BEUC survey are the following: **coffee and tea**, **staple foodstuffs**, **processed** and unprocessed **fruit and vegetables**, dairy products, milk, fish and meat. In the case of fish and meat, it was not specified whether processed or unprocessed. Dairy products, milk, meat, unprocessed fruit and vegetables and unprocessed fish are not included in the scope of the present study.

[39] Special Eurobarometer 389: Europeans' attitudes towards food security, food quality and the countryside. Fieldwork: March 2012. Publication: July 2012.

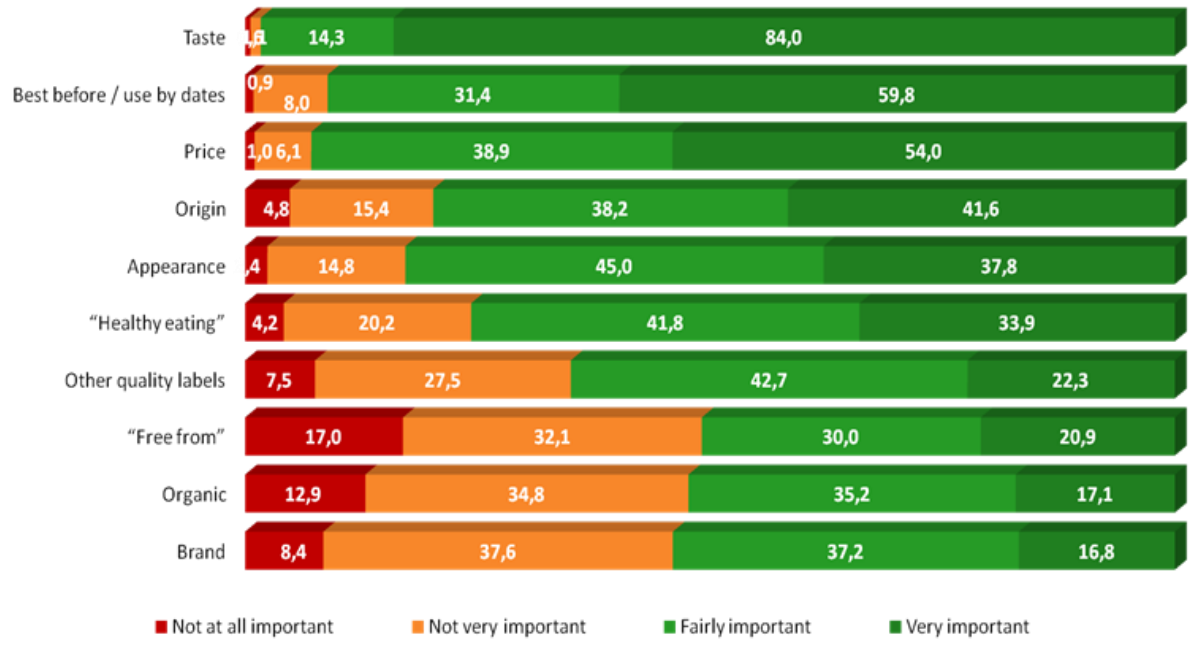
[40] According to the results of Eurobarometer 389, young EU citizens are less interested in the quality and origin of products: 60% and 57% of respondents in the 15-24 age group see quality as very important, compared with the EU average of 65%; 57% said that origin was important for them, compared with the EU average of 71%.

[41] AT, BE, BG, CZ, FR, DE, EL, HU, IT, LT, PL, RO, ES, SE and UK. For the missing MS, the inclusion of at least one neighbouring MS with broadly similar consumer profiles, food sectors and socio-economic content are taken as a proxy.

sugar, vegetable oils, pasta, fruit juices, frozen potato fries, rice, dry pulses, pre-packed cut fresh salads and frozen vegetables[42].

The results of the 2014 FCEC consumer survey indicate that the **origin of food is the fourth most important aspect influencing EU consumers' purchase decisions** (out of ten aspects considered), behind (listed in order of importance) taste, best-before/use-by dates and price (these three factors actually rank very close to each other). In particular, 41.6% of respondents declare that the origin is '*very important*' and 38.2% find it '*fairly important'* (while for only 15.4% of consumers the origin is '*not very important*' or 4.8 % '*not at all important*'). These results are close to those of Eurobarometer 389 (2012) (quoted above) in terms of how consumers prioritise price over origin, although a higher percentage of consumers in the FCEC survey indicated origin to be important (79.8% compared to 71% in Eurobarometer 389).

Figure 4: Importance attached to different aspects influencing food product purchases (average weighted data for the EU; in %)



Source: 2014 FCEC consumer survey (PRAGMA)

Amongst the various food groups covered by the survey (11 in total), **interest in origin labelling has scored the highest for pre-packed fresh cut salads, bread, fruit juices, frozen vegetables and vegetable oils.** Origin was defined as being the place where the food product was produced/processed. With a more targeted examination of the extent of consumer interest, the survey results indicate that more than 70% of respondents find it important that origin is labelled for these top five products, in particular:

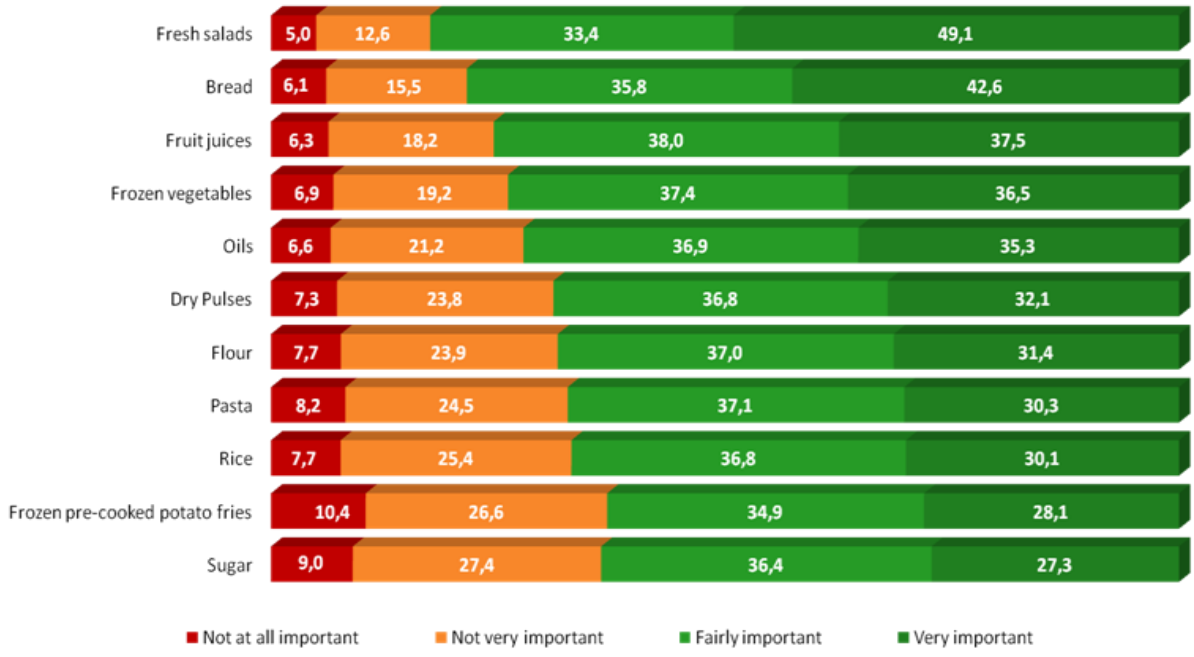
[42] The methodology for the 2014 FCEC consumer survey is described in section 1.6.3, and more fully in **Annex 5** (PRAGMA report). Data presented in this report is the EU-weighted data, unless otherwise indicated.

- Almost half of all respondents (49.1%) find it '*very important*' that origin is labelled on pre-packed fresh cut salads, and 33.4% '*fairly important*'. In total, 82.5% of EU consumers find it important.
- On bread, 42.6% find it 'very important' and 35.8% '*fairly important*' (a total of 78.4%).

Nonetheless, some products also score highly in terms of absence of or low consumer interest, especially given that this question was prompted and respondents tend to inflate their interest/demand when asked directly (see **Box 1** on the consumer paradox). In this context, it should be highlighted that **for 8 of 11 products, more than a quarter of consumers indicate that they are not interested** in knowing more about the origin of these foods. **Origin labelling is deemed '*not at all important*' by a reasonable minority of respondents for all products** and particularly for frozen potato fries (10.4%) and sugar (9.0%).

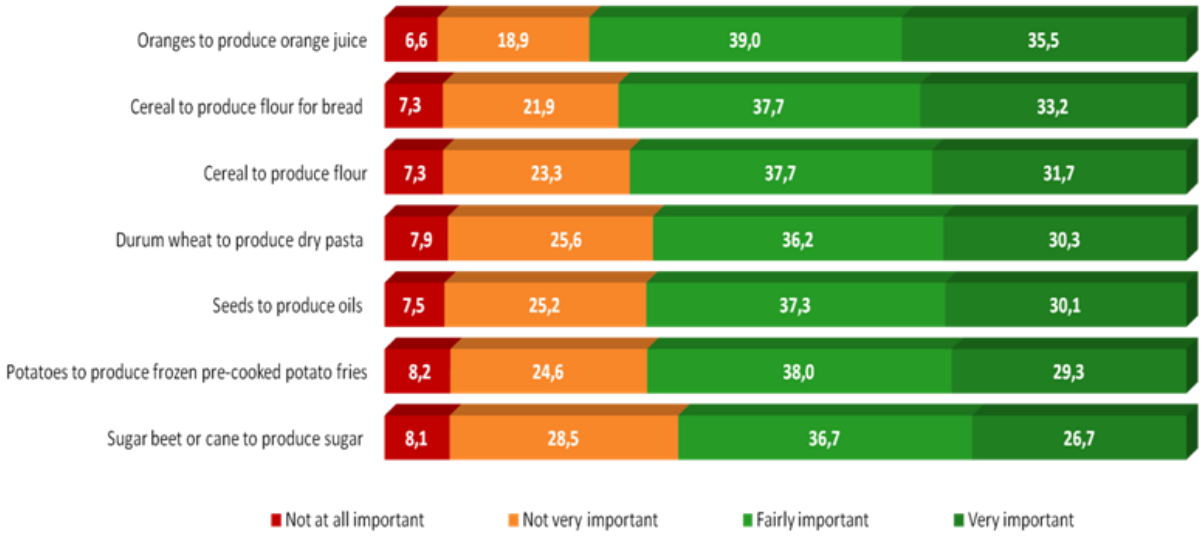
For products that involve processing, consumers were subsequently asked whether they would deem it important that the product label indicates the place of harvest of the ingredient (as opposed to the place of processing). Results show that **EU consumer interest in the place of farming of the ingredient overall is the same as for the place of processing of the food product**, with two exceptions: a lower interest in the origin of oilseeds vis-à-vis the place of processing of vegetable oil and a higher interest in the place of harvest of potatoes than in the place of processing into frozen fries.

Figure 5: Importance attached to the indication of origin intended as the place of production/processing on the food label (average weighted data for the EU; in %)



Source: 2014 FCEC consumer survey (PRAGMA)

Figure 6: Importance attached to the indication of origin intended as the place of harvest of the ingredient on the food label (average weighted data for the EU; in %)



Source: 2014 FCEC consumer survey (PRAGMA)

When sorting and ranking the results by the prevalence of '*very important*' responses only, consumer interest changes for some food products albeit not substantially.

Figure 7: Comparative ranking orders of consumer interest in the place of processing (left) and in place of harvest (right), by % of '*very important*' responses (average weighted data for the EU; in %)

Product	'very important' responses (%)	Equivalent ingredient	'very important' responses (%)
Bread	42.6	Oranges	35.5
Fruit Juices	37.5	Cereals for flour for bread	33.2
Oils	35.3	Cereals for flour	31.7
Flour	31.4	Seeds	30.1
Pasta	30.3	Durum wheat	30.3
Pre-cooked potato fries	28.1	Potato	29.3
Sugar	27.3	Sugar beet	26.7

Source: 2014 FCEC consumer survey (PRAGMA)

Overall, consumer interest is highest for both the place of last substantial transformation (processing) and the place of harvest of the ingredient for pre-packed salads, bread and fruit (orange) juices. It is lowest for sugar, frozen potato fries and rice.

The survey results reveal that there are **significant differences at MS level** in consumer interest. While between 44% and 68% of consumers in Italy, Greece and Romania consider it

'*very important*' that origin is labelled on any of the 11 foods[43], only between 17% and 40% of respondents in the UK, Belgium, Spain and Lithuania consider it '*very important*' for the same foods.

The **largest discrepancies in consumer interest between MS** were found **for vegetable oils** (sampling variance[44]: 40%) and **pasta** (39%) while responses were most converging for sugar (30%) and frozen potato fries (30%).

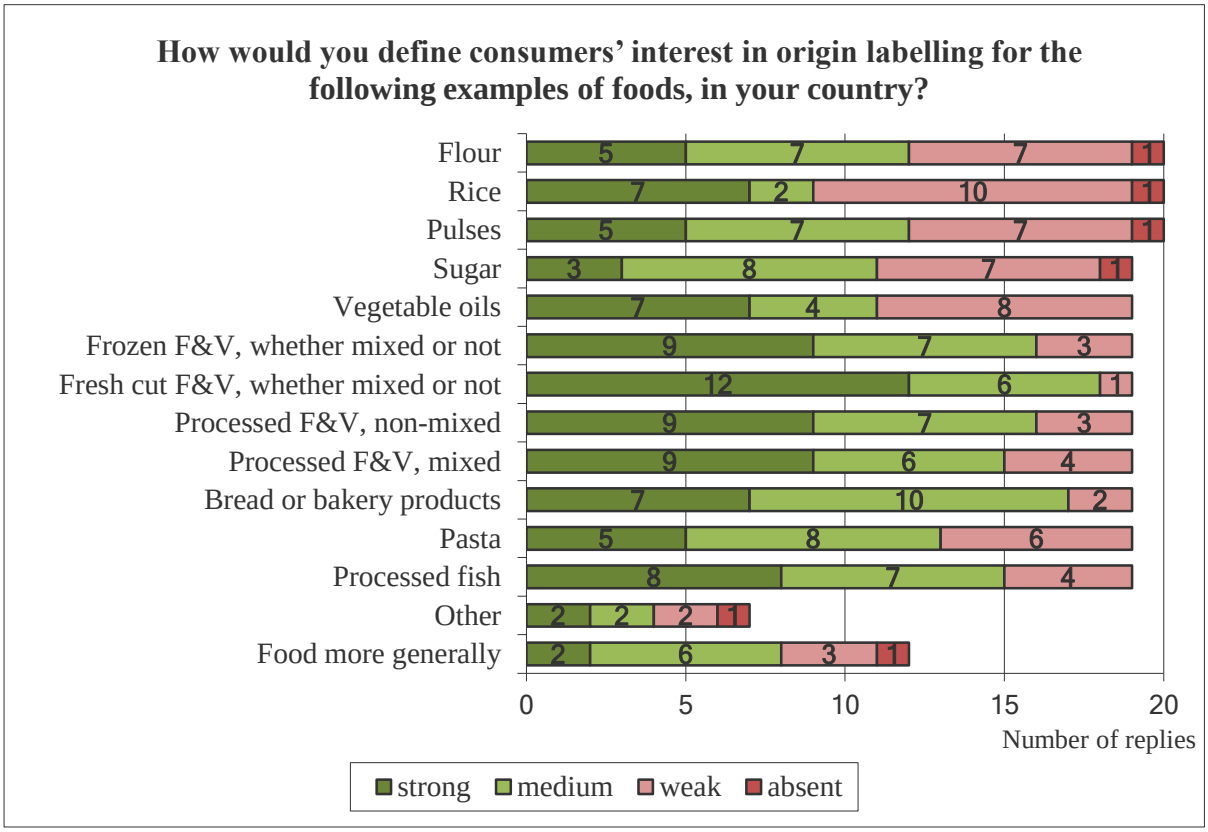
In summary, the FCEC consumer survey provides a contrasting picture of consumer interest in origin labelling of the foods covered by this study. Origin is the fourth most important criterion impacting consumers' purchase decisions, after taste, best-before/use-by dates, and price. EU consumers express a significant interest in the origin of most food products, but this interest varies depending on products and MS. Overall in the EU, consumer interest is highest for pre-packed fresh cut salads, bread and fruit juices. However, consumer interest is lower for other products, especially for sugar, frozen potato fries, rice, pasta and flour. For processed products, consumers generally indicate a similar level of interest for the place of processing of a food product and the place of farming of its ingredient.

2.1.3 Evidence from MS CAs

Overall, MS CAs indicate a relatively high consumer interest in the origin of the foods which were used as examples in the FCEC MS CA survey, as well as for foods in the scope of the study more generally (see **Figure 8**). More specifically, more than half of the responding MS CAs estimate that consumer interest is 'strong' or 'medium' for all food examples provided, with the exception of rice, where a majority (12 out of 20 responding MS CAs) considers consumer interest is weak or absent. **Consumer interest is deemed highest for all fruit and vegetable categories (frozen, fresh cut, processed mixed or non-mixed), for bread and bakery products and for processed fish**. For these products, 'strong' and 'medium' answers account for 15 to 18 replies out of 20. The food categories with the **lowest consumer interest** are rice, sugar, vegetable oils, flour and pulses: for these categories some CAs indicate there may be no consumer interest at all ('*absent'*). For **foods more generally**[45] the majority of MS CAs consider that consumer interest in their country is medium (8 of 12 respondents).

[43] These three MS also indicated the highest consumer interest for all product ingredients.
[44] The variance is the square of the standard deviation.
[45] Excluding meat, dairy, etc.

Figure 8: MS CA assessment of consumers' interest in origin labelling for different foods, in their country? (n=20)



Source: 2014 FCEC MS CA survey (Q2)

Evidence provided to support the MS CA assessment of consumer interest often included the survey results conducted by consumer organisations and covered in section 2.1.1. Additional supportive evidence is presented in this section, as follows.

In **Italy**, a study conducted by the Ministry of Agriculture in April 2014 (n=559)[46] examined consumer interest and WTP for foods covered by this study. It shows that the Italian origin of foods ranks second, after price, in the list of criteria driving purchase decision-making. Consumer interest in origin was high for each of the food examples provided[47], except for sugar where interest was moderate. The Italian MS CAs indicated that consumer interest in origin is confined to the national origin and is subordinated to other criteria, such as price and freshness of the product.

In **Austria**, consumer interest was assessed in a survey carried out by the Ministry of social affairs and was found to be 'very important' for around 80% of the respondents. This is in line with other evidence from the national consumer organisation (AMA) and BEUC.

[46] Survey Nomisma for Ministero Politche Agricole, April 2014.
[47] The study covered the following food products: flour, rice, pulses, sugar, vegetable oils, frozen F&V, fresh cut F&V, processed F&V mixed and non-mixed, bread and bakery products, pasta and processed fish.

In **Sweden,** the CA refer to a recent survey[48] (2014) carried out to assess consumer interest in origin using various food examples, including jam[49]. The results show that origin of food is clearly of some importance to consumers. For jam, the country of origin of the ingredient (berries) ranks as number four out of 18 attributes. It is more important for consumers to know where the berries in the jam were harvested than to know where the jam was manufactured. An indicator, the 'attribute importance' was calculated to allow for unbiased comparison. For jam, the attribute importance of the place of farming of berries was 11%, while the place of manufacture scored 3.5%[50].

In **Ireland**, three studies looked into the issue of consumer interest in origin labelling of products/food in general. A research study carried out in 2009 by the Food Safety Authority of Ireland (FSAI)[51] found that 74% of Irish consumers thought that origin labelling should be compulsory for all foods. The 2013 Periscope report carried out by *Bord Bia*[52] (the Irish Food Board) found that 33% of Irish consumers say they always check labels for country of origin information while 44% of consumers indicate they sometimes check for this information, i.e. a total of 77% of consumers (however, the consumer paradox should be borne in mind, i.e. whether consumers actually check). It is noted that no products were specified. Finally, another 2013 survey by Bord Bia[53] found the 41% of those surveyed state that buying Irish was important.

In **Germany**, the CA quoted a 2007 study[54] which found that the overwhelming majority (95.4%) of consumers participating in the survey (3,506) were not satisfied at the time with the current origin labelling rules. When asked whether they agreed with the statement "*I lack origin information*" for different food products, 77% of respondents said they agree for fruit and vegetables (the percentage was higher for meat and lower for milk). It should be noted that legislation in terms of origin labelling has significantly evolved since 2007 and that these results may be outdated.

In **Greece**, the CA indicated a strong consumer interest in the origin of table olives and processed nuts, although they acknowledge an overall lack of quantitative evidence on this issue.

The **UK** CA indicated that consumer interest in country of origin labelling is mostly for meat and meat products, while there is some, albeit more limited, interest for fruit and vegetables (for more details see section 2.2.3). However, there is no evidence of the expressed consumer interest in the origin of foods within the scope of this study (e.g. flour, rice, etc.).

[48] AgriFood Economics Centre, 2014. Report 2014:1 Origin labelling of food - costs and benefits of new EU legislation for Sweden.
[49] Other products are not in scope of the study: fresh beef which was used as a benchmark product (as COOL is already in place), frozen ready-meal including meat ingredients, milk and yoghurt.
[50] The importance of an attribute is measured in percent and the total sum of the attributes for a product is 100%. The most important attribute has the highest percentage, and the attributes are listed in increasing order of importance. The estimated attribute importance may be used to compare the relative importance of different attributes for a product. For example, if attribute A has an attribute importance of 10% while attribute B has an importance of 5%, then consumers find attribute A twice as important as B.
[51] Food Safety Authority of Ireland, Dec 2009. A Research Study into Consumers' Attitudes to Food Labelling.
[52] Board Bia, 2013. PERIscope 2013 Irish and British Consumers and their Food.
[53] Board Bia, 2013. Retaining Loyalty to Irish Brands.
[54] Die Ausweise bitte!, Bundesweite Umfrage der Verbraucherzentralen, Juli 2007.

In **Poland**, the results of a study[55] indicate that Polish consumers are particularly interested in the origin of food coming from their country. For example, according to a study by the PEMI Association, carried out in Poland in November 2012, 50% of Poles always or usually check whether the product has been manufactured in Poland. Moreover, respondents indicated that placing the information on the Polish origin of the product influences their purchasing decision and that they would be willing to pay up to 30% more for a product of Polish origin compared to a similar product of non Polish origin.

In **Estonia**, in a survey conducted in 2012 by the Estonian Consumers Union[56], 39% of 617 respondents were interested in the country of origin of raw material of food and 26% of respondents said that the origin information was not important. A more recent survey on food labelling (2014) conducted by TNS Emor for the Ministry of Agriculture[57] finds that Estonian consumers mostly look at the expiration date (78%), the country of origin (56%), the list of ingredients (49%) and the presence of additives (44%); it is unclear whether price was included in the list of attributes presented to respondents. Furthermore, although a majority of Estonians declare they read food labels, only 44% indicate they do it 'always' or 'often'. Finally, some 81% of consumers say they always or often find the information they need on labels and 72% say they trust this information. Paradoxically a majority (71%) also indicate that the small label font and the placement of information is an issue when it comes to reading and understanding food labels.

2.2 Awareness and understanding of origin labelling

2.2.1 Evidence from consumer research literature

Significant evidence on the level of consumer awareness and understanding of voluntary labels in general comes from the 2013 DG SANCO study on voluntary labelling for food. According to the findings of this study:

- The **highest number of schemes found was on origin** (540 schemes), **while consumer awareness of local/regional labelling schemes and European PDO/PGI schemes is not particularly high** (45% and 33% respectively). These results show relatively low correlation between the number of food labelling schemes on the market and awareness of the schemes. However, looking at the results from a virtual online shopping exercise, origin is one of the two most common types of voluntary food labels[58].
- The **overall level of awareness of voluntary food labelling schemes and awareness by type of scheme differ significantly amongst MS**. Italian respondents are, across all surveyed countries, those with the highest level of awareness of European PDO/PGI labelling schemes (65%). In contrast, Irish, Danish and German consumers have low awareness of the PDO/PGI schemes. For example, in Ireland, the labelling

[55] PEMI Association (2012). Study of the country of origin labelling of food products.
[56] Estonian Consumers Union (April-June 2012). Consumer survey "to promote consumer literacy" *(Eesti Tarbijakaitse Liidu tarbijauuring „Edendame tarbijate kirjaoskust").*
[57] TNS Emor (2014). Food labelling Study *(Toidumärgistuse alane uuring*)
[58] The other most common type of voluntary labelling schemes is 'organic', for which consumer awareness was found to be the highest of all schemes at 69%, while the number of organic labels schemes found is not particularly high (182).

schemes respondents were the least aware of are the European PDO/PGI schemes (16%); In Denmark, awareness of PDO or PDI logo schemes was lower (12%).

- **Awareness of local/regional origin schemes follows the same pattern amongst MS as awareness of PDO/PGI labelling schemes**. Local/regional origin schemes are also the type of schemes most commonly found in Italy. Similarly, in France the awareness of origin schemes is higher (65%) than in the EU-27+NO (45%), and many origin schemes were found on animal related products (chicken, minced beef, hard cheese, butter). In contrast, in Denmark, along with the Netherlands, respondents were the least aware of local or regional labelling schemes (18%) and very few products affiliated to local/regional origin labelling schemes were found in these countries.
- **Consumer understanding of labels** was also explored with consumers on the basis of mock-up labels, one of which covered origin. When presented with the origin scheme label, three-quarters of respondents (76%) thought this label meant that '*the product has been produced, processed and prepared in their country*'. This is by far the most commonly selected option in all countries. Respondents from the EU-12 group were even more likely to believe that this logo means '*the product has been produced, processed and prepared in their country'* (87%). However the study did not provide further detail on the understanding of origin by type of product, but only of food in general. More generally, the study found that understanding of food labels was overall weak[59], and that EU15 respondents are more sceptical toward food labelling schemes than EU12 respondents who may be particularly trusting.

Furthermore, the Special **Eurobarometer 389** of March 2012 and the Special **Eurobarometer 410** of Nov-Dec 2013 indicate **low consumer awareness of food logos** (including PDO/PGI/TSG) across the EU with significant variation amongst MS:

- Eurobarometer 389 concludes that, overall, consumer awareness of food logos[60] is low: only a small minority of EU consumers are aware of the PDO/PGI/TSG logos (on average, across the EU-27, 15% of consumers are aware of the TSG logo, and 14% recognise the PDO and PGI logos). Specific awareness varies between MS: in the UK, a large majority (86%) recognise at least one of the logos, compared with only one-third (34%) of respondents in Bulgaria and Poland. There is a clear division between respondents in the EU-15 MS, where two-thirds (66%) of respondents recognise at least one logo, compared with only one-third (35%) in NMS-12 countries.
- Eurobarometer 410[61] concludes on similarly low awareness levels for food logos more generally and PSG/PGI/TSG more specifically: on average, across the EU-28, 12% of EU consumers are aware of the TSG logo, 13% of the PDO and 14% PGI logos.

[59] The study concludes: *"The meaning of scheme labels is not always clear to respondents … The size of the text on scheme labels can also be an issue. Respondents tend to think these labels do not give enough information and their favoured way of getting more information would be on the packaging of the product itself ... Another important issue is consumer lack of knowledge about rules and practices concerning food labelling schemes. This can be seen throughout the survey. Beyond the fact that the majority of respondents recognise they don't know enough about food labelling schemes, the level of 'don't know' responses is noticeably high."*

[60] Respondents were shown five logos giving information about the nature of food products, as follows: Fairtrade, organic, PDO, PGI and TSG.

[61] Special Eurobarometer 410: Europeans, agriculture and the common agricultural policy (CAP), Fieldwork Nov-Dec 2013. Publication: March 2014.

BEUC's consumer research (2013) and similar research undertaken independently by consumer organisations in other MS[62] conclude that consumer interest in origin labelling is strong and that consumer understanding of origin requires a significant level of detail:

- In terms of the **geographical level of origin information** expected by consumers in Austria, France, Poland and Sweden, a majority want to know the **specific country** their food comes from (from 50% in France to 78% in Sweden). BEUC notes that when consumers say they are not interested in the country of origin of food, it is mainly because they would like to find even more precise information on the label, i.e. the region the food comes from (from 13% in Sweden to 36% in France). In BEUC's view, it is clear that EU/non-EU labelling is not an option for consumers, given the low acceptance of this option in the survey (from 4% of consumers in Austria to 13% in Poland).
- Consumer understanding of the notion of origin was tested in BEUC's consumer research (2013) for **processed fruit and vegetables**[63]. For the majority of consumers in France and Poland (54% and 60%, respectively), and 44% of consumers in Sweden, where the country of origin is labelled on a jar of jam, it indicates the country where the **fruits/vegetables were both harvested/grown and processed.** However, for the majority of Austrian consumers (53%) it indicates **only where the processing took place**. In all four countries, few consumers (from 9% to 13%) believed that the origin label referred to the country where only the harvest took place.
- In the research carried out independently by other consumer organisations in other MS, the vast majority of consumers in the Czech Republic (85%), Denmark (74%) and Greece (93%) indicated that origin labelling on processed fruit and vegetable products referred to the place of manufacture, while a smaller percentage of consumers understood that the origin referred to the place of harvest (Czech Republic: 39%; Denmark: 62%; and, Greece: 49%). The results of the survey carried out in Belgium, Portugal and Spain**,** reveal that the indication of the country of origin specified on the label/poster of processed food products (e.g. sausages, chicken nuggets, jam and juices) would in most cases be interpreted by the respondents as referring to "*the food [that] was processed into the final product in that country, but some of the ingredients can originate from other countries*"; however, in Italy 50% of consumers believe that origin labelling indicates that the main ingredient(s) are originating from the indicated country.
- Consumer preferences for origin labelling on **processed fruit and vegetable products** in general (e.g. jams, juices, sauces) were consequently tested in BEUC's consumer research. In all four MS, most consumers (from 53% to 68%) indicated that **both the place of farming and the place of processing were equally important**. The second most preferred option chosen by consumers in all four MS (between 22% and 27%) was for the **place of farming**, i.e. it was considered more important to know where the fruit/vegetables were grown than where they were processed.
- The results from the national consumer organisations' research in the Czech Republic, Denmark, and Greece are similar to BEUC's. they also indicate that the vast majority

[62] In Belgium, Czech Republic, Greece, Denmark, Spain, Italy and Portugal.
[63] I.e. whether origin refers to the place of provenance of raw materials or place of processing. This point was also tested for fresh and processed meat.

of consumers (between 53% and 83% depending on the MS) **deem equally important to know where fruit/vegetables were grown and where they were processed** into the final products.

It is noted that the **above results are specific to processed fruit and vegetables**, and caution should be applied in extrapolating these findings to draw conclusions for all products/sectors potentially in the scope of the three categories of foods covered by the present study.

In terms of **the reasons behind consumer interest** in the origin of their food, these **vary between the four MS covered by the BEUC survey**[64]. For a majority of French and Polish consumers, the rationale relates to safety (56% and 61% respectively) and quality (52% and 57%). Austrians primarily use origin information to assess the quality of food (56%), but also its environmental impact (50%). French, Swedish and Polish respondents, on the other hand, are less likely to associate the origin of food to its environmental impact (38%, 38% and 17% respectively). Between 40% and 45% of consumers in all four countries look at the origin of the food they buy due to ethical concerns they may have with some countries. In addition to these specific reasons, a third (France) to half (Austria, Poland, Sweden) of consumers are just interested in knowing where their food comes from.

The available evidence suggests that **origin labelling is more generally connected to consumer attitudes to trust and confidence in the food industry**. This confidence was tested by the 2013 horsemeat scandal; although this is unconnected to the issue of the geographical origin of meat, and food more generally, it brought about at the time a crisis in consumer confidence and trust in the European meat and food industry. More recent evidence suggests that consumer trust is recovering and that Europeans have not fundamentally changed their shopping habits, although they initially were more ready to declare that they would. Nonetheless, the scandal is believed to have had an effect on how marketing of food is increasingly focused on the sustainability and provenance aspects (see also section 3.3 on voluntary origin labelling).

For example, in the UK, where consumer confidence was hard hit by the scandal, in July 2013 (i.e. six months on from the start of the scandal), research by Mintel revealed a lack of confidence among UK consumers in the UK food industry's ability to provide food that is safe to eat. The research, which looked at attitudes towards trust in food, found just half (49%) of all UK consumers trusted the food industry to provide safe food to eat, with almost two fifths (37%) undecided. Furthermore, consumer concerns about food safety appeared to relate to the industry's lack of awareness of their supply chains: just 36% of UK consumers felt that food manufacturers are aware of where their ingredients come from, with around the same number (34%) stating that they did not believe food manufacturers know where their supply chain originates; similarly, a large minority (37%) of UK consumers disagree that supermarkets are aware of where their ingredients originate. However, the impact may not be long-lasting. In a poll of the UK public by Kantar Worldpanel in December 2013, the number of respondents planning to change how they shop had significantly dropped from 19% of people saying that they would not buy from brands linked to the horsemeat scandal in January 2013 to 9% in December 2013. Similarly, 15% said they would not buy economy ranges of meat in January 2013, but by December 2013 this figure was only 7%. Finally, the decline in sales of frozen burgers slowed, from 41% in March/April 2013 to 1% for the 12 weeks to 8 December 2013.

[64] This question in the BEUC survey was generic for food and did not differentiate between food products.

2.2.2 Evidence from the 2014 FCEC consumer survey

The FCEC consumer survey provides data on the **motivations for origin labelling** to understand why some consumers deem it important. The analysis of the most important reasons indicates that consumers would like to have origin labelling so that **they can base their purchase decision on this information**: on average across all MS covered by the survey, 16.9% would **choose domestic** food products, 13.2% would **choose local products**, 12.4% '*need to know where the food they buy comes from*' and 6.4% of consumers think it would enable them to choose between products. Some 12.7% of consumers would use the origin label **to support local/national producers**. Therefore, for a large proportion (42.8%) of EU consumers, origin labelling would be used **to favour national or local production** over other food origins.

Consumers also associate the provision of origin information with a **certain level of perceived trust in the food chain**. For instance, some consumers would buy national or local products because they trust these products more. Origin labelling would also reassure 10.8% of EU consumers on **the safety of the food** they buy. For 12.9% of EU consumers, origin labelling is considered to provide reassurance on the **quality of the food product**.

Finally, **environment-related reasons** drive the interest of some 12.8% of EU consumers. More specifically, 6.8% of consumers want to know the distance between production and consumption and 6.0% of consumers feel that it provides indication/reassurance about whether food has been produced in an environmentally-friendly way. On the perception of environmental impact by consumers, the Focus Group discussion concluded that consumers tend to assume that local products are better for the environment, but this is not necessarily the case. The whole life cycle of the products needs to be borne in mind.

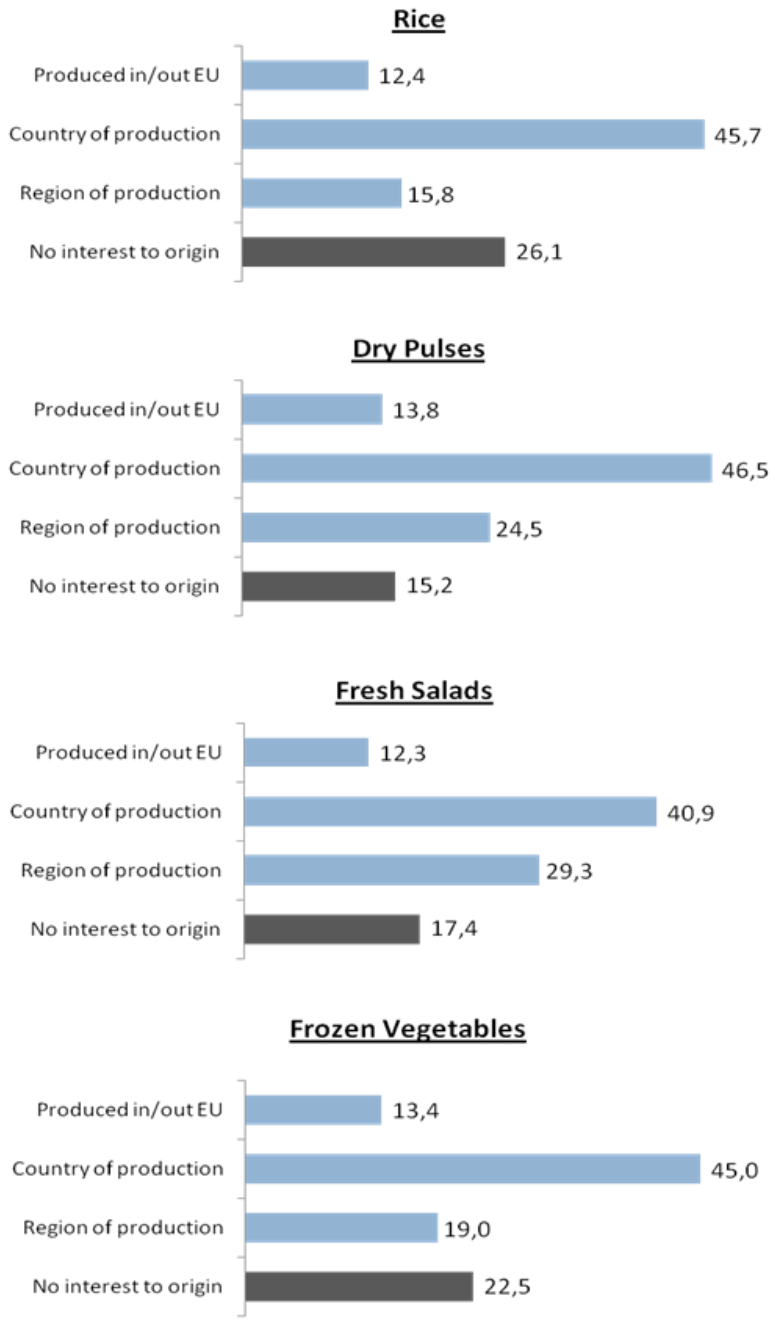
There are **differences between MS in the importance attached by consumers to the various reasons why they would like to have origin labelling**. For example, in Lithuania, 31.1% of consumers would choose food products produced domestically (i.e. much higher than the EU average of 16.9%), whereas it is mostly Hungarian (19.1%) and UK (18.1%) consumers that say they would buy locally produced foods (compared to the EU average of 13.2%). In Italy, consumers particularly associate origin labelling with food safety (16.9%, compared to the EU average of 10.8%). In Sweden, 13.8% of consumers would like to know the distance travelled by the food product they buy (compared to the EU average of 6.8%).

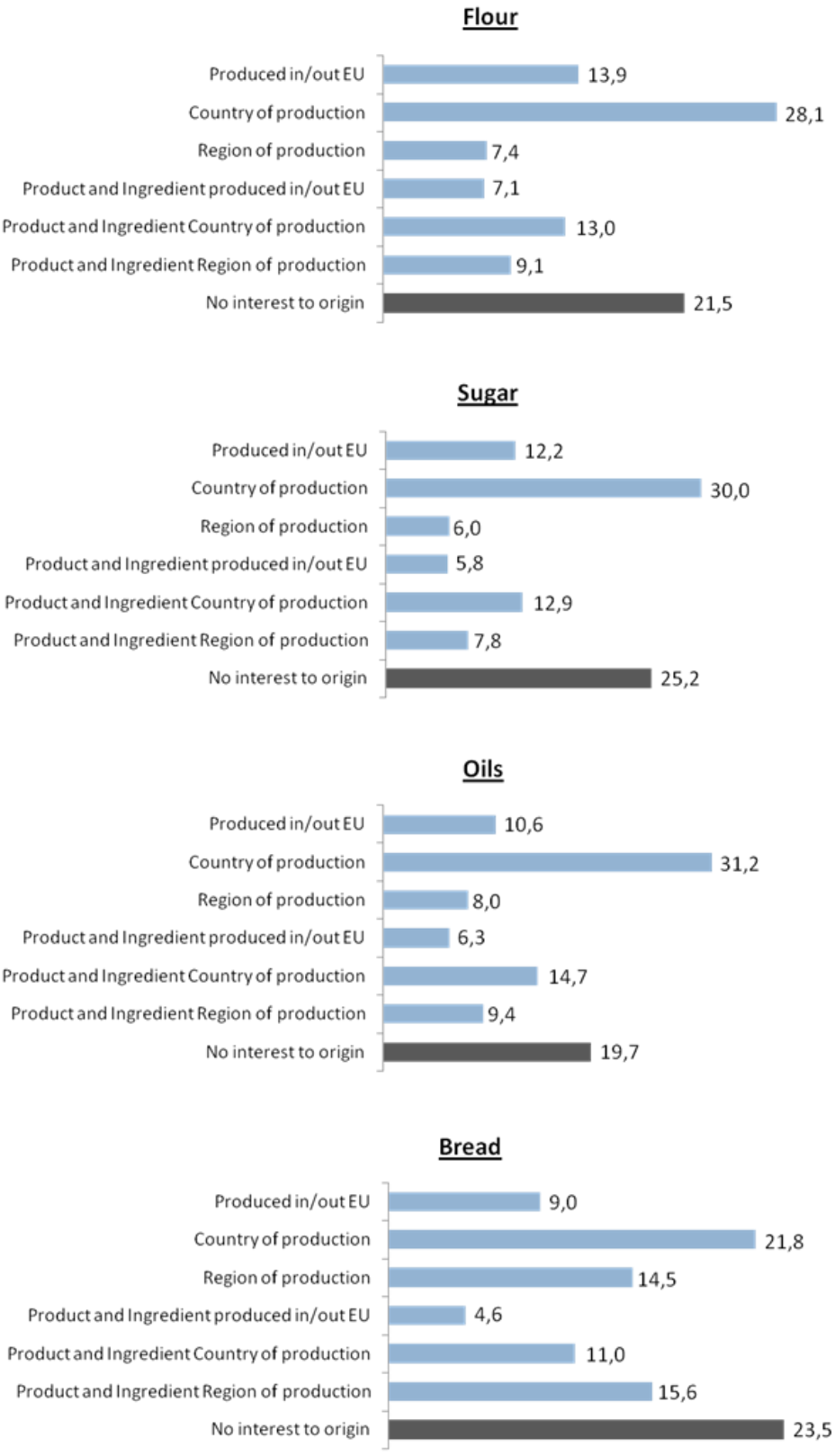
Concerning the level of information required[65], the FCEC survey clearly indicates that EU consumers prefer to receive **origin information at the level of a country.** Origin at country level is the preferred option for all of the 11 products examined (and their ingredients), totalling more than 40% of responses for every product (**Figure 9**). For some products, consumers expressed some interest in origin labelling at the regional level, notably for fresh salads of fruit or vegetables (29.3% of responses), dry pulses (24.5%) and bread (30.1%). Nonetheless, it is also noted that between 15.2% and 27.0% of consumers reiterate that they have no interest in the origin of the food products covered by the survey.

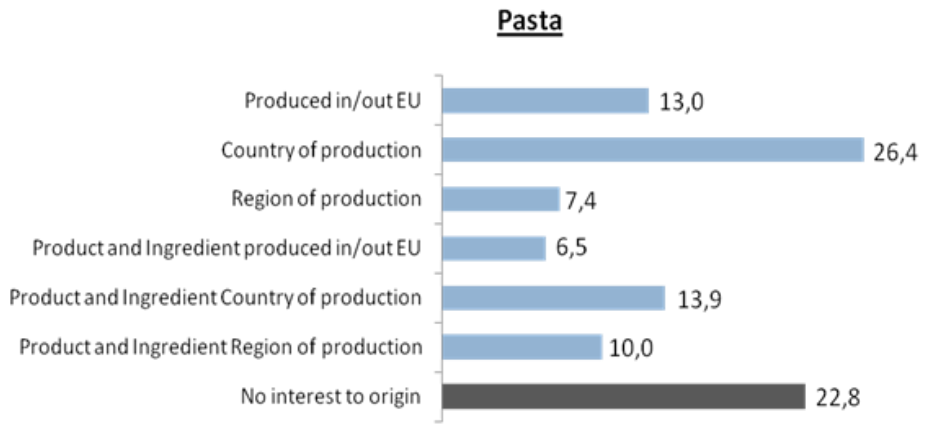
[65] Respondents were randomly assigned a product (which they usually purchase) for the WTP exercise. Respondents were asked to indicate their preference towards 4 levels of information if the product was 'unprocessed' or 7 levels if the product involved processing.

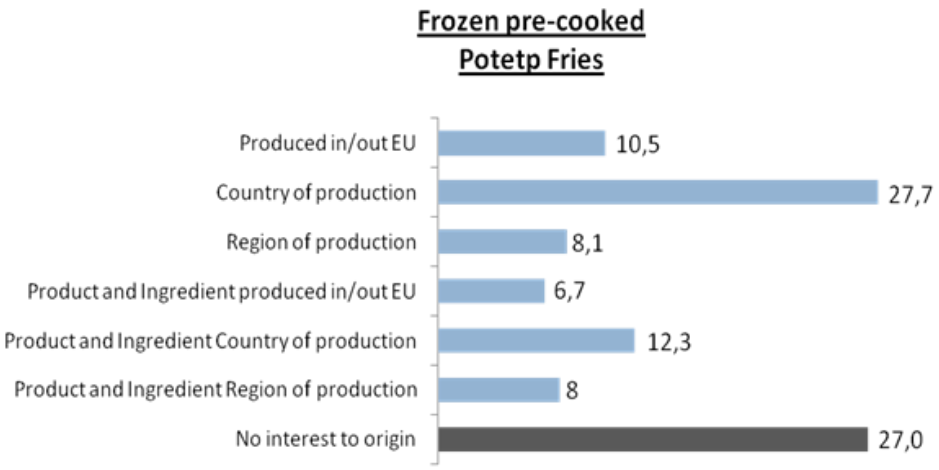
Two groups of MS stand out with different positions on consumer interest. Consumers in Greece and Italy are the most interested in receiving food origin information. Consumers in other MS (for example, Austria, Romania and Poland) expressed a strong interest for some specific products, or ingredient used in a product. On the other hand, British and Belgian consumers indicate a low interest in any kind of origin information for the products examined.

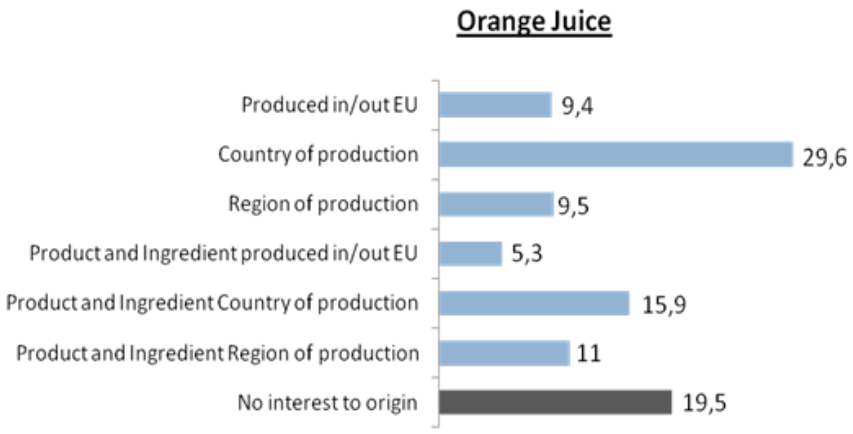
Figure 9: EU consumers' preference on the level of origin information for different products




Flour
Produced in/out EU 13,9
Country of production 28,1
Region of production 7,4
Product and Ingredient produced in/out EU 7,1
Product and Ingredient Country of production 13,0
Product and Ingredient Region of production 9,1
No interest to origin 21,5
Sugar
Produced in/out EU 12,2
Country of production 30,0
Region of production 6,0
Product and Ingredient produced in/out EU 5,8
Product and Ingredient Country of production 12,9
Product and Ingredient Region of production 7,8
No interest to origin 25,2
Oils
Produced in/out EU 10,6
Country of production 31,2
Region of production 8,0
Product and Ingredient produced in/out EU 6,3
Product and Ingredient Country of production 14,7
Product and Ingredient Region of production 9,4
No interest to origin 19,7
Bread
Produced in/out EU 9,0
Country of production 21,8
Region of production 14,5
Product and Ingredient produced in/out EU 4,6
Product and Ingredient Country of production 11,0
Product and Ingredient Region of production 15,6
No interest to origin 23,5







Source: 2014 FCEC consumer survey (PRAGMA)

2.2.3 Evidence from MS CAs

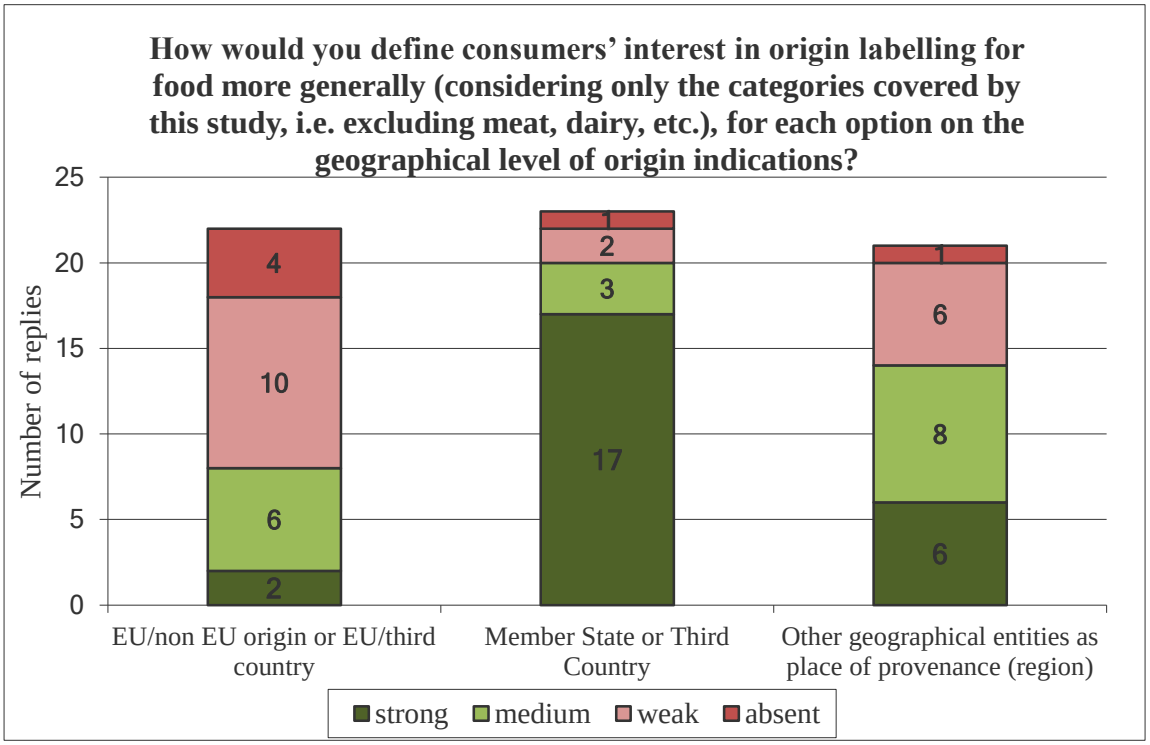
The **motivations** cited by Competent Authorities (CAs) as to why consumers are interested in the origin of food were stated at a general level (i.e. for all foods, not necessarily based on evidence), as follows: an association tends to be made in consumers' mind between origin, **quality** and freshness of food products; there is an increasing willingness to purchase national products in order to **support local farmers** and agriculture; national products tend to be considered **healthier** and/or **more sustainable** than imported foods. As a result, some CAs indicated that consumers were more interested in knowing the place of farming rather than the place of manufacture of a product, e.g. for food safety reasons, on environmental grounds and/or because consumers associated certain qualities of the food with its origin or provenance.

With regard to the level of origin information, the majority of responding MS indicated that **consumers are mostly interested in origin information at country level** (**Figure 10**). For instance, a survey conducted in Italy in 2014 shows that a large majority of Italian consumers (65% of respondents) are interested in the origin label if it indicates the national origin (e.g. Italian product). The interest of Italian consumers in origin drops to 18% at EU MS level (i.e. the food does not necessarily come from Italy) and to 3% at the EU level. Luxemburg, Cyprus and Estonia are exceptions in this regard, as data/responses provided suggest that the highest consumer interest would be to know EU/non EU origin of a food over the national origin (Luxemburg) or that a 'EU/non EU' origin indication would be sufficient, i.e. EU/non EU consumer interest is equal to the national level (Cyprus, Estonia[66]).

MS CAs indicate that **consumers** in their country **are predominantly interested in knowing the place of farming of the food/ingredient** (according to 19 of the 21 MS CAs that responded to this question) (**Figure 11**). The place of last substantial transformation of the food/ingredient is also deemed to be of interest for consumers, although to a more moderate extent. Consumer interest in both the place of farming and the place of processing is also considered strong or medium, but this has been more difficult to assess by MS CAs (15 responses).

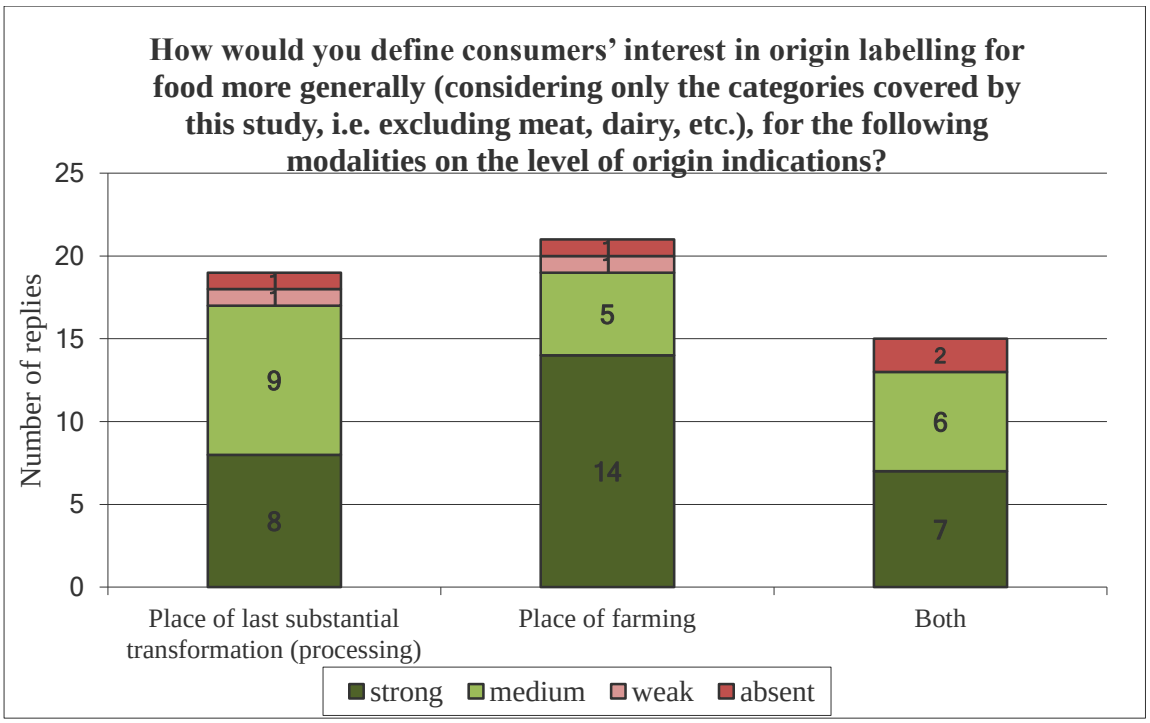
[66] In Estonia, a 2012 survey, based on 617 respondents, revealed that more than half of the respondents indicated that an 'EU/non EU' origin label is sufficient, while 39 % were interested in the country of origin of raw material of food and 26 % of respondents said that the origin information is not important.

Figure 10: MS CA assessment of consumers' preferred geographical level of origin indication in their country (n=23)



Source: FCEC MS CA survey (2014), Q3

Figure 11: MS CA assessment of consumers' preferred level of detail for origin indication in their country (n=21)



Source: 2014 FCEC MS CA survey (2014), Q4

MS CAs provided additional comments with respect to the consumers' motivations, rationale and expectations about food origin information. The comments and evidence provided were a mix of consumer research studies carried out by CAs, by private institutes on behalf of CAs and by consumer organisations (quoted by CAs).

In the **UK,** research carried out for the Food Standards Agency (FSA, 2010) includes a synthesis of findings from five studies (BMRB, NatCen, Campden-BRI, Ipsos Mori and Oxford Evidentia) on consumers' perceptions and understanding of food labels. The first two key findings of the Research Synthesis indicate that:

- The evidence review revealed that general food labels in the UK are read on initial purchases by approximately half the population only.
- Though consumers are aware of country of origin labelling, this information is not a main concern when shopping.

Furthermore individual results from the five studies indicate that:

- According to the NatCen omnibus survey[67], when comparing different aspects on a food label, respondents stated best before/use by date and price to be most important (55% and 54% respectively). Country of origin labelling was spontaneously mentioned only by 11% respondents. Similarly, when asked about what information they looked for when purchasing food for the first time, only 11% of respondents said that they looked for country of origin labels.
- However, when asked specifically in a separate question whether they looked for country of origin labelling, the proportion that said that they did rose to 52%. The food products for which respondents most commonly looked for origin labelling were: fruit and vegetables (69% of respondents), fresh meat (57%) and meat products (30%), while for other products the response was low (e.g. only 13% of respondents reported looking for country of origin labelling when buying cheese).
- The most commonly cited reason by those who looked for country of origin labelling was in order to "buy British" (34%); those who did not look for origin labelling said they did not because they were not interested in it or it was not important to them (21% and 20% respectively).
- All respondents were then asked which foods country of origin labelling should be provided for. Of those categories covered by the scope of this study, fruit and vegetables was cited by 59% of respondents, fish by 54% and bakery products by 26%. The results for other food categories were: fresh meat (69% of respondents – the highest score of all products), processed meat (60%), cheese (43%), ready meals (32%) and honey (28%).
- In terms of consumers' preferences for origin labelling of food products, the BMRB findings suggested that the origin labelling should include information from the consumer's perspective of origin, namely the birthplace/source or the country where the product is grown or reared. Over three quarters (76%) of the NatCen omnibus survey felt that the label should include 'where the animal was farmed'; A smaller

[67] This UK FSA commissioned research investigated consumer usage, understanding and perceived importance of country of origin labelling on food products. The sample was recruited using a multi-stage sampling design, and a representative sample of 1,601 adults aged 16 or over in the UK, living in private households, was interviewed.

percentage (40%) believed it should include 'where the food was processed 'where the animal was born' (40%), and 'where the animal was slaughtered' (35%).

Further consumer research carried out in the UK in 2011 and 2012 (YouGov: Assured Food Standards) indicates that country of origin ranks as the fourth or fifth factor in consumer purchase decisions behind price (clearly the leading factor), health/nutritional values and promotions and in approximately the same position as brand names and quality assurance scheme logos (such as the *Red Tractor*). A clear majority of UK shoppers understood that *Red Tractor*[68] *'means it is British'* and *'supports British farmers'*; with '*food safety/traceability from farm to pack*' being the second most important association that consumers make with the logo; 64% of consumers supported *Red Tractor*, but only 25% were proactive shoppers of products carrying this logo.

In **France**, the national consumer organisation (CLCV) carried out an on-line survey in late 2012/early 2013[69]. Results show that respondents consider it important to have information on the origin of food products primarily as a means to contribute to the economic development of a region or country (reason cited by 71% of respondents), followed by reasons related to the environment (66%), social (63%) and product safety (62%). For food products containing multiple ingredients, **respondents require information on the origin of the main ingredient (i.e. representing more than 50% of the product weight)**.

In **Germany**, a consumer study carried out in 2014[70] shows that 75% of German consumers find the (regional) origin of their food important while 51% look out for origin information when shopping. A 2013 study carried out for the Federation of German Consumer Association (vzbv) and the Federal Ministry of Food, Agriculture and Consumer Protection[71] investigated consumer understanding of the origin of product with geographical indications (PDO/PGI), primarily indicated in the product name, for four types of products[72]. Although none of them fall within the scope of the present study, results are interesting. In the case of all three processed non-PDO/PGI products (cheese, sausage and milk), about three quarters of respondents believed the indication of origin referred to a region specific recipe. In the case of the fourth non PDO/PGI multi-ingredient product (apple pie), 49% believed the apple came from the region; 31.6% believed that the eggs came from the region; 25.1% believed the sugar and flour came from the region; and 49.5% believed that the pie itself was produced in the region. On the other hand, in the case of all products, a significant minority, around 25-30% of respondents, believed that the product had nothing to do with the region indicated.

[68] Red tractor assurance schemes cover six sectors as follows: beef/lamb, pig meat, horticulture, dairy, cereals and poultry.

[69] This survey was posted on line between 13 December 2012 and January 28, 2013, and received 1040 responses. Given the specificity of the survey process (carried out through the consumers' organisation) the results do not necessarily reflect the average French consumer.

[70] SGS-Verbraucherstudie 2014. *Vertrauen und Skepsis : Was Leitet die Deutschen beim Lebensmitteleinkauf*? This study is the only new input received from our 2014 consumer organisation consultation, i.e. only the DE consumer association indicated new consumer research carried out since 2013.

[71] (Presentation and labelling of foods from the consumer perspective: empirical findings).

[72] These were meat (sausages), dairy products, milk and a multi-ingredient product (apple pie), in which it is unlikely that any ingredient represents more than 50% of the final product.

In the **Netherlands**, consumer research by LEI in 2012[73] indicates that consumers regard origin information as a positive, but not essential attribute ('*nice to know rather than need to have*') and that it is not a decisive element in their actual purchase behaviour. In particular, the country of origin is not among the most read information on a food product label (with 10 % of Dutch consumers according to this study not reading food labels at all), mainly because they do not feel a need for this information or because they always buy the same product (habitual behaviour). The most sought information is not country of origin but expiry dates, price and weight of the product. Also, 51% of consumers were not aware of the potential additional costs of providing origin labelling, and - while 7% of the consumers consider that they always look at country of origin information - not all respondents who check country of origin regularly are able to recall a product with a country of origin indication they bought recently.

In **Austria**, several surveys (carried out by AMA[74] or by the Austrian consumer organisation) indicate that origin is one of the top three items of interest when it comes to food in general. According to a survey conducted by AMA in 2008, 'Austrian Origin' is most important for dairy products, followed by poultry meat, **cereals** and beef.

In **Denmark**, consumer research provided by the CA on the reasons why Danish consumers buy Danish food products indicates that price is the most important factor affecting consumer choice (56% of respondents rate it as one of the top three factors), followed closely by freshness (55%); origin related considerations are only taken into consideration as one of the top three factors by 30% of respondents.

Finally, in **Finland**, consumer interest in origin labelling has mainly been investigated as part of wider studies on food more generally[75]:

- Omnibus surveys made in 2009 (n=1,027) and 2010 (n=1,028) indicate that more than 70% of consumers said that the origin labelling was important in making purchase decisions.
- The "*Suomi Syö 2011*" survey (n~2,000) indicates that country of origin information was the third most-read label when making purchase decisions, although this was particularly true when purchasing meat and fish. About 40% of consumers check the '*Good from Finland'* label (more details on this scheme in Theme 2, section 3.3.2).
- The "*RISK 2012, Discover Food 2012 - Attitudes, Trends, Events*" survey (n=7,062) showed that more than one third of Finnish consumers think that origin of food is important information.
- A 2013 survey (n=3,871) on consumers attitudes towards food and agriculture showed that 80% of consumers want to receive origin information on the ingredients in ready-meals. 72% of consumers also want to have origin information when consuming food in restaurants and in other catering services.

[73] Haaster-de Winter, M.A van and A. Ruissen 2012. Voedsel labelen met land van herkomst: leuk, maar geen voorwaarde; Onderzoek onder Nederlandse consumeren. LEI report 2012-021. The Hague. A consumer study (involving 894 consumers) which ascertained the meaning and role that country of origin play in the purchase of a food product.
[74] Agrarmarkt Austria Marketing GmbH.
[75] The 2009, 2010 and 2011 surveys were conducted by Taloustutkimus market research; the 2012 survey (RISK 2012) was conducted by TNS Gallup.

In **Estonia**, in the survey conducted by the Estonian Consumers Union[76], more than half of the 617 respondents indicated that the indication of EU/non EU origin would provide sufficient information. These results are somewhat disputed by the findings of another more recent survey on food labelling conducted for the Ministry of Agriculture in 2014 [77] which finds that a majority of Estonians (72%-88% depending on the food product group) prefer an origin indication at country level. As for Estonian consumer understanding of origin labels, depending on products and labelled text (or pictures, phrases, logos, etc.), respondents tend to be equally divided between those who believe it refers to the place of processing and those who think it is the place of origin of the ingredient. For example 48% of respondents understand that an 'Estonia' label on a jar of strawberry jam refers to the country of processing using strawberries of any origin. On the other hand, expressions such as "Estonian product" or "traditional Estonian product" are mostly (between 46%-56%) considered to refer to the origin of the product's raw material.

Finally, in the context of **ingredients that represent more than 50% (Cat III)**, some of the respondents to our consultation (MS CAs and FBOs) highlighted the complexities of origin labelling for some products in this category. In particular, one issue is **whether the origin of the most present ingredient is the relevant information for consumers when this is not the characteristic ingredient**: the case of fruit juices provides an example of this, when there is a mix of different fruit with the predominant taste and product labelling being different than the most present ingredient (e.g. lychee juice with 85% apple juice)[78]. Another issue are products for which none of the ingredients represents more than 50%, particularly of **'borderline' cases with ingredients, otherwise potentially considered as characteristic by consumers that are just below 50%.** This is one of the reasons why voluntary origin labelling more generally in some sectors (e.g. mixed fruit juices) is relatively low (Theme 2).

2.3 Willingness to pay for origin labelling

2.3.1 Evidence from consumer research literature

Willingness to pay (WTP) is an issue that remains largely unexplored in existing studies on consumer interest in origin labelling information, including those reviewed in the previous section[79]. Indeed, this has been a common criticism put forward by critics of these studies.

Existing studies, including those reviewed in the previous section, indicate price and quality/sensory aspects to be the most important factors affecting consumer choice, well ahead of the origin of food. The BEUC survey[80], the surveys of MS consumer organisations[81] and the 2013 FCEC consumer survey have all found price ranking as the first factor

[76] Estonian Consumers Union, April-June 2012. Consumer survey "to promote consumer literacy" *(Eesti Tarbijakaitse Liidu tarbijauuring „Edendame tarbijate kirjaoskust").*
[77] TNS Emor (2014). Food labelling Study *(Toidumärgistuse alane uuring*)
[78] Other examples include bakery products, chocolate and confectionery containing >50% sugar or butter.
[79] A source not included in the previous section which includes a WTP element is the Special Eurobarometer 410 conducted between November and December 2013. It assesses consumer interest, understanding of labels and consumer willingness to pay for specific products: milk, milk in dairy products and other types of meat. These products are outside the scope of the present SANCO study and are covered by an ongoing study on mandatory origin labelling of milk, milk and an ingredient and minor meats, carried out for DG AGRI.
[80] The BEUC survey (January 2013) did not include any questions on WTP.
[81] Some of which have included some questions on WTP: this was the case for BE, IT, PT and ES. See analysis below.

consumers look at when making food purchases, with origin ranking fifth (all categories of food products included). The latest FCEC consumer survey (2014) has found that taste, best-before/use-by dates, and price rank as the top three factors influencing EU consumers' purchase decisions (these three factors actually rank very close to each other), followed by origin (**Figure 4**).

The 2012 BEUC study surveying consumers in four EU countries (Austria, France, Poland and Sweden) on their attitudes towards origin food scheme labels found that generally around two thirds of consumers in these countries find origin to be an important factor in their purchasing decisions, potentially leading to higher willingness to pay.

In the context of the **2013 SANCO study on voluntary food labels**, a behavioural experiment was carried out to measure willingness to pay (WTP), as a premium on the base price, for products carrying different food labels: a health scheme, an animal welfare scheme and an origin scheme. Although for origin labelling the experiment covered two products not in the scope of the present study (minced beef and cheese), results suggest that WTP was higher for origin and health schemes than for animal welfare schemes: i.e. respondents are more likely to pay a premium price for minced beef and cheese with an origin scheme label (as well as for chicken and eggs with an animal welfare scheme label) than they are for margarine and yoghurt with a health scheme label[82]. However, **even small price increases of the origin labelled option led to a large drop in respondents selecting this option; t**he study concludes that observing this price sensitivity is not surprising as price was consistently ranked as an important factor when choosing food products by respondents. Moreover, there were **significant differences between MS and products**: the lowest WTP for origin label schemes on cheese was in Germany, the Netherlands, the UK and Ireland, and the highest in Italy, Romania and Bulgaria; for minced beef, the lowest WTP was in the Netherlands and the highest in Romania, Italy, Luxembourg and France. Respondents with lower incomes and younger respondents were less likely to pay a premium for food products affiliated with an origin labelling scheme.

2.3.2 Evidence from the 2014 FCEC consumer survey

The 2014 FCEC consumer survey undertaken in the context of the study on origin labelling for unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food has included an analysis of WTP for a selection of the products covered by the study (including all of the case study products), which has been developed according to the discrete choice modelling (DCM) methodology[83].

[82] The study concludes that average WTP for products affiliated with a food labelling scheme across all countries included in the behavioural experiment, for the average WTP for the origin scheme label, as a percentage of the base price, was 30% and for cheese it was 24%. Chicken and animal welfare scheme logos commanded a 23% premium and for eggs it was 26%. Health scheme labels on margarine commanded a premium of 19% and on yoghurt only 19%. In the case of minced beef, some 60% of respondents chose the origin scheme labelled products over unlabelled products at the highest price premium of 28%, and in the case of cheese, 50% of respondents chose the product affiliated with a labelling scheme at the highest price premium of 28%.

[83] DCM can be used to derive estimates of the amount of money an individual is willing to pay (or willing to accept) to obtain some benefit (or avoid some cost) from a specific action/policy. In more detail, having defined the attributes (i.e. the characteristics to be valued by consumers) and the levels that these take (the range over which one expects respondents to have preferences), respondents are asked to compare a set of alternatives

It is noted that WTP is a very difficult and complex issue to address, particularly in a consumer survey including a diverse range of products. Therefore - to avoid lack of clarity/confusion - the approach followed in this survey has been as simple as possible[84]. Respondents were asked to compare a set of possible alternatives characterised by various origin labelling formulations (corresponding to the options of the study) as well as different price levels (i.e. base price and increase on the base price) and indicate the most preferred one[85].

The objective of the WTP analysis undertaken here is **to quantify the monetary value for consumers of increasing the level of information on the origin of the product and/or its main ingredient (for processed products)[86]**. This is expressed in terms of an estimated additional price that consumers may be willing to pay on a product (**WTP measure**) for moving from the base case (no information) to the different possible label formulations on origin[87]. In other words, the WTP estimate of a specific label formulation indicates the exact price increase which renders the same level of utility as the base case (i.e. status quo: no information) for consumers. Thus, the higher the WTP estimate, the more the disutility to consumers if there is no information on product origin[88]. The WTP measures are presented for unprocessed products in **Table 3** and for processed products in **Table 4**.

(bundle of attributes) and select the one providing them with the highest utility. Therefore, consumer preferences are elicited using their choices between a set of alternatives. The theoretical basis is represented by the micro-economic theory of choice and random utility maximisation theory. In DCM, where each attribute in a utility expression is associated with a single weight, the ratio of two utility parameters denotes the marginal rate of substitution that, in the case where one of the attributes is measured in monetary units, this represents an estimate of the willingness-to-pay/willingness-to-accept (WTP/WTA).

[84] This survey sheds lights on the overall value European consumers render to a certain quantity of origin information labels; further research activities to adequate country samples would be required to provide further insights for each country. Data presented in this report is the EU-weighted data, unless otherwise indicated.

[85] There are many different approaches to analysing WTP. The approach followed in this survey is quite different from the previous analysis of WTP for meat products, which was carried out by the FCEC in 2013. **The results of the two surveys on WTP are therefore not comparable.** The current approach is designed to make respondents think in terms of trade-off between price and information within a hypothetical range of choices (scenarios). The fact of associating increasing prices to increasing level of information pushes respondents to give a monetary evaluation of the additional information. Last year's survey model, instead, ask directly how much more respondents would have been ready to pay for more information. Also, the current model uses a declared price as base case, instead of fixed prices of previous mode, across individual consumers and countries. The current model was considered more appropriate for this study, in view of the diversity of products covered by the WTP analysis.

[86] For the purposes of the WTP choice modelling experiments, a broad distinction was made between food products commonly understood by consumers as 'unprocessed' (rice, dry pulses, fresh salads of fruit or vegetables, frozen vegetables) and 'processed' (flour, sugar, vegetable oils, bread, pasta, frozen pre-cooked potato fries, and orange juice). Two different choice experiments have been performed according to the type of product considered (processed or unprocessed). In particular, for unprocessed products, a label indicating information on the product origin was considered while, for processed products, the label also included information on the origin of ingredients.

[87] As an example, suppose a pack of dry pulses has no information on the label and is priced X; then, data tell us that consumers consider this product equivalent in terms of utility when compared to the same product with Configuration 1 and sold at X + 32% (**Table 3**).

[88] Given the wide range of current situations in terms of origin labelling per country and product, in some cases respondents might be asked their WTP for having origin information they are already used to get. In these cases, the WTP measure quantifies the level of compensation respondents would require to go back to a no information situation (*Willingness to Accept*).

On the other hand, the **WTP estimates do not provide any indication of the likelihood to be selected** or the extent to which consumers will select a particular formulation over another. All formulations imply an **equal probability to be chosen**. As such, the WTP measures provide an **indication of the expressed consumer interest to have origin information, rather than whether consumers would pay the indicated price difference to receive this level of information**. The WTP analysis has also addressed (through a simulation process) the probability that consumers will go for each option at each price level and for each product, as discussed further below. Again, this covers consumer intentions rather than actual purchasing behaviour.

Bearing in mind the above methodological points of the WTP analysis in the FCEC 2014 consumer survey, the following conclusions can be drawn from the results:

- Overall, WTP estimates are in all cases relatively high. This indicates that **consumers' utility increases by receiving some information on the origin** of the various products (and their main ingredients in the case of processed products), **compared to the 'no information' base case**. This also confirms the earlier findings of the survey on consumer interest as such.
- In both cases (unprocessed and processed products), **consumers are most interested (i.e. derive the highest utility) from obtaining origin information at country level**:
    - Across all unprocessed products, consumers appear most interested in obtaining information about the country where the food product was produced i.e. the place of farming (Configuration 2, **Table 3**);
    - Similarly, across all processed products, consumers appear most interested in obtaining information about the country of origin, in this case for both food products (i.e. the place of processing) and ingredients (i.e. the place of farming) (Configuration 4, **Table 4**).
- In both cases (unprocessed and processed products), **information on the precise region/area where the product was produced does not yield additional utility** when compared to information on the country of origin, since it receives more or less the same level of WTP (for unprocessed products: Configuration 3, **Table 3**; for processed products: Configurations 5 and 6, **Table 4**).
- In both cases (unprocessed and processed products), **labels indicating whether the food product was produced in/outside the EU are the least valued of all origin indications** (in terms of change in the WTP measure, compared to the other configurations), **although** they are **considerably valued** when **compared to 'no information'**:
    - In the case of unprocessed products, the least valued option is Configuration 1 (**Table 3**);
    - In the case of processed products, the least valued options (with just a few exceptions) are those with labels indicating whether the food product was produced in the EU/outside the EU either with country level or EU/Non EU level for ingredients (Configuration 2 and 1 respectively, **Table 4**).
- In terms of individual unprocessed products, **dry pulses** and **fresh salads** are the products for which people are **most willing to pay** in order to have information on product origin, independent of the level of origin (**Table 3**). *Vice versa*, **WTP** measures are **lower in the case of frozen vegetables** and reach the **lowest level for rice**.

- In terms of individual **processed products**, WTP measures are **quite varied between products**. Considering Configuration 4 (for which consumers expressed the highest interest in the case of processed products), consumers are more interested in receiving information on the origin (of both product and ingredient) when buying orange juice, flour and oils (+60%, +57% and +52%, respectively), followed by pasta, bread and sugar (+49% and +44% and +42%. respectively) while the WTP measures show the lowest level for frozen pre-cooked potato fries (34%) (**Table 4**).

Table 3 and **Table 4** present the average WTP measures according to the different origin formulations for each unprocessed product and each processed product, respectively.

The differential interest of consumers for the different categories of food versus WTP could possibly be due to an inconsistency in consumer response. As also discussed in the focus group on the study, it may also be the case that - for certain products - consumers may value differently an information which they think would be easy to label (e.g. for fresh cut salads because mandatory origin labelling already exists for fresh fruit and vegetables; for vegetable oils because it already exists for olive oil, for rice because voluntary indications exist for some types of rice, etc.) compared to those products for which there is no origin indication. The extent of voluntary origin labelling for the various products is provided in **Table 9**, Theme 2.

Table 3: WTP for unprocessed products

Products	**Price increase from *Base case* to *Configuration 1***	**Price increase from *Base case* to *Configuration 2***	**Price increase from *Base case* to *Configuration 3***
	Label indicates:		
	*food product produced **in the EU or outside the EU***	***the country** where the food product was produced*	*the **precise region/area** where the food product was produced*
RICE	+19%	+41%	+39%
DRY PULSES	+32%	+66%	+65%
FRESH SALADS (of fruit and vegetables)	+26%	+56%	+56%
FROZEN VEGETABLES	+26%	+49%	+43%

Note: Base case: no information. 'Produced' refers to place of farming.
Source: 2014 FCEC consumer survey (PRAGMA)

Table 4: WTP for processed products

Configurations for processed products

Conf. 1	**Conf. 2**	**Conf. 3**	**Conf. 4**	**Conf. 5**	**Conf. 6**
Label indicates:					
*food product produced **in the EU or outside the EU***	*food product produced **in the EU or outside the EU***	***the country** where the food product was produced*	***the country** where the food product was produced*	*the **precise region/area** where the food product was produced*	*the **precise region/area** where the food product was produced*
*ingredient produced **in the EU or outside the EU***	***the country** where the ingredient was produced*	*ingredient produced **in the EU or outside the EU***	***the country** where the ingredient was produced*	*ingredient produced **in the EU or outside the EU***	***the country** where the ingredient was produced*

Products	**From *Base case* to Conf. 1**	**From *Base case* to Conf. 2**	**From *Base case* to Conf. 3**	**From *Base case* to Conf. 4**	**From *Base case* to Conf. 5**	**From *Base case* to Conf. 6**
FLOUR	+39%	+38%	+44%	+57%	+46%	+51%
SUGAR	+30%	+25%	+35%	+42%	+28%	+36%
OILS	+31%	+35%	+39%	+52%	+40%	+44%
BREAD	+24%	+25%	+29%	+44%	+33%	+36%
PASTA	+28%	+31%	+33%	+49%	+37%	+42%
FROZEN FRIES	+18%	+23%	+28%	+34%	+22%	+26%
ORANGE JUICE	+34%	+38%	+42%	+60%	+48%	+52%

Note: Base case: no information. 'Produced' for 'ingredient' refers to place of farming and for 'food' to place of processing.
Source: 2014 FCEC consumer survey (PRAGMA)

As discussed above, the WTP estimates do not provide any indication of the likelihood that consumers would actually choose a particular origin formulation over another, as all formulations imply an equal probability to be chosen. To address this issue, the WTP analysis has included a simulation process to estimate the probability that consumers might select each option at each price level and for each product when compared to the base case alternative. The analysis confirms the conclusions provided above, in particular[89]:

- The **highest probability** in all cases is that consumers might select origin information at the **country level and at the lowest price increase** (+5%);
- This **probability diminishes for all other configurations** (i.e. other levels of origin information) **and at each subsequent level of price increase** (i.e. more than +5%);
- Although in all cases of a price increase up to 20% the probability that consumers will select some origin information, when compared to the base case alternative, exceed 50% (i.e. at least 1 in 2 consumers would select this option), generally, this probability tends to be higher for unprocessed rather than for processed products.
- Probabilities at a given configuration and price level vary significantly between products, in line with the above conclusions for individual products. For example, the probability that consumers will select country of origin information at a 5% price

[89] Full results of the simulations are presented in the Report on the consumer survey, in **Annex 5**.

increase is the **highest** for **dry pulses** and **fresh salads** (configuration 2: 81% and 77%, respectively), and the **lowest for bread and frozen pre-cooked potato fries** (configuration 4, 72% and 69%, respectively) (**Annex 5**).

On average, 22% of the choices were related to the base case scenario (i.e. the status quo: 'no information – no price increase') (**Figure 12**). Depending on the product, this actual percentage was 18-27%. The percentage of choices related to the base case varied significantly between MS: from a low 8.5% in Bulgaria, 9.2% in Greece, and 10.2% in Italy, to a high 35.4% in Belgium, 46.5% in the UK, and 46.5% in Lithuania. In other words, while in Bulgaria, Greece and Italy, approximately 1 in 10 choices would not be for any origin information at all, in Belgium, the UK and Lithuania, roughly 3-5 in 10 would not be. These base statistics provide another indication of the extent to which consumers are interested/willing to pay more for origin information.

It is noted again that the expressed WTP is subject to the paradox of a divergence between declared and actual consumer purchasing behaviour (the '*consumer paradox*'). Furthermore, actual purchasing behaviour of food is dependent on price levels: the price elasticity of demand for food varies between products, generally ranging from lower for lower-priced 'necessities'/ commodity foods to higher for premium priced 'luxury'/branded foods[90]. It is also influenced by other factors such as household incomes, habit formulation and substitution effects between products (for example, in the UK, households increase their consumption of fish and meat products at the expense of their fruit consumption, if faced with lower prices for fish and meat products)[91]. Price levels, in their turn, are affected by consumer demand, and production/supply conditions.

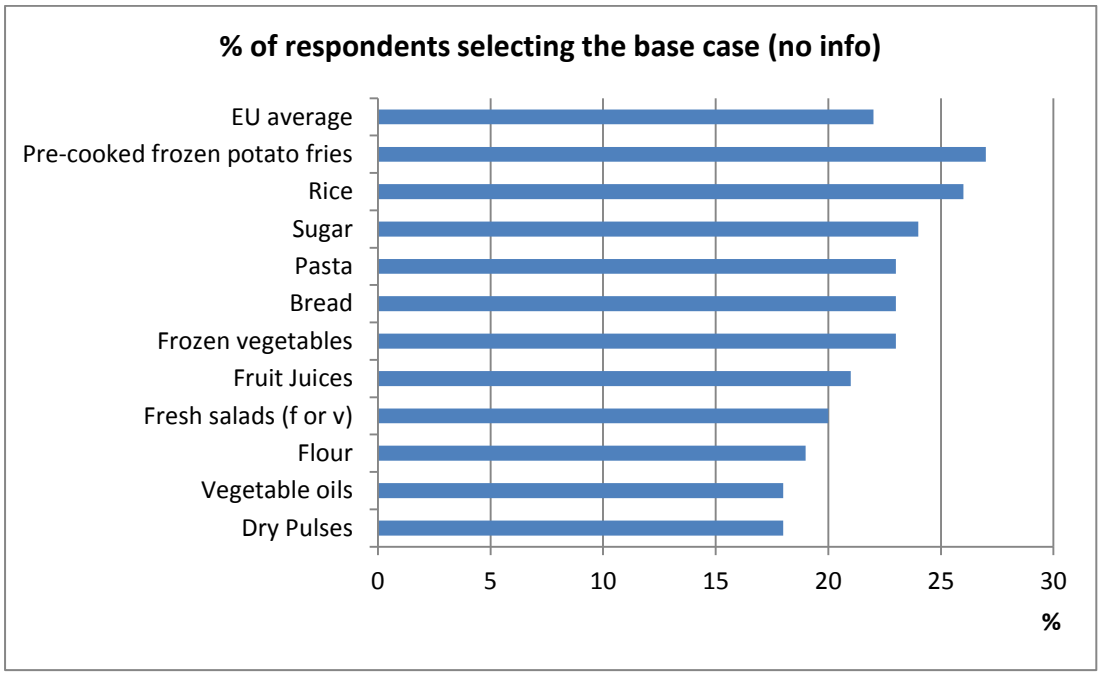
Other evidence that consumer WTP for additional origin information for food is relatively weak is the fact that **voluntary origin schemes as such remain confined to particular MS and product groups** (see Theme 2). It is argued that if consumers were willing to pay more for additional origin information, there would have been a bigger proliferation of such schemes. Moreover, analysis of the uptake of such schemes demonstrates that a key constraining factor for consumers is the fact that these products are sold at a price premium[92], while awareness of voluntary origin schemes including PDO/PGI - as discussed in section 2.2.1 - is relatively low.

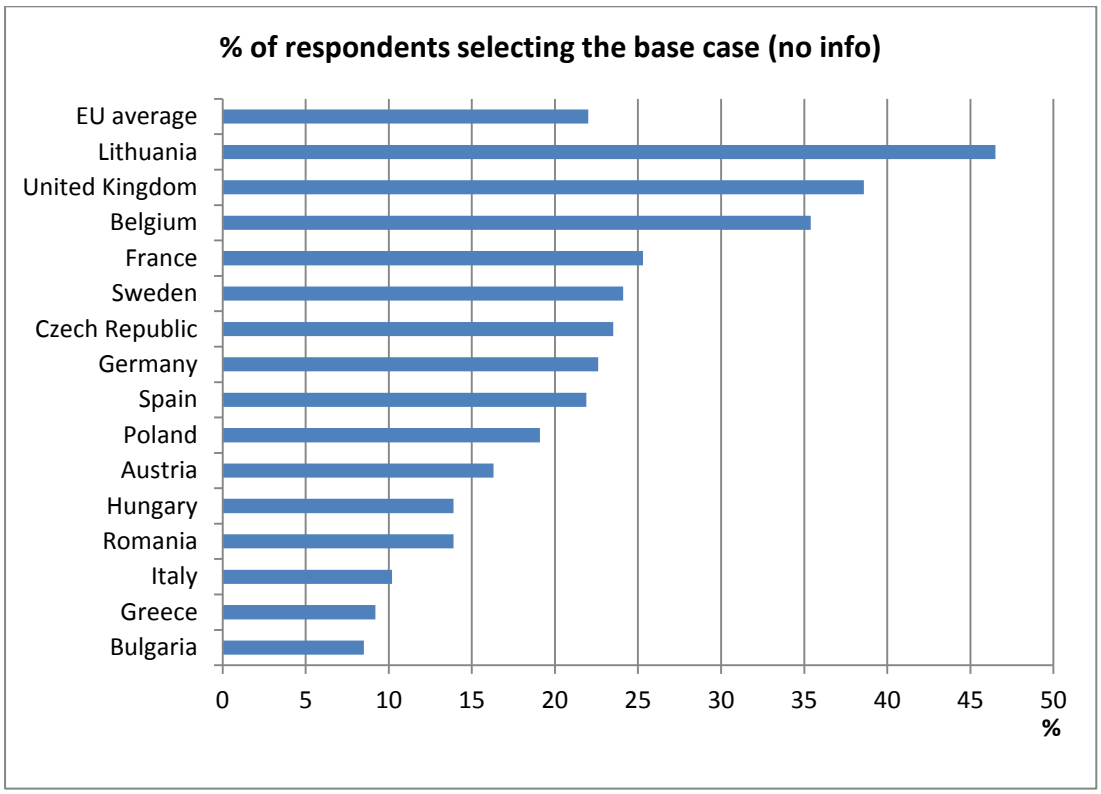
[90] For example a US review of international literature on price elasticities for food indicates the highest price elasticities for food consumed away from home, soft drinks, juice, meats, and fruit and the most inelastic demand for eggs. Tatiana Andreyeva, PhD, Michael W. Long, MPH, and Kelly D. Brownell, PhD: The Impact of Food Prices on Consumption: A Systematic Review of Research on the Price Elasticity of Demand for Food**.** American Journal of Public Health | February 2010, Vol 100, No. 2.

[91] See for example: Richard Tiffin, Kelvin Balcombe, Matthew Salois, Ariane Kehlbacher: Estimating Food and Drink Elasticities. For DEFRA. University of Reading, November 2011.

[92] This is also a key finding of the 2013 DG SANCO consumer market study on the functioning of the meat market for consumers in the EU.

Figure 12: Frequency of selection of base case ('no info') scenario, WTP analysis





Source: 2014 FCEC consumer survey (PRAGMA)

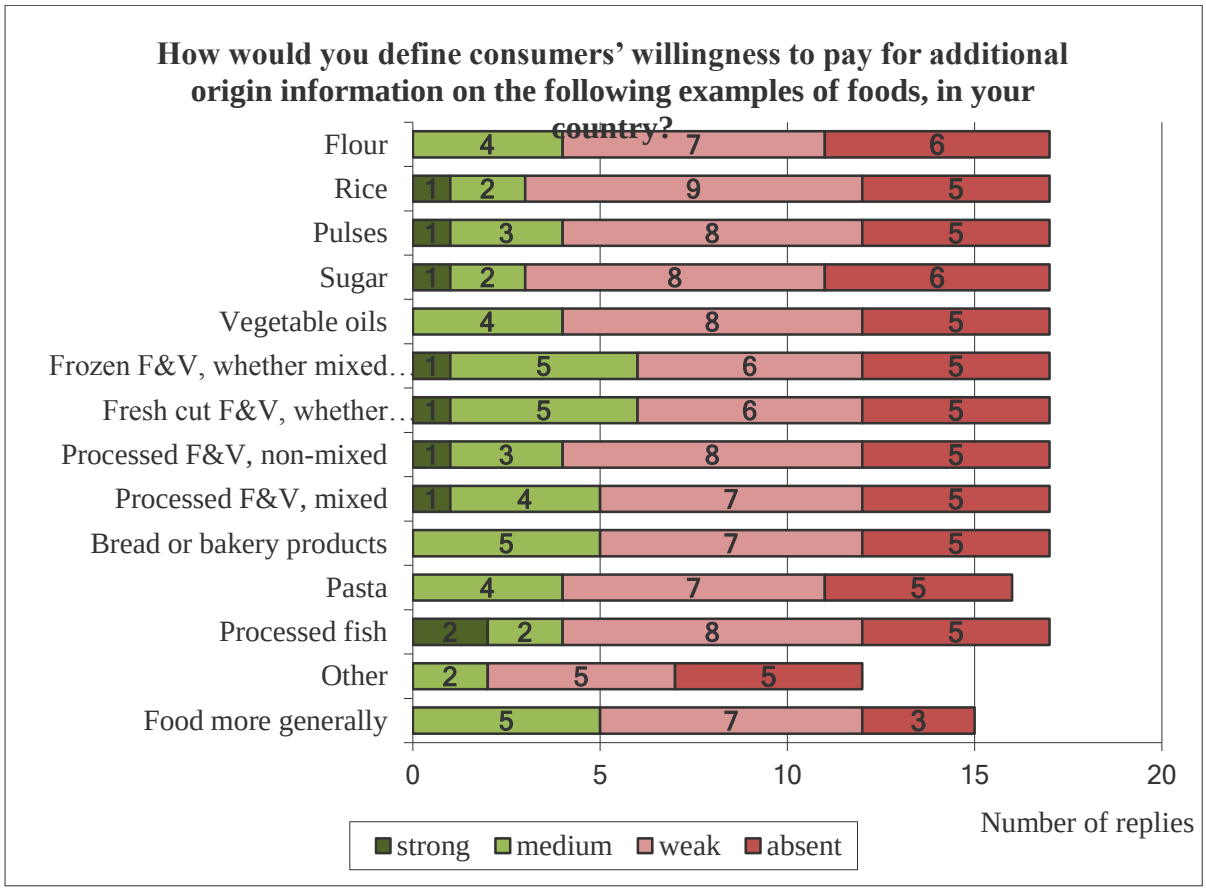
2.3.3 Evidence from MS CAs

Overall in the various EU MS, CAs define **consumers' WTP as being weak or absent**. It is weakest for rice and sugar and slightly higher for frozen and fresh cut fruit and vegetables (6

'positive' answers out of 17 MS CAs that responded to this question), bread and bakery products and processed fruit and vegetables (5 answers) (**Figure 13**). These results are in line with the MS CA assessment of consumer interest. In terms of responses at individual MS level, one small MS repeatedly indicated a strong consumer WTP for a number of food products, while 2 other MS expected the WTP to be strong in their country for processed fish in particular.

MS that consistently rated consumer WTP as none existent ('absent') form a heterogeneous group which includes eastern and western EU Member States but also large and small countries.

Figure 13: MS CA assessment of consumers' willingness to pay for additional origin information (n=17)



Source: FCEC MS CA survey (2014), Q12

The main reason for the low/no willingness to pay of consumers put forward by MS CAs is that price governs decision making at point of sale. Many literature sources have shown that price is the first criterion impacting purchase decision-making (see section 2.3.1). As a result, any price increase dramatically reduces the importance consumers give to additional origin information. Consumers are not willing to pay – or not able to pay - a higher price for the information they are interested in. This is particularly true in the general context of the EU economic downturn. In some MS, consumers spend between 30-40% of their salaries on food. A majority of CAs think that origin information is "nice to know rather than need to

have" for consumers in their country.

These conclusions are drawn from a number of national studies[93]:

- In **Finland**, a 2013 survey by TNS Gallup (n=1,050) shows that more that 60% of consumers are interested in the country of origin of both prepacked and non-prepacked foods, but about 70% of the consumers are not willing to pay a higher price in order to get that information.
- In **Estonia**, a survey by the national Consumer Protection Union demonstrates that consumer willingness to pay for more information is negligible. The study conducted for the Ministry of Agriculture reveals that 36% of consumers declare they would be willing to pay 5-10% more to receive origin information both on the place of farming of the ingredient and the place of processing of the food product. Some 20% of respondents would be willing to pay 5-10% more to receive information on the place of farming of the ingredient, only.
- In **Austria**, a study conducted by GFK Custom Research on the willingness to pay more for regional food showed that approximately a third of Austrian consumers would be willing to pay 15% and more for regional origin information, another third would pay up to 10% more and approximately one third is not willing to pay more.
- In **Italy**, the 2014 Nomisma survey on origin labelling of 'other foods' indicates that Italian consumers are equally divided (50% yes; 50% no) when asked whether they would be willing to pay more for additional origin information (i.e. no price increase levels were provided to respondents; the question concerned all categories of foods relevant to this study). Some 11% of respondents said they would 'certainly' be willing to pay more, while 17% said they would 'certainly' not be. Surprisingly, the highest WTP was found for flour (expressed WTP: 20%), followed by frozen F&V (expressed WTP: 14%) and fresh cut F&V (expressed WTP: 11%), pasta and processed fish (expressed WTP: 9% respectively). Food products with the lowest expressed WTP were: processed F&V (2%), pulses (2%), sugar (3%) and rice (4%).
- In the **Netherlands** the 2012 LEI consumer research found that only 10% of Dutch consumers were prepared to pay extra for origin labelling on food in general.
- In **Sweden**, the results of the study[94] on origin labelling of food indicate that WTP is relatively low (although it also notes the general lack of other studies to compare against and the different scope and methodologies of any existing studies). In particular, 36% of the respondents indicated that they were not willing to pay anything for origin information. Only 1.5% of respondents indicated a WTP that was higher than SEK 10 (€1.08) (five products were covered: frozen ready-made meals with beef; strawberry jam; yoghurt with forest fruits; semi-skimmed milk; and bacon). WTP for origin information ranged between SEK 0.12 (€0.01) and SEK 2.50 (€0.30) depending on product and origin type. The highest WTP values were found for ready-made meals and jam, and the lowest values for milk and yoghurt.

[93] The national study results are, however, not comparable with other results on WTP as the methodology differs. In addition, the focus on one country and, in some cases, on a large product scope (all food categories) further impedes any comparison.

[94] AgriFood Economics Centre, 2014. Report 2014:1 Origin labelling of food - costs and benefits of new EU legislation for Sweden

- In **Poland**, the results of a study[95] indicate that Polish consumers would be willing to pay up to 30% more for a product of Polish origin compared to a similar product of non Polish origin.

Some MS indicated that consumers would expect this information to be provided without a price increase, although no clear evidence of how this is realistically achievable has been provided. However, as noted above, the expressed WTP is subject to the paradox of a divergence between stated and revealed consumer purchasing behaviour (the '*consumer paradox*', see **Box 1**).

2.4 Conclusions

Despite the caveats of making detailed comparisons between the various studies/surveys, general conclusions can be drawn. From the reviewed evidence base, including the results of existing consumer research and literature, the FCEC consumer surveys (2013 and 2014) and information provided by the FCEC consultation process with MS CAs, food business operators and consumers, it can be concluded that consumer interest in the origin of foods remains strong.

Amongst the various food groups covered by the 2014 FCEC consumer survey (11 in total), **interest in origin labelling was highest for pre-packed fresh cut salads, bread, fruit juices, frozen vegetables and vegetable oils**; however, **no particular pattern emerges from these results for each of the three categories examined.** Origin was defined as being the place where the food product was produced and/or processed. The survey results indicate that more than 70% of consumer respondents find it important that origin is labelled for these top five products.

Nonetheless, existing studies indicate price and quality/sensory aspects to be the most important factors affecting consumer choice, well ahead of the origin of food[96]. In particular, according to the evidence base, **origin of food products is the fourth or fifth (depending on the research) most important** aspect influencing food purchase decisions, generally listed **after taste, best-before/use-by dates, appearance, and price**.

Furthermore, despite the existence of a **large number of voluntary labelling schemes**, to varying extents amongst the different food products, the available evidence (including: the 2013 DG SANCO study reviewing voluntary food labelling; and, Eurobarometer reports 389 and 410) suggests that **consumer awareness of these schemes (including PDO/PGI/TSG) remains relatively low** across the EU-28 and particularly low in some MS.

At the same time, the available evidence (including: the FCEC 2014 consumer survey; the 2013 DG SANCO study reviewing voluntary food labelling; and, BEUC's 2013 consumer research), concludes that **consumer's understanding of origin requires significant detail in terms of the geographical level of the information provided, generally referring to the country of farming and the country of processing**.

[95] PEMI Association (2012). Study of the country of origin labelling of food products.
[96] It is noted that the various existing consumer surveys are using a variable number/range of factors to gather consumers' answers on this point, as well as different methodologies (notable, prompted or unprompted questions), therefore results on the ranking of each factor in the various surveys are not always directly comparable.

The **reasons behind consumer interest in origin information** were explored in a number of studies (including: the FCEC 2014 consumer survey; and, BEUC's 2013 consumer research) and **quality and food safety issues** are key. The FCEC 2014 consumer survey also highlighted that for a large proportion of EU consumers (42.8%), origin labelling would be used **to favour national or local production** over other food origins. The available evidence therefore suggests that consumer attitudes to origin labelling are more generally connected to their overall trust and confidence in the food industry and the supply chain more generally. However, the importance of this issue was to some extent affected by the 2013 horsemeat scandal, although geographical origin is unconnected to this particular fraud case[97].

A common criticism of existing consumer research is the lack of evidence on consumer willingness to pay (WTP). This contrasts with the fact that most studies emphasise that sensory aspects and price are significantly more important factors influencing consumers' food purchase decisions than geographical origin. **WTP is a highly complex issue**, which can be addressed through different methodologies/models of consumer research, and results tend to vary substantially between products. These two factors mean that results of the various studies are not directly comparable[98].

Where results exist (including: 2013 SANCO study on voluntary food labels; FCEC 2013 consumer survey; and some MS/sector specific studies) they point to the **generally low level of WTP**. The **FCEC 2014 consumer survey** addressed WTP across the diverse range of products covered by the present study on the basis of a Discrete Choice Model (DCM) approach. Results indicate **that consumers are largely willing to pay more for origin information**. **Nonetheless, this reflects a declared or expressed interest in origin information rather than a confirmed purchase choice**, i.e. consumers may not actually pay more if confronted by origin information and price increases[99]. On average 22% of EU consumers actually selected the *status quo* option ('*no information and no price increase'*) in this survey, although there are variations between products and MS.

Other evidence that consumer WTP for additional origin information for food is relatively weak is the fact that **voluntary schemes remain confined to particular MS and product groups**. It is argued that if consumers were willing to pay more for additional origin information, there would have been a bigger proliferation of such schemes for commercial gain but this has not been the case up to now. Moreover, analysis of the uptake of such schemes demonstrates that a key constraining factor for consumers is the fact that these

[97] Although the horsemeat scandal relates to the false indication of species rather than the geographical origin of meat, it brought about at the time a crisis in consumer confidence and trust in the European meat and food supply chain. More recent evidence (e.g. from the UK) suggests that consumer trust is recovering and that Europeans have not fundamentally changed their shopping habits although they initially were more ready to declare that they would. Nonetheless, the scandal is believed to have had a lasting effect on consumer awareness and the way the marketing of food by the food industry/retailers is increasingly focused on the sustainability and provenance aspects (see also section **3.3** on voluntary origin labelling, Theme 2).

[98] The non comparability or caveats of comparing consumer research and studies are more generally pointed out throughout the review of the literature in Theme 1.

[99] The difference between 'stated' and 'revealed' WTP and the associated concept of 'protest bidders' are further explained in **Box 1** and in literature. See for example: Halstead John M, Luloff, A.E. and Stevens, Thomas H (1992). Protest Bidders in Contingent Valuation. In Northeastern Journal of Agricultural and Resource Economics, vol. 21, Oct 1992.

products are sold at a price premium[100]. The extent to which origin labelling schemes currently exist for the products covered by this study is explored in Theme 2.

The contrasting findings of Theme 1 point to a 'paradox' in EU consumer attitudes to origin labelling, the key elements of which are summarised in **Box 1**. This is manifested, in particular, in terms of the expressed or stated strong interest in origin labelling versus actual purchasing behaviour.

The above findings on consumer attitudes to origin labelling apply across the range of products covered by this study. Given the fact that each of the three categories of products covered by the study includes a diverse range of products and levels of processing, no further conclusions can be drawn that are specific to each category.

The only additional observation for **Cat III products** (ingredients that represent more than 50%), is the complexity of origin labelling for some products, in particular whether **the origin of an ingredient is the relevant information for consumers when this is not the characteristic ingredient** (e.g. lychee juice with 85% apple juice)[101], and of **'borderline' cases with ingredients, otherwise potentially considered as characteristic by consumers, that are present at just below 50%.** This is one of the reasons why voluntary origin labelling more generally in some sectors (e.g. mixed fruit juices) is relatively low (Theme 2).

As an overall conclusion, which was also confirmed by the Focus Group discussion, there are **differences in consumer interest and approaches to origin labelling between MS and between products**. This is why results, where possible, are presented in Theme 1 at MS level (for fuller results of the consumer survey, see **Annex 5**). This suggests that a **harmonised horizontal approach across products and MS may not be appropriate**. Interest is also related to the extent to which voluntary origin labelling occurs in MS and products (section 3.3).

[100] This is also a key finding of the 2013 DG SANCO consumer market study on the functioning of the meat market for consumers in the EU.
[101] Other examples include bakery products, chocolate and confectionery containing >50% sugar or butter.

Box 1: Evidence of a 'paradox' in consumer attitudes to origin labelling

Despite the caveats in comparing the detailed results of existing consumer surveys/research, due mainly to different methodologies and product coverage, certain key conclusions can be drawn which indicate the complexity of analysing consumers' attitudes to origin labelling. In particular, the findings of existing research point to a 'paradox' in consumer attitudes, which can be summarised as follows:

1. *All of the existing studies on consumer preferences indicate that the price and quality are more important factors for the consumer when purchasing food products ranking at a higher order than geographical origin. The results of all of the reviewed consumer surveys demonstrate that price, appearance, quality, use by date, brand, are generally more relevant to consumers than geographical origin information when buying food products (see also* **Figure 2***). This order of importance was also confirmed by the results of the 2014 FCEC consumer survey, which indicate that the origin of food products is the fourth most important aspect influencing consumers' purchase decisions (out of 10 aspects considered), behind (listed in order of importance) taste, best-before/use-by dates, appearance, and price. The conclusion therefore is that* ***while there is some consumer interest in the origin of food products, price and quality are by far the higher order factors affecting most consumers' purchasing decisions****.*

Two main conclusions can be drawn on Willingness-To-Pay (WTP):

2. ***Stated willingness to pay****: in the reviewed studies, WTP may range from low to high depending on the methodologies applied and the products covered. Where stated WTP is low, this may in some cases be explained by a refusal to pay more for information which may be considered by these 'protest bidders' consumers that it should be provided free of charge because they believe they have the "right to know". This may be the case, for example, for food products similar to those for which origin information is already provided, either on a voluntary or on a mandatory basis. For instance, the mandatory indication of origin on fresh fruit and vegetables may create consumer expectations towards similar products, e.g. fresh cut pre-packed green salads.*
3. ***Revealed willingness to pay****: amongst those consumers who express a high 'stated' WTP when replying to surveys, existing research indicates that this does not necessarily correspond to their real purchasing behaviour and that there is a gap between consumer intentions (stated interest and WTP) and behaviour (revealed WTP). Prices, but also information, are key factors that explain this gap. For example, many consumers declare an interest in ethical products, but only a few actually purchase them (European Commission (2012): the study of the functioning of the meat market for consumers in the EU). A 2009 consumer survey for the European Commission demonstrated that out of the 75% of EU consumers willing to pay more for environmentally friendly products, very few actually purchased such products. These findings matched the results of another 2011 consumer survey for the European Commission on organic meat: among consumers who were aware of organic meat and who said they would like to buy it more often, only 40% had purchased organic meat in the past month. The FCEC 2014 consumer survey results on willingness to pay (WTP) show that consumers are largely willing to pay more for origin information. Nonetheless, this reflects a 'stated' or declared interest in origin information rather than a confirmed choice (revealed WTP). On average 22% of EU consumers actually selected the status quo option ('no information and no price increase') in this survey, although there are very significant variations between products and MS.*

3 Theme 2: Characteristics of the supply and processing chain in the EU food sectors covered by the study

In line with the ToR, this section analyses the characteristics of the supply chain for the three categories of products covered by the study, therefore encompassing those stages of the chain from the supply of agricultural products as a raw material to the various levels of processing and the retail distribution of a diverse range of foods to the final consumer.

As noted from the outset of this study, in practice, it is difficult to draw a line between the three categories of products covered by the study and to define which food products/sectors fall within each category. Given the extensive (in practice, open-ended) range and diversity of food products, the study has used representative examples of products/product sectors that fall within one of more of the categories as case studies for the analysis of the implications of mandatory origin labelling. Themes 2 and 3 therefore focus in particular on the nine product case studies that were selected on this basis; where possible the analysis has been enriched with examples drawn from other food product sectors that contributed to the consultation[102]*.*

3.1 Overview of the EU food supply chain

The EU food and drinks sector is a major contributor to the European economy. According to the latest data from FoodDrink Europe[103]:

- The EU food and drinks sector has a turnover of €1,048 billion, making it the largest manufacturing sector in the EU (accounting for 14.6% of the total EU manufacturing activity turnover). The sector generates a value added of €206 million, thus contributing 12.5% to the EU value added in manufacturing;
- It employs 4.2 million people, making it the leading employer in the EU (15.5% of all employment);
- EU food exports are worth €86.2 billion, while EU food imports are worth €63.2 billion, thus providing a positive trade balance of €23 billion making the EU a net exporter of food and drink products to the world. The EU market share of global food and drink exports currently stands at 16.1%;
- The industry structure is relatively fragmented when compared to other manufacturing sectors. There are 286,000 companies in this sector, 99% of which are SMEs (including microenterprises). These SMEs account for 51.6% of turnover, 48.8% of value added, and 64.3% of employment in the sector. Within the grouping of SMEs, the microenterprise sub-group accounts for approximately 79% of all companies in the food and drink industry; 8.2% of turnover, 8.9% of value added, and 16.9% of employees. The medium size group contributes 29% to the EU food and drink turnover and employs 26% of the workforce, while representing only 4% of companies;
- SMEs represent €524 billion of turnover; €99 billion of value added; 2.9 million employees, and 283,000 companies.
- The sector ranks among the top three manufacturing industries in terms of turnover and employment in several MS; it ranks first in FR, ES, the UK, DK and BE.

[102] Excluding those sectors covered by: previous studies on mandatory origin labelling (for fresh meat and meat as an ingredient); the parallel study of DG AGRI (milk, milk as an ingredient and minor meats); and, existing vertical legislation.
[103] 2012 data. Source: Data and trends of the European Food and Drink Industry, 2013/14. Covers all sectors identified by NACE rev2 codes C10 (food products) and C11 (drinks).

- DE, FR, IT, the UK and ES are the largest EU food and drink producers, accounting for 62% of the EU sector's turnover (€650 million).

More generally, the EU food and drinks supply chain (including farming, and wholesale and retail distribution) is estimated to employ some 24 million people[104] (11% of total EU employment), reaching a turnover of €3.5 trillion and generating a value added of €650 billion.

The sectors covered by this study (i.e. excluding meat, dairy and animal feed; including fish products), represent 59% of the EU food and drinks sector's turnover, 71% of value added, 65% of employment and 79% of the number of companies.

Due to the diversity of the product sectors potentially covered by each category of foods, and the lack of precise definition for the 'single ingredient' foods category, it is not possible to provide aggregate figures of the production volume/value and other key supply chain data on the three categories of foods as defined for the purposes of the present study. Indeed, even the collection of base data in this study has involved significant effort due to the lack of readily available harmonised and comparable data, moreover at EU level, for the various products covered by the study.

By its very nature, the food and drinks sector covers a wide range of sub-sectors (referred to hereafter as "sectors"). It is important to note that these sectors can vary greatly in terms of the structure of the supply chain and their products' technical characteristics, in turn making it difficult to present the sectors in a universally comparable manner. Notwithstanding this difficulty, key characteristics for sectors identified as of primary importance in this study are presented in **Table 5**.

Primary food processing sectors are presented separately in **Sources:** Agra CEAS Consulting based on data from EUROSTAT (including COMEXT) and consultation with FBOs

Table 6 as they generally share some common specific features. Most notably, this sector deals with bulk commodities of standard quality specifications; furthermore, raw (agricultural) materials will often originate from a mix of EU and third countries, and will in turn be blended and processed in the EU and the resulting product will often be used as ingredients in other food products[105]. The main primary food processing sectors, as specifically represented by the EU Primary Food Processors association (PFP), are:

- Cocoa
- Flour
- Sugar
- Starch
- Vegetable oil
- Vegetable protein

[104] It is estimated that 32 million professionals work in the more extensive food supply chain across the EU, including food and drink services and self-employed professionals.
[105] These features are not exclusively found in PFP sectors

The data on the various product sectors are based on Eurostat (including COMEXT[106]), supplemented by industry sources as provided during our consultation with food supply chain stakeholders (particularly where no official data were available).

According to the results of the FCEC FBO survey (**Annex 3**), nearly 60% of the EU food and drinks sector concerns mostly standard quality, commodity 'bulk' trading products with the remaining 35-40% being mostly high value products. Although this is on the basis of responses received, as this was a very comprehensive survey of the EU food and drinks supply chain stakeholders, it illustrates the balance between the high value and bulk commodity product segments. In practice, every product sector has a combination of these two market segments. The extensive presence of bulk commodity production and trading in the EU food and drinks sector has implications in terms of sourcing practices (section 3.2), the current extent of voluntary origin labelling (section 3.3) and techno-economic linkages and traceability along the supply chain (section 3.4).

[106] A key challenge and constraint in the use of COMEXT data is the diversity of products included in each sector, product code identification and merging for the different sectors.

Table 5: Overview of key characteristics of the EU food sectors covered by the analysis

Food Sector	Volume of production, tonnes or hectolitres	Value of production €	Value of exports and imports, €	Presence of SMEs and micro-ent.; (1) % of companies, (2) % of revenue	Employment, number of people
Bread	41.8m tonnes	n.a.	AIBI data BE: € 0.77bn imports, €1.34bn exports BG: €1.5bn exports UK:: : €0.12bn exports and €0.15 bn imports	(1) ~98% of companies; (2) 50% of production	AIBI data: BE: 3,800 BG:5,000 ES:5000 UK:20,000
Tomato products OEIT	9.5m tonnes	€3.5bn	€33m imports*, €318m exports*	Almost all companies (90%), no micro-enterprises	19,316
Cereal Products	1.1m tonnes	€4.5bn	n.a.	50% of companies**	11,000
Pasta UNAFPA	4.5m tonnes	Imports 50,087 tons Exports 620,398 tons	n.a.	45% of revenue	12,865
Confectionary and Chocolate (not cocoa as such)	10.4m tonnes	€51bn	€4.4bn exports, €1.1bn imports	Varies by MS. MS examples**: (1) Number: BE 98%, FR 80%, DE 80%	245,000

Food Sector	Volume of production, tonnes or hectolitres	Value of production €	Value of exports and imports, €	Presence of SMEs and micro-ent.; (1) % of companies, (2) % of revenue	Employment, number of people
				(2) Revenue: IT 44%; DE ~32%	
Savoury Snacks	1.76m tonnes	€13.93bn	n.a.	(1) 75% of companies**	40,000
Prepared dishes: total ***Of which frozen foods*** ***Of which culinary foods***	n.a. n.a. n.a.	€27.1bn €20bn €7.1bn	n.a. n.a. (est. ~3-4% or production value) n.a.	Estimated at: (1) 75% of companies (2) ~25% of revenue Mainly SMEs (but no data provided)	n.a. 130,000* n.a.
Spirits	37.59m hl	UK : € 5.5bn FR: € 4.2bn PT: € 3.4bn DE: € 2.9bn IT?: € 2.3 bn ***	€8.5bn exports, €1.5bn imports	Vary by MS; (1) % of companies: FR 90%, IT 90%, IE 90%, HU 90%, NL 90%, ES 80%, PL 60%	1,067,000

n.a. Data not relevant and/or not available
** Figure obtained or calculated by FCEC (Agra CEAS) based partially or entirely on non-industry sources. These figures may not be directly comparable with the industry sources, as the latter is usually including members only.*
*** SME estimate is based on membership of the industry organisation. It should be noted that some SMEs and micro-enterprises are likely not to be members of the industry organisation, so in reality this figure is likely to be higher.*
**** Spirits sector: these five countries represent 78% of the production value in the EU27*

Sources: Agra CEAS Consulting based on data from EUROSTAT (including COMEXT) and consultation with FBOs

Table 6: Overview of key characteristics of the EU primary food processors

PFP Sector	Volume of production, tonnes or hectolitres	Value of production EUR	Exports and imports	Presence of SMEs and micro-enterprises	Employment, number of people
All PFP sectors	**220m tonnes (material processed)**	**60bn**	**-**	**-**	**123,500**
Cocoa	1.495m tonnes (cocoa ground)	n.a.	All beans imported	n.a.	n.a.
Flour	45m tonnes (wheat and rye processed for flour)	15bn		No solid data; however industry described as fragmented, with 3,800 companies; suggesting a high presence of SMEs	45,000
Sugar	100m tonnes (beet processed); 14.9m tonnes (produced from sugarbeet)	n.a.	n.a. (15-20% of consumption)	n.a.	28,000
Starch	22m tonnes (material processed); 9.9m tonnes (starch produced)	7.7bn	n.a.	No data; however 23 companies account for 95% of production, implying limited SME presence	14.300
Vegetable oil	21m tonnes (oil produced)	€14bn	1.1m tonnes export; 8.1m tonnes import	n.a.	20,000
Vegetable protein	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Agra CEAS Consulting based on data from EUROSTAT (including COMEXT) and consultation with FBOs

Table 7: Overview of key characteristics of other food and drink sectors in the EU

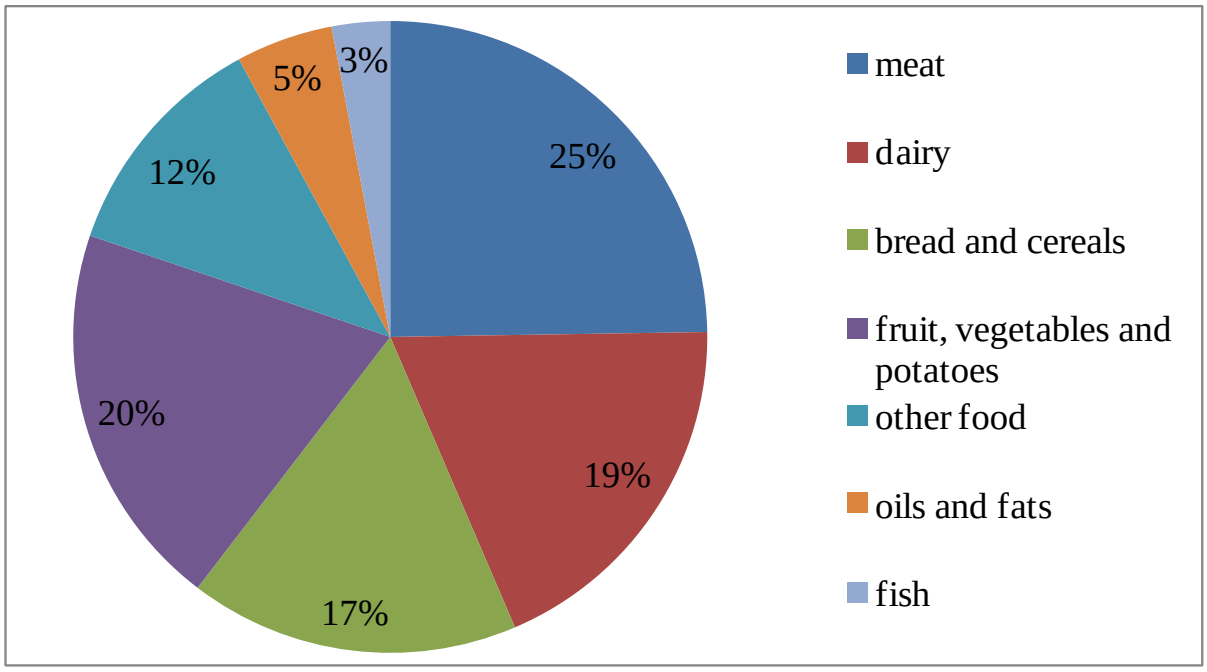
Sectors	Data
Coffee	***Production*:** 2.36m tonnes; sector worth €11.744bn. ***Imports/exports*: €**6.796bn imports €1.137bn exports of green, roasted and soluble coffee. Majority of imports are green coffee which is then processed in EU. ***SMEs***: no data on SME in the sector identified ***Employment***: no data on employment identified
Tea and infusions	***Production***: 312,000 tonnes ***Imports/exports***: no precise data; raw materials are imported then processed in the EU. ***SMEs***: no data on SME in the sector identified ***Employment***: no data on employment identified
Aromatised wines	***Production***: 169m hl ***Imports/exports***: €6bn; imports €3bn approx ***SMEs***: Varies by Member State.FR: 95% of companies are SMEs. IT: 70% of production of aromatised wine based drinks and cocktails comes from SMEs; 15% of aromatised wine production comes from small and micro enterprises (remaining 85% from medium and large enterprises). ES: 95% of companies are SMEs, but 75-80% of production comes from medium and large companies. ***Employment***: 200,000
Cider and fruit wines	***Production***: 14.5m hl ***Imports/exports***: 2% of production exported; no data on imports ***SMEs***: 10% of companies are SMEs and 90% are microenterprises ***Employment***: 4,800
Ice cream	***Production***: 2.2bn litres; €9bn ***Imports/exports***: no data on trade identified ***SMEs***: no data on SME in the sector identified ***Employment***: 16,000

Source: Agra CEAS Consulting based on consultation with FBOs

In terms of the consumption of the various food products, according to EUROSTAT data (2012), bread and cereals, fruit and vegetables, oils and fats, fish, and other categories of foods (excluding meat and dairy products) represent, respectively, 17 %, 20%, 5%, 3 % and 19 % of household expenditure on average across the EU (

Figure 14). In total, excluding meat and dairy products, all the other food categories together account for 64% of total EU household expenditure for food. On average across the EU, 14.6% of household expenditure is destined to food and drink, but this share is significantly higher in more vulnerable, low income socio-economic groups. In most MS, average expenditure on food and drink is higher than the EU average, reaching up to 30% of total household expenditure (in Romania and Lithuania).

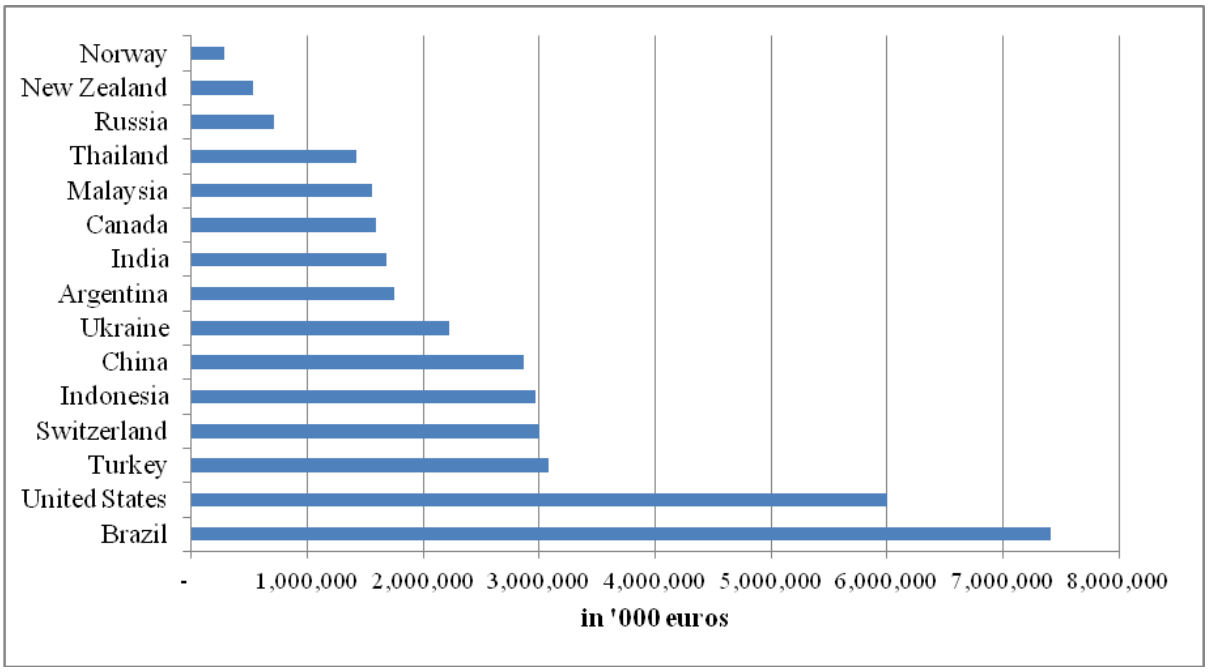
Figure 14: EU household expenditure by main category of food products (% share)



Source: Agra CEAS Consulting, based on EUROSTAT data

In terms of international trade, the main trading partners that export to the EU the range of food products covered by the three categories of foods are provided in **Figure 15**. Among the leading exporting countries, Brazil ranks first with €7.4 billion worth of exports for the three categories of foods examined by the study, and the US ranks second (€6.0 billion). They are followed by Turkey, Switzerland, Indonesia and China with around €3.0 billion worth of exports each. In some product sectors, certain groups of third countries are significant exporters to the EU: for example, in the sugar sector, further to existing trade agreements, the ACPs/LDCs have preferential access to the EU for up to 3.5 million tonnes of cane sugar, thus supplying 15-20% of the total EU sugar market.

Figure 15: Value of imports into the EU, by main trading partner, for the examined products (average 2010-2012), in '000 €



Note: Products covered include the following CN chapters: 07, 08, 09, 10, 11, 12, 13, 14, 15, 1604, 1605, 17, 18, 19, 20, 21 and 22

Source: Agra CEAS Consulting based on EUROSTAT COMEXT, 2014

3.2 Sourcing practices

According to the FBO survey results, geographical origin is currently significantly taken into account in food business operators' (FBOs') procurement decisions (**Figure 16**:). This is not to be understood as a marketing strategy but as a procurement strategy: it provides the flexibility to procure amongst the range of available sources to ensure the required volumes of raw material at competitive prices and the appropriate quality specifications. Indeed, FBOs have indicated that they develop their sourcing strategies on the basis of a wide range of external factors (i.e. factors beyond their own control) that influence the availability, price and quality of raw materials, such as seasonality of supplies, weather conditions, phytosanitary conditions, and the impact of those on yields, microbiological/safety issues, and changes in the availability of growing areas/regions (which in third countries can also depend on policy reforms and macro-economic/political instability). Furthermore, sourcing strategies are adapted to the type of ingredients, country specificity and company size.

Even though no specific sourcing practice characterises the EU food and drink supply chain as a whole, the FCEC collection of data and evidence reveals that in the most of the EU food sectors, **manufacturers tend to procure raw materials mainly from multiple sources**, whether EU only or EU/non-EU or non EU only. Particularly in the case of ingredients that are bulk commodities of standardised quality parameters, to maximise efficiency, the industrial production of food and drinks products requires an adequate volume of raw materials from different suppliers which are able to ensure desired quality regardless

the origin of these raw materials. Theme 3 presents in more detail the main sourcing practices for each of the various food and drink sectors in the EU in the context of the technical feasibility and impact of mandatory origin labelling.

Thus, food supply chain stakeholders for the most part indicated that, excluding PDO/PGI products and some niche products as such, single sourcing practices are limited, if not negligible. The most common sourcing practices of EU food processors tend to be multiple sourcing from different countries. Indeed, less than a quarter of the replies received from the FBO survey relate to this sourcing practice (single 'local' or single national – EU or non EU – sourcing), indicating that this sourcing practice is relatively limited; by contrast nearly three quarters of the responses received were relating to multiple sourcing (**Figure 17**).

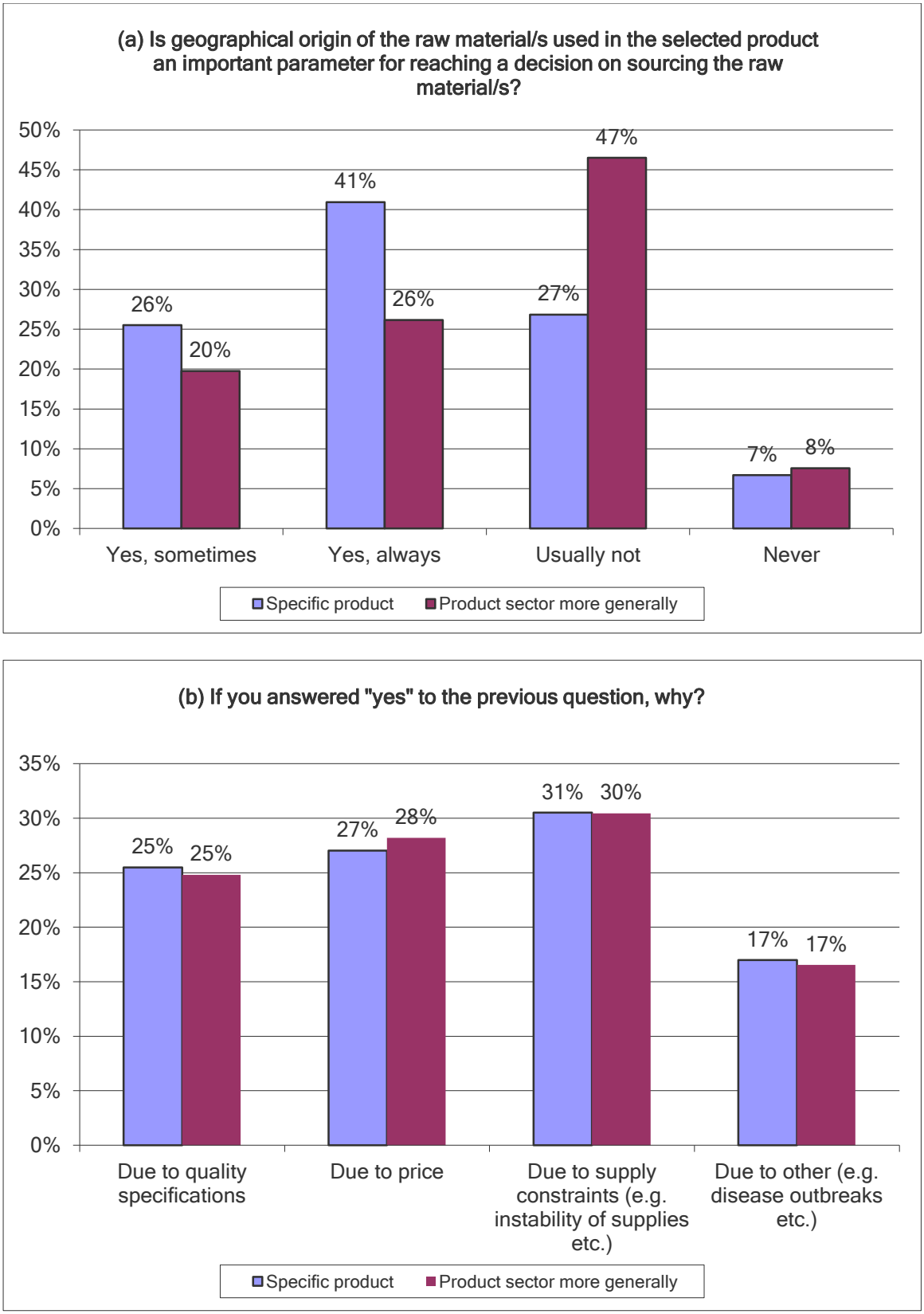
Figure 18 indicates that those **FBOs using multiple sources also tend to change frequently the mix of suppliers** and that this mostly concerns the majority of their suppliers (this was indicated by 50% of the respondents to the FBO survey). The frequency of changes in the mix of suppliers for each of the food and drink sectors in the EU as presented further in Theme 3 indicates that, in most sectors, operators tend to change their suppliers 3 or more times per year. The majority of the EU food and drink sectors stressed that the frequency of changes in the mix of suppliers or indeed a switch between suppliers does not necessarily result in a change in the origin of primary/raw ingredients and vice versa (i.e. a change in origin may not result in a change in suppliers).

Most EU food supply chain stakeholders emphasised that the flexibility offered by multiple sourcing practices of raw materials is essential for companies operating in the EU food and drink sectors in order to respond quickly to any factor that may threaten the supply of raw materials, and that neither multiple sourcing nor the switch in the mix of suppliers has a bearing on product quality or safety as such and, therefore – in their view – on product labelling.

As highlighted above, FBOs' sourcing strategies aim to address issues related to price volatility, product quality, and the sustainability and availability of supplies, as affected by a range of diverse factors. This implies the necessity for companies to quickly adapt to any shortages, market disruptions and/or price fluctuations, by switching between suppliers, which may have implications on the origin of raw materials. FBOs will therefore tend to differentiate their suppliers in order to provide for any risk and ensure the availability of raw material.

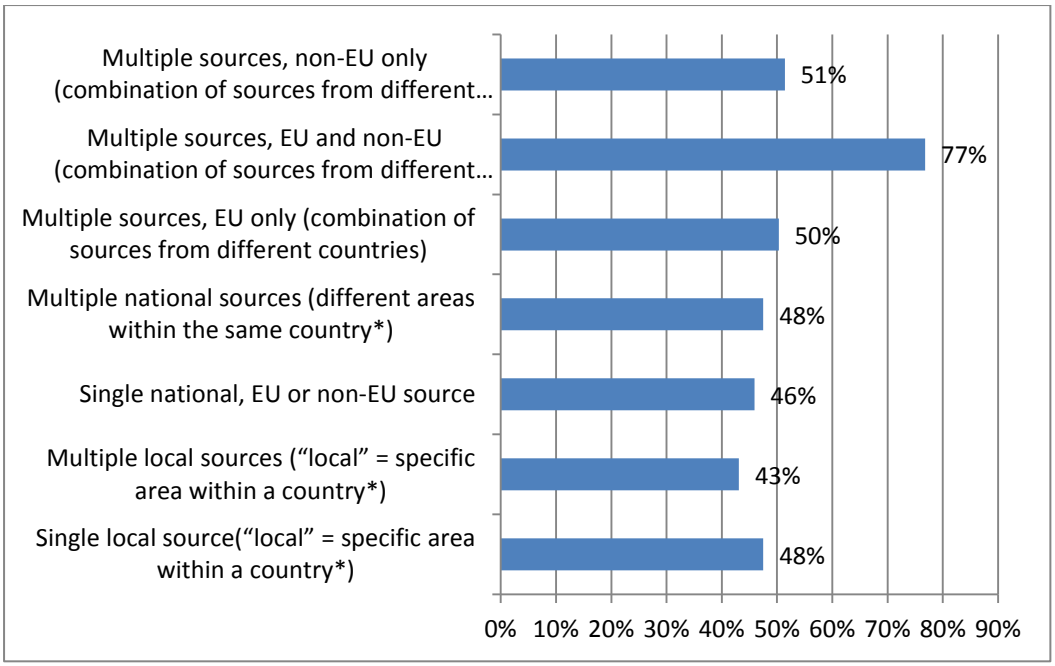
Thus, the **business reality of the current EU food and drinks supply chain is that different stages of production often take place in different EU MS** and there is significant trade of raw materials among the EU MS and with third countries. It was also added, that second or third stage processors are typically not informed on the origin of the ingredients of their suppliers, who in their turn usually rely on multiple sources. Furthermore, in some specific product sectors e.g. flour, rice, pasta, the EU does not produce raw material in sufficient quantities and therefore is forced to rely on a mix of EU and non-EU sources.

Figure 16: Extent to which geographical origin of the raw material is taken into account in FBO procurement decisions (a) and reasons why (b)



Source: FCEC FBO survey (2014), Q8 and Q9

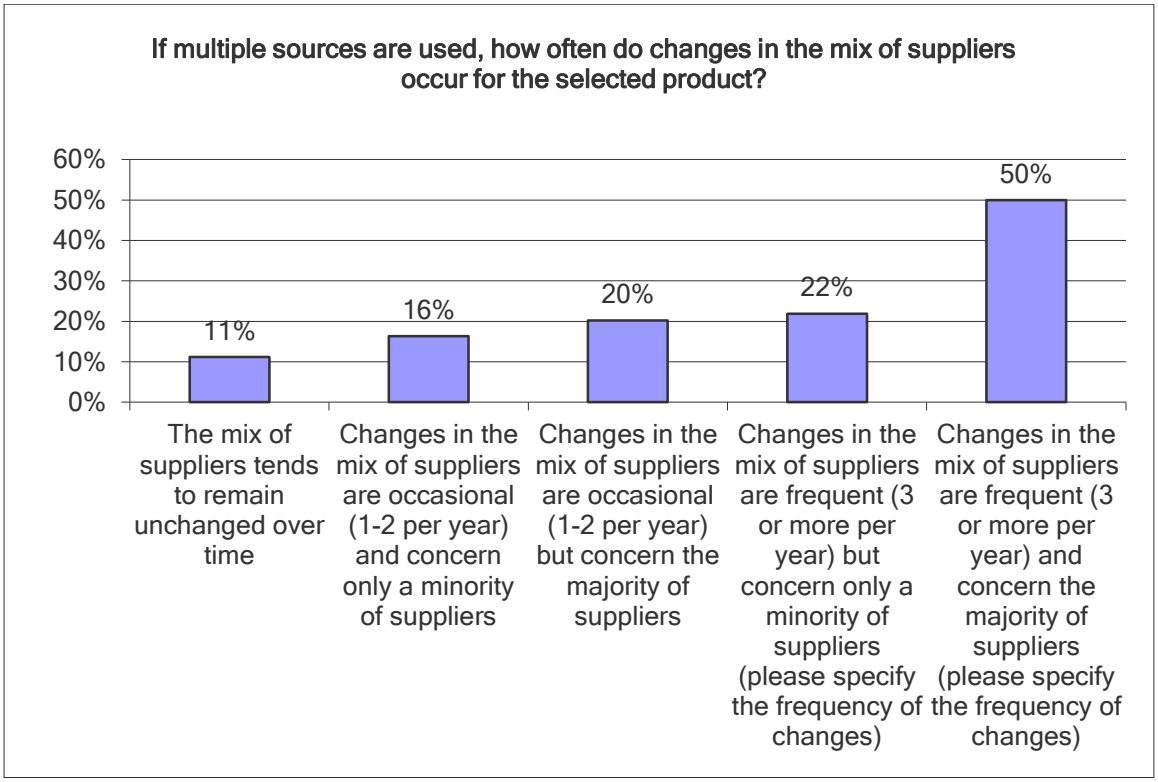
Figure 17: Frequency of prevalence of various sourcing practices, EU food and drinks sector (n=181)



Note: The above percentages indicate the frequency at which a sourcing practice was selected by the total number of survey respondents in order to provide a detailed response to this question (n=181). For example, 'single local sources' was selected by 48% of the total number of respondents. Respondents could select more than one of the above, as in practice they have a range of sourcing practices, depending on their product range and range of suppliers.

Source: FCEC FBO survey (2014), Q18

Figure 18: Frequency of changes in the mix of suppliers (n=178)



Source: FCEC FBO survey (2014), Q20

The complexity of the various food and drinks sectors and of their sourcing practices has significant implications in terms of the extent to which they currently practice voluntary origin labelling which is also linked to traceability issues, as discussed further in the following sections.

3.3 Extent of voluntary origin labelling

This section includes only voluntary origin labelling (VCOOL) schemes developed and approved at national or concerted industry level, as provided to the FCEC in our consultation with the MS CAs, industry stakeholders and consumer organisations, as well as relevant information on such schemes from existing studies.

It intends to provide an overview of the most commonly found current voluntary origin labelling practices, and is not a systematic or exhaustive list of existing initiatives of individual actors involved in the food production and distribution sectors across the EU28.

As a first general observation, the collected data and evidence indicate that it is difficult for both stakeholders and MS Competent Authorities (CAs) to identify which practices would constitute genuine voluntary origin labelling, as this depends on what would be considered to be an indication of origin. In addition, many food supply chain stakeholders confused EU quality schemes (PDO/PGI) with voluntary origin indication making reference to specific regions or locations.

Voluntary origin labelling is understood within the meaning of Article 26(3); for the purposes of this study it is assumed to refer to explicit indication of origin, such as '*made in (country)*', '*products of (country)*' or '*produced with (country) ingredient/s*' or other similar indications.

As indicated in **Annex 3**, nearly 60% of the sector concerns mostly standard quality, commodity 'bulk' trading products with the remaining 35-40% being mostly high value products. Although this is on the basis of responses received, as this was a very comprehensive survey of the EU food and drinks supply chain stakeholders, it illustrates the balance between the high value and bulk commodity product segments. In practice, every product sector has a combination of these two market segments. A clear conclusion from our stakeholder consultation is that voluntary origin labelling - where it occurs - tends to be in the high value segment of the market.

The sections below distinguish between general national VCOOL schemes applying to a range of foods, and specific private VCOOL schemes.

3.3.1 General national voluntary schemes on origin of certain foods/food categories

Generally, the collected evidence and data indicate that national voluntary origin schemes in the EU food and drink supply chain are currently **relatively limited and restricted to specific sectors:**

- Nearly three quarters of the sectors/FBOs that responded to the FCEC FBO survey indicated that there are no national voluntary schemes for the specific product/product sector more generally (**Figure 19**). Thus the majority of industrial stakeholders indicate that there is no voluntary origin scheme for the specific product (74%) or for the sector they are in (81% of responses). When there are national voluntary schemes on the origin, respondents indicate that they more often concern a specific product (21%) rather than a sector as a whole (14% of responses).
- Similarly, 18 of the 25 MS CAs that responded to the FCEC MS CA survey indicated that, in their country, there are no national voluntary schemes concerning the origin of the food products covered by this study[107].

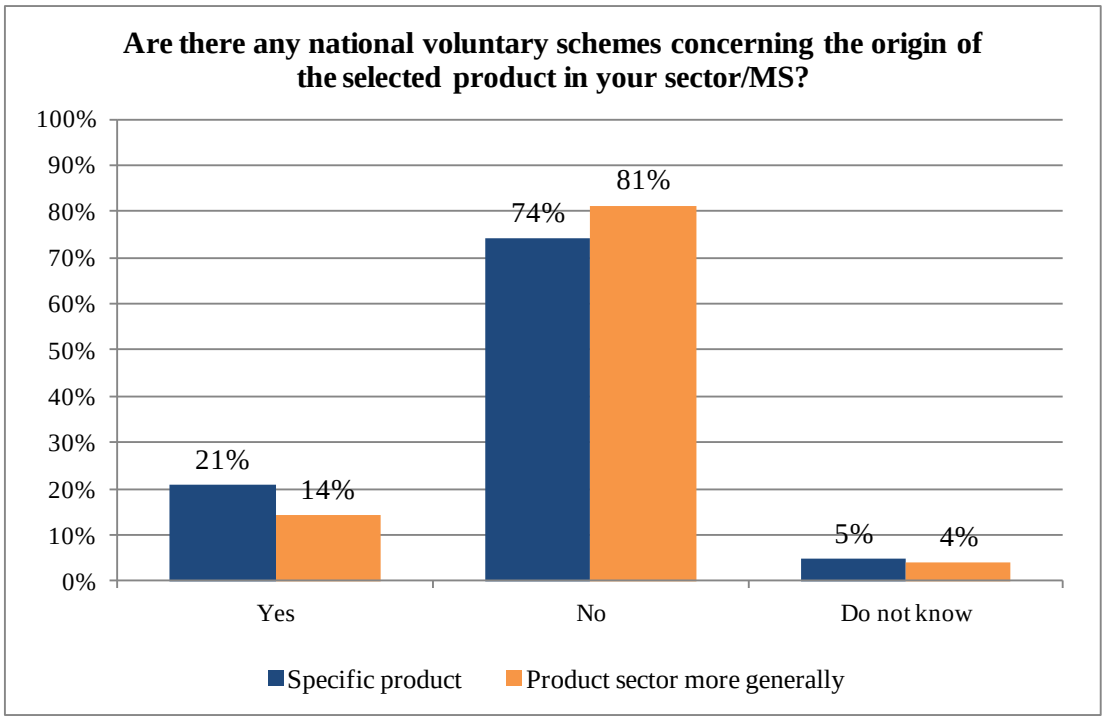
Nonetheless, this masks differences between products, MS and sectors. As illustrated in **Figure 20**, within each sector, the extent of voluntary origin labelling tends to vary between products. This also relates to the extent to which there are other voluntary assurance/certification schemes in some products/product sectors which may include rules on the product's origin. Although the responses relating to case study products evidence a limited presence of national voluntary schemes across the EU28, in line with the overall results (i.e. all sectors) presented in **Figure 19**, respondents from some product sectors have indicated that there are relevant national voluntary assurance schemes in their sector in some MS, which touch upon origin labelling. Examples include:

- The UK Red Tractor scheme, including for bread which must be made with UK flour produced from wheat grown in the UK to qualify for the scheme;
- For frozen potato fries, the label '*produit en France'* requires that potatoes are grown and produced in France. Similarly, for frozen potato fries, the "*AMA Gütesiegel*" requires that potatoes are grown and produced in Austria;

[107] It is noted that some MS indicating a national scheme referred to a private one that is widely used, and *vice versa*. The distinction between national and private schemes is not always clear, but to the extent possible the analysis has tried to distinguish between these two categories.

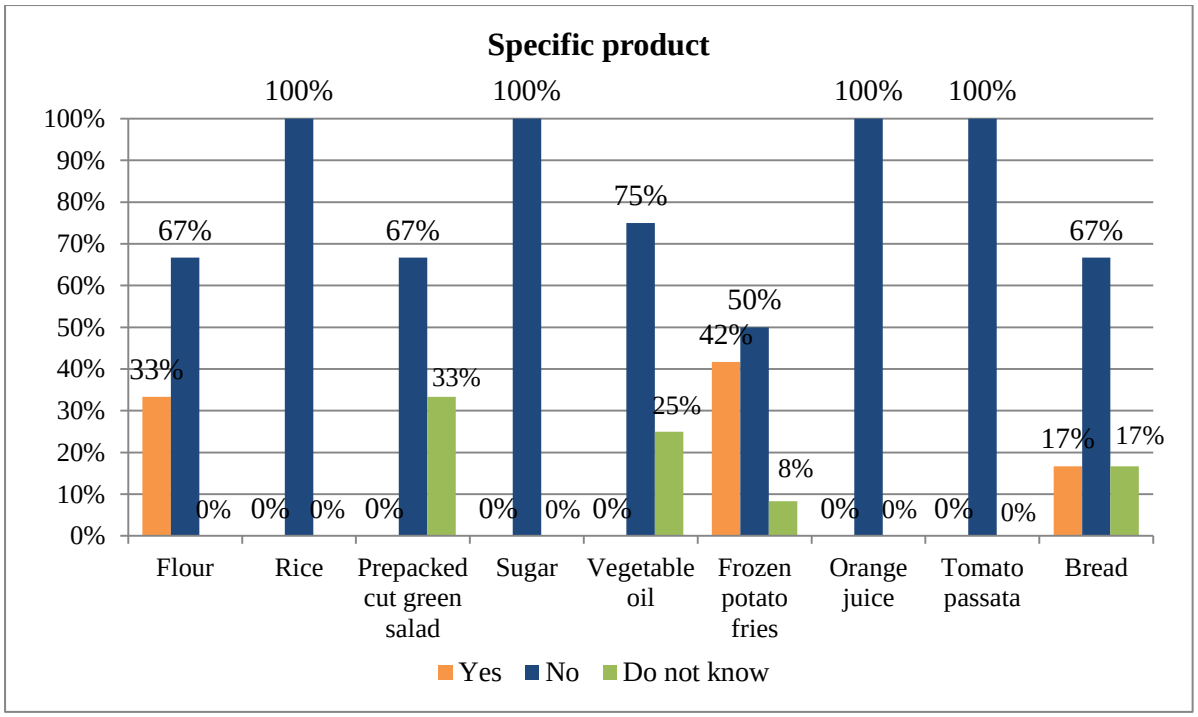
- More generally, specific origin labelling exists for some products in the rice sector, and in the prepared fruit and vegetables sector (e.g. in Ireland, the *Bord Bia* quality scheme).

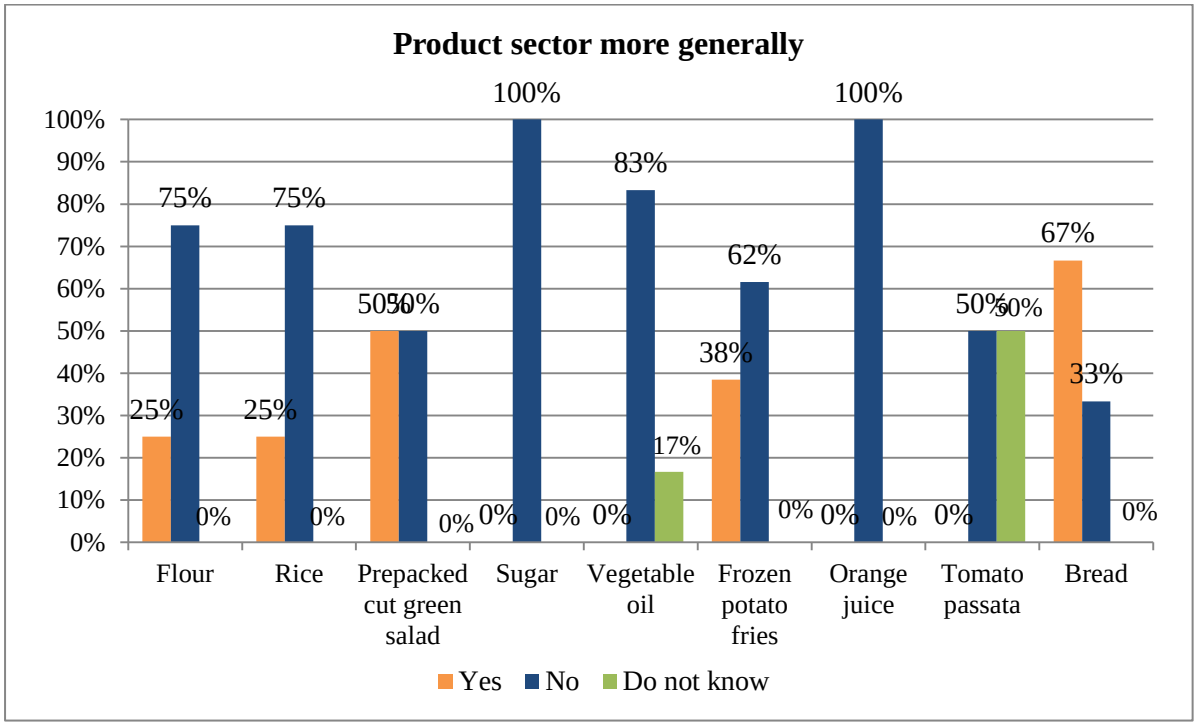
Figure 19: Prevalence of national voluntary schemes concerning the origin of food products



Source: FCEC FBO survey (2014), Q14

Figure 20: Prevalence of national voluntary schemes concerning the origin of food products, by product and product sector





Source: FCEC FBO survey (2014), Q14

Responses from both MS CAs and FBOs show that in some MS, national schemes on origin labelling cover a wide range of food categories. These overarching schemes may target products from local-, regional-, or national-level origins, may refer to origin as the place of

processing or the provenance of the ingredients, and in many cases also include broader quality specifications beyond the origin indication as such. Examples are provided as follows[108]:

- In the **UK**, the *Red Tractor* is a private voluntary food assurance scheme[109], launched by UK farmers, food producers and retailers in 2000. The scheme covers farm crops (cereals, oilseeds and pulses) and sugar beet; fresh produce (fruit, vegetables and salad); milk; chicken; pork; beef and lamb. In 2013 products sold under the scheme reached a sales value of £12 billion (Red Tractor Annual Review, 2013). According to the food supply chain, the *Red Tractor* scheme is not used to attract a price premium as such, but is rather a retailer argument to attract consumers on reasons of provenance.
- In **Ireland**, the *Bord Bia* quality scheme for prepared fruit and vegetables: this is a quality scheme which includes an origin indication in the form of a logo, when certain requirements are met by those involved in the preparation, packaging and delivery of pre-cut fruit and vegetables for human consumption.
- In **Hungary**, Ministerial Decree No 74/2012 regarding the use of voluntary labelling on foods identifies the following three categories of foods covered by the rules for the indication of origin of raw material and ingredients: 1) '*Hungarian product'*[110], 2) **'***Domestic product***'**[111] 3) **'***Domestically processed products***'**[112].
- In **Austria**, the "*AMA Gütesiegel*" label can be considered the primary national voluntary scheme. It is both an origin and quality label. The label aims to cover all stages in the supply chain and defines different sets of rules for each sector and industry. Beyond this, the AT CA noted that there are many private voluntary labels with different approaches and conditions concerning origin labelling. There is however no data available on the overall extent of voluntary origin labelling in the country.
- In **Greece**, a national voluntary scheme has been introduced, foreseeing a Greek logo for certain categories of food which comply with certain criteria (adopted by the Greek Law no. 4072; O J 86/τ.Α΄/11.04.2012). The foods which can bear the logo are agricultural products (whether of plant or animal origin) as well as processed food products. Food products bearing the national Greek logo must meet the criteria set by

[108] This list starts with the 7 MS indicating in the MS CA survey that they have national voluntary origin schemes (UK, IE, HU, AT, EL, LU, LV). The list continues with some other MS. As already noted, the distinction between national and private schemes is not always clear, hence some more examples of voluntary schemes were identified.

[109] Although this is a private scheme, it is widely used in the UK and quoted by the UK CA under the 'national' scheme category.

[110] To use in the following cases:
a) basic products of animal or plant origin can be used if the harvesting, cleaning, treatment of the plant, or in case of animal origin basic product the birthplace, incubation, breeding, bringing into production and packaging was completed in Hungary;
b**)** unprocessed products if the used basic products are of Hungarian origin and all production processes (for example slicing, boning, cleaning, etc.) were completed in Hungary;
c) processed products if all ingredients used to produce the products (except salt, additives, spices and herbs, enzymes, aromas) are of Hungarian origin.

[111] This category applies to processed products only**.** The indication refers to a product including more than 50% of the ingredients from Hungary and for which all production phases took place in Hungary.

[112] This category applies to processed products only. The indication refers to a food product contains mostly imported ingredients, but for which all production phases took place in Hungary.

Community and national provisions concerning the characteristics, labelling and consumer protection. Furthermore, the production and processing must give a domestic added value to such products. For agricultural products, as a basic criterion, to bear the logo, is that the production, farming or harvesting, must take place in Greece. For processed products a percentage or the whole of the primary ingredient and secondary ingredients must come from Greece. Specific technical regulations for each product category determine the above mentioned percentages[113].

- In **Luxembourg**, the "*Marque nationale*" scheme applies to agricultural and horticultural products but also to products derived from viticulture. The products carrying the label are subject to quality controls by the state and guarantee that the product is of Luxembourg origin.
- In **Germany** there are a number of regional origin schemes ("Regionalfenster") in different Landers; as these were provided by the DE CA as example of private schemes they are listed in the following section.

In addition to the above:

- In the **Netherlands**, the Ministry of Economic Affairs has indicated that they have supported a private initiative of a certification system for "recognised local products". About 400 products have so far been awarded this label. Only a handful of these have to do with real origin labelling where the geographical reference refers to the origin of the product or its (main) ingredients (e.g. '*Hoekse'* chips from the East of the Netherlands).
- Several national rules apply to the **tea sector** and include provisions on origin indication. This is the case in **Austria** (Codex Kapitel B31), **Germany** (Leitsätze des Deutschen Lebensmittelbuchs für Tee und teeähnliche Erzeugnisse) and **Slovakia** (VÝNOS Ministerstva pôdohospodárstva Slovenskej republiky a Ministerstva zdravotníctva Slovenskej republiky zo 6. apríla 2005 č. 2089/2005-100).

BEUC and consulted **consumer organisations** in some MS, as well as MS CAs and food supply chain stakeholders, provided numerous examples of products bearing some indication of origin on their label (including e.g. flags and symbols). However it could not be confirmed whether these indications are provided in the context of a voluntary origin scheme as such.

It is noted that some operators have indicated that, due to mandatory labelling origin requirements under third country legislation i.e. Switzerland, food products destined to these countries carry in the standard packages the *'made in'* indication; it was emphasised that this indication is not provided to EU consumers as a way of promoting the origin of the product, but because of compliance with third country legislation of products that are destined both to EU and non EU markets. For example, it was reported that around 50% of the German confectionary production is exported to both EU and non-EU countries (i.e. Switzerland, Middle East) and it is not feasible for German manufacturers to separate packages for products exported to the Swiss and Arab market from those destined to the internal EU

[113] Exceptions are made for: a) raw materials that do not exist or can not be produced in the Greek territory or produced in inadequate amounts; b) products for which the Greek added value consists of traditional or special way of production and processing; and, c) if there is a temporary shortage of certain raw materials from extraordinary and exceptional events, such as natural disasters or severe weather conditions.

market. Similarly, some leading companies in the EU breakfast cereal sector have also indicated that the vast majority of their product packs are common for the German, Austrian and Swiss markets and therefore have to carry origin indication according to Swiss legislation.

On the other hand, some national schemes concern a specific know-how or recipe but do not set requirements as to the origin of the ingredients. For example, the national French label '*Pain de tradition française'* (bread of French tradition) does not include any requirement about the origin of the ingredient (wheat flour) but sets out criteria on the process, recipe (no additives, no freezing) and the use of a certain type of flour, which is not determined by origin. These schemes are similar to EU denominations PGIs and TSGs.

Finally, many respondents cited PDO/PGI as examples of voluntary schemes providing some indication of origin. PDO/PGI denominations for products in the scope of the study account in total for 50% of the total number of PDO/PGI products. PDOs/PGIs are most commonly found in the fruit and vegetables sector (whether fresh or processed[114]: 375 denominations accounting for 28% of the total number of denominations), followed by meat/meat products (325 denominations: 24%) and cheeses (258 denominations: 19%) (**Table 8**). The number of denominations does not indicate the importance of the uptake of the PDO/PGI quality scheme, in volume or value terms. In some product sectors, the market share accounted for by PDO/PGI denominations can be significant (e.g. whiskey).

However EU quality schemes are not origin schemes as such. They are primarily intended to promote quality features[115] in combination with some origin indication, although this could only refer to the traditional & local know-how (e.g. process) and not necessarily to the provenance of the raw material/food product. For example in the case of PGIs, there are no specific requirements as to the origin of the raw material, as highlighted by a stakeholder in the bread sector: "*In the case of PDO production (Pane di Altamura, Pagnotta del Dittaino) origin is systematically indicated since PDO requirements govern the origin of the raw material. In the case of the PGI (Pane di Genzano, Coppia ferrarese, pane di Matera) the origin indication of the ingredient is not mandatory and therefore it is not indicated."*

Table 8: Number of PDO/PGI denominations by food sector (2014)

	PDO	PGI	Total
Fruit, vegetables and cereals fresh or processed	149	226	**375**
Cheeses	212	46	**258**
Meat products (cooked, salted, smoked, etc.)	45	127	**172**
Fresh meat (and offal)	38	115	**153**
Oils and fats (butter, margarine, oil, etc.)	119	17	**136**
Bread, pastry, cakes, confectionery, biscuits and other baker's wares	5	70	**75**

[114] No further breakdown by each sub-category is available from the DOOR database.

[115] In Spain, a PGI scheme concerning canned tuna is reported to account for less than 0.2% of the market volumes. PDOs and PGIs are used by some small (sometimes family-owned) salt producers. In the French legume (lentils, beans) sector, EU quality schemes are also used, e.g. PDO "Lentilles vertes du Puy" and PDO "Coco de Paimpol" ; PGI "Haricot tarbais", PGI "Lentilles vertes du Berry", PGI "Lingot du Nord" and PGI "Mogette de Vendée.

	PDO	PGI	Total
Other products of Annex I of the Treaty (spices, vinegar, salt, etc.)	35	22	**57**
Fresh fish, molluscs, and crustaceans, and derived products	14	31	**45**
Other products of animal origin (eggs, honey, various dairy products except butter, etc.)	31	11	**42**
Beers	0	23	**23**
Pasta	0	8	**8**
Essential oils	3	1	**4**
Flower and ornamental plants	0	3	**3**
Natural gums and resins	2	0	**2**
Mustard paste	0	2	**2**
Hay	1	0	**1**
Beverages made from plant extracts	0	1	**1**
Wool	1	0	**1**

Note: Grey rows indicate sectors that are not in the scope of this study.

Source: Agra CEAS based on DOOR database

3.3.2 Private voluntary schemes on origin

Private schemes regarding the origin of food products, i.e. schemes **developed by producers or retailers**, appear to be **considerably more extensive than national schemes**:

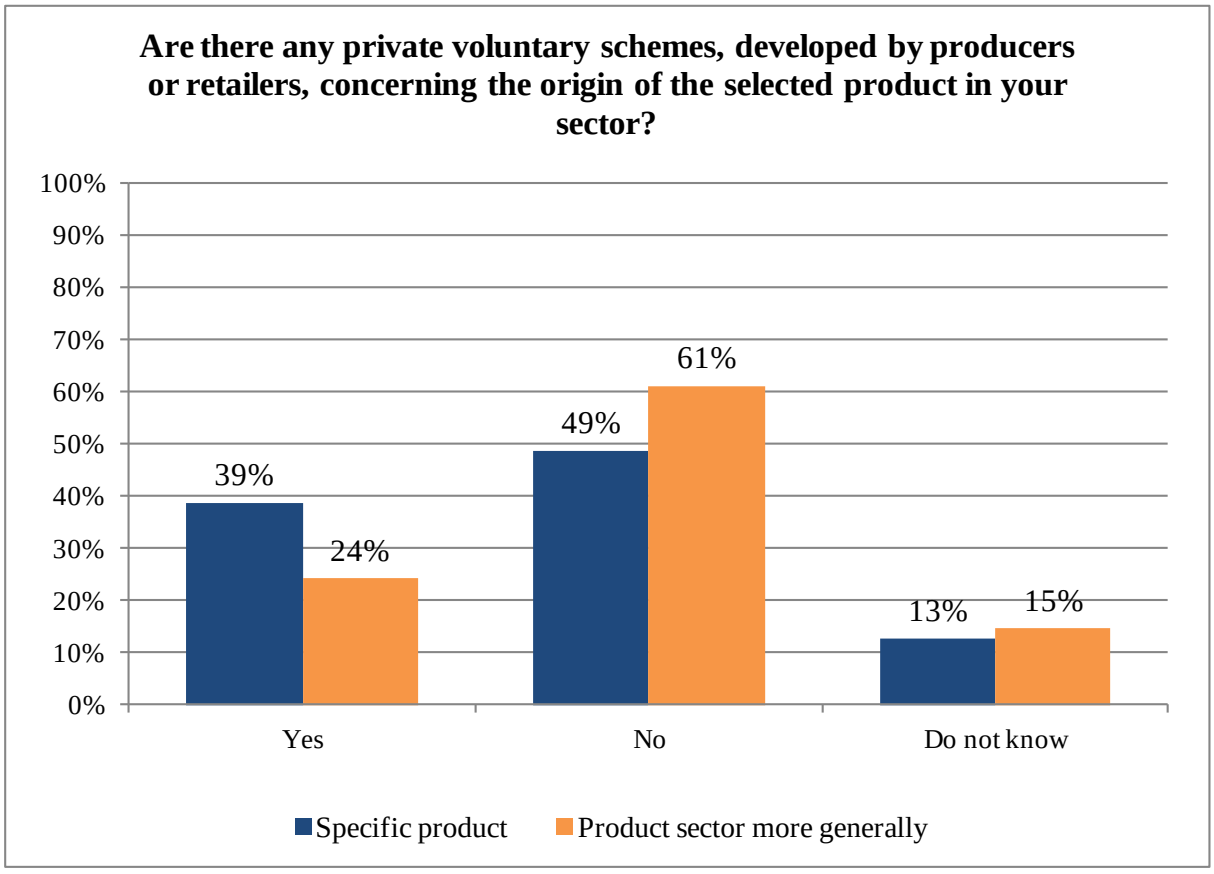
- Up to 39% of respondents to the FCEC FBO survey (**Figure 21**) indicated that some private origin labelling scheme exists for the specific product they selected. Voluntary origin labelling for the product sector more generally appears less frequently among the responses received to the FCEC FBO survey, indicated by 24% of the respondents. These figures do not provide however any indication on the uptake of such schemes, or the market share accounted for by origin labelled-products.
- Similarly, 17 of the 26 MS CAs that responded to the FCEC MS CA survey indicated that, in their country, there are private voluntary schemes concerning the origin of the food products covered by this study. Some MS noted that such schemes may have an extensive presence in the market but it is impossible to quantify this or to even list the products/schemes likely to exist. When asked whether these schemes are considered satisfactory from the consumers' point of view, 11 MS CAs indicated that they are at least partially to fully satisfactory, although a further 11 MS CAs did not know and 1 MS CA indicated that they are not satisfactory[116].

The most thorough review of voluntary labelling schemes to date is the **2013 SANCO study examining voluntary labels in the food sector.** Although the study **includes PDO/PGI**

[116] To the extent that the proliferation of such voluntary approaches makes their control difficult and raises questions about the reliability of the schemes. In addition, consumers may be confused by all these approaches that are not based on the same criteria. This lack of clarity is contrary to the objective pursued.

schemes which – as discussed above - are different from origin labelling as their main purpose is to adhere to certain quality criteria, it is also noted that they tend to be recognised as such by consumers as they do have a local/regional reference. According to the findings of this study, **origin schemes** are the **highest number of voluntary schemes found in the food sector** (with 540 schemes, or 60% of the total 901 voluntary schemes identified by the study, with 80% of the origin labelling schemes certified)[117], while the results from the virtual online shopping exercise indicate that origin is one of the two most common types of voluntary food labels[118]. The largest incidence of origin schemes is for meat (269 schemes), followed by fresh fruit and vegetables, milk products, and wine. At the same time, awareness of origin labelling logos (including PDO/PGI) is relatively low, as discussed in the results of this study in Theme 1.

Figure 21: Prevalence of private voluntary schemes, developed by producers or retailers, concerning the origin of food products



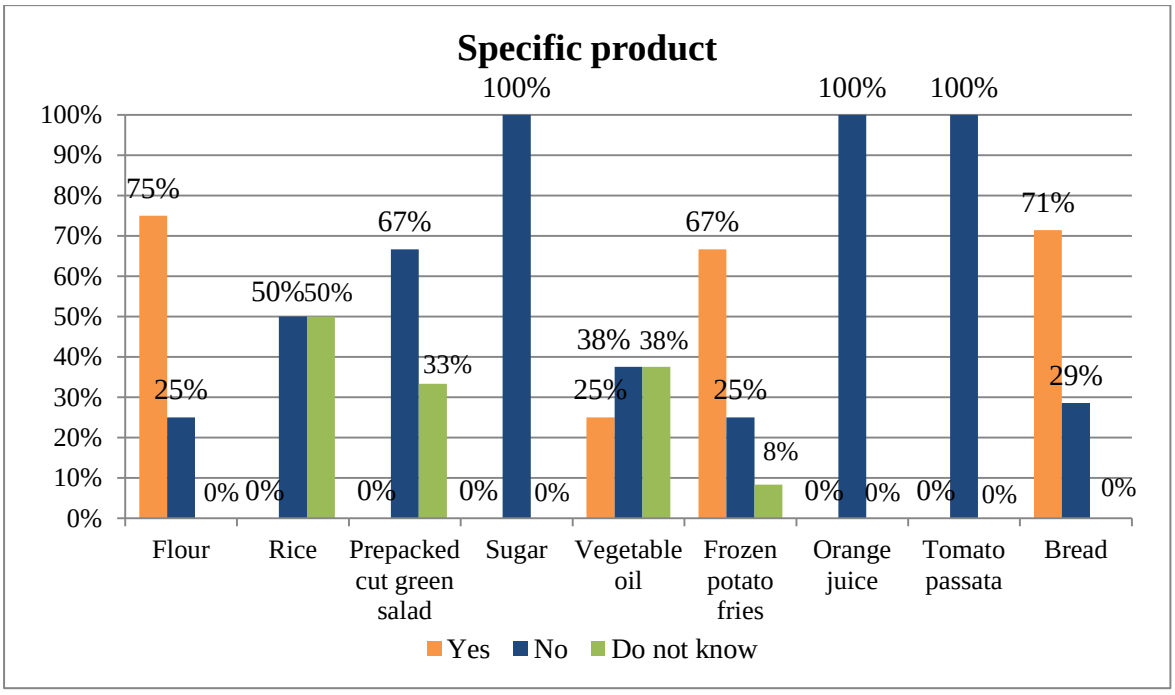
Source: FCEC FBO survey (2014), Q16

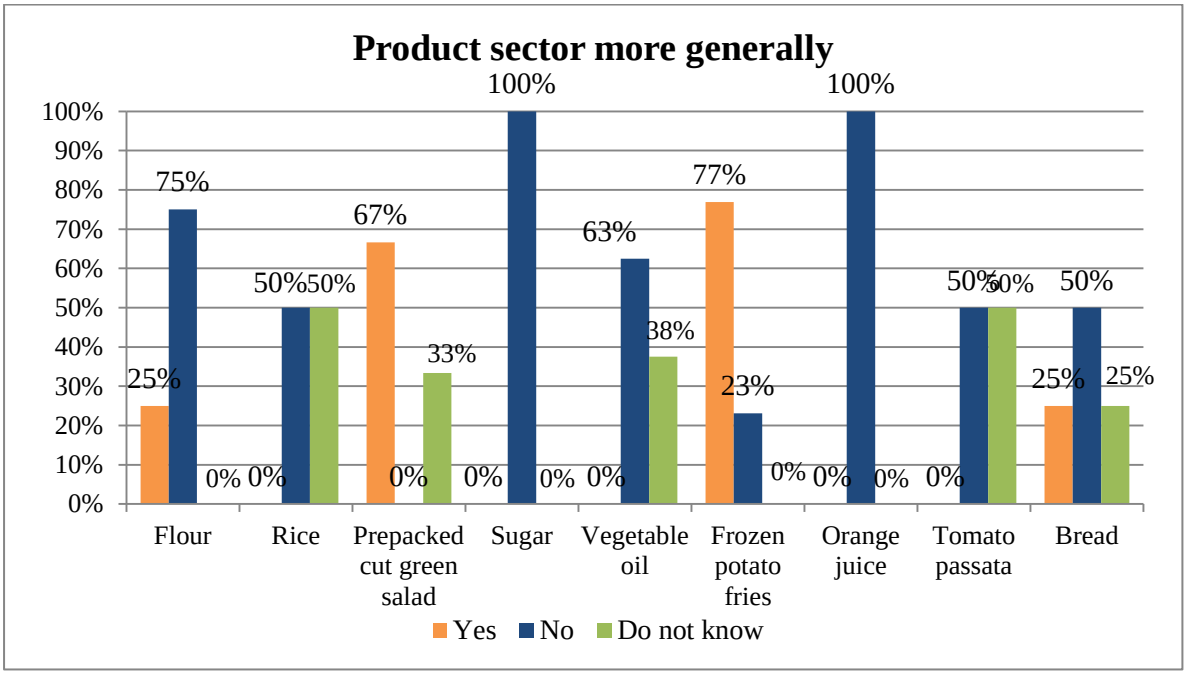
Again, this masks differences between products, MS and sectors. As illustrated in

[117] Of these, by far the majority (441 schemes) were certified. It should be noted that different scheme logos could be combined on a single product, and when this is the case they tend to be from the same policy area (e.g. origin). For example a local origin label could often be seen with a European origin scheme label (i.e. PDO/PGI).
[118] The other most common type of voluntary labelling schemes is 'organic', with 182 schemes.

Figure 22, within each sector, the extent of VCOOL tends to vary between products. Looking at the case study products in particular, the number of responses reporting private voluntary schemes is higher than those relating to general national schemes, suggesting a higher prevalence of industry-schemes over national led-schemes in these sectors.

Figure 22: Prevalence of private voluntary schemes, developed by producers or retailers, concerning the origin of food products, by product and product sector





Source: FCEC FBO survey (2014), Q16

Reviewing the results at MS level, the following examples of private producer/retailer schemes have been provided:

- In the **UK**, as noted in the previous section, the *Red Tractor* is a private voluntary food assurance scheme[119], launched by UK farmers, food producers and retailers in 2000, which is very extensively used in the UK agricultural and food sector.
- In **Ireland**, several examples of private schemes were provided including: the "*Love Irish food*" scheme (covers any type of food; a brand can only be classified as a "*Love Irish Food*" brand when at least 80% of the brand's value is derived from the manufacturing process in Ireland and its primary ingredients must be sourced from Ireland where possible[120]); another initiative covering any type of food is *"Guaranteed Irish*" (the stated objective where possible, product should be a minimum of 50% added value or more at the point of manufacture or conversion[121]).
- In **Austria**, there is a range of private voluntary schemes with different approaches and conditions concerning the guarantee of the origin labelling. A consumer information brochure published by the Austrian consumer organisation (Arbeiterkammer) describes more than 90 different labels more or less common on the Austrian market, many of them are voluntary origin labels without a certification system.
- In **Greece**, the national flour millers' federation has established the first private protocol of quality and origin in a form of a logo with the indication "*flour of Greek milling*" for flour products produced and packed in Greece by members of the federation and sold B2B or B2C. Businesses that use the logo on their products must meet specific requirements relating to the production of flour and mainly include food safety criteria in both product management and the general mode of operation. Basic requirement for the implementation of the standard is that the flour has to be produced and packaged exclusively in Greece. The purpose of the logo is the recognition of flour milled in Greece both by the consumers and processors in the bakery-confectionery sector.
- In **Luxembourg**, the "*Mëllerdaller Produzenten*" label refers to regionally produced products and includes products such as flour, meat, honey, cheese, fruit, alcohol. Another private label "*Ourdaller*" refers to regional products such as honey, mustard, oil and flour.
- In **Germany**, regional origin/quality labels exist – examples include: '*Geprufte Bayerische Qualitat'* for products from Bavaria; '*Qualitätszeichen Baden-Württemberg'* for products from Baden-Württemberg (QZBW; another example is BioZBW (Biozeichen Baden-Württemberg)). Continuous evaluation of the local schemes QZBW and BioQZBW for more than 20 years shows that they are fully satisfactory. In addition, different retailers have introduced their own private quality brands, e.g. '*Ein Herz für Erzeuger*' by Netto Marken or '*Unsere Heimat – echt & gut'* by EDEKA; these generally aim to support German farm producers, i.e. indirectly providing indication as to the origin of the products, or specifically require that the products are harvested, processed, packaged and sold in the region.

[119] Although this is a private scheme, it is widely used in the UK and quoted by the UK CA under the 'national' scheme category.
[120] This was listed by the IE CA a private scheme. http://www.loveirishfood.ie/
[121] This was listed by the IE CA a private scheme. http://www.guaranteedirish.ie/index.htm

- In **France**, the '*Origine France Garantie'* label was introduced in 2010 to support and promote French products. This private voluntary origin label, third party-certified, is not exclusive to food products. To obtain the certification, a product must be manufactured in France, or have at least 50% of its input costs coming from France. More specifically for the food sector, a food product also qualifies if one of its ingredients that represent more than 30% of the food comes from France, or if the main ingredient comes from France (even it represents less than 30% of the food).
- In **Italy**, the IT CA indicated that in a consumer survey carried out for the Ministry of Agriculture in April 2014[122], 23% of consumers remembered seeing an indication of origin on a food product regularly, and a further 62% sometimes. Of these consumers, 43% identified the origin label as being that of a retailer chain, 29% of a producer, and 28% did not remember. Some 70% of chocolate products and 10-40% of traditional bakery products and fine bakery products are exported in both EU and non-EU markets and include origin indication on standard packages, such as Italian flags, "product of Italy"; customary names, e.g. '*Pandoro Verona'*.
- In **Finland**, the "*Good from Finland*" logo is a voluntary origin label of pre-packaged foodstuffs, introduced in 1993; the label is granted upon application by Finfood, an association whose membership includes companies that use the label[123]. Conditions of use of this label are product-specific. General criteria are that the product has been produced or manufactured in Finland and at least 75% (by weight) of the ingredients are Finnish. Ingredients of animal origin (meat, fish, milk, eggs) must be 100% Finnish as well as a single-ingredient product. At the moment the label is used by more than 250 food business operators in about 8.000 products. The average domestic content of these products is about 96%. A major food category is meat products (about 4.000 products of 50% of the total); followed by dairy products, with more than 1.000 products. According to information provided by the FI CA, this label is very well known and recognised by consumers (Taloustutkimus survey 2010) and is highly appreciated (Taloustutkimus survey 2011).
- In **Estonia**, the CA reported that there are some important origin labelling schemes covering different food categories, which are managed by private stakeholders as follows:
    - '*The Approved Estonian Taste'* by the Estonian Chamber of Agriculture and Commerce (Tunnustatud Eesti Maitse). This is the most widely used scheme on origin for all foods of which the primary ingredients come from Estonia. It includes milk products, meat products, bakery and cereal products, vegetable preserves, fish products, non-alcoholic drinks, honey and eggs[124]. Since 1998, over 600 products have received the right to bear the label, but many of them are not on the market any more. There are currently 44 companies and all together 180 different products using labels issued within this scheme.
    - Another well-known voluntary scheme referring to the origin (processing) of product is "*The Best Estonian Food*" label. This scheme is organized by the

[122] The results of this consumer survey in Italy are further discussed in Theme 1.
[123] The "*Good from Finland*" (Hyvää Suomesta) label is a designation of origin for Finnish packaged foods. The label is voluntary and may be used by food industry companies that manufacture their products in Finland using Finnish ingredients. It is owned and administered by Suomen Ruokatieto Yhdistys ry (Finfood - Finnish Food Information).
[124] List of products carrying this label can be found on www.epkk.ee.

national food industry association. It is for products produced in Estonia, but there are no rules established for the origin of raw material.

  - The '*Flag Mark'* also introduced by the national food industry association. The Estonian flag is displayed on the price label or on the package. The origin refers to the final products being produced in Estonia and no rules have been established on the origin of its primary ingredient/s.
  - In addition the Estonian Horticultural Association issues labels on the origin of horticulture products called "*Cultivated in Estonia*": 8 companies use this label on the products such as cucumbers, herbs, tomatoes, carrots, potatoes and lettuce.

- In **Sweden,** the private Swedish product quality label certification scheme ('*Swedish Seal'*) is addressed to products of Swedish origin but also requires that additional criteria are met for a product to qualify, e.g. specific environmental requirements, enhanced food safety and animal welfare specifications, and non-GMO policy[125]. There are over 1000 Swedish Seal certified products in the country's retail stores, and a number of well known Swedish food brands use agricultural products produced under the scheme and carry the logo on their food products.
- In the **Czech Republic**, the "*Czech product*" label, developed by the Food Chamber of the Czech Republic, guarantees that the product has been processed in the Czech Republic and follows the prescribed minimum primary ingredient or ingredients from domestic sources. The mark "*Czech product - guaranteed by Food Chamber of the Czech Republic*" can be used by all food commodities meeting these requirements.
- In **Portugal**, a "*made in Portugal*" logo scheme has been introduced for foods produced in Portugal or foods in which 50% of the value was added in Portugal. Also, a major retailer has introduced an origin-labelled product category '*Sabores de Portugal*' for typical delicatessen and others, and a more general quality scheme for farm products from Portugal (although the scheme is equally focusing on agriculture sustainability).
- In the **Netherlands**, a similar "*only from Holland*" claim is used by Dutch retailers for vegetables grown in the Netherlands ('Special Dutch Vegetables'), e.g. kale, rutabaga, Brussels sprouts, salads.
- In **Croatia**, the "*Croatian Quality*" logo, developed by Croatian Chamber of Economy, is particularly used for food products that are produced in Croatia including different types of food (e.g. oil, coffee, flour, bakery products). It is a certain recognition for the product and the producer and at the same time a guarantee of high quality for the consumers.

[125] The Swedish Seal (*Svenskt Sigill)* scheme certifies that a commodity / product is: guaranteed Swedish, with traceability from farm to shop; produced with animal welfare conditions beyond legal requirements; produced with care for the environment and climate; safe and non-GMO. Producers with the scheme have to be certified to a standard called 'IP SEAL'. There are checks performed by independent inspection companies, visiting farms/companies and check compliance. In 2012, about 3700 companies were certified according to this standard, specialised in the production of milk, meat, fruit & vegetables, cereals and oilseeds, and other foods. According to surveys, about 80% of Swedish consumers are familiar with the Swedish Seal logo. The scheme was introduced in 2001 by the company Quality Seal Ltd, a subsidiary of the national farmers' association, LRF.

3.3.3 Voluntary origin labelling by product sector

In summarising the prevalence of voluntary origin schemes by product sector for the various sectors covered by the study, the data collected from the FCEC consultation are presented in **Table 9**.

In mapping the current voluntary origin labelling (VCOOL) in the EU, the FCEC has classified the extent of the importance of VCOOL in each food and drink sector into 4 categories, as follows: high presence; medium presence; low presence; no presence. It is important to note that this table includes only voluntary origin schemes developed and approved at national or industry level, as provided to the FCEC in our consultation with the MS CAs and FBOs. It intends to provide an overview of the current voluntary origin labelling practices, but it is not intended to provide a systematic and exhaustive list of existing schemes in the different sectors and across the EU27. The most thorough review of voluntary labelling schemes to date is the recent DG SANCO study examining voluntary labels in the food sector, although it should be noted that the study includes PDO/PGI schemes. **Table 9** excludes PDO/PGI and mandatory labelling schemes such as currently applied in some sectors (e.g. fresh fruit and vegetable, olive oil).

Some key conclusions can be drawn from this table concerning the use of VCOOL across the various food and drink sectors:

- The EU spirit, wine, and the chocolate/confectionery sectors are presenting a comparatively high presence of voluntary origin indications for their products. In all of these sectors, there is also a very significant presence of high value products. In these cases, the indicated origin is the place of the last substantial transformation of the product.
- In some other sectors, the presence of VCOOL practices account for a relatively significant share of a specific product market although voluntary origin labelling does not dominate the sector as such, moreover across the EU. This is the case for rice, tomato passata, and less so for flour and bread.
- In most of the other sectors, VCOOL is not significant at EU/MS level in general, even though some VCOOL practices have been reported in some cases. In most sectors these tend to be very limited and confined to speciality or niche products. Some examples of niche origin-labelled products were identified for coffee (overall accounting <1% of total coffee market), snacks including nuts (2% in volume, 3% in value), fruit juices in France and Germany, pasta in Italy, maize flour and canned tuna in Spain, sunflower oil in France, sugar and potatoes in producing countries, pre-packed bread, and for some cereals in Scotland (oats/barley).

Food supply chain stakeholders have suggested that the limited use of VCOOL in some sectors is due to low consumer interest and WTP in origin indication for their products and/or the difficulties of ensuring the level of traceability required for the origin labelling. VCOOL therefore tends to occur where: a) there is consumer interest; and b) traceability to the indicated origin can be ensured at a reasonable cost.

Similarly, our broad consultation with food supply chain stakeholders revealed that their demand and need for origin information varies greatly, largely depending on the type of

products. **In general terms there is currently very limited demand from food and drinks processors for information on the origin/provenance of ingredients**.

This is the case independent of the product category, and no specific conclusions can be drawn for each of the 3 categories covered by this study. *A priori*, unprocessed or single ingredient products would be expected to face less challenges to ensure origin traceability than ingredients representing >50% of a product, but the results of the analysis in **Table 9** indicate that this depends on the product and can only be established on a case-by-case basis. A key factor determining feasibility are the techno-economic linkages and resulting traceability conditions for the production of the different food and drinks products, and these are product- (and even company-) specific and can only be examined on a case-by-case basis, depending on the type of products and company context.

For example, there is more significant origin labelling in the rice sector, but this is specific to some speciality products for which there is immediate link and not for standard (commodity) long grain or short grain rice. In the bread sector, although there appears to be consumer and industry interest in origin labelling as such, it has proven a challenge to provide this and some private schemes have been abandoned[126]. By contrast, in the passata sector, origin labelling is high in some MS/companies, but this is also enabled by the fact that producers of tomato passata have an immediate traceability link and sufficient access to the provenance of the raw material (tomatoes), while in the bread sector there is an intermediary link in the supply chain (i.e. the flour millers) and self-sufficiency can only be ensured longer term through sourcing from a combination of geographical origins.

Furthermore, for the third category of products covered by this study (ingredients that represent more than 50%), an additional complication that works against providing origin labelling for some products in this category is **whether the origin of the primary ingredient is the relevant information for consumers when this is not the characteristic ingredient.** This is one additional reason why voluntary origin labelling more generally in the fruit juices sector is relatively low. The reply from the EU fruit juices association (AIJN) is quite relevant and applicable to the complexity of providing origin labelling for this type of foods: *"Origin labelling would be "meaningless" if it is applied for the main ingredient only, which may not correspond to the key taste of the product for consumers (e.g. lychee juice with 85% apple juice). Origin labelling for juices which represent more than 50% of a juice would trigger indicating the origin of the other juice(s) as well. Consumers would not understand why the origin of only one juice would be mentioned – even more so if this particular juice is not the most characteristic one (for example in the case of the above-mentioned lychee juice). This can lead consumers to ask for the origin of all juices included in drinks and make information even more complex and confusing."*

The issue of consumer interest/WTP for origin labelling is discussed further in Theme 1, while traceability issues are discussed further in section 3.4.

[126] For example, in the UK bread sector the industry had to give up an attempted 100% origin indication of bread based on UK wheat.

Table 9: Overview of the importance of voluntary origin labelling in the EU food and drinks sector

Sector	Type of products	VCOOL practices	Degree of VCOOL presence
Wheat flour	• Wheat flour B2C; • Wheat flour B2B	In the **wheat flour** sector, respondents indicate that voluntary origin labelling exists for some specific products, although they account for a *very limited share* of the wheat flour market and are confined to niche products. Origin labelling in the wheat flour does not concern wheat flour sold as such to end consumers (the end consumer wheat flour market represents 6% of the overall market in volume), but mostly **products using wheat as an ingredient** (e.g. bread). Only one (recent) example was cited: in **Greece**, the Greek Bakers Federation introduced a private protocol of quality & origin in the form of a logo that is used in the flour sector with the indication "*flour of Greek milling"*.	LOW
Rice	• Long grain rice	For **rice** (as a sector more generally), a limited number of national schemes exist in the EU. **At country level:** In **Italy**, Ente Nazionale Risi has registered a trademark ('Riso Italiano') for Italian rice that may be used free by Italian operators in conformity with Italian law; The **UK** has introduced a Code of Practice for the labelling of Basmati, although the aim of the Code of Practice is to ensure that basmati is accurately labelled to reflect origin in the basmati-growing region and not to specify India or Pakistan as country of origin (Basmati is only grown in these 2 countries). This scheme is a joint initiative of UK/Indian/Pakistani authorities and the UK rice industry. Enforcement is carried out by UK trading standards. **Other countries**, including e.g. France, also have code of practices which include provisions on origin labelling for rice. A **survey** carried out in 6 MS on rice[127] found that overall 23% of the products examined on retailers' shelves carried an origin label.	MEDIUM
Packaged green salads	• Packaged green leaf salads	VCOOL is generally not in use in the sector at a national or industry-concerted level. Geographical origin is sometimes found to be labelled on small-scale production, for regional or seasonal produce, e.g. locally sourced salads, but this is not necessarily specific to packaged green salads.	LOW

[127] Survey carried out by FERM, in BE, NL, DE, ES, PT and the UK.

Sector	Type of products	VCOOL practices	Degree of VCOOL presence
Sugar	• Sugar packs B2C; • Sugar sold to food and drink processors (B2B)	Some companies voluntarily provide origin information on certain products, e.g. Italia Zuccheri in Italy, silver spoon UK sugar, or one product in Poland.. Very specific product may also carry origin labels, e.g. Muscavado. However VCOOL is **not representative** of the overall practices of the EU sugar sector.	LOW
Vegetable Oils	• Refined oils B2C (excluding olive oil); • Refined oils B2B •	In **vegetable oils**, *some niche markets* exist for specific refined bottled oil or as ingredient in other food products. For example, voluntary origin labelling is used by the industry to label French sunflower oil produced from French sunflower seeds, crushed, refined and bottled in France. However, VCOOL practices are dedicated to a niche market and are **not representative** of the overall practices of the EU vegetable oil sector.	LOW
Frozen potato fries	• Frozen potato fries	In the **frozen potato fries** sector, a leading fast-food restaurant chain in France requires that potatoes used to produce potato fries be grown in France, but do not label it as such to end consumers. Some other private voluntary schemes are used by retailers/producers but most of them are **not developed at concerted level and concern niche products**.	LOW
Fruit juices	• Orange juice	For juices overall, origin-labelled products are considered to be niche products. In the **apple juice** industry, some SMEs in the UK appear to indicate the country of origin as part of their marketing strategy. In **France** and in **Germany**, retailers' brands have specific labels for fruit juices, e.g. *Marmande tomato juice*.	LOW
Tomato passata and other tomato products	• Tomato products (e.g. concentrate or passata) from 1st transformation (from fresh tomatoes); • Tomato products from 2nd transformation (from fresh tomatoes or concentrate).	The following examples of **high** presence of VCOOL are known: **Italy:** all leading brands indicate origin voluntarily, and for several types of products. This accounts for the majority of the Italian market. OEIT estimate: +- 80%. **Greece:** the leading brands indicate origin voluntarily; the majority of the market. OEIT estimate: +- 75% The following examples of **low** presence of VCOOL are known: **Portugal:** One company indicates origin voluntarily on ca. 10% of its products (equivalent to 50 000 tons of fresh tomatoes); rather a small part of the market. **Spain:** Some brands indicate origin voluntarily, but this is a minor part of the market. **France:** One company indicates origin for products such as pulp, coulis, etc.; it represents	LOW-HIGH (depending on MS)

Sector	Type of products	VCOOL practices	Degree of VCOOL presence
		today about 20% of their turnover; they intend to generalise the labelling practice. Another, small, company label voluntarily all of their products.	
Bread	• Bread; • Bakery products	Several respondents indicate that voluntary origin labelling is used in bread and bakery products in some cases. Overall, it is estimated to cover 5-10 % of the EU market but the extent depends on the MS and the products. Cited examples include: a 100% British bakery product made from UK grain, milled and baked in the UK; a German product produced in, and with raw material from, the Eifel region; a similar scheme in Saxony; a special, local type of bread which requires a specific variety of wheat in Belgium. Large millers however do not buy wheat flour from a specific origin (see Theme 2).	LOW/ MEDIUM (depending on MS)
Confectionary products and chocolate	• Chocolate products: bars, tablets, chocolate pralines; • Biscuits, fine bakery wares; • Confectionary; • Cocoa products cocoa nibs, cocoa liquor (or mass), cocoa butter, cocoa powder but also a large variety of compounds and chocolate recipes.	Significant at EU level as an indication of where the final product was manufactured. **Italy**: About 80% of the production volume of traditional bakery products[128], such as Panettone, Pandoro, Colomba, Amaretto, Savoiardo, and other traditional customary name bakery products use an origin indication on the front of the packaging. Other fine bakery products with some origin indication on the back of the packaging represent about 10% of production the total volume. Chocolate products carrying indication of origin represent about 30% of the production volume. **At country level:** **Belgium**: In the case of Belgian chocolate, VCOOL represents 80% of the total volume of production. If less prominent origin claims, e.g. "made in country" or "produced by company name followed by address and country" on the back of pack, is included voluntary origin labelling accounts for about 90% of the total volume of production. In the case of biscuits, voluntary origin indications represent 15% to 40% (including less prominent origin claims) of total biscuits production. The Belgian chocolate industry has developed in 2007 a Code[129] which imposes to operators to label the place of manufacture when '*Belgian chocolate'* or 'with *Belgian Chocolate'* are indicated.	HIGH (except for cocoa)

[128] Ministerial Decree of 22 July 2005 ''Framework for the production and sale of certain bakery products'. Italian Ministry of Productive Activities
[129] http://www.choprabisco.be/engels/documents/BelgianChocolateCodeEN030507DEF.pdf

Sector	Type of products	VCOOL practices	Degree of VCOOL presence
		Germany: Voluntary origin labelling represents 5%-10% of confectionary production in Germany. **UK**: Companies reported 10-15 items (chocolate bars) having indication of origin; these represent about 1,000 tonnes (for a value of around £3.5 m). In Italy, the industry indicated that 80% of total volume of traditional fine bakery products carries origin indication. **France**: Companies reported 10-15 items having indication of origin on the final products and representing 25% of total volume and total value. In the **cocoa sector** voluntary origin labelling represents less than 5%, although VCOOL is used for semi-finished cocoa products at B2B level, e.g. 'Dutch processed cocoa liquor' and the 'German/Dutch processed cocoa powder'.	
Savoury snacks	• Potato chips (crisps); • Nuts; • Extruded snacks (e.g. tortilla chips).	The use of voluntary origin labelling is **very limited** in the EU snacks sector. VCOOL products accounted for 3% of the total EU market value (which is € 13.93 billion) and 2% of the total volume (1.76 million tonnes). In terms of the number of SKU's (Stock Keeping Units) on the market carrying VCOOL this is estimated to be less than 1%. Some examples have been provided in some MS. **At country level:** **UK**: A leader in the UK market indicated that VCOOL is used on its main brand of potato chip products (but not on all of its brands), which represents a significant percentage (~20%) of the potato chip market in the UK. One SME indicated that VCOOL is used on all of their production (potato chips, tortilla chips, and pelleted snacks) and this amounts to around 150 SKU's representing about 2% of the total UK value and volume. **At country level:** **Germany**: The use of VCOOL on labels is less than 1%, both in value and volume terms. **Austria**: Some products carrying VCOOL exist, e.g. peanuts, where they represent around 5% of the value and volume of the total market. **France**: Some potato chip products carry VCOOL and account for an estimated 5% of the value and 6% volume of the total market. On the other hand, nut and extruded snack products carrying VCOOL represent less than 1% of the market in both value and volume.	LOW

Sector	Type of products	VCOOL practices	Degree of VCOOL presence
		Scandinavian countries: Some nut and potato chip products carry VCOOL and represent about 3% of the market value and 2% of the volume. In **TCs:** American pistachios and peanuts and Bolivian peanuts.	
Dried fruit and nuts	• Walnuts	A private individual scheme for **walnuts** in shell has been reported to be used in the dried fruit & nuts sector.	LOW
Prepared dishes	• Chilled prepared foods; • Canned and semi-preserved food; • compotes, jams; • Frozen fruit and vegetables; • Culinary products, e.g. soups and broths, salads, condiments.	No aggregated data are available on the use of voluntary labelling in the sector, as the importance of this practice is very company specific. VCOOL is of minor importance in the sector of culinary products (e.g. soups, sauces, ready meals, salads), estimated at <1%. Nevertheless a few products bear a voluntary origin labelling in some markets such as specific types of Bouillon cubes. It is noted, however, that there is a high presence of geographical references in the product names associated with recipes and common or customary names for these foods. **At country level:** **France**: In the products sector of canned ready meals (FIAC), some companies indicated that up to 40 % of their product references had an origin labelling such as "made in France" or "made in EU". **Finland**: Two wholesalers introduced in 2012 private standards for the origin of both the final food products and the main ingredient in terms of QUID (e.g. for orange juice the origin of water which is the main ingredient in QUID needs to be indicated).	LOW (excluding common/customary recipe names)
Breakfast cereals	• Breakfast cereals; • Oat milling products	VCOOL accounts for a limited volume of total cereal market (<3%). Scottish oats and Scottish barley are examples of such limited VCOOL practices but are considered to be niche products. However, indications such as 'Made in...'/Produced in…' are used extensively where packs are shared with third country markets and this is a mandatory legal requirement in these markets. This can represent a significant number of Stock Keeping Units (SKUs) in certain markets: A leading company in this sector reported that 122 ready to eat cereal SKUs (some 28,000 tonnes/year accounting for 95% of total production volume) are shared in Germany, Austria and Switzerland where the '*made in'* indication is mandatory, as required by Swiss law.	LOW (except where mandatory under third country legislation)

Sector	Type of products	VCOOL practices	Degree of VCOOL presence
		Another leading company in this sector indicated that the total number of products using VCOOL is 22, equivalent to 82 different packs, and this amounts to 30,000 tonnes/year.	
Pasta	• Dry pasta; • Fresh pasta; • Filled pasta; • Precooked pasta; • Ready to eat pasta.	Voluntary origin labelling is not widespread on pasta products, for the main indications considered i.e. excluding recipes, common names etc. (see also Theme 2). Some origin labelling initiatives exist on a voluntary basis, mostly introduced by small producers. Origin-labelled pasta is considered to account for less than 1% of the overall market.	LOW
Coffee	• Coffee products • Soluble coffee mixes	For the broader range covering all coffee products, VCOOL (i.e. indication where the final product is manufactured) is limited in the **coffee sector**. Voluntary provenance labels (i.e. indication where the green coffee was grown) are slightly more prevalent and are found at different levels: country (Kenya, Brazil etc.), region (Guatemala Antigua, Sumatra) or farm (Finca Irlanda) representing around an estimated 1% of the EU market and typically are made in relation to product claims such as '100% Brazilian coffee'. Such products are then sold at a premium price. Respondents indicated that the demand for coffees from specific provenances is limited but that there is some choice available for interested consumers. For **soluble coffee power mixes** (often called 3-1-mixes with soluble coffee, milk powder, sugar and possibly flavour ingredients), voluntary origin labelling does not exist in the EU market. However, in some cases an indication of origin of the type '*Made in'* is given, mainly due to a mandatory indication of origin on products for export outside the EU which are also being placed in the same package on the EU market.	LOW (except where mandatory under third country legislation)
Tea & herbal infusions	• Tea; • Herbal and fruit infusions.	Voluntary origin labels indicating where the final product has been manufactured are not used in the tea and herbal infusion sector. For those products where the country of origin determines likely quality and therefore influences consumer choice (single origin blends) manufacturers will already indicate the provenance of the tea. Such examples would include single origin Assam blends (India), Ceylon (Sri Lanka) and Kenyan blends.	LOW
Aromatised wines	• Aromatised wines; • Aromatised wine - based drinks;	Aromatised wine products bearing the indication of country of processing are estimated to account for approximately 35% of the total marketed products, or 1,225,000 hl. There are only four geographical indication products (PDOs/ PGIs) in this sector, of which 2 in	HIGH

Sector	Type of products	VCOOL practices	Degree of VCOOL presence
	• Aromatised wine-product cocktails.	Germany, 1 in Italy and 1 in France.	
Spirits, Cider & fruit wines	• Spirit drinks; • Cider; • Fruit wines	In the spirits, aromatised wines and cider and fruit wines sectors, between 35% and 50% of the products carry the indication '*produced in'* or '*made in'*. In fact while the origin of main ingredients is not a key determinant in this product category, the country of elaboration, understood as the mix of the recipe and know-how of the producer, is the indication which confers to the final product its character and essential qualities. The number of products concerned by VCOOL in the cider and fruit wines sector varies between countries and companies, and can range from 10% to 100% of the product portfolio. In the case of aromatised wines, Regulation 1601/91 governing these products is under revision, specially the provisions on presentation and labelling, which includes the indication of the provenance It should be noted that the bulk of the EU **whisky** production is protected by GIs, while geographical origin indications are also used in third countries.	MEDIUM (HIGH for whiskies)
Maize flour	• Maize flour	In the maize flour industry, although the norm is that VCOOL is not widely used, some large EU operators introduce origin requirements in their contracts for the production of regionally-labelled products.	LOW
Processed fish	• Canned tuna	In the **canned tuna** sector, examples of mainly PGI products have been provided, and the industry indicates that voluntary origin labelling (including PGIs) account for a marginal share of the market. Other voluntary schemes in place are primarily related to sustainability of fishing methods.	LOW

Note: This table includes only voluntary origin schemes developed and approved at national or industry level, as provided to the FCEC in our consultation with the MS CAs and FBOs. It intends to provide an overview of the current voluntary origin labelling practices, but it is not intended to provide a systematic and exhaustive list of existing schemes in the different sectors and across the EU27. It excludes PDO/PGI and mandatory labelling schemes such as currently applied in some sectors (e.g. fresh fruit and vegetable, olive oil).
Source: FCEC (Agra CEAS) on the basis of the consultation with MS CAs and FBOs.

3.4 Traceability systems

In accordance with General Food Law principles (Regulation EC/178/2002), traceability aims to ensure the tracing of food through the production and distribution chain to identify and address risks and protect public health. Regulation EC/178/2002 defines traceability as the ability to trace and follow food, feed, and ingredients through all stages of production, processing and distribution. EU food business operators (FBOs) are responsible for ensuring traceability for incoming raw material and produced food output. This traceability concept is different from what would be required to perform origin labelling, thus requiring a significant adaptation of the current production process, from raw material sourcing to processing and storage, transport and distribution. This is described in more detail below.

3.4.1 Current EU regulatory framework: traceability for food safety purposes

The primary purpose of existing EU traceability legislation is to ensure food safety and the reliability of information provided to consumers. In particular, it is necessary to apply traceability in order to be able to remove unsafe food from the market, thereby protecting consumers. Traceability is therefore currently set up to serve as a risk management tool which allows the withdrawal or recall of food products which have been identified as unsafe.

Regulation (EC) No 178/2002 (the General Food Law) and more specific EU legislation in certain sectors (e.g. fresh fruit and vegetables, and food of animal origin)[130] ensure the traceability of food through all stages of production, processing and distribution. The Regulation contains general provisions for traceability (applicable from 1 January 2005) which cover all food and feed, and all food and feed business operators including importers.

In particular, it stipulates that an FBO needs to know the supplier from which a batch of raw material has been purchased, and the customer of a batch of finished products to whom the product is sold. Under Article 18 of the General Food Law traceability requirements include:

1. The traceability of food, feed, food-producing animals, and any other substance intended to be, or expected to be, incorporated into a food or feed shall be established at all stages of production, processing and distribution.
2. Food and feed business operators shall be able to identify any person from whom they have been supplied with a food, a feed, a food-producing animal, or any substance intended to be, or expected to be, incorporated into a food or feed[131].
3. To this end, such operators shall have in place systems and procedures which allow for this information to be made available to the competent authorities on demand.
4. Food and feed business operators shall have in place systems and procedures to identify the other businesses to which their products have been supplied. This information shall be made available to the competent authorities on demand.
5. Food or feed which is placed on the market or is likely to be placed on the market in the Union shall be adequately labelled or identified to facilitate its traceability, through relevant documentation or information in accordance with the relevant requirements of more specific provisions.

[130] In addition to the general requirements of the General Food Law, sector-specific legislation applies to certain categories of food products, in particular fresh fruit and vegetables, food products of animal origin, fish, honey and olive oil.
[131] Importers are required to identify from whom the product was exported in the country of origin.

This system ensures full traceability across the entire value chain, at every stage of the food supply chain. The requirement for FBOs to trace their raw material inputs back to the immediate supplier and to identify the immediate subsequent recipient to whom their products have been supplied, with the exception of retailers selling to final consumers, is called '*one step back-one step forward*' traceability.

This approach involves the following requirements:

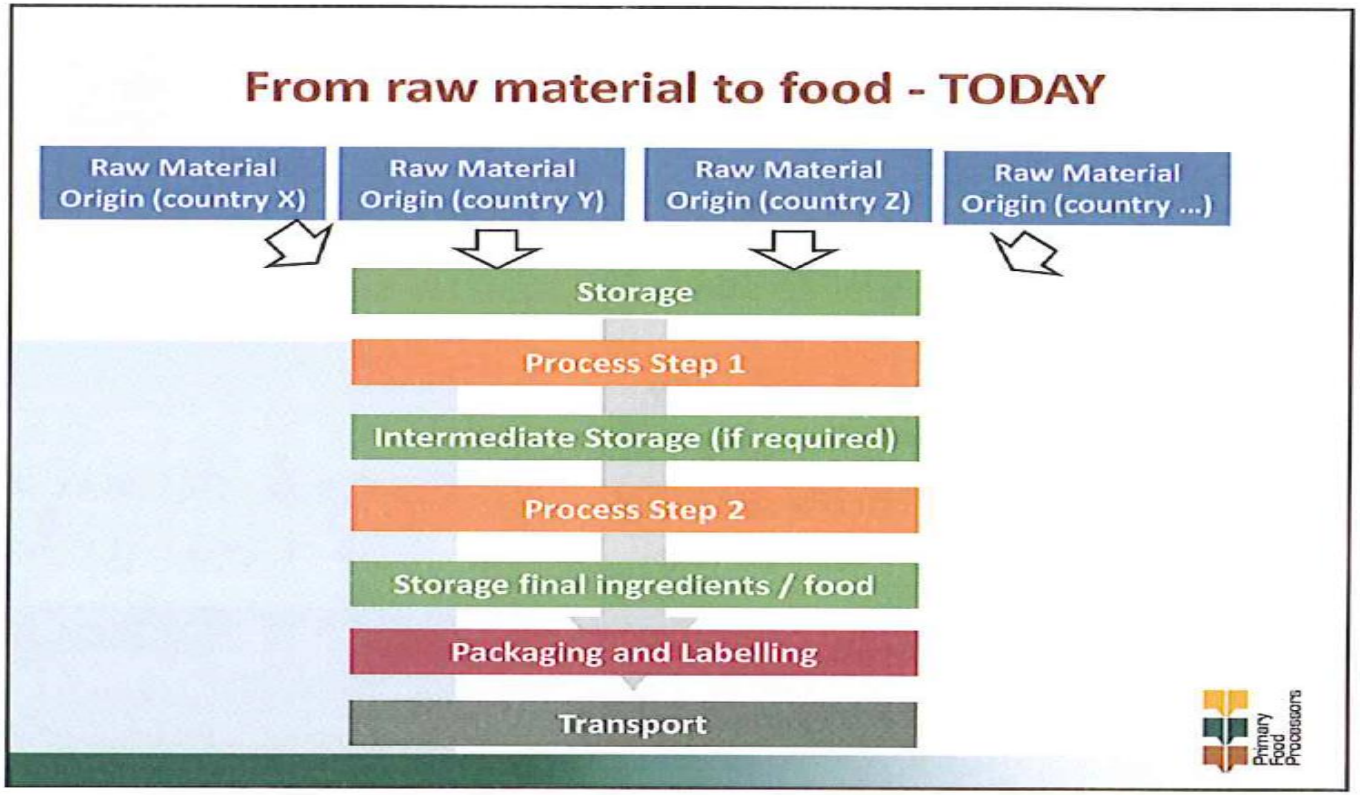
1. FBOs should have in place a system enabling them to identify the immediate supplies and customers;
2. A link 'supplier-product' should be established (i.e. which products are supplied from which suppliers);
3. A link 'customer-product should be established (i.e. which products are supplied to which customers).

Unless specific provisions for further traceability exist[15], **FBO obligations are limited to ensuring "*one step back-one step forward*" traceability**. This traceability system is then put into use **when there is a potential food safety risk**, to allow tracing the suspected to be affected raw materials/food products, in order **to withdraw or recall** these from the market.

For example, in the case of bulk commodities, FBOs are obliged to trace the FBO supplier of incoming raw material (agricultural product, e.g. cereals, oilseeds, sugar beet) and the next FBO in the supply chain (trader; food processor; retailer) to whom the produced output (food product, e.g. flour, vegetable oils, sugar) has been sold at the end of the production process. The current traceability system for food safety purposes is designed to fit seamlessly within this typical production process, as depicted in **Figure 23**.

The ***'one step back - one step forward'*** **provides information at the level of the immediate supplier and subsequent recipient, not at the level of the product's geographical origin**. The EU has published guidelines which require FBOs to document the names and addresses of the supplier and customer in each case, as well as the nature of the product and date of delivery. FBOs are also encouraged to keep records on the volume or quantity of a product, the batch number if there is one, and a more detailed description of the product, such as whether it is raw or processed. In practice therefore, at FBO level, current traceability is ensured by using paper records required, business/commercial documents (e.g. supplier invoices), computer based systems on a batch basis (i.e. the batch number and registration of the specific time (clock) where the product passes in the processing provides the possibility to trace the products back). Similarly, **information exchange mostly occurs via paper documentation** (e.g. supplier invoices). This documentation is generally linked to each processing (re)load and provides for traceability of a specific (re)load. A batch of raw material arriving at a factory is accompanied by relevant shipment documents. These include information for traceability purposes like batch number, batch size, best before or use by date and name and address of the supplier, including relevant identification numbers. The information is then manually transferred into the internal IT systems and processed to match tracking and traceability requirements.

Figure 23: Production process for bulk commodity agri-food products, under current traceability system for food safety purposes



Note: This figure represents the production process for any type of bulk agri-food commodity that undergoes continuous/ blending process; as such it is applicable to products falling under all 3 categories of the study (e.g. flour, vegetable oils, sugar etc.).

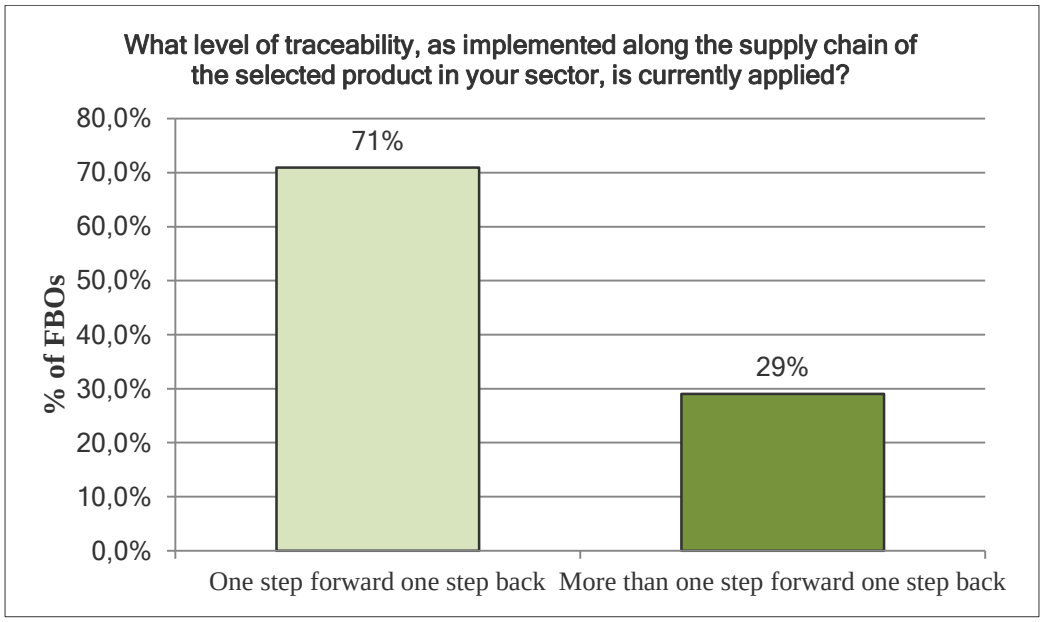
Source: Primary Food Processors (PFP)

3.4.2 Traceability adaptations required for origin labelling purposes

As explained in the previous section, traceability is currently set up only '*one step back - one step forward*' which according to the General Food Law principles is the necessary and sufficient level for food safety purposes. Furthermore, the *'one step back - one step forward'* provides information at the level of the immediate supplier and subsequent recipient, not at the level of the product's geographical origin. As such, it does not gather all the product information that has accumulated through the supply chain ("*cumulative traceability*"), nor the geographical origin information, which would be required for origin labelling purposes.

Beyond *'one step back - one step forward'*, establishing more extensive traceability becomes an extremely complex and challenging exercise, particularly the more advanced the product complexity and level of processing (i.e. passing through several stages in the production process). As illustrated in **Figure 24**, less than a third of the sectors/FBOs that responded to the FCEC FBO survey practice a level of traceability that goes beyond '*one step back - one step forward*' traceability. This appears to be particularly in the case of existing quality assurance and similar schemes (e.g. the UK Red Tractor scheme)[132].

Figure 24: Levels of traceability implemented currently for food safety purposes in the EU food and drinks sector, according to FBOs (n=193)

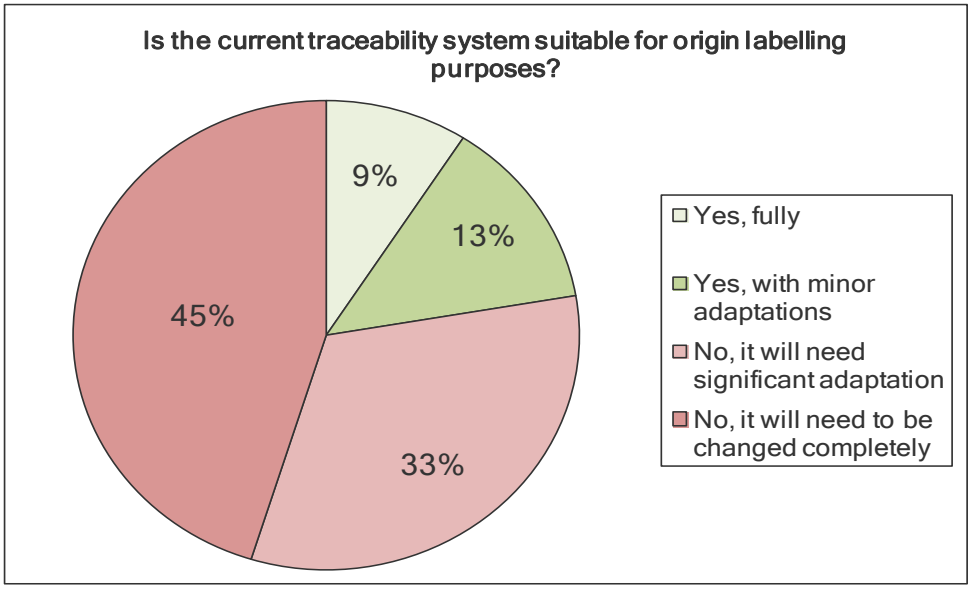


Source: FCEC FBO survey (2014), Q22

[132] The extent to which traceability goes beyond *one step back - one step forward*' could not be established as a whole from the results of the FBO survey. However, from the comments received, it can be concluded that it exists for individual cases. Where it occurs, it tends to be in the context of existing quality assurance schemes: e.g. the. UK Red Tractor provides as traceability along the supply chain covered by the assurance scheme, from farms to processors (http://www.redtractor.org.uk/home); other examples include e.g. the Bord Bia system in Ireland and some Austrian quality schemes for which there is a complex traceability system back to the farmer. Segregation of product flows for product identity preservation exists in some sectors with organic and/or certified sustainable schemes, such as coffee, chocolate etc., although the level of tracing relates to the method of production, not the place of farming.

The current traceability system is therefore not considered to be designed/not appropriate for tracing origin/provenance as such. Nearly three quarters (78%) of the sectors/FBOs that responded to the FCEC FBO survey indicated that current traceability system is not suitable for origin labelling purposes and that significant adaptation or a total change of the system is needed (**Figure 25**). Most of the consulted stakeholders note that it is not a question of extending the use of the current traceability system to also address origin labelling purposes, but a question of adapting/redesigning the entire supply chain/production process to ensure traceability of origin.

Figure 25: Extent to which the current traceability system in the EU food and drinks sector is suitable for origin labelling purposes



Source: FCEC FBO survey (2014), Q23

The extent to which an adaptation will be needed will depend on the options and modalities of mandatory origin labelling, as well as the structure of the supply chain for each food product:

- **The more detailed the origin labelling** (e.g. options/modalities requiring information on the country/region of harvest of the agricultural raw material), **the more extensive the adaptations required**;
- For each of the options/modalities, the structure of the supply chain will determine the nature and extent of impacts in terms of ensuring traceability for the various products. As a general principle, **the more complex the supply chain and the more advanced the level of processing** (i.e. passing through several stages in the production process)**, the more difficult becomes traceability** for the purposes of origin labelling.

In particular, a combination of the following characteristics and techno-economic linkages within the supply chain of each sector need to be considered to determine impacts:

Length of the supply chain. The longer the chain, *a priori*, the more extensive the effort required to trace back the origin of the raw material, particularly under the options/modalities requiring information on the country/region of harvest). In cases where supply chains are

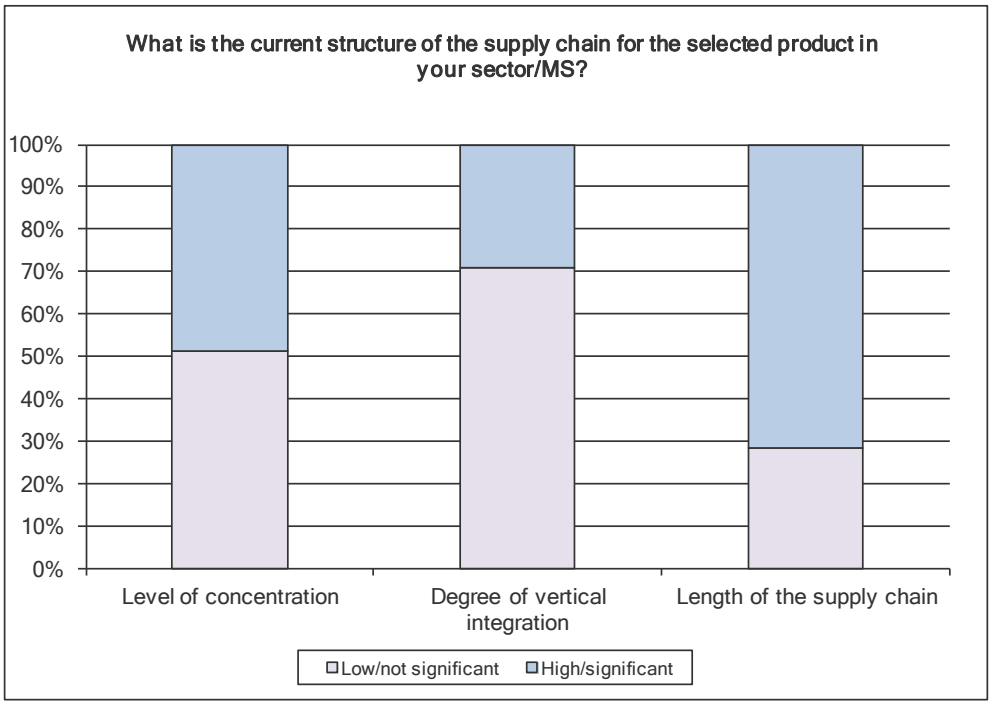
short, i.e. typically involve low levels of processing/product handling (e.g. fresh, unprocessed food products), identifying the origin of the raw material should be more immediate than in longer supply chains where intermediate stages of processing/product handling have extended the link to the raw material origin. As illustrated in **Figure 26**, although there are differences between product sectors, in two thirds of the cases received through the FBO survey, the product sectors involve longer supply chains.

Degree of vertical integration. The higher the degree of vertical integration, *a priori,* the less extensive the effort required to trace back the origin of the raw material. This factor therefore mitigates the impact of longer supply chains. As illustrated in **Figure 26**, although there are differences between product sectors, in two thirds of the cases received through the FBO survey, the product sectors involve a low level of vertical integration.

Scale of operations. Product sectors characterised by a high presence of small-medium scale of operations and more generally the concentration level of the industry vs. suppliers and buyers, in combination also to the extent to which companies/sectors are vertically integrated to raw material procurement/distribution, will also have implications in determining the extent of potential impacts for individual sectors/operators (Theme 3). While large integrated companies have the resources to put traceability and origin information systems in place along the whole chain, costs tend to be proportionately higher for smaller businesses (in relation to their total production volumes and turnover). Economies of scale are expected to have implications in terms of the individual operators' ability to put in place the traceability and other operational systems that are necessary for the implementation of the rules. Generally, it can be expected that larger scale operators/plants would be able to benefit from economies of scale, thus resulting in proportionately lower costs per unit of output in comparison to smaller scale of operations, for which the costs per unit of output would be higher. On the other hand, for some of the (smaller) operators in more niche food product segments, a mitigating factor could be their level of specialisation, to the extent that this limits their procurement of raw material to a more narrow mix of suppliers.

Again, although there are differences between product sectors, as noted in section 3.1, the EU food and drinks sector is characterised by a very high presence of SMEs and micro-enterprises. SMEs account for nearly half of the EU food and drinks sector's turnover while, as illustrated in **Figure 26**, nearly half of the cases received through the FBO survey indicated that their product sectors were characterised by a low level of concentration.

Figure 26: Structure of the supply chain prevailing in the EU food and drinks sector



Source: FCEC FBO survey (2014), Q11

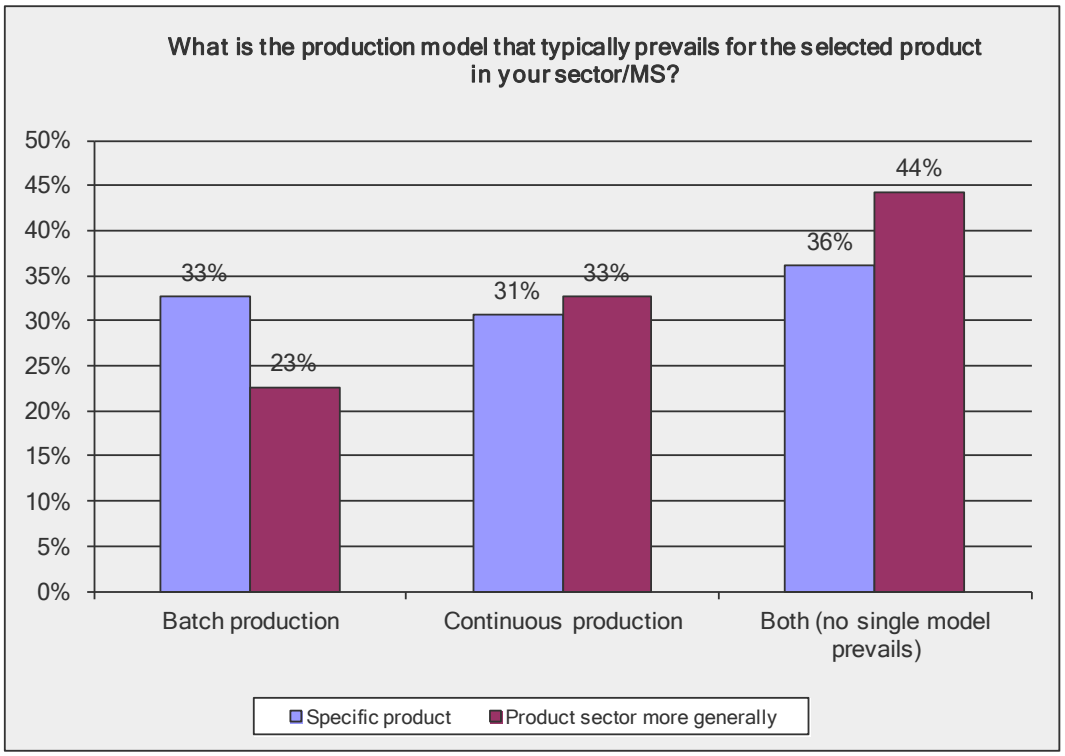
Sourcing practices. The more complex the sourcing practices (higher number of suppliers/origins, frequent changes in the mix of suppliers/origins) *a priori*, the more extensive the effort required to trace back the origin of the raw material. This factor therefore adds to the complexity of a longer supply chain, particularly when vertical integration is absent/low. As discussed in section 3.2, even though no specific sourcing practice characterises the EU food and drink supply chain as a whole, manufacturers tend to procure primary ingredients and raw materials mainly from multiple sources, whether EU only or EU/non-EU or non EU only. Sourcing decisions taken at production level depend on the availability of suitable raw material, the quality specification of the final products (and, to some extent, also the degree of vertical integration within a company, although even in this case companies will also rely on external sources). Complex sourcing practices tend to be particularly prevalent in products where the production process involves continuous blending, which is the case with several of the case studies involving bulk commodity handling/processing.

Production process. One of the critical factors determining the extent of the impacts for FBOs of the potential options/modalities of indicating the origin is the nature of their production processes. Two basic types of production processes can be identified in the food supply chain (it is noted that, beyond this broad distinction of production process, a multitude of business models and production organisations can prevail across sectors, companies in each sector and even plants of the same company): batch production processes; and, continuous production processes (for a more detailed description of these production processes see **Box 3**). In continuous production processes there are inherent technical constraints that impede origin labelling. These processes require therefore very significant adaptations that involve any combination of the following: switch to batch production;

and/or, segregation of production process by origin; and/or, change in sourcing practices (to reduce the complexity/number of origins). All of these adaptations have significant cost implications, as discussed further in Theme 3.

The food industry is characterised by a combination of these two basic production models, as illustrated in **Figure 27**. More specific comments on the production model followed for each of the case study product sectors are provided in Theme 3, section 4.10.

Figure 27: Production models prevailing in the EU food and drinks sector



Source: FCEC FBO survey (2014), Q10

All of the above factors will combine to determine the nature and extent of the impacts of mandatory origin labelling for FBOs. Overall, as discussed above, the EU food and drink supply chain as a whole is characterised by a low degree of vertical integration, the high presence of small-medium scale of operations, fragmented structures at farming and manufacturing levels, and multiple sourcing practices with frequent change of suppliers, all of which have strong implications in determining the extent of potential impacts for individual product sectors and operators (Theme 3).

Taking again as an example the case of bulk commodities (e.g. flour, vegetable oils, sugar), ensuring traceability for origin labelling purposes would involve **re-designing the production process to ensure segregation by origin**, as depicted in **Figure 28**.

These **challenges are further amplified for more complex products**, in particular multi-ingredient and further processed foods, for which traceability becomes more complex and burdensome.

Box 2: Type of production process

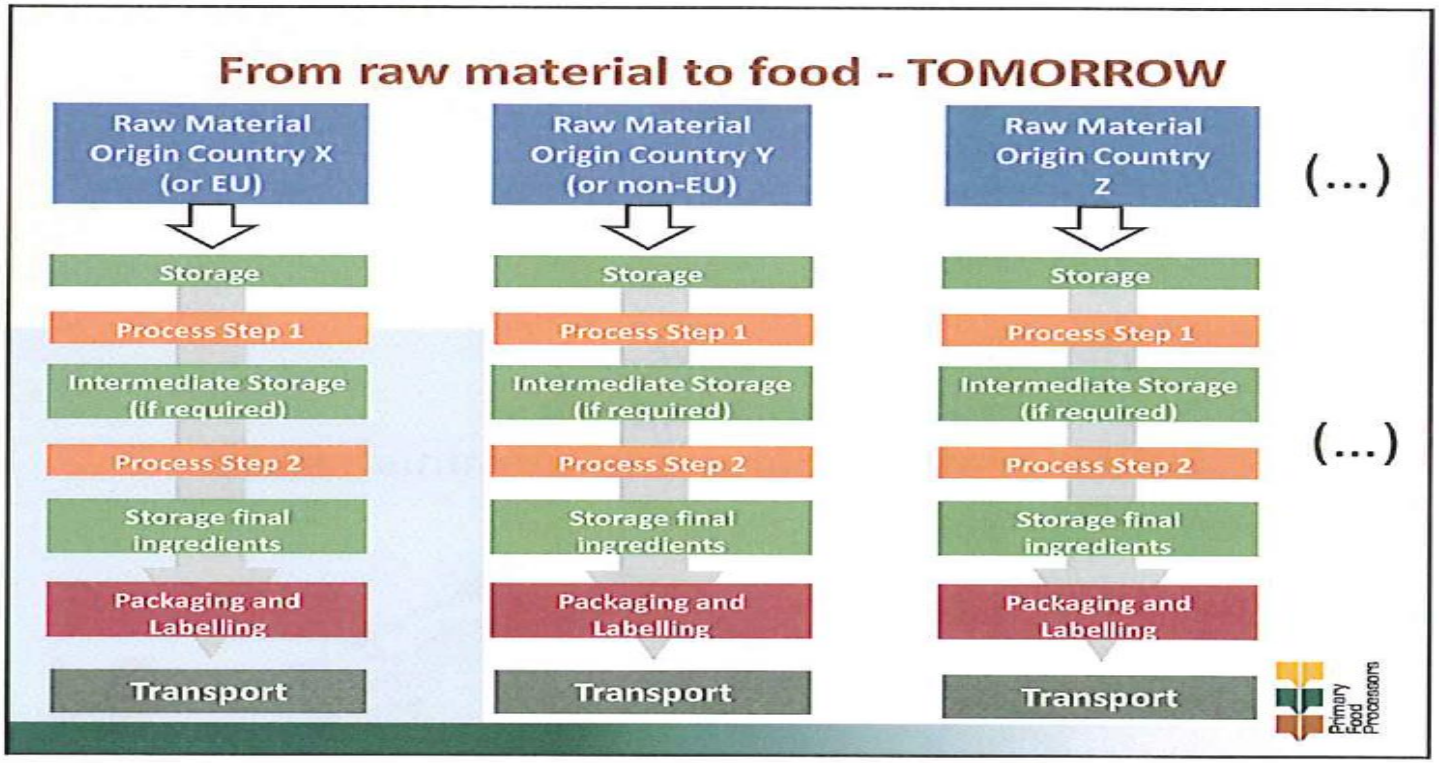
In **batch production processes**, a defined amount of raw materials/ingredients is processed through a number of operations, which require a certain time, into a defined quantity of final product. Batch production is *discontinuous* in nature: every production run in a specific production line can start only after the previous production run is completed. If the origin, or mix of origins, of raw materials/ingredients at the start of the production run is known, batch production poses no operational challenges in indicating the origin(s) of primary ingredient(s) in the final product, as no further mixing of raw materials/ingredients occurs during the production run. Examples of food products obtained through processes which are mainly batch production are bakery products (other examples include cured meats and seasoned cheeses.

In **continuous production processes**, once production is started raw materials/ingredients are continuously fed into the production line, and the final product continuously flows from it. *Ideally*, from an economic efficiency (output optimisation) point of view, continuous production processes *should not be interrupted*: indeed in operational reality interruptions occur only in case of breakdowns, for planned maintenance, or when a production line (or an entire plant) is shut down due to unavailability of raw materials/ingredients (this is the case for all production units processing perishable raw materials/ingredients which cannot be stored for prolonged periods of time, and whose availability is seasonal). If raw materials/ingredients used in continuous production processes have multiple origins, mixing of different origins through the process is unavoidable: it is hence impossible to identify with precision the exact mix of origins present in a specific quantity of final product, and even more so when the mix of origins of raw materials/ingredients fed into the production line changes over time. Typical examples of food products the manufacturing of which involves usually mainly continuous production are processed ingredients / final products such as flour, sugar, vegetable oils, potato-based products, starch-based and cocoa-based ingredients.

It is important to note that "pure" batch or continuous production is relatively rare in the operational reality of most food sectors; ***usually production processes are "mainly" batch or continuous,*** **or involve a** ***combination of batch and continuous stages*** (this is for instance the case in the manufacturing of processed fruit and vegetables such as tomato-based products, orange juice, or fresh cut green leaf salads, pasta, snacks, rice, etc.). There are also cases where either model may be followed, for example milk pasteurization can be done as a batch or a continuous process (although the latter tends to prevail particularly amongst larger producers).

Source: FCEC

Figure 28: Production process for bulk commodity agri-food products: adaptation of traceability system for origin labelling



Note: This figure represents the production process for any type of bulk agri-food commodity that undergoes continuous/ blending process; as such it is applicable to products falling under all 3 categories of the study (e.g. flour, vegetable oils, sugar etc.).

Source: Primary Food Processors (PFP)

3.5 Conclusions

The EU food and drinks sector is a major contributor to the European economy: it has a turnover of €1,048 billion, generates a value added of €206 million and employs 4.2 million people, making it the largest manufacturing sector and the leading employer in the EU. The sectors covered by this study (i.e. excluding meat, dairy and animal feed; including fish products), represent 59% of the EU food and drinks sector's turnover, 71% of value added, 65% of employment and 79% of the number of companies[133]. By its very nature, the food and drinks sector covers a wide range of product sectors and these can vary greatly in terms of the structure of the supply chain and their products' technical characteristics, in turn making it difficult to present each product sector in a universally comparable manner[134].

In terms of consumption, in total, excluding meat and dairy products, all the other food categories together account for 64% of total EU household expenditure for food. On average across the EU, 14.6% of household expenditure is destined to food and drink, but this share is significantly higher in more vulnerable, low income socio-economic groups. In most MS, average expenditure on food and drink is higher than the EU average, reaching up to 30% of total household expenditure (in Romania and Lithuania).

Overall, the EU food and drinks industry structure is relatively fragmented when compared to other manufacturing sectors. There are 286,000 companies in this sector, 99% of which are SMEs (including microenterprises). These SMEs account for 51.6% of turnover, 48.8% of value added, and 64.3% of employment in the sector. Within the grouping of SMEs, the microenterprise sub-group accounts for approximately 79% of all companies but only 8.2% of turnover, 8.9% of value added, and 16.9% of employment.

According to the results of the FCEC FBO survey (**Annex 3**), nearly 60% of the sector concerns mostly standard quality, commodity 'bulk' trading products with the remaining 35-40% being mostly high value products. In practice, every product sector has a combination of these two market segments. The extensive presence of bulk commodity production and trading in the EU food and drinks sector has implications in terms of sourcing practices, the current extent of voluntary origin labelling and techno-economic linkages and traceability along the supply chain.

Currently, food business operators' (FBOs) sourcing practices reflect a procurement strategy that provides the flexibility to procure raw material amongst a range of available geographical origins to ensure the required volumes at competitive prices and the appropriate quality specifications. Sourcing strategies are dependent on a wide range of external factors (i.e. factors beyond FBOs' own control) that influence the availability, price and quality of raw materials, such as seasonality of supplies, weather conditions, phytosanitary conditions, and the impact of those on yields, microbiological/safety issues, and changes in the availability of growing areas/regions (which in third countries can also depend on policy reforms and macro-economic/political instability). Furthermore, FBO sourcing strategies are adapted to the type of ingredients, country specificity and company size.

[133] 2012 data. Source: Data and trends of the European Food and Drink Industry, 2013/14, FoodDrink Europe. Covers all sectors identified by NACE rev2 codes C10 (food products) and C11 (drinks).

[134] Moreover, aggregate data on the supply chain of each of the 3 categories covered by the study are not available due to the diversity of products that potentially fall in the scope of each category and the lack of common understanding for the 'single ingredient' foods category.

Thus, e**ven though no specific sourcing practice characterises the EU food and drink supply chain as a whole**, the FCEC collection of data and evidence reveals that in most of the EU food and drinks sectors, **manufacturers tend mainly to procure primary ingredients and raw materials from multiple sources**, whether EU only or EU/non-EU or non EU only. Generally, food supply chain stakeholders indicated that, excluding PDO/PGI products and some niche products, single sourcing practices are limited, if not negligible. In order to maximise efficiency, the industrial production of food and drinks products requires an adequate volume of raw materials from different suppliers which are able to ensure desired quality regardless the origin of these raw materials. This is particularly the case for ingredients that are bulk commodities[135] with standardised quality parameters. **FBOs using multiple supply sources also tend to change their mix of suppliers frequently**.

Most of the food supply chain stakeholders emphasised that the flexibility offered by multiple sourcing practices is essential for companies operating in the EU food and drink sectors in order to respond quickly to any factor that may threaten the supply of raw materials; neither multiple sourcing nor the switch in the mix of suppliers has a bearing on product quality or safety and, therefore – in their view – on product labelling.

Thus, the **business reality of the EU food and drinks supply chain is that the various stages of production often take place in different MS** and there is significant trade of raw materials among the MS and with third countries. It was also added, that second or third stage processors are typically not informed about the origin of the ingredients of their suppliers, who in their turn usually rely on multiple sources. Furthermore, in some specific product sectors e.g. flour, rice, pasta, the EU does not produce raw material in sufficient quantities and therefore is forced to rely on a mix of EU and non-EU sources.

The complexity of the various food and drinks sectors and of their sourcing practices has significant implications in terms of the extent to which they currently practice voluntary origin labelling which is also linked to traceability issues.

With regard to the use of **voluntary origin labelling (VCOOL)**, it can be concluded from our stakeholder consultation that voluntary origin labelling - where it occurs - tends to be in the **high value segment of the food and drinks market**. The collected evidence[136] indicates, generally across the EU, a **low presence of VCOOL in most sectors covered by the scope of this study (Table 9)**. Nonetheless, there appears to be a growing proliferation of private schemes in place regarding the origin of food products, i.e. schemes developed by producers or retailers, more so than national schemes. Although the specifications and conditions of the various schemes tend to be different, generally 'origin' refers to the place of processing of the

[135] According to the results of the FCEC FBO survey, nearly 60% of the sector concerns mostly standard quality, commodity 'bulk' trading products with the remaining 35-40% being mostly high value products. In practice, every product sector has a combination of these two market segments.

[136] This study covers only schemes developed and approved at national or concerted industry level. It intends to provide an overview of the most commonly found current voluntary origin labelling practices. The aim is not to provide a systematic or exhaustive list of ad hoc, sometimes uncertified or with no further information provided, existing initiatives of individual actors involved in the food production and distribution chain across the EU28. Voluntary origin labelling is understood within the meaning of Article 26(3); for the purposes of this study it is assumed to refer to explicit indication of origin, such as '*made in (country)*', '*products of (country)*' or '*produced with (country) ingredient/s*' or other similar indications. The difficulty of ascertaining what is a voluntary indication/claim as such is noted, for which the implementing rules of Article 26(3) would provide further guidance.

ingredient and/or final product, the 'know-how' or 'recipe' and less so to the provenance of the agricultural raw material.

Food supply chain stakeholders have suggested that the limited use of VCOOL in many sectors is due to low consumer interest and WTP in origin indication for their products and/or the difficulties of ensuring the level of traceability required for origin labelling. **VCOOL therefore tends to occur where a) there is significant consumer interest; and b) traceability to the indicated level of origin is feasible and can be ensured at a reasonable cost**. Our broad consultation with food supply chain stakeholders revealed that their demand and need for origin information varies greatly, largely depending on the type of products. **In general terms, unless the above two conditions are met, there is currently very limited demand from food and drinks processors for information on the origin/provenance of ingredients**.

In particular, VCOOL was found to be **low in 6 of the 9 case study sectors**. For the remaining 3 sectors, i.e. rice, tomato passata and bread, the presence of VCOOL practices account for a relatively significant share of the specific product market although voluntary origin labelling does not dominate the sector as such, moreover across the EU. Amongst non case study sectors, some specific product sectors report a high presence of VCOOL, notably the chocolate, spirits and wine sectors, all of which also have a very significant presence of high value products; in these cases, the indicated origin is the place of the last substantial transformation of the product. VCOOL may be present in other sectors, but is generally **confined to speciality or niche products**, e.g. a local specialty product in one MS, and/or to very small volumes compared to the overall market. Some examples of niche origin-labelled products were identified for coffee (overall accounting <1% of total coffee market), snacks including nuts (2% in volume, 3% in value), fruit juices in France and Germany, pasta in Italy, maize flour and canned tuna in Spain, sunflower oil in France, sugar and potatoes in producing countries, pre-packed bread, and for some cereals in Scotland (oats/barley). Furthermore, in some sectors, the market share accounted for by PDO/PGI denominations can be significant (e.g. whiskey)[137]. Although EU quality schemes are not strictly speaking voluntary origin indications, as they aim to address quality attributes and do not necessarily provide indication on the provenance of the raw material (PGIs/TSGs), they tend to be recognised as such by consumers as they do have a local/regional reference, in a context of an overall low consumer awareness of PDO/PGI more generally.

Traceability is currently set up only '*one step back - one step forward*' which according to the General Food Law principles (Regulation (EC) No 178/2002) is the necessary and sufficient level for food safety purposes. Furthermore, the *'one step back - one step forward'* provides information at the level of the immediate supplier and subsequent recipient, not at the level of the product's geographical origin. As such, **existing traceability systems do not gather all the product information that has accumulated through the supply chain ("*cumulative traceability*"), nor the geographical origin information**, which would be required for origin labelling purposes. Beyond *'one step back - one step forward'*, establishing more extensive traceability becomes an extremely complex and challenging exercise, particularly the more advanced the product complexity and level of processing. Less than a third of the

[137] PDO/PGI denominations for products in the scope of the study account in total for 50% of the total number of PDO/PGI products. PDOs/PGIs are most commonly found in the fruit and vegetables sector (whether fresh or processed) accounting for 28% of the total number of denominations, although this does not indicate the actual market share (uptake) of PDO/PGIs.

sectors/FBOs that responded to the FCEC FBO survey indicated that they practice a level of traceability that goes beyond '*one step back - one step forward*' traceability, mostly in relation to existing voluntary quality assurance schemes (e.g. UK Red tractor); over three quarters (78%) of the sectors/FBOs indicated that the current traceability system is not suitable for origin labelling purposes and that significant adaptation or a total change of the system is needed.

The more detailed the origin labelling (e.g. options/modalities requiring information on the country/region of harvest of the agricultural raw material), **the more extensive the supply chain adaptations required.** For each of the options/modalities, the structure of the supply chain will determine the nature and extent of impacts in terms of ensuring traceability for the various products. As a general principle, **the more complex the supply chain and the more advanced the level of processing** (i.e. passing through several stages in the production process), **the more difficult traceability becomes** for the purposes of origin labelling.

A combination of characteristics and techno-economic linkages within the supply chain of each product/ product sector will combine to determine impacts; these include the length of the supply chain, degree of vertical integration, scale of operations, sourcing practices and the production process model. Although there are differences between products and product sectors, overall, the EU food and drinks sectors covered by this study are generally characterised by a low degree of vertical integration, longer supply chains, the high presence of small-medium scale of operations, fragmented structures at farming and manufacturing levels, and multiple sourcing practices with frequent change of suppliers, all of which have strong implications in determining the nature and extent of potential impacts for individual product sectors and operators.

One of the critical factors determining the extent of the impacts for FBOs of the potential options/modalities for indicating the origin is the nature of their production processes. Two basic **types of production processes** can be identified in the food industry (it is noted that, beyond this broad distinction of production process, a multitude of business models and production organisations can prevail across sectors, companies in each sector and even plants of the same company): **batch**; and, **continuous** (a more detailed description of these production processes can be found in **Box 2**). The food industry is characterised by a combination of these two basic production models.

In the case of bulk commodities with continuous production processes and extensive blending (e.g. flour, vegetable oils, sugar), ensuring traceability for origin labelling purposes would involve re-designing the production process to ensure segregation by origin (shift from **Figure 23** to **Figure 28**)**.** In most sectors, t**he segregation required is in addition to segregation for quality reasons, therefore increasing the complication and multiplication of storage and production adaptations needed.** These challenges are further amplified for more complex products, in particular multi-ingredient and further processed foods with longer supply chains, for which origin labelling becomes more complex and burdensome, as further discussed in Theme 3.

The conclusions reached under Theme 2 are independent of the product category, and no specific conclusions can be drawn for each of the three categories covered by this study. *A priori*, unprocessed or single ingredient products would be expected to face fewer challenges to ensure origin traceability than ingredients representing >50% of a product, but the results of the analysis indicate that this depends on the product and the situation varies on a case-by-

case basis. As outlined in the analysis, a key factor determining feasibility are the techno-economic linkages and resulting traceability conditions for the production of the different food and drinks products, and these are product- (and even company-) specific and can only be examined on a case-by-case basis, depending on the type of products and company context. For example, the increased complexity of origin labelling for bulk commodities with continuous production processes and extensive blending transcends the three categories examined by the study: e.g. flour (Cat I; ingredient in Cat III), vegetable oils and sugar (cat II; ingredient in Cat III).

4 Theme 3: Impact of the potential options/modalities of mandatory origin labelling

This section presents the analysis of the data and information provided through the FCEC consultation, including MS Competent Authorities (MS CAs), food business operators, and consumer organisations. The methodology of the present study has also included a dedicated MS CA and FBO survey for the purposes of the analysis, designed in line with the ToR for the study (FCEC 2014).

As noted throughout this Report, given the range of product sectors covered by the study, it has been difficult to implement a harmonised data collection on the feasibility and costs of mandatory origin labelling, as costs tend to be specific to each product. This also makes the extrapolation of findings from individual plants/FBOs to the product, and then the product sector as a whole very channelizing. Furthermore, food supply chain organisations and individual FBOs found it difficult to provide the detail of the evidence requested, especially concerning the feasibility of specific options/modalities (e.g. Option 2.b), given the difficulty of assessing the various hypothetical scenarios in the event that origin labelling of these foods would become mandatory. Finally, data confidentiality issues were an additional constraint to disclosing sensitive data and information.

4.1 Overview of options and modalities, and types of impact analysed

As stated in the introduction to the objectives, this study is not meant to provide an impact assessment as such. The need for a fuller impact assessment would be assessed in the event that it is decided to propose legislative action on the mandatory indication of the country of origin or place of provenance for any of the three categories of foods. Indeed, the Commission may decide not to take any action at all. Hence, **the *'no policy change'* option has also been considered in this assessment** (see 4.2.1).

In the case that action is taken to propose the introduction of mandatory origin labelling on any of the three categories of foods, the potential options and modalities examined by the study are presented in **Box 3**.

Box 3: Options and modalities considered by the study

Options and modalities

Options *on geographical level of origin labelling based on:*

1. *i) EU/non-EU origin or ii) EU/third country;*
2. *Member State or third country;*
3. *Other geographical entities as place of provenance (region).*

Modalities *considered for each of the 3 above options:*

a. Place of the last substantial transformation of the product (i.e. as determined in accordance with the EU Customs Code);

b. Place where the main ingredient was harvested;

c. Both of the above.

Consumers, MS CAs, and food supply chain stakeholders were asked to indicate their preferred option/modality and to justify their position. The results of their feedback, supplemented with relevant findings from the FCEC consumer survey and surveys carried out by consumer organisations as outlined in Theme 1, are reported in section 4.2.

FBOs (across the range of sectors including processing, distribution and retail stages of the supply chain) and MS CAs were also questioned on the potential impacts generated by each of the above options and modalities. The impacts were assessed with respect to the following aspects:

1. Technical feasibility for FBOs (section 4.3).
2. Additional operational costs for FBOs due to the implementation of the relevant policy options, including traceability issues (section 4.4).
3. Additional administrative costs and burden for MS CAs and FBOs (section 4.5).
4. Impacts on competitiveness of FBOs in the internal market (section 4.7).
5. Impacts on competitiveness of FBOs in international trade (section 0).
6. Environmental impacts (section 4.9).

The impacts on SMEs in particular are included in the analysis per type of impact and of the competiveness within the internal market.

All costs were calculated on an additional basis, i.e. in comparison to the current status quo and excluding business-as-usual (BAU) costs.

The impacts described below are set out at the aggregate level. There are differences between sectors, MS and companies in terms of the scale of these impacts, and associated costs. In particular the direction and extent of the impact depends on several factors including the product range, sourcing practices, length of the supply chain, degree of vertical integration, scale of operations and current traceability systems.

4.2 Preferred options/modalities and their advantages and disadvantages

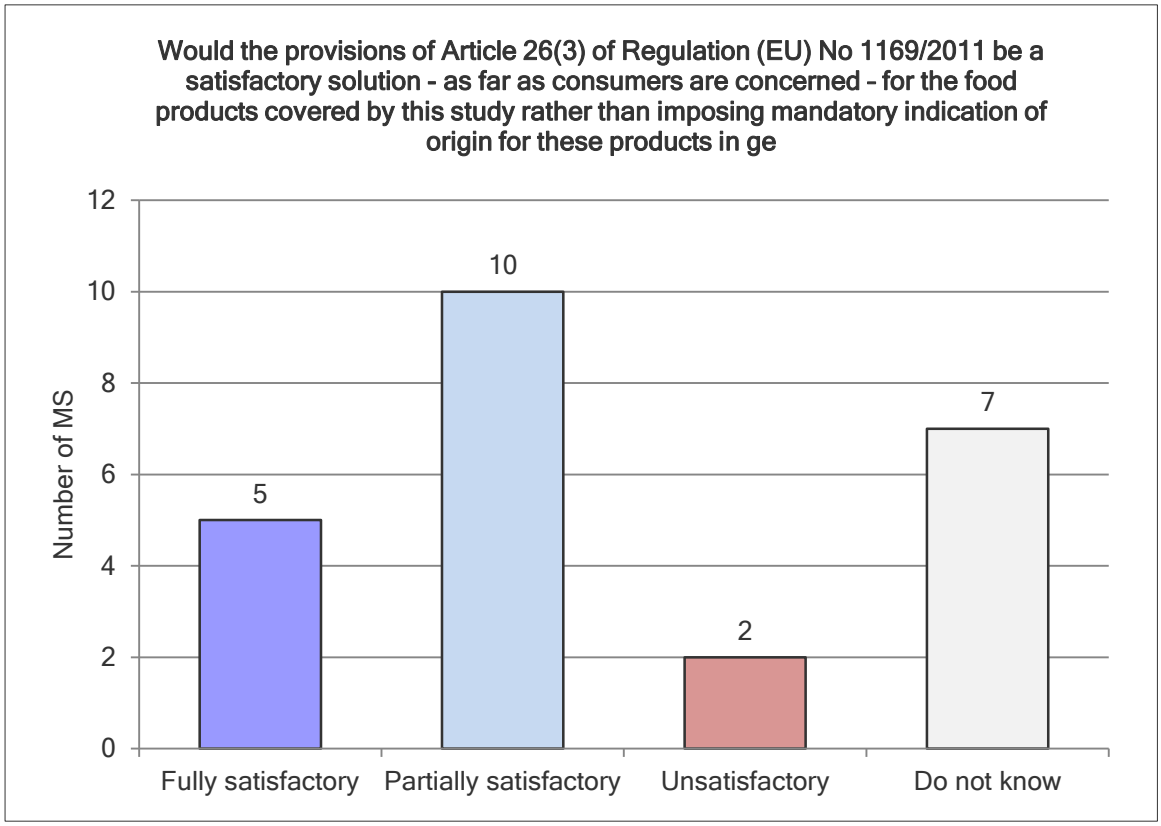
4.2.1 '*No policy change*' option: extent to which Article 26(3) FIC provisions on voluntary origin labelling are considered sufficient

With respect to voluntary labelling of origin of a food, Article 26(3) of Regulation (EU) No 1169/2011 (the 'FIC' Regulation) establishes the rule that, where the country of origin or place of provenance of the food is given and it is different from the one of its primary ingredient/s, the country of origin or place of provenance of the primary ingredient/s must also be given. The Regulation also provides for the possibility to simply indicate that the country of origin or the place of provenance of the primary ingredient/s is different from that of the food. The Regulation also stipulates that the above rules will apply without prejudice to labelling requirements provided for in specific Union provisions, in particular the provisions governing the use of the EU quality schemes known (PDO/PGI/TSG). The obligation would apply as of 13 December 2014 subject to the adoption of an implementing act. The impact of various options for the implementation of Article 26(3) has been analysed in a study carried out on this for the European Commission in 2013.

The majority of the MS CAs that responded to the survey consider the current voluntary labelling provisions as provided in Article 26(3) of Regulation (EU) No 1169/2011 to be a

fully or partially satisfactory solution for responding to EU consumer calls on country of origin labelling, rather than mandatory rules. In particular, for 5 MS CAs (out of the 24 MS CAs that responded to this question) Article 26(3) provides a fully satisfactory solution, with a further 10 MS CAs indicating it could provide a partially satisfactory solution, while 2 MS CAs did not consider it adequate (and 7 MS CA indicated they do not know) (**Figure 29**).

Figure 29: Extent to which MS CAs consider Article 26(3) responds to consumer calls for origin labelling (n=24)



Source: FCEC MS CA survey (2014), Q11

It was noted by several MS that the fact the implementing rules for Article 26(3) are not known yet makes it difficult to position themselves on the necessity to introduce origin labelling rules on a mandatory basis. Several MS also noted that the adequacy of Article 26(3) depends on the products concerned.

For those considering that Article 26(3) is not sufficient, the main potential weaknesses identified in these provisions are as follows: a) Article 26(3) only covers the primary ingredient and could be difficult to establish this for certain categories of products, particularly for multi-ingredient foods; and, b) where voluntary schemes are not widespread or do not exist, they do not provide a satisfactory solution to consumer demand to know more about the origin of foods and their ingredients. One MS (IT) quoted the survey conducted in 2014 by the national Ministry of Agriculture and Forestry (see Theme 1), which found that 62% of consumers are partially satisfied with the information on the label about the origin of the raw material and want to find information on the label regarding both the origin of the raw material and the place of processing.

For those considering that Article 26(3) can be a solution, this is on the condition that implementing rules for voluntary origin labelling are clear and meaningful to consumers. Several (5) MS CAs are against the introduction of further rules on a mandatory basis, for the following reasons:

- The objective sought by these rules (i.e. to improve consumer information) is questioned, as well as whether their introduction on a mandatory basis could effectively meet this objective - or simply open the opportunity for more fraud;
- Some MS CAs stressed that origin labelling (especially in the EU internal market) does not give any indication as regards the product quality or the safety of the food products covered the study and is therefore of little informative value to consumers;
- In some cases, MS CAs indicated that consumers appear to be more interested to know the origin of fresh food rather than processed food. In this context it was also noted that as each category covers a diverse range of foods understood by the consumer to be fresh, unprocessed, lightly processed and/or further processed, it is difficult to ascertain the extent to which consumers would be interested in the origin of food on the basis of the three categories covered by the study;
- Many of the products covered by the study would not represent the main / characterising ingredient of a food, yet could be subjected to unnecessary and meaningless rules, such as origin labelling for sugar;
- The controls required are expected to be too complex and too costly while the effectiveness of controls based on documentary checks is questioned (see section 4.5 for a more detailed analysis);
- The rules are expected to lead to significant cost increases, which are expected to be passed – partially or entirely - on to consumer prices, while consumer willingness to pay for the additional costs is generally considered to be weak/absent (as indicated by the majority of MS CAs, see Theme 1).

4.2.2 Options/modalities in case of introduction of mandatory origin labelling

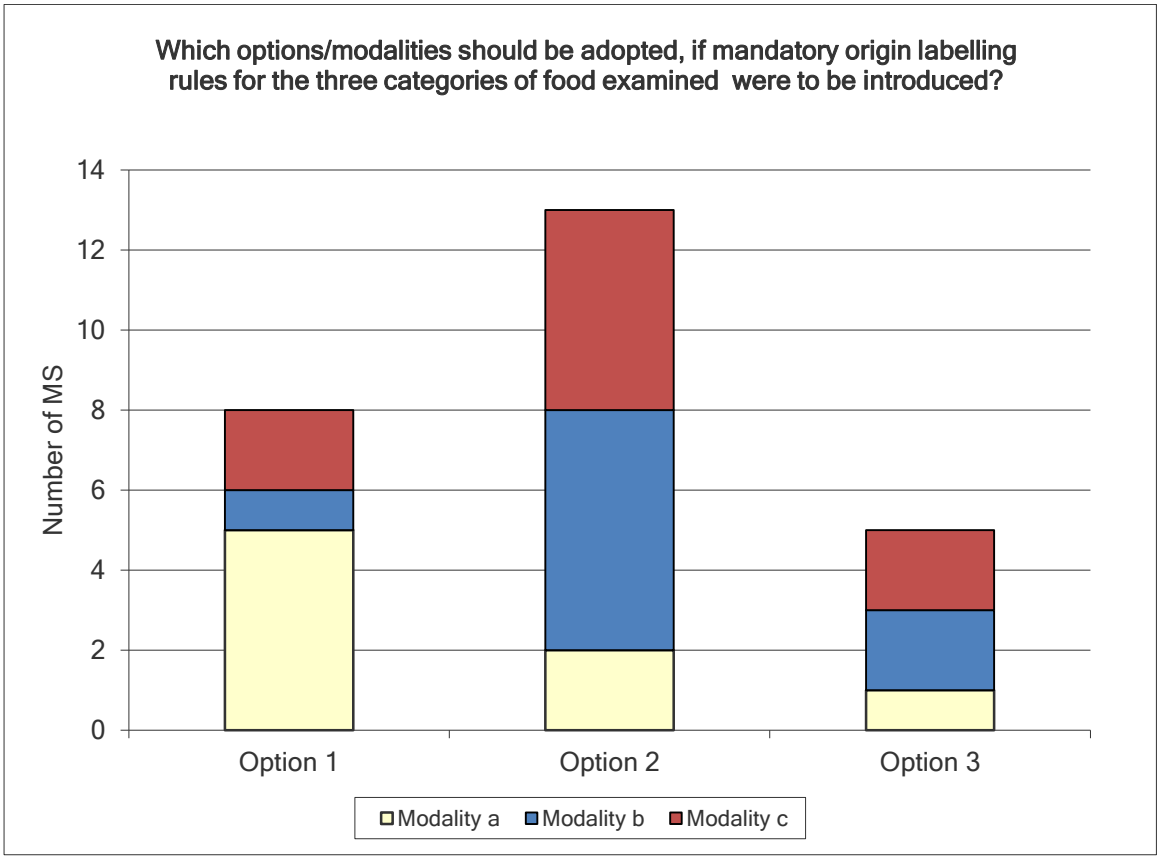
Note: This section aims to provide a comprehensive overview of the preferences of the consulted stakeholders in case action is taken. In practice, the consulted stakeholders rarely provided the required detail when expressing their preferred options/modalities. Furthermore, some stakeholders favoured "hybrid" options, combinations of more options, or ad hoc options which could not be unambiguously linked to any of the options/modalities covered by the scope of the study.

It should be borne in mind that the MS CAs are still forming their position on the issues under study, particularly while awaiting the implementing rules on Article 26(3) regarding voluntary origin labelling, and this explains why not all MS CAs expressed a preference. Furthermore, as noted above (**Figure 29**), at least 5 MS CAs consider that Article 26(3) provides a satisfactory solution to consumers' demand for origin labelling, while a further 10 MS CAs consider this provides at least a partial solution.

Bearing the above context in mind, **Figure 30** illustrates the preferences of MS CAs concerning the relevant options on the geographical level of origin labelling. In total, 20 MS CAs provided feedback to this question in the survey. Of these, 13 MS CAs selected Option

2, while 8 MS CAs selected Option 1 and 5 MS CAs Option 3 (respondents could select more than one option/modality depending on the products / product sectors).

Figure 30: Preferred options for the mandatory indication of origin of the 3 categories of foods, as expressed by MS CAs (n=20)



Note: As this study covers a wide range of products, MS CAs were given the possibility to provide more than one answer (i.e. combination of option/modality). Thus, although in total 20 MS CAs expressed a preference, the number of total preferences is >20.

Source: FCEC MS CA survey (2014), Q13

It has not been possible to differentiate further preferences for each of the three product categories considered in the analysis. As noted above, several MS CAs pointed out that the 3 categories include both processed and unprocessed products, and a more precise answer is only possible to be given on individual products.

Nonetheless, from the comments provided by MS CAs, it can be concluded that **the higher level of blending/processing and sector complexity** (which can occur in all 3 categories, particularly bulk commodities and the third category of ingredients that represent >50% of foods) **the less feasible the level of detail** that is considered possible by MS CAs to provide **on the origin/provenance of ingredients**. Thus, although Option 2 was preferred more than Option 1 on the basis that is considered more relevant for the consumer, most of the MS CAs that supported Option 2 (and Option 3) indicated that support for modality a or modality b would depend on individual products concerned and can only be established on a case by case basis: (if food products are processed: mostly modality 'a'; if unprocessed: mostly

modality 'b'). Although overall MS stated that for "legal certainty", modality 'a' refers to the definition of "origin" given by Reg.1169/11,art.2(2.g) and Reg.952/13,art.60, some MS questioned the relevance of origin information for certain products as established under the Community Customs Code. In particular, the Community Customs Code states that goods whose production involves more than one country shall be deemed to originate in the country where they underwent their last, substantial, economically justified processing or working, but in some cases this also includes packaging, while in other cases it may not include processing as this might be understood by consumers (e.g. sugar refining is not considered as substantial transformation).

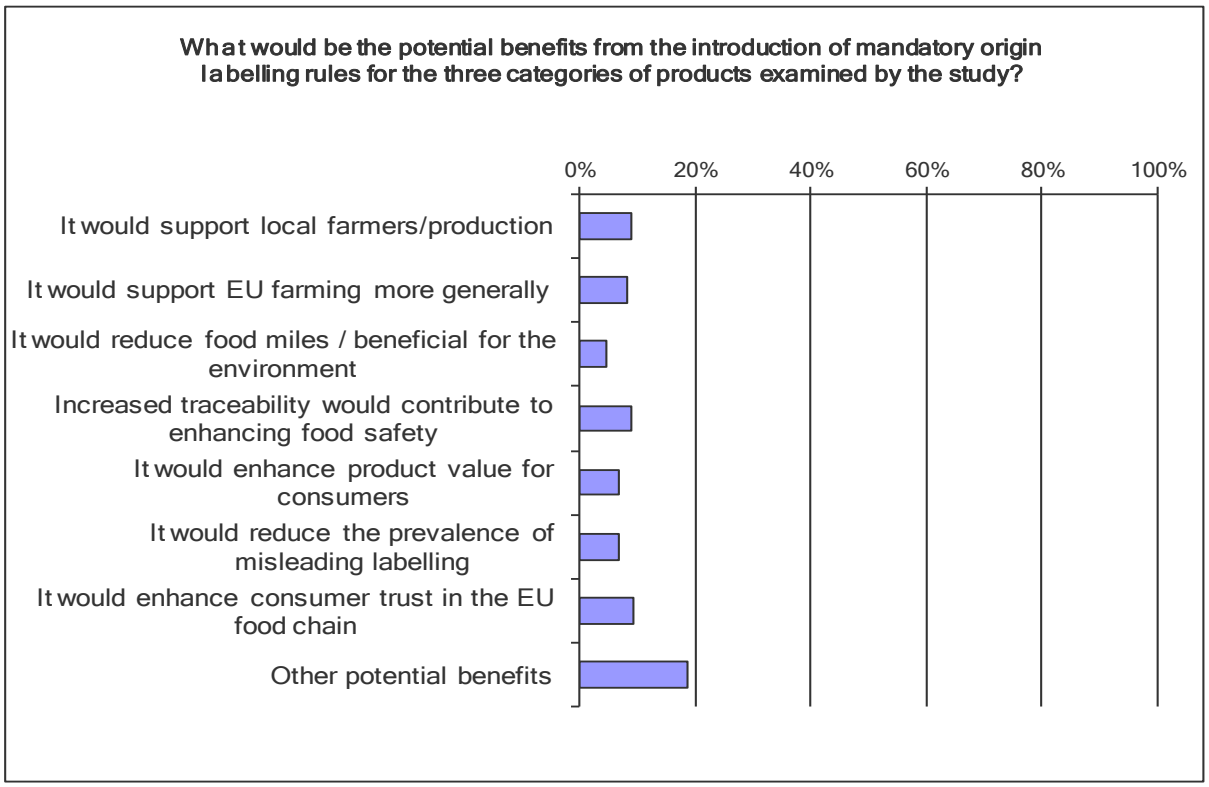
Those MS CAS supporting Option 1 indicated that, since all standards in the EU should be applied in the same way, an "EU / non EU" indication stands for a high level of quality and safety for all food. Furthermore, Option 1 was supported by some MS for certain products, in particular for ingredients that represent more than 50% of a food, on the basis mainly that as this concerns processed multi-ingredient foods, the quality of the food products is more important for consumers than their origin.

Option 3 (*'other geographical entities as place of provenance' [region]*) was generally considered to be **not feasible** for the following reasons:

1. There is no universally accepted definition of 'region', whether at sub-national or supranational level;
2. Traceability is more complicated than in the other options and is even considered not feasible in some cases, while it would be even more difficult to verify/control; and,
3. There is potential for overlap/confusion with existing EU quality schemes (PDO/PGIs) that could undermine the added value of these schemes.

The **position of FBOs** is strictly related to the technical feasibility of the different options and modalities, as further discussed in section 4.3. In the FCEC FBO survey, less than 10% of the FBOs thought that mandatory origin labelling would bring any of the potential benefits indicated, while less than 20% thought there would be any other (mostly sector specific) benefits (**Figure 31**).

Figure 31: Potential benefits of mandatory origin labelling, according to FBOs (% of total respondents that selected at least one of the indicated benefits) (n=205)



Source: FCEC FBO survey (2014), Q36

As for **consumers**, their preferences for the different options were mainly investigated through specific questions of the FCEC consumer survey in relation to representative products in each of the three categories examined by the study and in relation to consumers' willingness to pay for additional information on the origin of three food products (selected by consumers amongst the list of representative products under the three categories). The detailed results of the FCEC consumer survey are reported in Theme 1 and **Annex 5.**

The main **advantages and disadvantages** of each of the potential options/modalities, as highlighted by the relevant stakeholders (consumers, MS CAs and FBOs) are summarised in **Table 10**. It is noted that overall the MS CAs and food supply chain stakeholders stressed the disadvantages of introducing generalised mandatory origin labelling rules given the broad category scope and lack of common understanding as to which products these categories include. Beyond this general disadvantage, the table below presents the advantages and disadvantages between the different options/modalities in the event that mandatory origin labelling is to be considered on a case by case basis.

Table 10: Overview of main advantages and disadvantages of the potential options and modalities for the mandatory indication of origin

Options

Options on geographical level of origin labelling	Advantages	Disadvantages
1. Origin labelling based on: *i) EU/non-EU origin, or* *ii) EU/third country.*	More practical in case of mixes of different food ingredients and/or in case of mixed origins (blending – usually the case for bulk commodities); This level of information is more relevant in the context of the EU internal market, as an indication of product quality / safety (and other EU standards) of the food product; Allows flexibility in sourcing, which is essential in the sector, particularly in case of unforeseen events affecting the supply of food ingredients.	Informative value for consumers is lower than for Option 2, although considered more relevant in the context of the EU market. EU/TC: potentially discriminatory *vis-à-vis* TC suppliers.
2. Labelling indicating the Member State or third country.	Informative value for consumers is higher than for Option 1, in terms of perceived product quality (in terms of safety and other EU regulatory standards, any food product marketed in the EU should be regarded as safe and complying to EU standards, irrespective of its origin).	Implementation is extremely challenging in case of mixes of different food ingredients and/or in case of mixed origins; Constraints access to a larger sourcing area, which is essential in the sector, particularly in case of unforeseen events affecting the supply of food ingredients.
3. Other geographical entities as place of provenance (region).	No specific remarks.	Generally not considered feasible for MCOOL, especially if the geographical detail of the place of origin/provenance is sub-national, as this would amplify the operational challenges posed by Option 2, but also due to the lack of a commonly accepted definition for other geographical entities, and potential for overlap with PDO/PGI products.

Modalities

	Advantages	Disadvantages
a. Place of the last substantial transformation of the product (i.e. as determined in accordance with the EU Customs Code).	More practical if multiple origins are involved in upstream stages of the supply chain.	Provides no information on upstream stages of the supply chain of the food ingredients, which consumers deem important to know.
b. Place where the main ingredient was harvested.	Provides information on upstream stages of the supply chain of food ingredients used, which a number of consumers deems important.	If multiple origins are involved in upstream stages of the supply chain, implementation is extremely challenging; According to some stakeholders (MS CAs and FBOs), too much information might confuse consumers.
c. Both of the above.	As in modality 'b'	As in modality 'b'

Source: FCEC based on consultation of relevant stakeholders (consumers, MS CAs and FBOs)

4.3 Technical feasibility

The following aspects were considered in the assessment:

- Technical feasibility for the suppliers of the raw materials;
- Sourcing practices, including adaptation of transportation systems, storage facilities and practices, etc.;
- Adaptation of the production process of the final product, including the layout of production lines, production techniques, packaging, labelling, etc.);
- Marketing of the final products;
- Implementation of traceability along the entire supply chain.

Apart from identifying the **technically feasible options for FBOs**, the reasons why the remaining options were deemed to be not feasible were also investigated. These were linked to the specific characteristics of the supply chain in each sector and current business practices (as identified in Theme 2, on the basis of the desk research and contributions from food supply chain stakeholders).

Despite the challenges and caveats of the data collection required for this study, **Table 11**: aims to summarise under a structured framework the available evidence across the various products/product sectors, providing details to the extent available.

The main findings on the technical feasibility of mandatory origin labelling for FBOs, across the range of sectors including processing, distribution and retail stages of the supply chain, are the following:

- **Option 1** (origin labelling based on i) EU/non-EU origin or ii) EU/third country) is **always considered more feasible** (or at least less challenging) than Option 2 (label indicating the MS or TC) and Option 3 (label indicating other geographical entities as place of provenance). However, some food supply chain organisations pointed out that whenever food ingredients of EU and non-EU origin are mixed in the production process, mandatory origin labelling would pose serious operational challenges and require radical adaptations.
- Under all options, **modality a** (origin as determined in accordance with the EU Customs Code - mainly corresponding to the country of the *'last substantial transformation'*) - **is generally considered technically more feasible** by FBOs. However, this depends on the actual provisions of the Customs Code in defining *'last substantial transformation'*, as well as supply chain characteristics in each product/product sector, as explained further below (**Box 5**).
- As already noted, **Option 3** ('*other geographical entities as place of provenance'*) was generally considered to be not feasible for the following reasons: 1. there is no universally accepted definition of '*region'*; 2. traceability is more complicated than under the other options and is even considered not feasible in some cases; and, 3. there is potential for overlap/confusion with existing EU quality schemes (PDO/PGIs).
- The main **reasons why some options/modalities are considered not feasible** relate to **current business practices** (**Figure 33**). The most crucial elements are the need to perform very significant adaptations in the production processes and sourcing practices (both for suppliers of raw material and for processors of the final product).

In particular, the following key challenges are expected to arise for FBOs along the supply chain of the three categories of foods if mandatory rules were to be considered:

- *Incompatible sourcing practices*. The key aim of food product manufacturers is to achieve the required quality specifications at competitive prices. This is particularly the case for standard commodity products such as sugar and flour, for which competition is high and prices are formed at world markets. It is noted that each and every sector has a mix of standard commodity products and higher value products, although the shares of each of these segments vary depending on the product sector and the market. As also described in more detail in section 3.2: the currently applied sourcing practices are often very complex and involve multiple EU and also non-EU origins; in most cases suppliers/origins change frequently over time; the mixing of different origins can occur at various stages in the chain, and already before the arrival of the raw material at the processing plants where it is processed/used as an ingredient in the production of final products.
- The *need to switch to smaller production batches, and/or to interrupt continuous phases of the production process*, especially in large-scale automated plants (for instance, wheat milling, sugar refining) in order to achieve segregation by origin within the processing plants. Both adaptations require very significant investment, while at operational level they generate very considerable inefficiencies.
- *Systematic adaptation of labelling/packaging to changes in the origin(s) of food ingredients*: in view of the frequent change of origins (see point a. above), this can require very frequent changes of packaging/labels and additional investment in printing equipment, and can result in underutilisation of packaging lines and in an increase in waste packaging material.
- The need to adapt significantly the *traceability* system, to ensure constant tracing of the origin throughout the supply chain (rather than current one step forward one step back traceability for food safety purposes).

All these issues are discussed further in the following sections, particularly under the assessment of operational costs (section 4.4).

By and large, the consultation of FBOs has revealed **two main scenarios** that would emerge, in case mandatory origin labelling rules are introduced, so as **to ensure full (cumulative) traceability for origin purposes**, as presented in **Box 4** below.

Box 4: Scenarios of adaptations required at FBO level

A. ***Adaptation of sourcing practices****: where possible, FBOs would attempt to limit the number of countries from which they source. This scenario is not always feasible, for example when imports are necessary, from other countries whether EU MS and/or third countries, because availability, seasonality, quality and other factors (e.g. diseases, policy changes etc.) constrain self sufficiency.*
B. ***Adaptation of the production process****: where scenario A is not fully possible (i.e. is not possible at all, or is possible to some extent), FBOs would be obliged to:*
   i. *Either, where possible, segregate production facilities, by creating a parallel process by origin, in most cases throughout the production process (from raw material input flows to final output) (**Figure 28**). This scenario is not always technically feasible, as in many cases, there are planning restrictions such as for plants located in urban zones (e.g. rice sector);*
   ii. *Or, convert from continuous to batch production models. Even when batch production models are already in place, switch to handling smaller batches may be needed;*
   iii. *Or, a combination of segregation and conversion to batch production.*

Source: FCEC consultation and FBO / MS CA surveys

In scenario A (adaptations in sourcing practices), there would be a loss of flexibility in sourcing with implications in terms of the availability, quality and prices at which raw materials can be obtained.

In scenario B (adaptations in the production process), there would be additional costs for:

- Investment in duplicating/extending production capacity, e.g. in silos, storage and new production lines (where this is possible). The costs of this scenario are particularly high, to the point that it is considered not feasible from an economic point of view (and in many cases not feasible from a technical point of view). The indicative (fixed, one off) costs, where available, of the investment required are provided here for some product sectors. In addition, there will be variable costs to maintain and operate the additional facilities/capacity, such as for unloading, storage, management and administration of this parallel production process.
- Where there is a conversion to batch production, or shift to smaller batches, there would be efficiency losses resulting from the discontinuation of the previous (continuous or larger batch) production process model, due to the required disruptions when switching between origins.
- In addition, there would be cleaning costs between batches (to avoid origin cross-contamination), and additional logistics/stock management costs.

In addition to the above, in all scenarios, there would be additional labelling/packaging costs, administrative costs and burden, and further impacts in terms of competitiveness, internal market, international trade and environmental issues, as discussed in the following sections.

The operational costs under the above scenarios are discussed further in section 4.4 and summarised for each case study product/product sector in **Table 12**. Concerning in particular investment costs under scenario B.i and B.iii (i.e. involving total or partial segregation of production facilities), where this is technically feasible, these costs are so high that they are largely considered not feasible in economic terms, particularly as in most cases the sectors already operate at low profit margins. For example, in the case study on flour in bread, under scenario B.iii, in addition to adapting sourcing practices and production facilities, bakers

would need to increase storage capacity to separate origins of flour; the investment involved was estimated by one large FBO at €4.5 million. In the sugar sector, under scenarios B.i/B.iii, according to industry data, to duplicate storage capacity could lead to investment costs for individual plants from €2 million up to €250 million depending on their size of operations (for storage silos with capacity from 5,000t to 60,000t, respectively) Another example is in the vegetable oils sector, where the required investment under Scenario B.i could amount up to €30 million for additional storage in oilseed silos, up to €6.4 million for the additional discharge line and equipment, and up to €86 million for the additional processing lines and oil tanks, i.e. potentially totalling a €122 million investment (all estimates according to industry data).

In establishing the technical feasibility, as well as the costs and impacts, of the various options for the various products/product sectors, it is important to clarify the **implications of modality 'a' versus modality 'b'**. This will vary by sector, depending on:

1. The provisions of the Customs Code on what is defined as '*last substantial transformation*' in each sector. In some of the case study sectors this is defined as the place of harvest of the agricultural raw product rather than the place of 1st stage processing (in terms of what might be commonly understood by consumers as '*processing'*). In these cases, in practice, modality 'a' = modality 'b';
2. The supply chain characteristics of each product/product sector. In some cases, particularly for perishable agricultural products, for both technical and economic reasons, the 1st stage processing takes place close to the place of harvest, i.e. within the same country (with the exception of cross-border trade between farm/processing locations in close proximity in bordering MS). This tends to be the case for sugar beet/cane, tomatoes, salads, potatoes and oranges; it can also be the case, but to a lesser extent, for some less perishable products such as oilseeds and rice[138]. In these cases too, in practice, modality 'b' = modality 'a'.

The implication is that **for some of the products/product sectors, modality 'a' = modality 'b'**, in the sense that modality 'a' *de facto* refers to the place of harvest of the agricultural product (i.e. modality 'b'). **In practice** it means that, **in the case of modality 'a', some sectors will *de facto* bear the generally considered less technically feasible and higher cost impacts of modality 'b',** unlike other sectors for which modality 'a' remains the place of processing. This is illustrated in the case of sugar in **Box 5**, and explained further per case study product in section 4.10.

With regards to point 1., in addition to feasibility issues, there is also the potential to mislead the consumer. This is a concern, particularly as there also contrasting cases where packaging (i.e. what might not be commonly understood by consumers as '*processing'*) is considered to be the '*last substantial transformation*' according to the Customs Code. Such is the case of example with the blending of vegetable oils which is considered to the '*last substantial transformation*', when none of the constituent oils in the blend is >50% of the final product (this applies both to blends of 'single' type of oils e.g. sunflower oil, blends of mixed types of oil e.g. sunflower and corn oil). In this case, therefore, modality 'b' would refer to the place of blending (which can EU and/or non EU).

[138] The extent of 1st stage processing close to the place of harvest in these cases will depend on labour costs and/or the costs of transport of agricultural raw material versus processed product.

Box 5: Cases where modality 'a' = modality 'b'

In some cases, **particularly for highly perishable agricultural products**, for both technical and economic reasons, the 1st stage processing takes place close to the place of harvest, i.e. within the same country (with the exception of cross-border trade between farm/processing locations in close proximity in bordering MS). This tends to be the case for sugar beet/cane and fruit and vegetables (e.g. tomatoes, salads, potatoes and fruit); it can also be the case, but to a lesser extent, for some less perishable products such as oilseeds and rice.

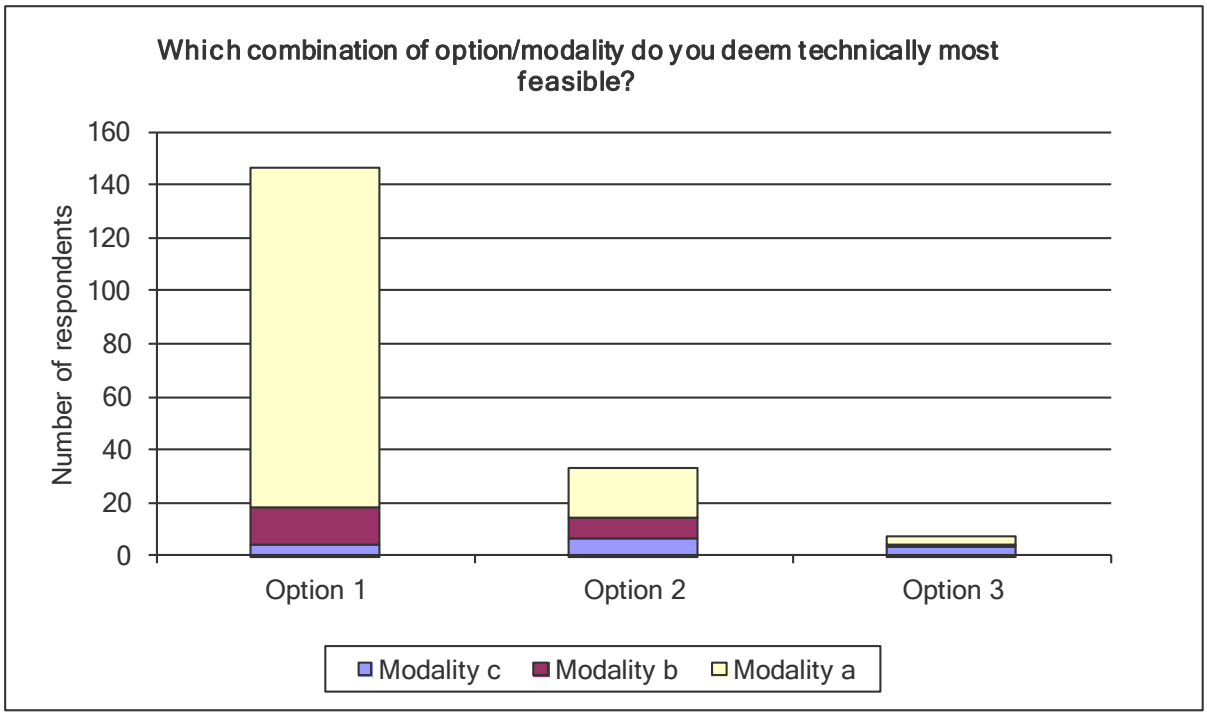
To illustrate this point in a simplified form, taking the example of **sugar***, sugar beet/cane grown in country 'X' (for sugar beet: EU; for sugar cane non-EU) will – for the most part – be processed into raw sugar in the same country 'X'. There will then be significant trade and mixing of different origins of raw sugar for further processing into refined sugar (i.e. the product destined to the final consumer (B2C) or sold B2B for use into the processing of other food products). This refining will take place in any country 'Y', and the raw sugar will have been sourced from multiple EU and non EU origins (as there is also mixing of cane and beet sugar for refining, as well as of refined cane and beet sugar).

The implication is that **for some of the products/product sectors, modality 'a' = modality 'b'**, in the sense that modality 'a' *de facto* refers to the place of harvest of the agricultural product (i.e. modality 'b'), particularly when the '*last substantial transformation*' according to the EU Customs Code does not refer to the place of processing of the final products (e.g. refining raw sugar is not defined as '*last substantial transformation*'. In the case of sugar, the impact would mainly apply to those refiners in the EU that refine both raw sugar of beet (EU) and cane (non-EU), therefore modality 'a' = 'b' for them would be a mix of EU and non-EU origins.

** Note: the production process and supply chain characteristics for the other case study products is described further in section 4.10).*

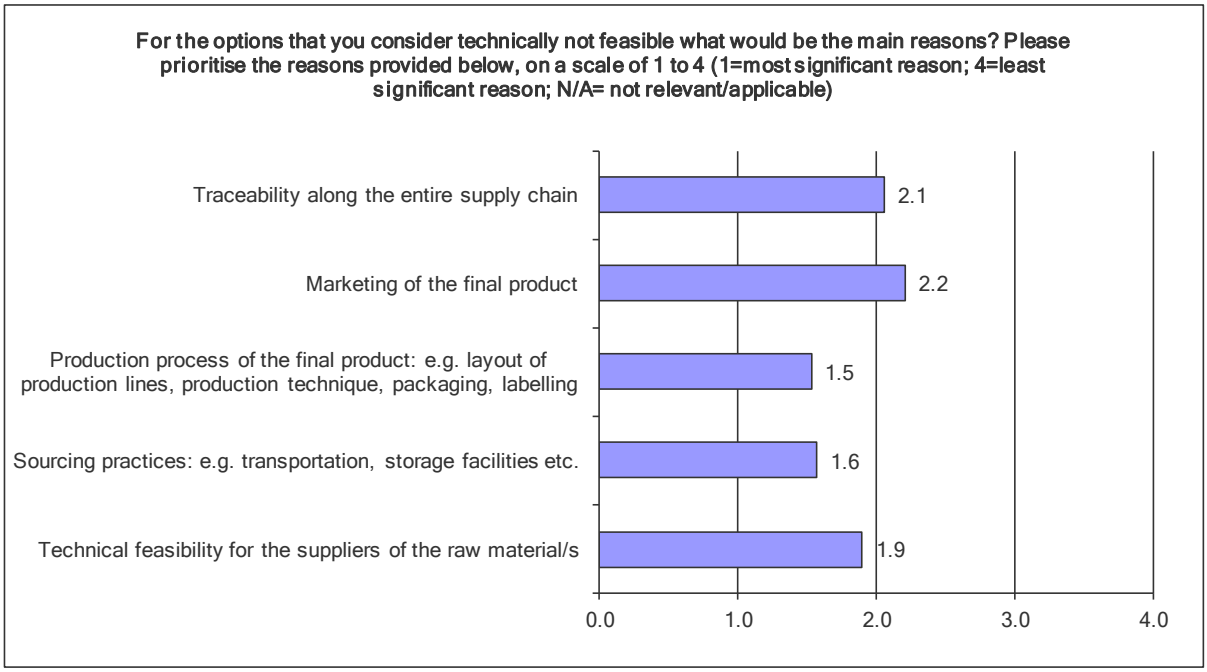
Source: FCEC consultation and FBO / MS CA surveys

Figure 32: Combinations of option/modality considered technically most feasible by FBOs (n=181)



Source: FCEC FBO survey (2014), Q26

Figure 33: Reasons why some options are not considered feasible by FBOs (n=191)



Source: FCEC FBO survey (2014), Q25

Table 11: Technical feasibility of potential options/modalities of origin labelling, by product sector

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Category I: Unprocessed foods			
Flour *Cat I* (European Flour Millers; individual companies)	**Option 1**: less challenging under modality a; under modality b only if EU origin is <u>not</u> mixed with non-EU origin. Options 2 and 3: moderate to high impact under modality a; under modality b, extremely challenging or not feasible.	Only **Option 1a** is considered feasible while **Option 1b** is only feasible if EU wheat is <u>not</u> mixed with non-EU wheat. For wheat flour in general, the label "*a blend of EU and non-EU wheat*" is the most feasible option. The entire bulk grain supply chain would need to be fundamentally changed, at significant cost, to allow modality b or c, especially in Options 2 or 3. <u>Note</u>: ***Milling of grain is considered to be a substantial transformation*** *according to the Customs Code. But the EU Regulation (EC) N° 852/2004 on the hygiene of foodstuffs does not consider flour milling products as processed products.*	• *Sourcing of grains*: involves multiple EU and also non-EU origins, often changing frequently over time depending on availability, price and quality required. Changes of suppliers are frequent (3 or more per year) and may concern the majority of suppliers. This limits the scope for mitigating impacts of origin labelling through adaptations of sourcing practices (Scenario A). • *Production process*: mixing of different origins occur at various stages in the chain. Blending of different wheat qualities (hence origins) is a necessary step in flour production. Modality b would imply Scenario B adaptations, i.e. interruptions in continuous phases of the production process => inefficiencies; or segregation of production facilities by origin; • *Labelling/packaging*: There would be additional costs due to the purchase and complex management of an increased number of packaging. The extremely frequent origin changes (or combinations of origins) would result in inefficiencies in the process (although partly mitigated by the B2B nature of the flour milling sector, i.e. sales of larger quantities)

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Rice *Cat I* (FERM; associations; individual companies)	Options 1, 2 and 3: **less challenging** where there is less significant mixing of origins in case of speciality rice (e.g. *basmati*, *fragrant* and EU rice varieties). Options 1, 2 and 3: **extremely challenging or not feasible**, for standard rice (e.g. majority of *Indica* rice).	<u>*Note:*</u> ***Rice milling is not a 'substantial transformation'*** *under Customs Code rules* => **only modality b is applicable for rice (the place of harvest)**.	• *Sourcing of rice:* sourcing patterns significantly vary depending on milling plant and the rice type; as a result costs can range from negligible (sourcing in 1 MS or in the EU only) to very significant (various countries, EU and non-EU). Sourcing standard long grain rice (*Indica*) from both EU and non-EU origin is quite prevalent, even in rice producing MS. This limits the scope for mitigating impacts of origin labelling through adaptations of sourcing practices (Scenario A). • *Production process:* the rice milling process is a mix of continuous and batch production models (depending on the product/mill). There may be active blending of rice to achieve quality specifications. Origin labelling of rice by place of harvest would require Scenario B adaptations, i.e. interruptions in continuous phases of the production process (=> inefficiencies due to move towards batch production); or segregation of production facilities by origin; • *Labelling/packaging*: on-line printing not possible therefore pre-printed packaging would be needed. There would be additional costs due to the purchase and complex management of an increased number of SKUs. The extremely frequent origin changes (or combinations of origins) would result in inefficiencies in the process.
Fresh cut salads *Cat I* (FRESHFEL MS associations; individual companies)	Option 1: least challenging option, particularly under modality a. Option 2, 3: feasible under Option 2a, otherwise extremely challenging and not feasible	Modality a (for Options 1 and 2) is feasible. Option 2a is also feasible as most green salads come from the EU (highly perishable products). Other options/modalities are not feasible.	• *Sourcing practices*: availability and seasonality of EU grown salads constrain FBOs to source from different MS (and TCs). The mix of suppliers changes very frequently as different types/varieties of green salads are available, depending on the time of the year, in a mix of varying MS. This limits the scope for mitigating impacts of origin labelling through adaptations of sourcing practices (Scenario A). • *Production process*: Costly inefficiencies would result from the frequent breaks in production due to a move towards smaller batch processing (adaption under Scenario Bii) • *Labelling/packaging*: very frequent changes, combined with a very high number of SKUs in the sector, would result in major inefficiencies in the process at the labelling stage.

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Category II: Single ingredient products			
Sugar *Cat II* (CEFS; ESRA; MS associations; individual companies)	**Option 1** is the least challenging. Options 2 and 3 are extremely challenging or not feasible.	Only modality **a** under **Option 1** is feasible. <u>Note</u>*: According to the Customs Code,* ***the refining of raw sugar does not confer origin*** *to sugar. The processing of sugar beet or sugar cane into raw sugar (modality a) takes place close to the place of harvest (modality b)* (see **Box 5**). *This means that raw sugar imported from a third country and refined in the EU MS would have as origin the third country.* => **impacts under modalities a and b are *de facto* the same**	Due to the sourcing of sugar combined with the fact that sugar is manufactured through a continuous production process, the labelling of specific origin is not feasible: • *Sourcing*: suppliers are numerous and vary depending on availability/seasonality. Beet sugar factories obtain sugar beet from many beet growers and may also source raw/white sugar from multiple other origins. Suppliers vary frequently; sometimes more than 10 different suppliers/origins are used in one year. This limits the scope for mitigating impacts of origin labelling through adaptations of sourcing practices (Scenario A). • *Production process*: Sugar production is a continuous production process (24/7) during the beet harvesting campaign (September to January). It is common practice for sugar companies to produce or refine raw sugar from multiple origins. Different origins are mixed at different stages of the supply chain, to achieve specific quality requirements (e.g. for the manufacture of specific products). Sugar refineries may also co-refine raw sugar from beet and cane, in which case origins are necessarily combined. • *Storage*: raw/refined sugar from various origins is stored together, and origin is lost at an early stage of the process. =>Adaptations under Scenario B would be needed

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Vegetable oils *Cat II* (FEDIOL; individual companies)	**Option 1** is the least challenging Options 2 and 3 are extremely challenging or not feasible.	Only modality **a** under **Option 1** is feasible. *Note: **The place of refining** usually **confers the origin** to the product according to the Customs Code definition. In a particular case, when no oil accounts for more than 50% in a blend, the place of blending confers the origin.*	• *Sourcing of oilseeds*: involves multiple EU and also non-EU origins, often changing frequently over time depending on availability, price and quality required. Changes of suppliers are frequent (3 or more per year) and may concern the majority of suppliers. This limits the scope for mitigating impacts of origin labelling through adaptations of sourcing practices (Scenario A). • *Production process*: mixing of different origins occur at various stages in the chain. Blending of different oilseed qualities/types (hence origins) is a necessary step in vegetable oil production. mixing of different origins can occur at various stages in the chain. Modality b would imply Scenario B adaptations, i.e. interruptions in continuous phases of the production process => inefficiencies; or segregation of production facilities by origin; • *Labelling/packaging*: on-line printing not possible therefore pre-printed packaging would be needed. There would be additional costs due to the purchase and complex management of an increased number of SKUs. The extremely frequent origin changes (or combinations of origins) would result in inefficiencies in the process (mostly borne by bottlers, i.e. B2C oriented operators).

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Frozen potato fries *Cat II* (EUPPA; MS associations; individual companies)	**Option 1** is the least challenging (especially under modality a) Options 2 and 3 under modality b are extremely challenging or not feasible.	Only modality **a** is feasible, or modality b under Option 1 (EU/non-EU). Option 2b is extremely challenging *<u>Note:</u> the production of potato fries (modality a) most of the time takes place close to the place where potatoes were harvested (modality b)* (see **Box 5**). *However, in the case of potatoes, because the growing area spreads across bordering MS (DE, DE, NL, FR), there is significant cross-border trade within the EU.*	• *Sourcing of potatoes:* Sourcing practices are driven by availability, price and quality/specifications of the potatoes for a given process. Potatoes are sourced exclusively in the EU, but there is significant cross-border trade between producing MS (e.g. 10-15% of potatoes processed in FR come from BE). Sourcing contracts are often made at the individual farm level therefore the mix of suppliers is very wide and changing. There is, however, some scope for scenario A adaptations although this would have cost implications. • *Production process*: At storage, potatoes are sorted according to their quality specifications (not by origin). Origin is lost early in the production process. Potato fries production is a 24/7 continuous process. Option 2b would imply Scenario B adaptations, i.e. segregation of production facilities by origin and/or interruptions in continuous phases of the production process => inefficiencies due to a switch to a 'batch production model'. • *Labelling/packaging*: currently pre-printed packaging is used. Assuming on-line printing is feasible (in terms of equipment), both solutions would require frequent breaks in production (to change labels or to adapt printing settings) leading to additional inefficiencies, direct and indirect (e.g. waste) production loss.
Category III: Ingredients that represent more than 50% of a product			
Orange juice *Cat III* (AIJN; MS associations; individual companies)	**Option 1** is less challenging for orange juice; it is extremely challenging or not feasible for other juices Options 2 and 3 are extremely challenging or not feasible.	*Note:* ***the reconstitution of orange juice/concentrate*** *into marketable orange juice* ***is not considered to be a substantial transformation.*** *The pressing of oranges (modality a) and the harvest of oranges (modality b) take place in the same country* (see **Box 5**). => **impacts under modalities a and b are *de facto* the same**	• *Sourcing:* Availability and price of orange juice/concentrate drive import sourcing practices in the sector. Orange juice is a particular case since 90% of imports come from only 2 non-EU countries (Brazil: 80%; US:10%). Sourcing is much more complex for other juices (e.g. pineapple or apple juice) • *Production process*: reconstitution is a mix of batch and continuous production process. Given the structure of imports, it is expected that **Scenario A adaptations**, i.e. attempts to limit the number of origin sources, would be applied for orange juice, to the benefit of non-EU/Brazil sources (foreseen increase in raw material prices). This would necessarily have to be **combined with Scenario B**; i.e. segregation of production facilities by origin under Option 2 for orange juice e.g. Brazil vs. US vs. Spain (segregation would be needed for other juices already under Option 1, e.g. apple juice or mixed fruit juices).

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Tomato passata *Cat III* (OEIT)	Option 1, 2 and 3 are all feasible and moderately challenging	Note: the production of tomato concentrate (modality a) and the harvest of tomatoes (modality b) most of the time take place in the same country, except for some limited cases (**Box 5**). However the production of passata from concentrate, which is also a substantial transformation, may take place in other countries.	Passata can be produced from fresh tomatoes (1st transformation) or from concentrate (2nd transformation). The 1st transformation (i.e. processing of fresh tomatoes) is always close to fresh tomato production as fresh tomatoes cannot be transported over long distances (**Box 5**). • *Sourcing of tomatoes:* Overall sourcing pattern of tomato concentrate by volume/value is: 77% EU origin/provenance; 23% non-EU origin/provenance. On average companies source from a relatively stable mix of suppliers. Non-EU concentrate is used because of price. • *Production process*: 1st transformation processors necessarily source locally (as fresh tomatoes are highly perishable/expensive to transport). This characteristic makes the origin labelling under any option/modality very easy for these operators. For 2nd transformation processors (i.e. using concentrate), the labelling of EU/non-EU would be an issue for those using non-EU grown tomatoes (23% of all tomato concentrate used in the EU). In order to avoid high/not feasible costs of segregation production processes, operators would eventually switch to use concentrate of EU origin/provenance (Scenario A adaptation).
Flour in bread *Cat III* (AIBI, MS associations; individual companies)	**Option 1**: less challenging. Options 2 and 3: extremely challenging or not feasible.	Modality **a** under **Option 1** is feasible at no or negligible cost, depending on whether EU/non EU sources used for flour. Modality b, even under Option 1, would be a problem as wheat may also come from non EU sources (Canada). Option 2.b would be the worst case scenario. *Note: **wheat milling is considered a substantial transformation** according to the Customs Code. But the EU Regulation (EC) N° 852/2004 on the hygiene of foodstuffs does not consider milling products as processed products.*	• *Sourcing:* Mainly sourcing from 2-3 countries; can be 4-6 in a 'bad' harvest year. Even if 6 countries were labelled, there would be a loss of flexibility in sourcing at the best quality/price ratio. • *Labelling/packaging:* extremely frequent changes imply system adaptation is necessary => additional investment in printing equipment; losses from underutilisation; increase in waste packaging material. • *Traceability system:* would need very significant adjustment, therefore significant costs. The current system allows recall of products, which when it happens, require the tracking of a number of wheat flour batches (due to mixing, especially in the silos, along the chain, which cannot be excluded).

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Other (non case study) sectors*			
Processed fish products *Cat II/III*	Options could not be discussed for processed fish	Modality a (place of processing) would in principle be feasible. Modality b (place where fish were caught) would be extremely challenging and not feasible for processed fish products. *Note: 'Origin' according to vertical legislation for fresh fishery products caught at sea refers to FAO fishing areas or sub-areas (Regulation No 1379/2013, Art. 38(1)(a)). In addition, on a voluntary basis, the label may indicate the flag State of the vessel that caught the fishery products (Art. 39(1)(d)).*	*Note: fresh fish is covered by vertical legislation as per Regulation 1379/2013 relating to the CMO in fish and aquaculture products. The sector argues that this covers de facto processed fish products.* • *Sourcing practices* are complex in the fish processing sector: suppliers vary very frequently depending on the availability of the raw material they can provide (throughout the year, a 'seasonal' effect is to be taken into account in the various fishing locations), on the fish' quality and its price. One plant may use up to 12 different 'origins' per year. Moreover, the various processed fish products require specific fish species, a parameter which adds complexity to the current sourcing practices and limits scenario A adaptations. Finally, fish can be sourced directly from fleet landings, from reefers and/or via trade of semi-finished products. The range of sourcing channels exacerbates the potential origin spectrum/combinations of raw material. • *Production process*: would require segregation by origin of production facilities (scenario B.iii). • *Labelling/packaging:* 'Fish' is currently described as such in the FIC Regulation No 1169/2011. Any origin indication would imply labelling at the specific fish species, i.e. in processed fish products where mixed fish species are used, very complex and varying information would need to be labelled. This would be a major technical challenge.

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Breakfast cereals *Cat II/III*	**Option 1**: less challenging under modality a; under modality b only if EU origin is not mixed with non-EU origin. Options 2 and 3: moderate to high impact under modality a; under modality b, extremely challenging or not feasible.	Modality a (place of processing) is in principle feasible. Modality b (place of farming of cereals) is extremely challenging and not feasible.	• *Sourcing practices* are affected by availability (e.g. seasonality, the extent of self-sufficiency in grains), quality issues and price, as well as other external factors such as political risk associated with one supplying country or the linkage with animal feed markets. As a result, the mix of suppliers varies frequently and origin is not a factor impacting sourcing practices. • *Production process*: grains of different origins are mixed very early in the supply chain, prior to milling stage. Breakfast cereal processors thus receive raw material of mixed origins. Assuming origin can be isolated by upstream operators, breakfast cereals production would switch to smaller batch production (scenario B.ii). Storage facilities including bulk silos and warehouses would however need to be segregated (planning restriction issues are anticipated). In addition, operators would tend to source from a limited number of origins (scenario A). • *Labelling/packaging*: on-line printing would not be an acceptable solution in most markets, although this depends on customers' requirements. Most likely pre-printed packaging would be needed. There would be additional costs due to the purchase and complex management of an increased number of SKUs. The extremely frequent origin changes (or combinations of origins) would result in inefficiencies in the production process.
Spirits *Cat II/III*	**Option 1**: less challenging under modality a; under modality b, as EU and non EU origins are often mixed, this would be challenging and costly. Options 2 and 3: high impact under modality a; under modality b, extremely challenging or not feasible.	Modality a (place of processing) is in principle feasible. Modality b corresponds to the place where the ingredient comes from. This could be grains/fruit but also e.g. ethyl alcohol for white spirits, a bulk commodity. Modality b is extremely challenging and not feasible.	• *Sourcing practices:* are affected by availability, quality and price. The origin of the raw materials used to produce spirits is not taken into account at sourcing (in fact, the existing geographical indications in the sector do not include requirements on the origin of the ingredient). The know-how and production method used characterise the final product, but origin (of the raw material) does not. • *Production process*: spirits' producers would likely adapt their sourcing practices to limit as much as possible the number of origins (scenario A), The expected consequences of such adaptations include: a loss in the ability to source cost-effectively, loss of flexibility in sourcing, i.e. an increased risk related to procurement, a detrimental impact for small suppliers unable to provide sufficient quantities for a year-round production.

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Whisky *Cat II*	**Option 1, 2, 3: feasible under modality a;** All options very challenging under modality b.	Modality a (place of processing) is feasible at no or negligible cost. Modality b (place of harvest of ingredients) is challenging, with high cost impacts.	The typical issues pertaining to sourcing practices, and adaptations of production processes would not be a problem under **modality a**. As for spirits in general, modality b (place of harvest of ingredients) is not considered to add valuable information from a consumer perspective. ***Note****: European whisky producers, and the Scotch Whisky association in particular, have expressed concerns regarding the high presence of what they consider are fraudulent use of images, symbols, label fonts and/or general styles of bottles and labels, that strongly suggest a Scotch/UK origin of some whiskies sold in the EU but generally produced in Third Countries. There is a common agreement from various stakeholders that these are intended to mislead consumers and that their use should trigger the application of voluntary origin labelling rules. Although this issue relates to voluntary origin labelling, the sector notes a generalised lack of controls and enforcement of rules from MS enforcement authorities in the EU and, in any case, the lengthy procedure before withdrawal of products from the market. In their view, the implementation of mandatory origin labelling rules on whiskies (under modality a) could provide some solution by reducing the extent to which consumers are misled when purchasing such products; however this would not address the primary issue, i.e. the correct implementation and enforcement of voluntary origin labelling rules.*
Processed fruit and vegetables *Cat II/III*	**Option 1:** less challenging, especially under modality a Option 2 is challenging and costly under all modalities	Modality a is feasible at low to negligible cost under Option 1. Modality b is challenging under all options.	• *Sourcing practices* are affected by availability, quality and price. The origin of the fruit/vegetables to be processed is not taken into account when sourcing. Flexibility is needed given that these are highly perishable products. • *Production process*: for all products, a combination of segregation by origin (e.g. at storage; scenario B.i) and switch to processing smaller batches (scenario B.ii) would be very challenging in practice. In addition, the production process of some products such as jams and fruit spreads require that ingredients are actively blended to ensure a consistent quality of the final product (e.g. to offset seasonality effects). Ingredients from 3 to 5 different origins are usually mixed, the combination of which may change for every production batch. The complexity of tracing – and accurately labelling - origin would be exacerbated for all products involving more than ingredients (e.g. fruits of the forest jam). • *Labelling/packaging:* due to the frequency of changes in origin, considerable inefficiencies in the production process and technical challenges to fit all of the information on the label.

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Salt *Cat II*	**Option 1:** less challenging Option 2 is feasible under modality a; it is challenging and costly under modality b or c	Modality a is feasible at negligible cost under Option 1 Modality b is challenging and costly *Note: according to the EU Customs Code, salt production is not considered an agricultural activity. Salt may come from salt water or from rock salt deposits.*	• *Sourcing practices:* salt is a standardised product; its technical properties, its taste and colour are not determined by origin. Production levels vary depending on seasonality and weather conditions (especially for sea salt, where the combined action of sun and wind determines the volumes that can be harvested during the June to September period). Salt packers need to be flexible to adapt to these variations and frequently change suppliers. • *Production process*: production facilities would need to be segregated by origin at different stages: storage, loading/unloading belts, packing and transport. In some cases, an extension of the production building would be needed. Indirect costs are also expected to increase, as e.g. more equipment maintenance would be required. • *Labelling/packaging:* new pre-printed labels would be required. The higher the number of potential origin combinations (depending on sourcing but also on the option/modality), the wider the range of labels needed.
Tea and herbal infusions *Cat II/III*	Options 1, 2 and 3 are all extremely challenging or not feasible under modality b	Modality b: extremely challenging at a very high cost under any option	• *Sourcing practices:* are affected by availability, quality and price. To maintain notably product consistency, tea and herbal/fruit infusions are sourced from varying suppliers and origins. Tea may be sourced from over 20 different countries around the world while herbs and fruits may be sourced worldwide. The labelling of origin would also display commercially-sensitive information with regard to businesses' sourcing practices. • *Production process*: a combination of segregation by origin (e.g. at storage; scenario B.i) and switch to processing smaller batches (scenario B.ii) would be very challenging in practice. • *Labelling/packaging:* the frequency of origin changes would cause considerable inefficiencies in the production process as well as technical challenges in view of the number of pre-printed labels businesses would need to deal with.

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Starch used in cornflour (maizena) or energy bars *Cat III*	**Option 1**: less challenging under modality a; under modality b, as EU and non EU origins are often mixed, this would be challenging and costly. Options 2 and 3: high impact under modality a; under modality b, extremely challenging or not feasible.	Modality a is feasible at negligible cost under Option 1. Modality b is extremely challenging or not feasible.	• *Sourcing practices:* are affected by availability, quality and price (not origin). Suppliers change very frequently, especially as starch may be obtained from different raw materials such as maize, potatoes or wheat. The number of origins can range from 2 to 8 per plant and the number of origin changes may be up to 40 times a year. Scenario A adaptations on sourcing practices are foreseen. • *Production process* is a continuous process which involves mixing of origins at various stages of the process. A full segregation of production facilities would be needed to ensure origin can be isolated (scenario B.i). • *Labelling/packaging:* would be borne mostly by food manufacturers down the supply chain
Nuts *Cat II/III*	**Option 1**: less challenging under modality a; under modality b, as EU and non EU origins are often mixed, this would be challenging and costly. Options 2 and 3: high impact under modality a; under modality b, extremely challenging or not feasible.	Modality a is feasible at negligible cost under Option 1. Modality b is extremely challenging or not feasible.	• *Sourcing practices:* are affected by availability, quality and price (not origin). Changes in the mix of suppliers are thus frequent and the number of origin changes estimated up to 100 times a year. Nuts producers pursue a multi-origin sourcing strategy in growing regions around the globe. This flexibility is necessary to adjust to secure supplies and to adapt to a varying demand (e.g. seasonality, retailers' promotions) • *Labelling/packaging:* the number of potential origins to label on a single pack would be a major issue. For mixes of nuts or nuts/fruit, the potential combinations would increase dramatically (although for these products, no ingredient is likely to account for more than 50% of the mix). The limited label size for nuts products sold to end consumers would also raise a technical challenge, even more so as nuts are often sold in multilingual packages.

Product sector (a)	Options on geographical level of origin labelling (b)	Modalities (c)	Key reasons why some options/modalities are considered not feasible (d)
Durum wheat semolina in pasta *Cat III*	**Option 1:** less challenging under modality a; under modality b, as EU and non EU origins are often mixed, this would be highly challenging and costly. Options 2 and 3: high impact under modality a; under modality b, extremely challenging or not feasible.	Modality a is feasible at moderate cost under Option 1. Modality b is extremely challenging or not feasible.	• *Sourcing practices:* Pasta manufacturers either source durum wheat semolina or soft wheat flour. Changes in the mix of suppliers are occasional (1-2 per year) for pasta manufacturers. However, sourcing practices of semolina/wheat flour suppliers vary depending on availability, quality and price of semolina/soft wheat flour (and not origin).

Sector (a): organisations representing processing, distribution and retail sectors (including inputs from MS-level member organisations/companies). *A wide range of non case study sectors contributed to the consultation. Where possible, these have been identified within the 3 categories of products covered by the study. In addition to the replies to the online FBO survey, a number of organisations also submitted position papers, statements, letters or official contributions. These are available in* **Annex 7**.

Options on geographical level of origin labelling (b)

1. *Origin labelling based on i) EU/non-EU origin or ii) EU/third country.*
2. *Labelling indicating the Member State or third country.*
3. *Other geographical entities as place of provenance (region).*

Modalities (c)

a. Place of the last substantial transformation of the product (i.e. as determined in accordance with the EU Customs Code).
b. Place where the main ingredient was harvested.
c. Both of the above.

Key reasons why some options/modalities are not feasible (d): the reasons tend to be similar for the various product sectors. Only key constraints applying specifically to the characteristics of each sector are summarised here.

Source: FCEC based on FBO consultation

4.4 Operational costs

The additional operational costs[139] for FBOs deriving from the implementation of mandatory origin labelling were assessed only for the policy options which were deemed technically feasible (see section 4.3). Within the limits allowed by the available information and data, the assessment endeavoured to:

- Estimate a range of specific additional costs (the overall additional cost is equal to their sum) deriving from the implementation of policy options and related modalities;
- Investigate the specific adaptations required by the implementation of policy options and related modalities.

The specific aspects considered in the assessment were the following:

- Adaptation of sourcing practices and possible changes in the mix of suppliers of the various ingredients;
- Adaptation of production process of the final food product;
- Adaptation of packaging and labels/labelling process;
- Adaptation of marketing practices of the final product;
- Adaptation/implementation of traceability systems (taking into account the features of existing systems - see also Theme 2);
- Implementation of additional internal controls required to ensure compliance with mandatory origin labelling rules;
- Any other possible aspects specified by FBOs.

The assessment distinguishes between fixed costs (stemming from the *ad hoc* investment needed to perform the necessary adaptations e.g. to the production process) and variable costs (deriving from the operation of the production process for different volumes of production, i.e. recurring costs). As discussed in section 4.3, **the analysis here concentrates on the operational costs of scenario A and B.ii/iii** (**Box 4**).

Regarding in particular **traceability costs**, these could not be separated from the other cost elements, as indeed to ensure traceability would required the adaptations indicated in **Box 4**. The concept of traceability which is relevant for the present study is defined by the modalities considered under 'a', 'b' and 'c'. As explained in Theme 2 (section 4.3), **the more detailed the origin labelling** (e.g. options/modalities requiring information on the country/region of harvest of the agricultural raw material), **the more extensive the adaptations required.** Under all options, modalities 'b' and 'c' require more extensive traceability than modality 'a', as they require "*full traceability*" or "*cumulative traceability*" over the entire length of the supply chain, which includes more extensive origin information related to the provenance of the agricultural raw material i.e. the place of farming/harvest. This generally **goes beyond the systems of mandatory traceability required by EU regulations on food safety currently in place**, which require every operator in the food supply chains to implement only "*one step back, one step forward*" traceability. Indeed, the required adaptations of the

[139] The assessment also focused on the administrative costs and burden for FBOs deriving from the implementation of additional paperwork linked to potential increase in obligations to provide information to CAs related to the fulfilment of MCOOL rules. This analysis is presented separately in section 4.5.

traceability systems would pose very significant challenges for some of the products examined by the case studies, in particular bulk commodities with extensive blending, multiple sourcing practices and continuous production processes. Such products exist under all 3 categories covered by the study (e.g. flour, vegetable oils, sugar). In these cases, ensuring traceability for origin labelling purposes would involve **re-designing the production process to ensure segregation by origin, implying very significant investment and higher variable (i.e. recurring) costs.**

These **challenges are further amplified for more complex products**, in particular multi-ingredient and further processed foods, for which traceability becomes more complex and burdensome.

Table 12 presents the estimates of additional operational costs of the relevant policy options and related modalities collected during our consultation with FBOs (across the range of sectors including processing, distribution and retail stages of the supply chain). A number of stakeholders provided more or less detailed quantitative estimates of additional costs while other stakeholders could only provide qualitative considerations on the matter. Due to the specificity of cases considered, the collected evidence is fairly heterogeneous and this makes difficult the systematic analysis of the information. The quantitative estimates provided refer to specific situations and assumptions and are therefore often impossible to compare or extrapolate to more general estimates.

The collected evidence is presented in terms of the available quantitative or qualitative estimates on the overall additional costs for FBOs, and the main cost items likely to be impacted. These costs are specific to the production of the final products, and are – at least partly - in addition to the costs likely to be incurred at the earlier stages of the supply chain, where such stages are not the place of the last processing of the final product. More detailed information on these estimates of additional operational costs is provided for each of the case study sectors in section 4.10. As highlighted in Theme 2, for each individual operator, the extent of the additional costs will depend on a range of factors, which will also depend on the product / product sector, as follows:

- *Sourcing practices*: the more extensive and diversified the range of suppliers and the higher the frequency in change of suppliers, the more complex will be traceability;
- The degree of *vertical integration*: the higher the degree of vertical integration and potential reliance on internal sourcing of the raw material quantities and qualities required for the final product, the lower will be the additional traceability cost;
- The *production process*: the food industry is characterised by a combination of the two basic production models, batch and continuous production processes. In continuous production processes there are inherent technical constraints that impede origin labelling. These processes require therefore very significant adaptations, all of have significant cost implications.
- The *scale of operations*: While large integrated companies have the resources to put traceability and origin information systems in place along the whole chain, costs tend to be proportionately higher for smaller businesses (in relation to their total production volumes and turnover). Although there are differences between product sectors, as noted in section 3.1, the EU food and drinks sector is characterised by a very high presence of SMEs and micro-enterprises.

- The *competitive structure and resulting bargaining power* in the food supply chain: the ability of the first point in the supply chain picking up the additional costs of origin labelling to transfer this cost to the next point in the chain will depend on their bargaining power *vis-à-vis* those customers. Similar situations will prevail further downstream the supply chain between processors and actors in the distribution sector.

Even though the heterogeneity and specificity of the available estimates requires caution in extrapolating and drawing general conclusions, the main findings on the additional costs stemming from implementation of mandatory origin labelling for the three categories covered by the study are the following:

- **For each option/modality, the extent of additional costs can vary remarkably**, and will depend on the specific operational situation prevailing for each FBO at the time of the potential introduction of the rules, thus the scenario of adaptations that would be considered most feasible to pursue (**Box 4**). This will depend on the current features of the particular supply chain, as determined by the factors highlighted in Theme 2, i.e. including sourcing practices, the production model (whether continuous or batch), the degree of vertical integration, the presence of SMEs and scale of operations, the competitive structure and resulting bargaining power along the supply chain, and the current status of traceability systems and practices. Thus, plant-level or MS-level estimates can vary significantly. For this reason, no EU-average level estimates could be provided by the present analysis.
- From the case studies conducted under the study it can be concluded that **adapting the structure of the supply chain** (such as: simplifying sourcing practices, reducing batch sizes, reducing intermediaries, increasing scale, repositioning product range) is **more cost effective than investing** in the adjustments that would be required in the production process to ensure for example complete segregation of the supply chain under current sourcing practices (as discussed under technical flexibility, **Box 4**).
- The **most impacted cost items** have been identified by food supply chain stakeholders to be as follows:
  - adaptation of sourcing practices and possible changes in the mix of suppliers;
  - adaptation of production process of the final product;
  - adaptation of packaging and labels/labelling process;

  Traceability costs could not be distinguished as such; as to ensure full traceability would require the above adaptations, **traceability costs** are **embedded in the costs related to adaptation of sourcing practices/production process** in particular.
- Bearing in mind the above issues, the **additional costs stemming from Option 1** (*origin labelling based on a) EU/non-EU origin or b) EU/third country*) **are generally lower**, or much lower, **than those of Option 2** (*labelling indicating the MS or TC*). With all due caveats relating to limited comparability of data, additional costs - expressed as % increase of total production cost - for Option 1 range from negligible up to +30%, whereas additional costs for Option 2 range from +15% to +>35%. It is noted again that in all cases **these cost increases refer to feasible adaptations** under scenarios A and Bii/iii (**Box 4**).
- These costs are specific to the production of the final products, and are –at least partly - in addition to the costs likely to be incurred at the earlier stages of the supply chain (where the latter were not the place of the last processing of the final product).

- In most cases (i.e. under the various options/modalities and for the range of products/product sectors), the indicated production cost increases exceed the current levels of profitability of FBOs as the consulted sectors indicated that operating margins are generally tight (i.e. <5%).

These costs would be mitigated if '*EU and non EU*' (Option 1) or several countries (Option 2) are indicated on the label.

In particular, the alternative option of labelling a group of MS has been examined in some cases, as a compromise between Options 1 and 2. In some specific sectors, labelling a group of MS would contribute to reducing costs. In the potato sector for example, given that most of the EU potato growing area is confined to about five MS the 'group of MS' labelling would be more cost-effective than Option 2 (i.e. potential impacts are closer to those under Option 1). In most other instances however, the technical challenges and costs incurred are similar to Option 2. The extent to which labelling a group of MS enables to mitigate costs depends on the specific operational situation of FBOs, and in particular on their sourcing practices. As for other options, the extent of additional costs can vary considerably. Moreover, this alternative option could be misleading if not all countries are always involved leading to potential consumer mistrust, depending on the exact wording/formulation to be used. Also, the added value to consumers was questioned in this case.

FBOs have very **limited (if any) confidence in the potential contribution of innovation** to limit additional costs in the mid-term. This issue is discussed further under administrative costs and burden (section 4.5).

Table 12: Estimated additional operational costs of potential options/modalities of origin labelling for FBOs, by product sector

Sector (a)	Additional costs (b)	Most impacted cost items
Category I: Unprocessed foods		
Flour *Cat I*	**Option 1a/2a: low to moderate impacts** **Option 1b/c/Option 2b/c: costs are expected to be high to very high,** depending on millers' sourcing practices. In total, additional costs for a medium-sized mill are estimated at minimum €1.4 million under Option 1b, equivalent to 5.5% of the annual turnover of a medium mill, up to €3.5 million, or 13.4% of turnover. Under Option 2b, the costs would at least double, i.e. minimum €3.5 million. This means that the **cost of flour could increase by €17.9 /t to up to €43.9/t (Option 1b) and more than €43.9/t for Option 2b. This would be an additional 6%-15%** on current prices (290 €/t).	**Option 1b/c/2b/c** **1. Sourcing and adaptation of production process:** The combination of decreased flexibility of sourcing practices (scenario A) and the adaptation of the production process to segregate origin along the processing chain (scenario B.i) is estimated to cost a medium-sized miller from €1.3 million to €2.9 million. While this is the bulk of the additional costs, there would also be other costs such as additional storage, packaging costs and administrative/controls costs.
Rice *Cat I*	**Option 1b/c:** • For either EU or non-EU sourcing: negligible costs; • For EU and non-EU sourcing, significant costs, as follows: **Total additional costs** (excluding costs related to loss of efficiency, reduced flexibility, packaging waste, and administrative/control costs) range **from €20/t to €50/t, equivalent to a 12%-30% increase in production costs**. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would range from €2.5 to €6.25 million. **Option 2b/c increases costs further than Option 1b/c**, given the increased diversity of sourcing. These costs could not be estimated, but their scale will depend on the sourcing practices of individual companies and type of rice. In the case of EU grown rice, it can be linked to whether companies are located in self sufficient MS or non self-sufficient MS, as the latter are more susceptible to imports.	**Option 1 (modality 'a'='b', as modality a does not apply):** **1. Adaptation of production process**: **costs can range from negligible to very significant**, depending on sourcing patterns which vary per milling plant and depending on type of rice. Under scenario B.ii (using the same silos for different origins, the only technically feasible scenario for the majority of EU rice mills), **stock management costs only are estimated up to €35/t**. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would be €4.4 million. This excludes potential efficiency losses from switching between batches according to origin, and reduced flexibility in sourcing between multiple origins. As such, the above figures **reflect the low end of the estimated costs.** **2. Adaptation of packaging and labels/labelling process**: **costs are estimated at €8-15/t**. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would be €1.0 – 1.8 million. This includes packaging and storage costs, stock management of final packaged products, reduction in scale economies for packaging, but excludes packaging waste (which could not be estimated). The total increase in costs thus ranges **from €20/t to €50/t, equivalent to a 12%-30% increase in production costs.** This largely exceeds profitability in the sector.

Sector (a)	Additional costs (b)	Most impacted cost items
Pre-packed fresh cut green salads *Cat I*	**Option 1b/c: negligible to low costs**, as most raw materials come from the EU. **Option 2b/c: additional production costs estimated at up to €0.15 per package** (salad bag), **equivalent to a 10-15% increase in production costs**. This figure includes all various cost elements, e.g. additional production lines, packaging/labelling, software adaptations, administrative/ control costs, etc. **All the estimated production costs would increase in the case of mixed salads.**	**Option 2b/c:** **1. <u>Adaptation of production process</u>**: High inefficiencies would result from the frequent breaks in production due to shift in processing smaller batches (<u>scenario B.ii</u>). In particular, in a medium-sized plant, the estimated production loss would amount to 12.5 hrs of foregone production, i.e. up to 45,000 units every day. This excludes other costs incurred from shift to running smaller batches e.g. investment in additional storage capacity, new software for management and planning, etc. **2. <u>Adaptation of packaging and labels/labelling process</u>**: Two cases: a. Pre-printed labels: The cost of changing pre-printed labels would incur very high direct costs; this is **in practice technically not feasible**. b. On-line printing: The cost of using on-line printing of origin would imply significant investment in printing equipment, which could amount up to €400,000 for a medium-sized plant. In both cases, packaging costs come in addition to those incurred by running smaller batches.
Category II: Single ingredient products		
Sugar *Cat II*	**Option 1: negligible to high impact** **Option 2: high impact** **Refining** of raw sugar which mostly takes place in the EU is not a substantial transformation according to the Customs Code (i.e. it does not confer origin to the product). Therefore **modalities 'a' and 'b' lead to similar operational costs**.	**Option 1 (modality 'a'='b'):** **<u>1. Adaptation of sourcing practices</u>**: FBOs currently sourcing from EU and non-EU sources would try to limit the number of origins from which they source (<u>scenario A</u>); however, potential adaptations would be constrained by raw material availability issues, in particular seasonality. **2. <u>Adaptation of production process</u>**: for FBOs sourcing from EU and non-EU sources, the production process would need to be segregated by origin (<u>scenarios B.i</u>). To duplicate storage capacity would cost individual plants from €2 million up to €250 million depending on the size of operations (5,000-60,000t silos). Other costs such as additional operational costs (cleaning, transport, energy, production loss, inefficiencies), packaging costs and administrative costs could not be estimated.

Sector (a)	Additional costs (b)	Most impacted cost items
Sunflower oil *Cat II*	**Option 1b/c:** from €220 up to €332/t of refined oil, i.e. an estimated 9% up to 25% of the refined oil selling price (depending on MS). **Option 2b/c:** from ~€350 up to €455/ t of refined oil, i.e. an estimated 15% up to 35% of the refined oil selling price (depending on MS). These costs are based on the assumption that the consumer preference for 'domestic' oil, i.e. 'EU' origin under Option 1 or '[country of origin]' under Option 2, is such that consumers would prefer switching to substitutes of vegetable oils rather than buying vegetable oils of other origins.	**Modality 'b' (place of harvest of oilseeds):** **1. <u>Adaptation of production process</u>: in all cases, this is by far the highest cost element within the total cost (<u>scenario B.i</u> would apply):** - For **crusher/refiners**, the largest cost is incurred by segregating the production process to ensure origins of oilseeds can be traced along the chain. This includes: o The investment in additional storage and production capacity: oilseed silos, additional unloading lines for oilseeds, oil tanks and dedicated processing lines (the latter being the largest cost); o The costs incurred by running smaller batches and impacts on product quality. - For **bottlers**, segregating the production lines involves similar types of costs, but to a lesser extent, as production lines are not duplicated: o The investment in additional storage and production capacity including refined oil storage, warehouse storage, and cleaning costs. **<u>2. Adaptation of packaging and labels/labelling process:</u>** Packaging and labelling costs would be borne by bottlers only: costs were estimated at up to €3/t of oil for a EU/non-EU label (Option 1b) and up to €13/t of oil for labelling at country level (Option 2b), although this would depend on bottlers' specific sourcing practices. On-line printing was considered not feasible with the current equipment.
Frozen potato fries *Cat II*	**Option 1 a/b/c and 2a: negligible impact** **Option 2b: very high impact**	**Option 2b:** **<u>1. Adaptation of sourcing practices:</u>** FBOs would try to limit the number of MS sources to limit packaging/labelling costs (<u>scenario A</u>). However, this would be limited by seasonality/quality issues and would result in raw material price increase, and transport inefficiencies. **2. <u>Adaptation of production process</u>:** Adaptations according to <u>scenario B.iii</u> are foreseen by the industry: a mix of segregation of production facilities to ensure traceability of origin as well as a switch towards a more 'batch production model'. The costs of these adaptations could not be estimated individually. **3. <u>Adaptation of packaging and labels/labelling process</u>:** Both pre-printed packaging and on-line printing would require frequent breaks in production (to change labels or to adapt printing settings). The associated production loss could be up to 8%. → The total additional costs (including all elements above as well as costs stemming from adaptation of the traceability system and administrative costs) would amount up to **0.10-0.15 € increase per kg of finished product**, which could result in a 10-15% retail price increase (depending on the SKU).

Sector (a)	Additional costs (b)	Most impacted cost items
Category III: Ingredients that represent more than 50% of a product		
Orange juice* *Cat III*	**Option 1: low impact for orange juice; moderate to high for other juices***, in particular where there is mix of EU/non EU (e.g. apple juice and mixed fruit juices) **Option 2: moderate (scenario A) to high (scenario B) impact for orange juice; high for other juices*.** **Reconstitution** of orange juice (from concentrate or not from concentrate), which takes place in the EU, **is not a substantial transformation** according to the Customs Code (i.e. it does not confer origin to the product). Therefore **modalities 'a' and 'b' lead to similar operational costs**. ***** *Note: orange juice is an exception in the fruit juices sector with regard to origin labelling as the number of supplying third countries is very limited. The complexity of sourcing practices is much higher for other juices (e.g. pineapple juice, apple juice, and mixed fruit juices e.g. lychee juice).*	**Option 2 (modality 'a'='b'):** **1. Adaptation of sourcing practices**: The reduced flexibility of sourcing would have negative implications as FBOs would be inclined to source from a limited number of countries to avoid change in labels (scenario A). Increase in raw material prices as a result of reduced flexibility in sourcing would have high cost implications. This cost increase, and other 'indirect' costs such as waste costs, would amount to an increase of up to €0.01-0.02/L. **2. Adaptation of production process**: When Scenario A is not possible, investment in storage capacity and inefficiencies in production due to origin segregation (scenario B.i) are estimated to lead to an additional cost of up to €0.01/L. **The total additional production costs are estimated to amount up to +€0.02-0.03/L of juice. These costs largely exceed the profitability in the sector.**
Tomato passata *Cat III*	**Option 1b/c: negligible to low costs** **Option 2b/c: costs are expected to range from low to moderate**, as there are **a limited number of tomato-producing MS in the EU.** Option 2b/c would generally involve higher costs than Option 1b/c, but these could not be estimated by the sector.	**Option 1b:** **1. Adaptation of production process:** For second transformation processors (i.e. FBOs using tomato concentrate to produce passata), the labelling of EU/non-EU would be an issue only for those using non-EU grown tomatoes as a raw material for passata (23% of all tomato concentrate used in the EU). In order to avoid high/not feasible costs of segregation production processes, operators would eventually switch to use concentrate of EU origin/provenance (scenario A). Therefore, no costs for adapting the production facilities is foreseen **2. Adaptation of packaging and labels/labelling process:** There would be limited costs incurred by the one-off re-design of labels, but these could not be estimated.

Sector (a)	Additional costs (b)	Most impacted cost items
Flour in bread *Cat III*	**Option 1a/2a: low to moderate impacts** **Option 1b/c/Option 2b/c: costs are expected to be very high, to the extent that modality 'b/c' is not considered feasible**, due to the need to adapt the production process (scenario B.iii)**.** Depending on flour suppliers' sourcing practices, Option 1b/2b would have similar impacts for bakers.	**Option 1b/c/2b/c:** **1. Sourcing practices and adaptation of production process:** **The price of flour as an ingredient would increase,** given the adaptations foreseen by flour millers to ensure tracing of wheat origin, depending on flour millers' sourcing practices (and location), Options 1b/c and 2b/c may equally result in considerable price increases of flour used as an ingredient in bread for bakers (see flour case study). Moreover, **scenario B.iii would need to be applied**: bakers would need to increase **storage capacity** to separate origins (scenario B.i), involving major investments (e.g. €4.5 million investment was estimated by one large FBO operating different sites). This is a one-off cost, but it excludes the costs of installing equipment, the costs of other adjustments to ensure segregation throughout the production process, additional staff costs, and annual maintenance and operational costs. It should also be noted that even a small proportion of e.g. non-EU wheat, implies some segregation of production, hence high costs. **2. Adaptation of packaging and labels/labelling process:** On-line printing was considered unfeasible given the current existing printing equipment. **Assuming a moderate scenario, total packaging costs could amount up to €390,000 - €980,000 per year for a medium-sized plant**. **These figures reflect the low end of the estimated costs**. For large bakeries, with a realistic number of origin changes per SKU, costs incurred by packaging changes are likely to be much higher. This does not include costs incurred by packaging waste, packaging stock management, etc.
Processed fish products	**Option 2b: costs are expected to be very high** due to the complex sourcing practices.	**Option 2b:** **Overall, production costs are estimated to increase by up to 25-30% under Option 2b.** More specifically, the following cost increases are expected: **1. Adaptation of sourcing practices**: up to 10-12% increase **2. Adaptation of production process**: up to 8-10% increase **3. Adaptation of packaging/labelling:** up to 4-8% increase **4. Adaptation of marketing practices of the final product**: up to 1-2%

(a) Organisations contributing to the assessment: processing, distribution and retail sectors (including inputs from MS-level member organisations/companies). Only the organisations that provided specific evidence on this under the case studies are included.
(b) The indicated additional operational costs relate to those options/modalities that are considered technically feasible, under the scenarios of adaptations required as outlined in **Box 4**. They are specific to the production cost of the final products, and – unless otherwise specified - are largely in addition to the costs likely to be incurred at the earlier stages of the supply chain (where the latter was not the place of the last processing of the final product). For the technical feasibility of the various options/modalities, see **Table 11**. In sectors where modality 'a' = 'b', this case is further explained in **Box 5**.

Source: FCEC based on FBO consultation

4.5 Additional administrative costs and burden

4.5.1 Methodology for assessment of administrative costs and burden

A full assessment of administrative burden involves the application of the Standard Cost Model (SCM) according to COM guidelines[140]. In particular, the SCM distinguishes between 12 types of information obligations and 14 categories of required actions associated to these information obligations[141].

A number of constraints inhibit the full and in-depth assessment of administrative burden in this study. A key issue is the difficulty of carrying out ex ante assessments of administrative burden, using the SCM, when the details of legislative provisions, and therefore the Information Obligations (IOs) these might generate, are not yet known, but several options are possible (as opposed to ex post assessments of administrative burden carried out for the European Commission[142]). To overcome these constraints, the assessment of administrative burden in this study has been carried out in more general terms, and has involved analysis of the following elements:

i. Actions (under the different options) that are likely to involve administrative burden (i.e. in the context of potential IOs to be introduced by the new legislation);
ii. Actors that are likely to be affected by these information obligations (MS Competent Authorities (CAs); food business operators - FBOs);
iii. Expected net impact of each option on administrative burden for MS CAs and stakeholders in terms of staff needed, qualification of staff needed and staff unit costs (i.e. increase; no change; decrease);
iv. In the case of stakeholders, the range of private operators (POs: FBOs) that are likely to be affected. This refers both to sectors (products and company size class) and to the various stages along the supply chain. In particular, the analysis aims to identify whether the potential administrative burden will vary per sector, but also depending on the stage of the supply chain processing at which the FBO is operating, e.g. if he is selling the products to other parts of the food chain and/or the final consumers (B2B or B2C, respectively).
v. Estimation of the implementation of additional paperwork associated to potential increase in obligations to provide information to enforcement authorities related to the fulfilment of the origin labelling rules.

These points have been assessed through the inclusion of a number of relevant questions in the consultation of MS CAs and food business operators. The analysis has been supplemented by literature review of relevant evidence from existing studies, either in this sector (such as from MS that have covered this issue, e.g. in the UK) or in similar sectors at EU level.

[140] EU Commission's Impact Assessment Guidelines (European Commission, 2009): http://ec.europa.eu/governance/impact/commission_guidelines/commission_guidelines_en.htm
[141] The COM methodology foresees three phases and a total of eleven steps, not all of which are relevant in this case, where the focus is explicitly on additional administrative burden and related costs incurred by MS CAs.
[142] For example: Food Chain Evaluation Consortium (FCEC): Evaluation of the Community Plant Health Regime, DG SANCO, May 2010; CAP GEMINI, Deloitte and Ramboll: Study on administrative burden reduction associated with the implementation of certain Rural Development measures, DG AGRI, 2011.

4.5.2 Costs for MS CAs

At the level of **MS CAs**, the aim has been to establish the implications for enforcement authorities in terms of costs, under the various options/modalities examined by the study. A distinction was made between administrative burden (administrative costs related to the IOs that each option is likely to involve, as defined under the SCM approach), and the substantive compliance costs which are incurred by the implementation of the legislation as such (i.e. the cost of controls)[143]:

- In assessing administrative burden, the MS CAs were asked to examine which information obligations stemming from the implementation of the new rules under the various options/modalities - amongst the 12 categories of IOs presented below - are likely to involve costs for enforcement authorities. Information obligations (IOs) that may arise from the new origin labelling rules have implications in terms of staff time needed, the qualification of staff needed, staff unit costs, all of which contribute to the costs of tasks to be delivered.
- In assessing compliance costs, the MS CAs have provided information on additional controls that may need to be carried out by enforcement authorities in the implementation of the different options/modalities, compared to the current average levels of controls/costs in MS.

In terms of **administrative burden**, our consultation with MS CAs on the basis of the SCM has indicated that the main impacts are expected for the information obligations (IOs) and associated actions that are highlighted in **Table 13: familiarisation with the IOs/training and data inputs/record keeping related to inspections and audits (verification checks) are the main areas expected to be affected**. In terms of the options, Option 1 is expected to have the least significant impacts in view of the more general detail of the information provided. More significant impacts are expected in the case of Option 2, with an increase in administrative burden, although it has not been possible to quantify this. It is noted that it has been difficult for MS CAs to distinguish the costs of staff time associated to these actions, from the more general costs of staff time associated to the inspections; therefore, **the estimates of additional control costs provided below include administrative burden**.

Table 13: Most affected information obligations and associated administrative actions concerning origin labelling requirements, as identified by MS CAs and stakeholders

Information obligations	Actions associated to information obligations
1. Notification of (specific) activities or events;	1. Familiarisation with the information obligation;
2. Submission of (recurring) reports;	2. Training members and employees about the information obligations;

[143] The term 'administrative costs' refers to the costs of the information collection and reporting obligations, such as the obligations to notify, to submit a report, to register, to label etc. The term 'compliance costs' refers to the costs of operational obligations, such as import inspections or inspections at places of production and the implementation of labelling rules. It was also noted that costs borne by the enforcement authorities may be transferred to stakeholders through fees charged.

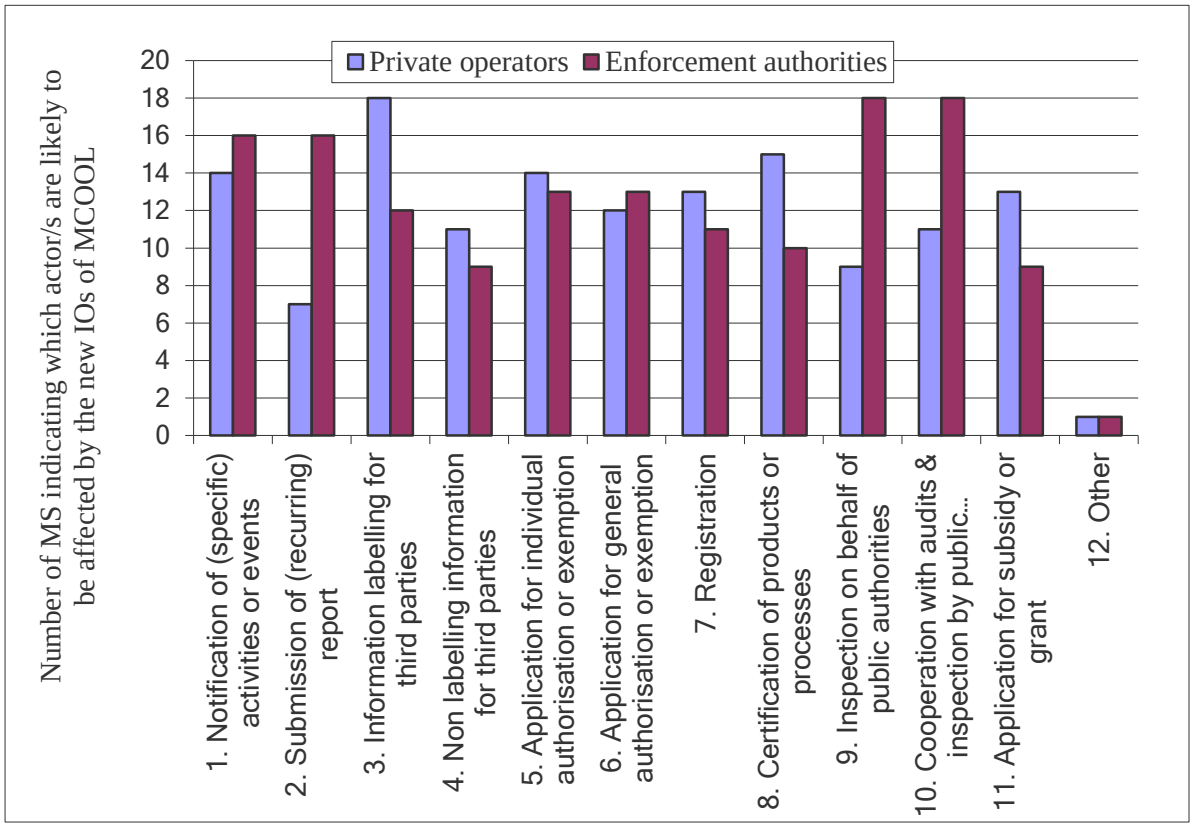
Information obligations	**Actions associated to information obligations**
3. Information labelling for third parties;	3. Retrieving relevant information from existing data;
4. Non labelling information for third parties;	4. Adjusting existing data;
5. Application for individual authorization or exemption;	5. Producing new data;
6. Application for general authorization or exemption;	6. Designing information material;
7. Registration;	7. Completing forms and tables;
8. Certification of products or processes;	8. Holding meetings;
9. Inspection on behalf of public authorities;	9. Inspection and checking;
10. Cooperation with audits and inspection by public authorities, including maintenance of appropriate records to be presented during the inspection;	10. Copying;
11. Application for subsidy or grant;	11. Submitting the information to the relevant authority;
12. Other	12. Completing the information;
	13. Buying (IT) equipment & supplies;
	14. Other

Source: FCEC consultation with MS CAs and stakeholders, on the basis of the European Commission Standard Cost Model (SCM)

In terms of who is likely to be affected by these information obligations, MS enforcement authorities and/or private operators, the results of the MS CA survey indicate that an impact is expected to occur at both levels across all obligations (**Figure 34**).

Figure 34: Actors likely to be affected by the new information obligations of mandatory origin labelling, according to MS CAs

Question: To what extent would the selected option/modality be likely to involve new information obligations (i.e. obligations related to information collection and reporting as listed in the table below)? Which actors are likely to be affected by these information obligations: MS enforcement authorities; private operators?



Source: FCEC MS CA survey (2014), Q15

In terms of **compliance costs**, the following two observations of key relevance to calculating these costs which were made by MS CAs in the 2013 FCEC studies on origin labelling remain valid, based on the updated evidence collected:

a. **Status quo (baseline)**: currently, the controls carried out to verify the compliance of operators to the provisions of the EU food labelling rules form part of the wider national inspection plans of verification controls targeted at FBOs. These plans are: generally drawn on an annual basis; risk-based (targeting specific products/sectors and FBOs, on the basis of regularly updated risk assessments); and, extend over the entire food safety and hygiene policy area for which enforcement controls are performed by the CA. In this context, it has been very difficult for the Competent Authorities to separate the time currently spent, if any, in verifying origin labelling claims during these inspections, from the time spent on other items covered during the inspection visit. In view of the anticipated difficulties, MS CAs have been asked to identify as a proxy the additional time spent and costs of controls stemming from the

introduction of other comparable rules (e.g. mandatory labelling for beef), but this has proven equally difficult in most cases [144].

b. **New rules**: as a general principle, MS CAs noted that the higher the level of precision of the declaration on the origin of the foods/ingredient/s, the higher the control costs involved to enforce the new rules. It was also noted that, generally, an increase of controls and administrative burden is expected upfront, i.e. immediately after the introduction of the new rules, but after the first implementation period, costs might somewhat be reduced once:
   i. The traceability system of FBOs has been put in place or adapted to the new rules;
   ii. The required databases at the level of the control authorities for monitoring traceability have been set up or adapted to the new rules; and,
   iii. Official inspectors are becoming more familiar with the new rules.

In view of the above difficulties in estimating costs, only 7 MS CAs (out of the 25 MS that responded to the consultation) provided some data on the current baseline costs of controls of compliance and/or estimates of the likely additional costs (control costs including administrative burden) from the introduction of mandatory origin labelling. However, the **cost increase estimates provided** by these MS **are too diverse to allow any conclusions to be drawn**. In particular, **2 MS** indicated that the introduction of mandatory origin labelling rules for the three categories of products covered by the study would result in up to **a 3-fold and 10-fold increase in their current levels of control costs**. The other **5 MS** that provided some data indicated that the **increase in costs could range from 5% to 20-30%.**

No further distinction in terms of costs per option/modality was provided. The general observation, from nearly all MS CAs that commented on the administrative costs and burden (18 MS), is that an increase in control costs is expected in all cases; **the more the level of detail the higher the cost**.

The increase in control costs is **in terms of the number of staff needed**. This increase in staff will be necessary to allow the required increase in the time needed for controls if mandatory origin labelling is included in the list of legal provisions that are checked during current inspection visits. Despite the lack of specific figures, all MS CAs have emphasised that particularly Option 2 (MS/TC labelling) would result in an increase in staff time needed. Although there would not be a need as such for more qualified inspection staff, some training will be required, but this cost is relatively small/negligible (e.g. could be done via BTSF).

More data on the additional costs of controls were provided during the 2013 MS CA consultation in the context of the FCEC study on the **mandatory origin labelling of meat as an ingredient**; these data are presented in **Annex 8.** Most MS CAS that had provided some quantitative estimate of the scale of the anticipated additional costs in that study, had indicated that they **expect a 10-30 % increase in control costs** (in terms of verification

[144] In addition, several MS CAs were enquired in 2013 on the time spent/costs of controls on misleading labelling (Directive 2000/13/EC of the European Parliament and of the Council of 20 March 2000 on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs (Article 7(1)(a) of Regulation (EU) 1169/2011)). This meant to serve as a parallel for the assessment of the 2013 FCEC origin labelling studies, but has proven equally impossible for the MS CAs to determine even in rough approximate terms.

checks carried out at FBO point, including administrative burden). Several MS CAs commented that the **additional costs of controls for the three categories covered by the present study are expected to be higher than previous estimates of such costs in the case of fresh meat or meat products**. This is because in the meat sector there is an established system of traceability starting from animal identification –and this is most developed in the beef sector – which can serve as the basis for the MC CA controls[145].

Furthermore, the following conclusions which were made by MS CAs in the 2013 FCEC studies on origin labelling remain valid, based on the updated evidence collected and the Focus Group discussion for this study:

- **Where the funding allocated to national control authorities by the state budgets is not increased** - and the tendency in the current economic climate continues to be stable or reduced budgets – then the increase in the staff time needed to perform inspections would need to be compensated by cost savings elsewhere, leading potentially to **a reduction in the frequency of the controls**, **or a change in priorities** i.e. reductions in the focus of the controls in other legislative areas (including food safety). Both could have detrimental consequences, particularly in MS where the control authorities have undergone severe budgetary cuts in recent years, leading to a situation where controls on origin labelling might not be properly carried out therefore **jeopardising the enforcement of any new rules**. It was generally acknowledged that the priority of MS CAs is the enforcement of food safety, based on consideration of risks, and in a situation of scarce resources enforcement of origin labelling will not always be on the top of the list of control priorities. Although these costs are expected to be ultimately passed on to FBOs through the charging of fees (under Regulation 882/2004), this would not solve the issue of allocating sufficient budgets from state coffers specifically to perform controls along the food chain.
- Beyond the cost and efficiency of the controls, MS CAs have also emphasised the need to consider **how to improve the effectiveness of the controls**. As was also pointed out in previous studies, these controls are currently based on documentary checks and therefore raise a key question on the ability of the enforcement authorities to verify the information provided in the supporting documents. The more detailed the

[145] Drawing a parallel from the costs of controls on mandatory labelling for beef has proven difficult due to lack of data. Nonetheless, where such data exist, the costs were indicated to be relatively high:

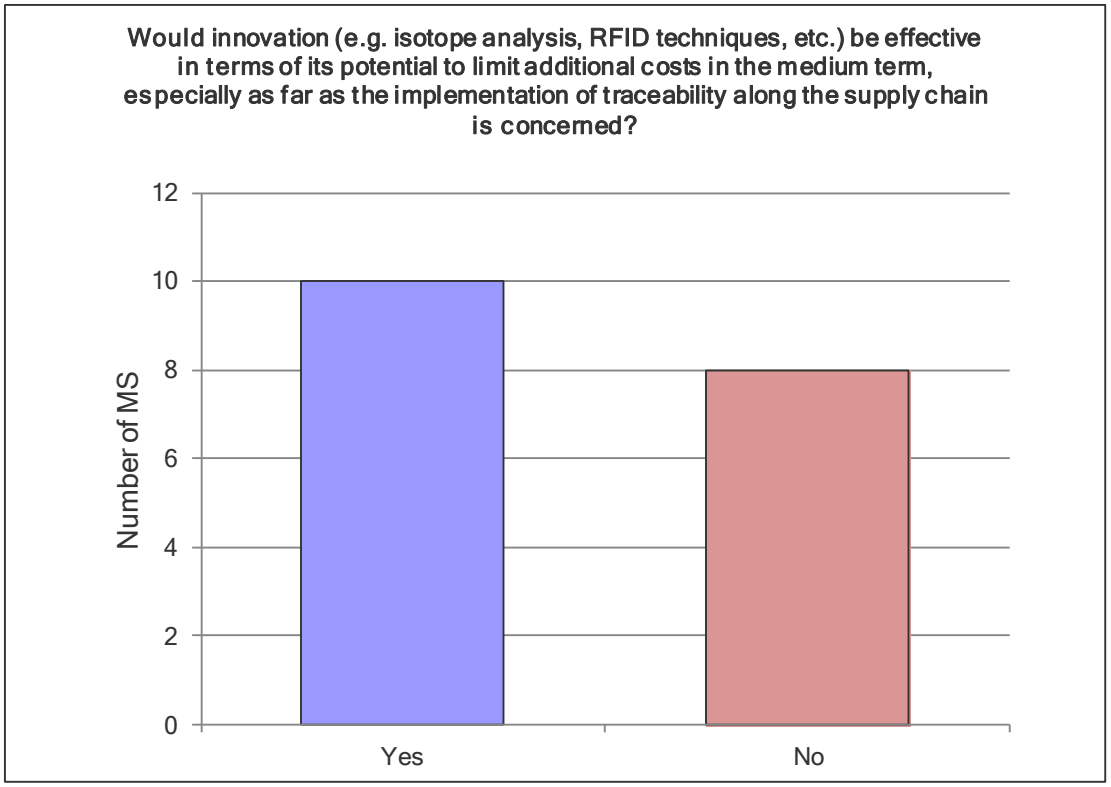
- The DE CA indicated that mandatory labelling of beef resulted in the introduction of a working group of authorities to control producers, processors and traders, and involved investigations in market patterns and commodity flows. Risk based controls (traceability) of farms/firms/factories at all relevant steps of the supply chain were implemented. This was in addition to the fact that for beef meat – which is different from other meat or products – the CAs could use a well established system of individual animal identification. Latest figures provided by the DE CA indicate that the actual costs for beef labelling controls are estimated at €3 million per year incurred for administrative authorities. On the basis of 1.07 million tons of consumed beef (carcass weight) per year, an effective administrative burden of 0.0028 €/kg beef arises.
- The DK experience with the additional administrative costs and burden caused by the specific labelling requirements for beef (Reg. 1760/2000) was measured in 2007 to an amount of ca. 147 million DKK (€19.7 million), excluding the specific labelling requirements for veal.
- The CZ CA has indicated that the obligation to label beef carcasses with the results of laboratory testing for BSE led to an increase in time spent and resulting costs of the controls by 20-30 %. In addition, the CZ CA incurred expenditure on an IT system linking laboratories with the CA and/or FBO.
- The FR CA indicated that the additional control costs of beef labelling were ca. 5%.

level of information to be provided, the higher will be the challenge for enforcement authorities to verify this information.

- The potential increase in administrative costs could be mitigated by the **traceability system** that should be set up. If this is effectively and efficiently set up, it should allow controls to be made easier, faster and better. As pointed out in Theme 2, the EU traceability system is not presently designed to provide the traceability information that would be required for origin labelling purposes and considerable investment would need to be undertaken to perform the required adaptations in the production/storage/distribution process to ensure full cumulative traceability along the supply chain for the different products.
- **Innovation/new technologies**, in particular **RFID tools and isotope analysis**, could also facilitate traceability and controls, thus mitigate costs. However, this might occur only longer term, not in the short to medium term as the uptake of this technology at the moment, more generally in the food supply chain across the EU28, is very scattered and virtually non-existent for the most part:
    - The industry indicated that RFID tools have been tested by a number of food processing companies in a range of different food products and have proven to be not cost-effective, i.e. start up costs are too high for a generalised application of such tools across the entire food and drink supply chain (see also following section).
    - MS CAs by and large (10 out of the 18 MS CAs) believe that innovation could possibly play a role longer term (**Figure 35**). However, most MS CAs remain unconvinced that isotope analysis can provide a cost-effective solution for wider implementation of origin verification controls, as: a) the costs of this testing are high; b) the available test methods are not widely tested yet; c) the technology is not applicable across the range of food products, particularly where ingredients are mixed[146]. Even in the case of RFID it was noted by several MS that although the technology has been around for many years, so far it has not resulted in significant cost savings in traceability and controls. In addition several MS pointed out that as these new technologies are generally very high cost, it is questionable whether they can be introduced in all food businesses concerned and across the EU28, and that costs would be disproportionately felt by smaller companies/MS.

[146] Our consultation with some of the key providers of new technologies (Isotope testing) suggests this could be a promising technology for confirmatory origin labelling analysis, but there are significant constraints at present for a more widespread uptake of this technology. Key constraints identified are: the costs involved are significant; and, as it stands, the technology is applicable only to products more or less wholly obtained (i.e. not to cuts, blends, trimmings, mixes of ingredients etc.), in relation to a reference library of isotopes from specific geographical regions (which do not correspond to administrative country or region boundaries), and with the aim to identify the place of farming only. Isotope testing was therefore not considered likely to provide the answer in short to medium term, both due to its high cost and because it remains an imperfect solution (i.e. it does not provide clear answers; is it reliable? is it practical/simple to use?).

Figure 35: Extent to which innovation could limit additional costs of origin labelling, according to MS CAs



Note: In their comments, for the most part, the MS CAs that responded 'yes' indicated that this is possible longer term and under the condition that technologies could be adopted across the range of FBOs in the EU28.

Source: FCEC MS CAs survey, Q18

The difficulties in enforcement, as outlined above, were also highlighted by the Focus Group for this study. It was pointed out that in third countries (TCs), enforcement of origin labelling would be particularly hard (including for verification checks performed on imports at EU borders). Within the EU, budgets allocated to controls cannot be increased, therefore enforcement authorities foresee that they would need to prioritise controls, to maintain focus on food safety which is a more critical issue. However, the lack of controls would create a risk for potential fraud. Also, enforcement would be paper/documentation checks as there are no other methods to control origin on food products. Similar issues are raised at the level of FBO internal administration and controls.

In the absence of available tools for effective implementation, and given the complexity of supply chains, nearly all of the consulted MS CAs have raised concerns on the **potential risk of both genuine errors and fraudulent practices**; this risk will be higher the stricter and more detailed the rules to be put in place. Documentary checks, the most widely used basis of the current controls, are generally not considered sufficient. Where there is significant trade between countries, there may well be need for agreements between the administrative authorities of MS, and with TCs, to enable the build of trust and cooperation between control authorities. Finally, issues of liability along the supply chain would also be raised by any

such rules. Especially for commodity products involving trade on the spot market, ensuring origin labelling is both very difficult and costly, as it is virtually impossible for the buyer to know where exactly the product they buy has come from.

The above conclusions are valid for all the 3 categories covered by the study; no specific conclusions can be drawn for each of the 3 categories. The above challenges are amplified in the case of multi-ingredient foods and/or blended products, examples of which can be found across all the 3 categories covered by this study.

4.5.3 Costs for FBOs

At the level of stakeholders, the aim has been to estimate the implementation of additional paperwork linked to any potential increase in FBO obligations to provide information to CAs, as a consequence of the new mandatory origin labelling rules (i.e. applying the SCM model). A distinction was made between information that would be collected and processed by businesses even in the absence of the legislation (which generates business-as-usual (BAU) costs) and information that is solely collected because of the new legal obligation (which generates administrative burden). The estimate was sought at production plant level, as follows: *staff time spent * costs of time = share of BAU costs*.

In addition, to supplement the evidence from the MS CAs, stakeholders were asked to provide feedback on the potential compliance costs, i.e. the costs stemming from the implementation of additional controls by enforcement authorities to ensure compliance to origin labelling rules, in particular on the extent to which the level of controls would need to be increased under the various policy options examined by the study. These control costs for mandatory origin labelling are expected to be combined into the general inspections for food safety purposes, as seems to be the consensus amongst MS CAs (see previous section).

In practice, the various consulted stakeholders (from across the range of sectors including processing, distribution and retail stages of the supply chain) were not able to distinguish the administrative costs resulting from what might be the new IOs generated by future legislation on mandatory origin labelling from the operational costs and control costs more generally (as provided in section 4.4).

Thus, as in the case of MS CAs, potential additional compliance costs beyond BAU as such include administrative burden; **familiarisation with the IOs/training and data inputs/record keeping related to inspections and audits (verification checks) were again identified as the main areas expected to be affected** (**Table 13**).

The level of the cost increase would depend on the complexity of the controls which will vary according to several factors:

i. Sourcing practices and complexity of food ingredients;

ii. The type of products and type of FBO, which is linked to their risk profile, whereby, certain products/FBOs are subject to 'lighter' or 'stricter' controls of compliance to EU food safety rules (see below);

iii. The level of detail requested is: EU/non-EU; MS/TCs; or, other geographical specifications;

iv. The level of traceability along the chain: completeness and form (paper documents or electronic) of origin information documentation available from the previous FBO link in the supply chain.

Despite efforts to gather data and analyse the additional control costs and administrative burden of FBOs, in most cases these costs could not be estimated. Furthermore, as in the case of most MS CAs, even the baseline (i.e. the current control costs and admin burden stemming from relevant legislation, including the FIC Regulation and food safety rules) could not be estimated with any level of precision in the context of this study. Hence, the relative increase on current costs cannot be derived from the absolute additional costs where these have been estimated. However, all of the consulted sectors (case studies and results of the FCEC FBO survey) agree that **control costs and administrative burden account for a relatively small share of the total additional costs of mandatory origin labelling**. In particular, according to the estimates provided in some cases[147]:

- **Flour sector (Cat I)**: The additional amount of time spent by staff on administrative issues under modality 'b' is estimated to cost from €16,000 /year/plant (Option 1) to €112,000 /year/plant (Option 2) (EU average staff costs, for a medium-sized mill). Additional staff time at mill level is needed to collect/supply origin-related documentation from suppliers/to clients (actual staff costs depend on MS).

- **Vegetable oils (Cat II)**: The additional amount of time spent by staff on administrative issues is estimated to cost up to 0.3 €/t of oil, for modality 'b' (Option 1 or 2). This is equivalent to an additional 30 min staff time needed for each 25 tonne-truck, to provide documents along the entire supply chain (assuming a gross salary of up to €2,500/month). In the case of modality 'a', the additional time needed was estimated at 10 min, i.e. the additional cost would be up to 0.1 €/t, as documents are only needed between refining and bottling. In the case of a typical representative (large scale) plant, the additional costs would range from €84,000 – €210,000 /year/plant (modality 'a' – modality 'b', respectively). Actual costs will depend on staff costs, which again will depend on MS.

- **Orange juice (Cat III)**: The additional amount of time spent by staff on administrative issues is estimated to cost up to €50,000 - €100,000 /year/plant; these costs are for orange juice as such under Option 2 or for other (more complex) juices under Option 1, under both modalities (note: in the case of juices, modality 'a' = 'b'). This is equivalent to an additional requirement of up to 2 staff FTE/plant (depending on the company size and product portfolio; actual staff costs also depending on the MS). The additional staff time needed would fulfil the following actions: update of good manufacturing practice (GMP) documentation of the production facilities; issuing of paperwork/documentation and compliance checks at different stages (reception of ingredients, matching processing and labelling, controls of end product labels and information provided to clients); training and information to members of staff; ordering and managing origin-labelled packaging materials (e.g. ensuring sufficient and correct stocks); and, taking origin into account at product development stage, as a new limiting variable.

[147] These costs could not be estimated in the case of rice, tomato passata, sugar, salads, frozen potato fries, and flour in bread.

Bearing in mind the caveats of extrapolating from single product cases to the three categories covered by the study as a whole[148], the above estimates suggest that administrative costs could be higher in the case of Cat III products in particular, as these tend to be at the end of longer supply chains, therefore increasing the requirement for document issuing/transmission along the supply chain. However, product complexity is a factor that also affects costs, as shown in the case of vegetable oils (Cat II).

In addition to the above administrative costs and burden borne directly by FBOs, it is generally expected that **the costs of compliance controls at MS CA level would be passed to the FBOs through fees charged on these controls (under Regulation 882/2004)**, a similar approach to that taken for meat.

As with the operational costs, **smaller companies are expected to be particularly disadvantaged** as they do not have the critical mass in their administration or the manpower to handle the additional requirements imposed by mandatory origin labelling, particularly frequent origin modification (for potential mitigating factors, see **Box 6**, section 4.7.2).

Beyond the additional costs as such, all FBOs have expressed concerns on the **feasibility of controls**, in particular as these are expected to be **only paper-based** as, according to FBOs, no scientific method or innovative technique currently exists that accurately identifies the geographical origin of a food product such as the bulk of those considered in the present study. For example, the isotope analysis technique does not allow to precisely identify the origin of wheat/oilseeds/sugar beet/cane even at the stage of raw material collection/storage, before the 1st processing stage (milling/crushing). While the technique enables to identify different profiles of wheat grains based on soil characteristics, the 'origin' indication would be provided at the level of broad geographical areas (and not administrative borders). In addition, not all existing soil profiles have been documented and the effect of grain mixes is not known. RFID is not a feasible method for commodity products in bulk. Finally, both techniques are costly and require significant start-up investment. Thus, nearly 88% of the FBOs that responded to the FCEC FBO survey (n=174) indicated that innovation would be ineffective in terms of its potential to limit additional costs in the medium term.

FBOs generally believe that the introduction of **rules that are: a) complex to apply and b) cannot be effectively controlled, would inevitably lead to errors and/or fraud.** The above analysis concerns normal administrative costs and burden, not those required in the context of controls in extraordinary situations such as in the case of suspected errors/fraud. FBOs have also noted that the more detailed the requirements the higher the risk of errors/fraud. Costs in the case of errors/fraud will depend on: the action to be taken (which is largely at the discretion of MS CAs and may range from the imposition of fines to complete withdrawal of products from the market); the volume of products concerned; and, relations between processors and retailers, as the latter generally impose on processors a fine to pay back any losses incurred in such situations (liability issues can be important in this case)[149].

[148] As well as the fact that – despite best efforts - there may be some variation in the underlying assumptions and cost elements considered by the various case study sectors.
[149] No estimates were provided in this case, but in the previous study on the mandatory origin labelling for meat as an ingredient, recall costs were estimated at >€50,000 - €100,000 per recall, for bigger companies.

4.6 Impact along the supply chain and on final consumer prices

The potential impact of the production cost increases on final consumer prices (or the extent of price transmission) will depend on the prevailing market conditions at the time of the introduction of the new rules. Generally, in a situation of perfect competition (i.e. perfect price transmission) consumer prices will be relatively more affected than producer prices. In particular, under an assumption of full competition, producer prices will be equivalent to the average costs of production. This also implies that when somewhere in the supply chain an additional cost factor is added, the dominant part of this might be expected to be passed on to the final consumer.

The actual impact on consumer prices will depend on the prevailing structure and techno-economic linkages, hence bargaining power along the supply chain of each product / product sector, as in practice supply chains tend to deviate from the full competition assumption.

Depending on the stage which has and uses the market power, the distribution of the costs of mandatory origin labelling between the different actors along the supply chain (including agricultural producers, processors at the different stages, retailers) and consumers might be different from the level of the production cost estimates provided in section 4.4. Where retailers have significant market power due to intense concentration, they might be able to "protect" their clients (consumers) and enforce upstream sectors (particularly when these are more fragmented) to take on a larger part of the costs (than would be the case under a situation of perfect competition).

As discussed in Theme 2, the supply chain for food and drinks more generally is such that the farming and processing sectors tend to be relatively fragmented, while there are higher and increasing levels of concentration in the food retailing sector. Several studies on competitiveness in this sector have pointed to potential power imbalances, particularly leaning towards retailers, and the effects of bargaining power on price transmission (European Commission 2009)[150]. These studies point to sub-optimal relations between stakeholders along the food supply chain, asymmetry in bargaining power and lack of transparency in price formation[151]. Furthermore, it is pointed out that price transmission along the supply chain occurs at a different rate between MS[152], which is attributed to the different situations that exist across the EU including in production systems, competitiveness,

[150] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: ***A better functioning food supply chain in Europe*** COM(2009) 591 final Brussels, 28.10.2009

[151] See also: European Commission (2009): ***The functioning of the food supply chain and its effect on food prices in the European Union***. European Economy Occasional Papers 47 May 2009. A specific study for the European Commission in 2012 identified price transmission issues continue to be present in the sugar sector even after policy reforms (although the latter managed to remove at least partly some constraints to price transmission) (European Commission (2012): ***Study on price transmission in the sugar sector***).

[152] For example, the European Commission (2009) study on the functioning of the food supply chain in the EU concludes: "*The estimated elasticity of producer prices to agricultural commodity prices ranges between 1% for Portugal and 22% for Poland, which suggests that agricultural commodity price increases/decreases tend to be transmitted to producer prices at a rate that varies across countries. The low rate of pass-through in Portugal and Spain could indicate that the increases/decreases in agricultural commodity prices tend to be absorbed by the food producer sector through a reduction of profit margins, whereas the opposite might be true in the case of Poland. However, the relatively high rate of pass-through in Poland could also be explained by macroeconomic factors. Nevertheless, this analysis provides a first indication that upstream factors can help explain why consumer food prices in different EU Member States have reacted very differently to the agricultural price shocks encountered in 2007 and 2008*."

supply chain characteristics and technological developments. These issues are currently being addressed by a High Level Forum for a Better Functioning Food Supply Chain[153], which was set up by the European Commission, and aims amongst other things to monitor prices and improve understanding of price transmission in the food supply chain, so as to take initiatives to correct identified imbalances[154].

In terms of the net impact on consumer welfare, the monetary cost of the consumer price increase has to be balanced against the – non monetarised – benefits of the additional information to determine whether consumers are better off with any of the reviewed options of origin labelling than without origin labelling (i.e. the '*no action*' option). This is an exercise that could not be conducted in the scope of the present report but can be more thoroughly investigated in the context of a more detailed impact assessment in the event that mandatory origin rules are to be proposed.

A 2014 study of the value of EU quality schemes (PDO/PGI)[155] concluded that agri-food products with an EU quality label are generally sold at higher prices: in most cases, the gross margin for final protected products is higher than that for corresponding standard products, yet with extreme variability in the extent of the price premium of the EU label. According to the study, while in many cases the prices are only marginally higher – around 2-3% –, at the upper limit, the price of the protected product is nearly double that of the non-labelled one. Moreover, while producers of the final products benefit from the EU protection, the situation is less clear for farmers supplying agricultural raw materials to the production of these products: whereas in some cases a very clear advantage in gross margin for production of agricultural raw materials for the GI supply chain (up to nearly three times the gross margin for standard production) was observed, in other cases there were no significant differences in gross margins between GI and standard production.

An important conclusion of the above study is that *"**intrinsic product differentiation** (i.e. presence of significant differences in the intrinsic features – quality parameters, organoleptic characters, etc. – of a GI product versus the corresponding standard product) can be identified as a **key factor for obtaining a positive differential margin in GI production";** "In general, GI products with only slight differences in intrinsic features from the corresponding standard products achieve relatively limited advantages in gross margins, or even no advantage at all, whereas GI **products which are significantly different** from the corresponding standard products **tend to achieve more important advantages".***

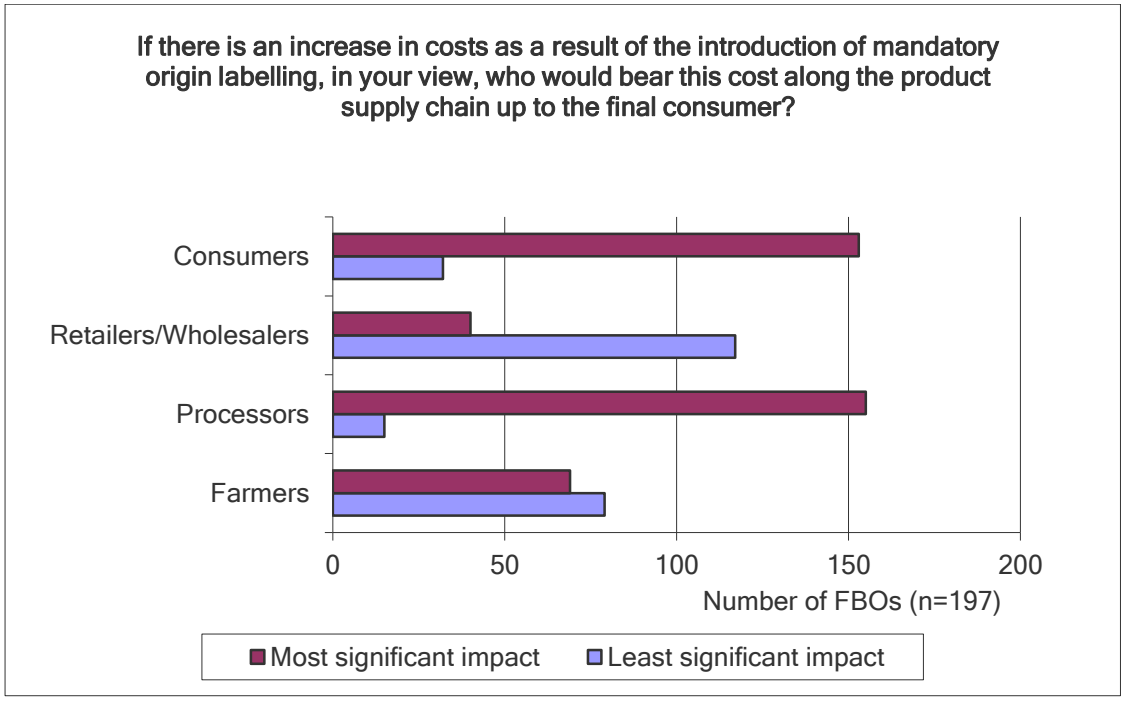
This factor is largely dictated by consumer demand. While it can be present in a voluntary scheme and indeed – as discussed in Theme 2 – forms one of the two conditions for producers to introduce voluntary labelling on a product (the other condition being feasibility/cost), it is *a priori* absent in mandatory labelling since by definition the imposition of rules on a mandatory basis removes the opportunity of product differentiation since all products would need to provide the same type/level of information. However, it may lead to price increases for products of certain origins/provenance, to the extent that consumers'

[153] http://ec.europa.eu/enterprise/sectors/food/competitiveness/forum_food/index_en.htm
[154] See for example: European Commission (2012). *High Level Forum for a Better Functioning Food Supply Chain*. DG ENTR, HLF.015 final December 2012
[155] The study for DG AGRI analysed the added value of the Protected Designation of Origin (PDO) and Protected Geographical Indication (PGI) labels under the EU 'GI' quality scheme. *Study on assessing the added value of PDO/PGI products*, by Areté Research and Consulting in Economics, 2014.

perception favours certain origins/provenance over others, and depending on the prevailing supply/demand balance for these products.

The results of the FCEC FBO (2014) survey indicate that the largest number of respondents expect consumers and farmers to be most significantly impacted by any cost increase of mandatory origin labelling, followed by farmers, while retailers would be the least impacted (**Figure 36**). While these results may reflect to some extent the composition of the survey respondents, they nonetheless concur with the available evidence from the above cited studies on imperfect price transmission in the food supply chain.

Figure 36: Impact of cost increases along the food supply chain, according to FBOs



Source: FCEC FBO survey (2014), Q31

4.7 Impacts on the internal market

4.7.1 Overview of impacts

Generally speaking, impacts within the internal market are *a priori* expected to occur in view of the differential impacts between the products/product sectors covered by this study, as well as the different situations that prevail across the EU in terms of self-sufficiency in raw material/dependence on imports, production systems, competitiveness, supply chain characteristics and technological developments.

Thus, the study aimed to explore the extent to which mandatory origin labelling could have potential impacts on the internal market in terms of:

1. Costs of production and/or other dimensions of competitiveness (ability to source cost effectively, product innovation, safeguard of sensitive business information, etc.);
2. Intra-EU trade flows of the relevant products, in particular: extent of possible geographical segmentation of the EU market; possible changes in the geographical structure and/or in the volume of intra-EU trade flows.

The main potential impacts identified from the FBO consultation are the following:

1. ***Impacts on cost-related competitiveness***:

- Over 90% of the FBOs that responded to the FCEC FBO survey indicated that, in terms of competitiveness, the impact mostly expected to result from mandatory origin labelling rules is the increase in costs, with the second most expected impact being the ability to source cost-effectively the required quantities/quality of raw material (
- **Figure 37**).
- In particular, in the case of Option 2 (and Option 3), the new labelling rules are largely expected to lead to the adjustment of FBOs' sourcing strategy and patterns, with the aim to focus on a more limited number of origins (countries/regions) for their sourcing of raw material. This would effectively lead to a certain nationalization/ regionalization of sourcing patterns within the EU. As a result, FBOs are expected to face higher prices as they will be looking at a more limited range of sourcing options and an overall reduced supply base within the retained countries/regions. Generally, the most significant impacts in this case are expected for:

    - FBOs in MS that are not self-sufficient in raw material will be more affected than those located in self sufficient MS: these will vary depending on the product / product sector;
    - FBOs using a range of ingredients and producing a range of products will be more affected than FBOs with a smaller range of products with fewer ingredients, as the complexity of providing origin labelling would multiply in this case; and,
    - FBOs that rely on ingredients for which a more extended supply base is necessary (to ensure the required volume and specifications). As noted in Theme 2, there is extensive trade within the EU in agriculture and food, largely responding to the need of FBOs to secure adequate supply of raw materials and/or ingredients with the required specifications. Three quarters of the FBOs that responded to the FCEC FBO survey indicated that they use multiple sources, EU and non-EU with a combination of sources from different countries (**Figure 17**, Theme 2). The specificities of each sector in terms of sourcing practices are summarised in Theme 2, and described further per sector in the case studies (section 4.10).

- FBOs sourcing ingredients from third countries (particularly in sectors relying on imports, i.e. EU is not self sufficient) are expected to be more adversely affected (see also section 0).

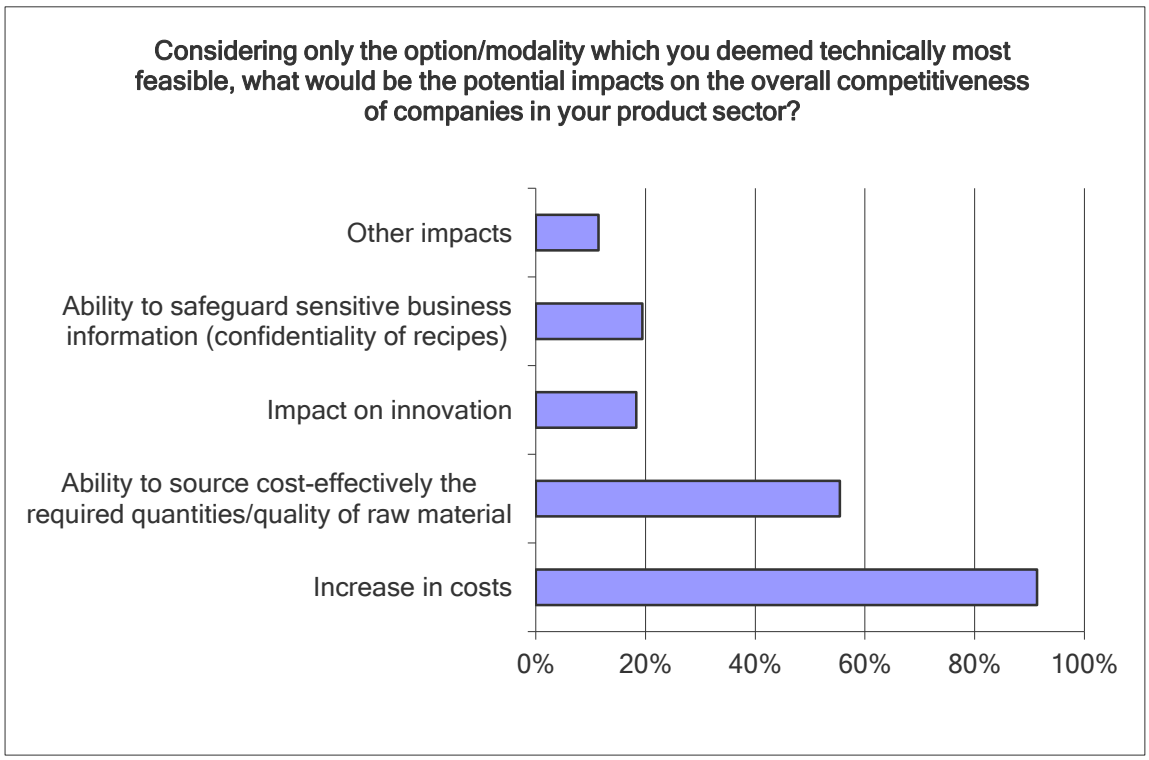
2. ***Impacts on intra-EU trade of the concerned products***:

- Nearly two thirds of the FBOs that responded to the FCEC FBO survey indicated that, in terms of intra-EU trade, the impact mostly expected to result from mandatory origin labelling rules are changes in the geographical structure and/or in the volume of trade flows, with the second most expected impact being the potential geographical segmentation of the EU market (**Figure 38**).
- These potential impacts are expected as a result of the adjustment of FBO sourcing practices. In particular, a reduction in traded volumes is expected, with MS highly specialised in supplying certain agricultural and food products as ingredients to the food industry (depending on the product / product sector) suffering the most significant impacts.
- Under Option 2 (and 3) particularly FBOs situated close to MS borders areas, who can be involved in significant cross border trade, are expected to be most affected.
- Risk that patterns of "food chauvinism" may emerge, if consumers prefer products with ingredients from their own country or from other specific countries perceived to offer added value in terms of safety/quality etc..

For what concerns impacts on net trade of the EU and individual MS, it can be concluded from the available evidence that Option 1 - *EU or non-EU origin* - will have negligible (if any) impacts. Option 2 - *MS / TC level* - and Option 3 - will have impacts on the net trade position at EU28 level and at the level of MS. The extent of the impacts will depend on intra-EU trade flows in each sector. Generally, more significant shifts in the net trade position are expected in the case of some major net importer or exporter MS.

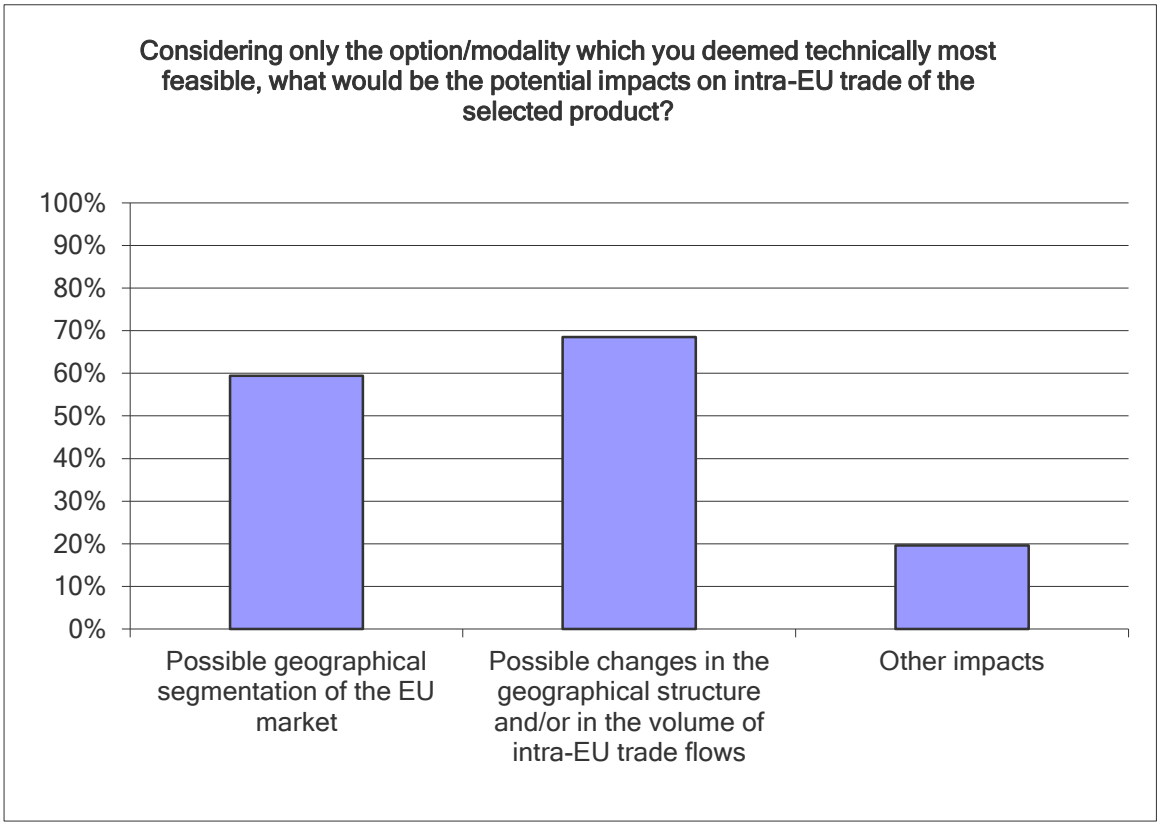
The collected relevant evidence for each of the case study sectors is summarised in **Table 14**.

Figure 37: Impact on competitiveness, according to FBOs (n=175)



Source: FCEC FBO survey (2014), Q32

Figure 38: Impact on intra-EU trade, according to FBOs (n=143)



Source: FCEC FBO survey (2014), Q33

Table 14: Impacts on competitiveness in the internal market, by product sector

Sector	Impacts on the internal market
Category I: Unprocessed foods	
Flour *Cat I*	The introduction of mandatory origin labelling under modality b (place of harvest of wheat) would create different impacts between EU operators. Some would be more affected than others depending on the wheat self sufficiency level of the MS. Millers operating in countries that significantly rely on imports (extra-EU or intra-EU imports) would be at a competitive disadvantage vis-à-vis millers located in (typically) self-sufficient MS, as different origins would require the segregation of the operations.
Rice *Cat I*	Generally, companies in sectors (types of rice) / MS relying on imports would suffer more than those in self-sufficient sectors / MS. The impact would depend on the MS and the type of rice milled. For non-speciality *Indica* (long grain) rice, the larger operators in rice producing MS would face similar problems as those in non-rice producing MS that are importing all the rice they mill/pack. However, the additional costs associated with applying mandatory origin labelling could potentially favour millers sourcing from a single EU origin and therefore impact upon current patterns of intra-EU trade. Mandatory origin labelling, on the basis of 'place of farming/harvesting' (only modality b applies for rice) could therefore unevenly affect the competitiveness between EU operators.
Pre-packed salads *Cat I*	Under Option 2b, the industry foresees a potential geographical segmentation of the EU market; it also anticipates potential changes in the geographical structure and volumes of intra-EU trade flows of raw material. These impacts would be the result of consumer and customer (B2B) demand for specific origins, which is the main concern of the salads packing sector.
Category II: Single ingredient products	
Sugar *Cat II*	There is important intra-EU trade in both raw and refined sugar (while intra-EU trade of sugar beet is negligible). The introduction of mandatory origin labelling would result in different impacts between EU operators, with some more affected than others depending on the self sufficiency level of each MS (including reliance on imports of cane sugar from TCs). Processors operating in countries that significantly or exclusively rely on imports (from non-EU countries or other MS) would face a competitive disadvantage vis-à-vis processors located in (typically) self-sufficient MS. This is because FBOs in importing MS would require more segregation of operations as there would be more origins involved. It is noted that only 19 MS have sugar beet production; the remaining MS are obliged to import sugar, from the EU or TCs (see impacts on international trade).
Sunflower oil	Option 2a (place of refining/MS level), would likely lead to a consumer preference for vegetable oils produced in their country. As

Cat II	refining confers the origin of the oil in most cases this would imply higher transport costs to ensure refining takes place in the national refineries. Furthermore, the demand for domestic oilseeds would potentially increase while intra-EU trade flows would diminish. Refiners/bottlers located in small oilseed producing countries, relying on imports from larger countries, would be more negatively impacted in terms of access to raw materials. This would eventually lead to a shift of bottling/refining capacities from smaller to larger MS, where domestic oilseed production would be held back.
Frozen potato fries *Cat II*	There is a risk that mandatory origin labelling under modality b (place of harvest of potatoes) could disturb the current level-playing field of EU potato processors. Assuming that one origin is preferred, due to pressure from retailers/consumers or to simplify packaging operations, processing plants located close to borders would be indirectly put at a disadvantage. At a more general level, larger potato-producing MS would have a competitive advantage over smaller potato producers, although the availability and specific quality issues in the potato sector are such that all processors would face negative impacts (see sourcing practices).
Category III: Ingredients that represent more than 50% of a product	
Orange juice *Cat III*	Under Option 1, no impact on intra-EU trade is foreseen for orange juice processors/bottlers. For other juices however, raw material may be sourced from EU/non-EU countries (e.g. apple juice). Assuming that customers/consumers would favour the EU origin, this would distort the EU level playing field and put operators sourcing only from the EU at a competitive advantage vis-à-vis others.
Tomato passata *Cat III*	The introduction of mandatory origin labelling under Option 2b (place of harvest of fresh tomatoes) could result in unfair competition between EU operators along the supply chain, to the extent that consumers may expect/perceive differences in quality and therefore favour one rather than another MS origin/provenance. Under Option 1, no impact on intra-EU trade is foreseen by the tomato processing industry.
Flour in bread *Cat III*	Companies in smaller countries relying on imports of flour would suffer more than those in larger and self-sufficient countries. Generally speaking, Belgian flour and bread producers are relying on imports of raw materials such as wheat and other cereals. Some MS in the EU rely on significant volumes of imports. Therefore, costs for mandatory origin labelling (particularly under Option 2.b) would be much higher for bakeries in wheat importing countries than for similar bakeries in wheat producing MS (more likely to be self-sufficient). Mandatory origin labelling, on the basis of 'place of farming/harvesting' (modality b) could therefore result in unfair competition and disturb the free movement of bakery products within the EU.

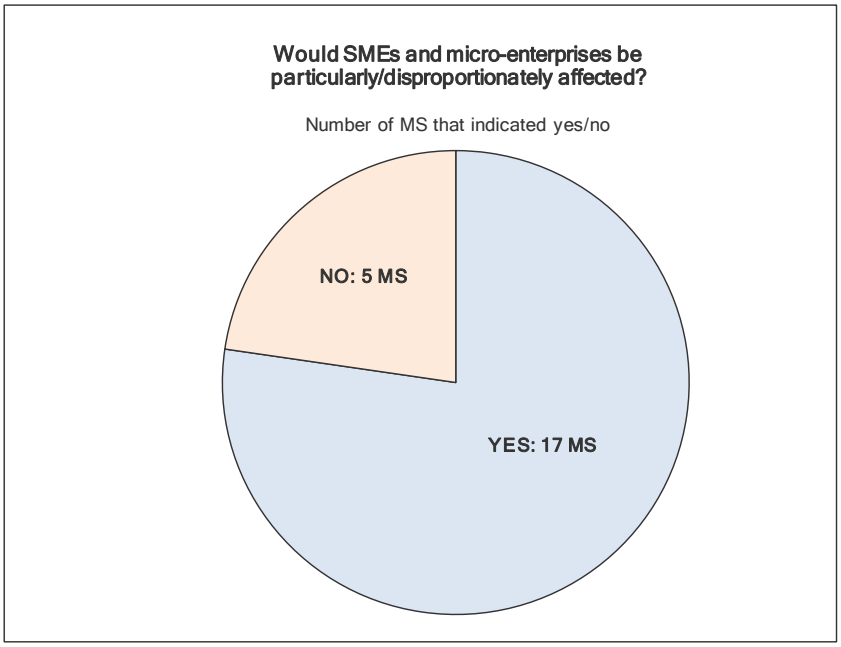
Source: FCEC, based on the consultation with FBOs

4.7.2 Impacts on SMEs

As noted in Theme 2, given the EU definition of SMEs, most FBOs in the food and drink sector are SMEs: FBOs with over 250 employees represent a minority of the companies present in the EU food supply chain, although they account for substantial shares of the industry turnover and total employment; microenterprises (less than 10 employees) are particularly present in this sector, although they account for a relatively small share of the total turnover and employment[156].

According to most MS CAs (17 out of the 22 MS CAs that responded to this question in the FCEC MS CA survey), SMEs and micro-enterprises would be particularly/disproportionately affected by mandatory origin labelling rules. MS CAs also pointed out that because SMEs/micro-enterprises do not necessarily have the legal teams or administrative teams to deal with all the complex information and rules, they could potentially lose market position by the introduction of mandatory rules. Mitigation measures in this case could be provided by an exemption from the rules, particularly for micro- and small enterprises; however, the significant market share of these enterprises in the food and drinks sector, therefore the risk that a derogation might actually defeat the purpose of introducing mandatory rules, was also noted.

Figure 39: Extent to which SMEs/micro-enterprises would be particularly/ disproportionately affected by mandatory origin labelling, according to MS CAs (n=22)



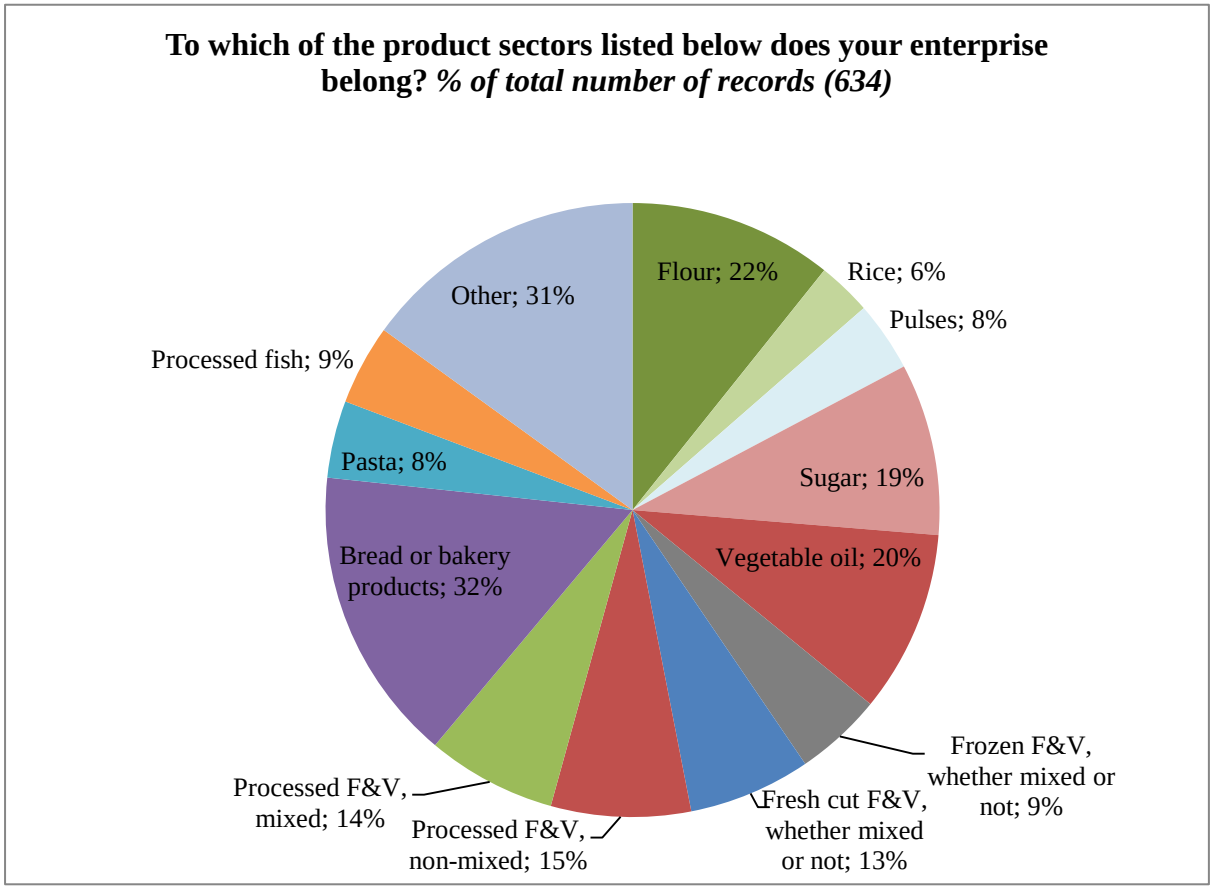
Source: FCEC MS CA survey (2014), Q23

In order to capture the specific impact son SMEs, the SME Panel survey launched by DG ENTER on the basis of the FCEC questionnaire gathered a total of 634 responses, from EU

[156] As indicated in Theme 2, some 99% of the companies operating in the EU food and drinks industry are SMEs (including microenterprises), and these SMEs account for 51.6% of turnover, 48.8% of value added, and 64.3% of employment in the sector. Within the group of SMEs, the microenterprise sub-group accounts for approximately 79% of all companies in the food and drink industry, 8.2% of turnover and 16.9% of employees (source: FoodDrink Europe, 2014).

SMEs active notably in the fruit and vegetables sector (51% of respondents in total), in the bakery sector (32% of respondents), and in processing of commodity products such as flour (22%), vegetable oils (20%) and sugar (19%) (**Figure 40**).

Figure 40: Profile of SME respondents, by food sector

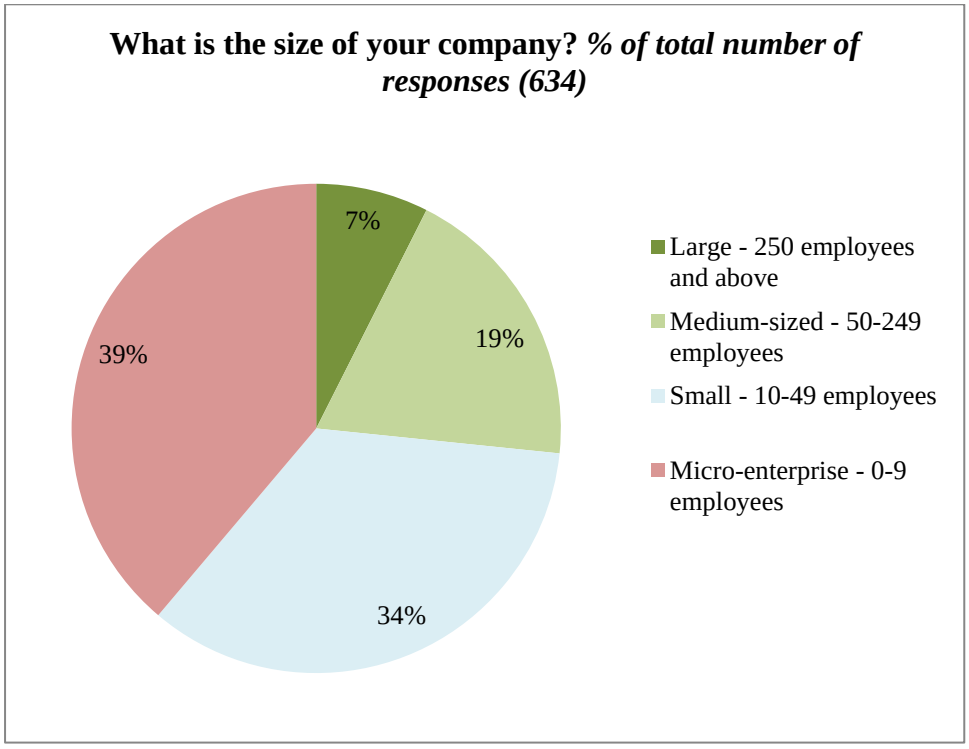


Source: Agra CEAS, based on SME Panel survey (2014)

Some 87% of the SME respondents were processors or manufacturers, of products either intended for sales to end consumers (65%) or for further processing (22%). SMEs involved in the production of fresh/lightly processed farm products accounted for 36%, while the rest were traders (16%), retailers (15%) and caterers (11%) (**Figure 41**).

Most of the SMEs responding to the SME Panel survey were micro-enterprises (i.e. businesses with up to 9 employees; 39% of respondents) or small enterprises (i.e. up to 49 employees; 34% of respondents). Some 19% of respondents were medium-sized enterprises (i.e. between 50 and up to 249 employees), while some 7% of respondents employed more than 250 employees (i.e. they were not SMEs as such).

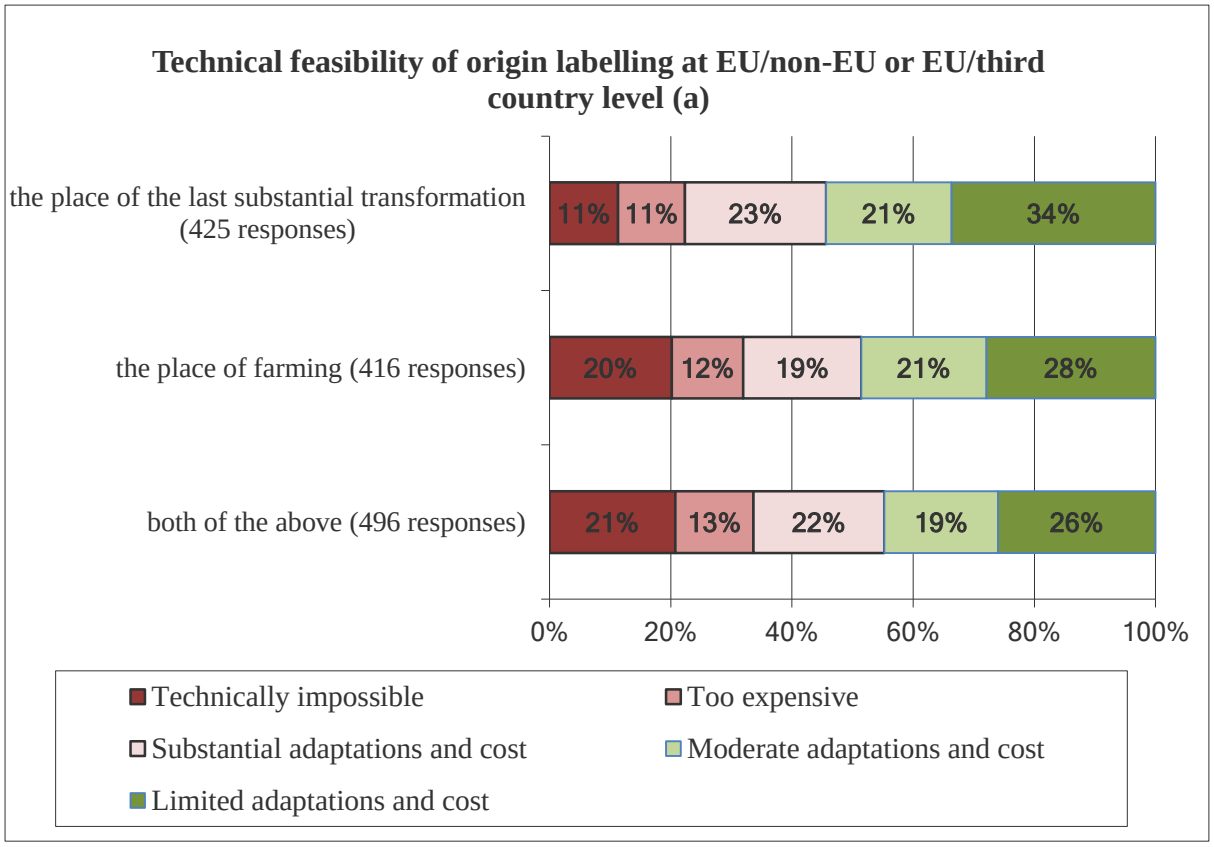
Figure 41: Profile of SME respondents, by size of enterprise

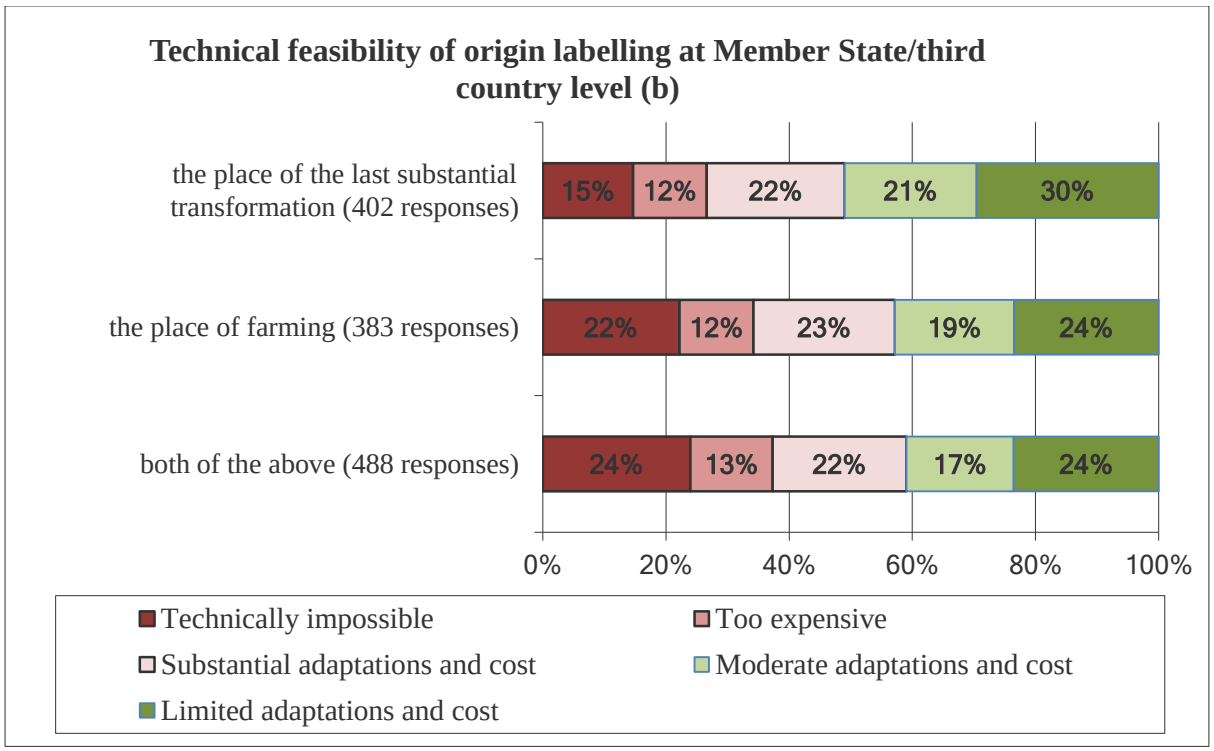


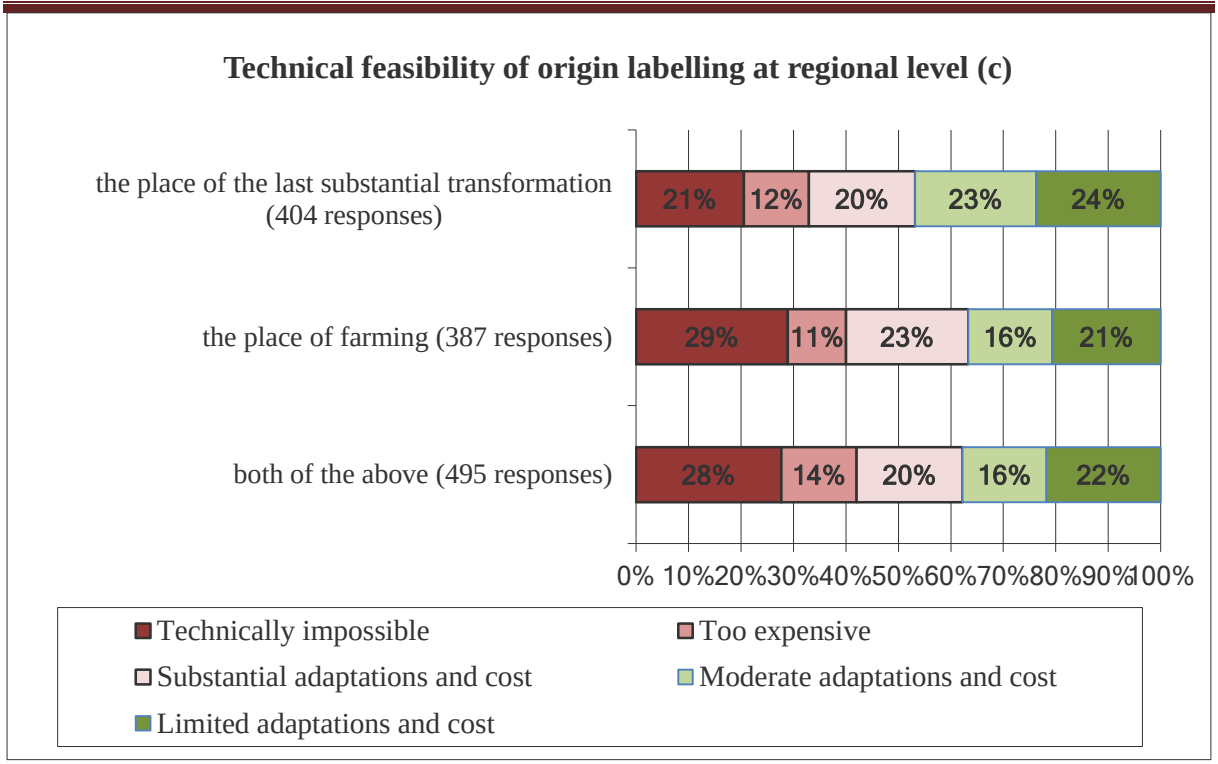
Source: Agra CEAS, based on SME Panel survey (2014)

The technical and economic feasibility of a potential introduction of mandatory origin labelling rules, according to SME respondents, is presented under the various options/modalities in **Figure 42**.

Figure 42: SME assessment of the technical and economical feasibility of mandatory origin labelling under the different modalities, by option







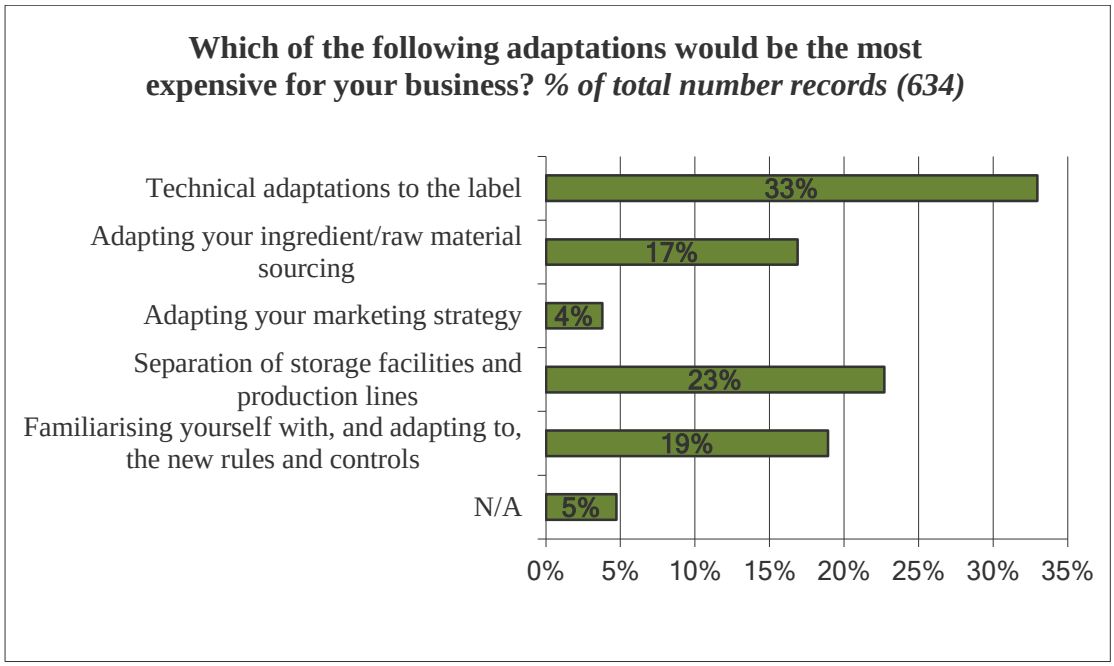
Source: Agra CEAS, based on SME Panel survey (2014)

Results show that SMEs would face increasingly technical feasibility/high cost issues as the level of origin indication becomes further detailed, from Option 1 (EU/non-EU) to Option 3 (regional level). On average, for all modalities examined, respondents who indicated that it would be technically impossible/too expensive to implement origin labelling in their sector accounted for 29% under Option 1, 33% under Option 2 and 38% under Option 3. Including respondents for which origin labelling would require substantial adaptations and costs, these shares respectively go up to 51%, 55% and 60%. Thus, on average across the modalities considered, **the majority of respondent SMEs consider that the introduction of origin labelling would be technically impossible, difficult and/or substantially costly.** On the other hand, some 49%, 45% and 40% of SMEs indicated that origin labelling would be feasible under Option 1, 2 and 3 respectively with only moderate or limited adaptations and costs. It is noted that, **under Option 1, just over half of SMEs consider it is not feasible/too expensive while nearly half consider it feasible/limited cost.**

In line with the results of the FBO and MS CA surveys and the analysis of case studies, **modality 'a' (place of processing) is consistently considered to be easier to implement than modality 'b'** (place of farming) **and modality 'c'** (place of processing and place of farming). Option 1a (place of processing at EU/non-EU level) in particular is considered to be feasible by some 55% of respondents (i.e. with limited or moderate adaptations and costs). For all options, the number of respondents considering it is 'technically impossible' significantly increases between modality 'a' and 'b', from 11% to 20% under Option 1, from 15% to 22% under Option 2, and from 21% to 29% under Option 3. Similarly, the share of those considering origin labelling is feasible with only limited adaptations falls as modalities shift from 'a' to 'b', and moving from Option 1 to Option 3.

Among the various potential adaptations required by mandatory origin labelling, the technical adaptations on the label was indicated by 33% of SME respondents as the most expensive item, followed by the separation of production facilities and storage (23%), adapting to the new rules and controls (19%) and changes in current sourcing practices (17%) (**Figure 43)**. These results confirm to some extent the findings of the FBO and case study analyses, although there is some contrast as responses presented here depend on the type/scale of business, the current business practices (set up of production facilities/sourcing practices) and the option/modality considered by respondents when answering.

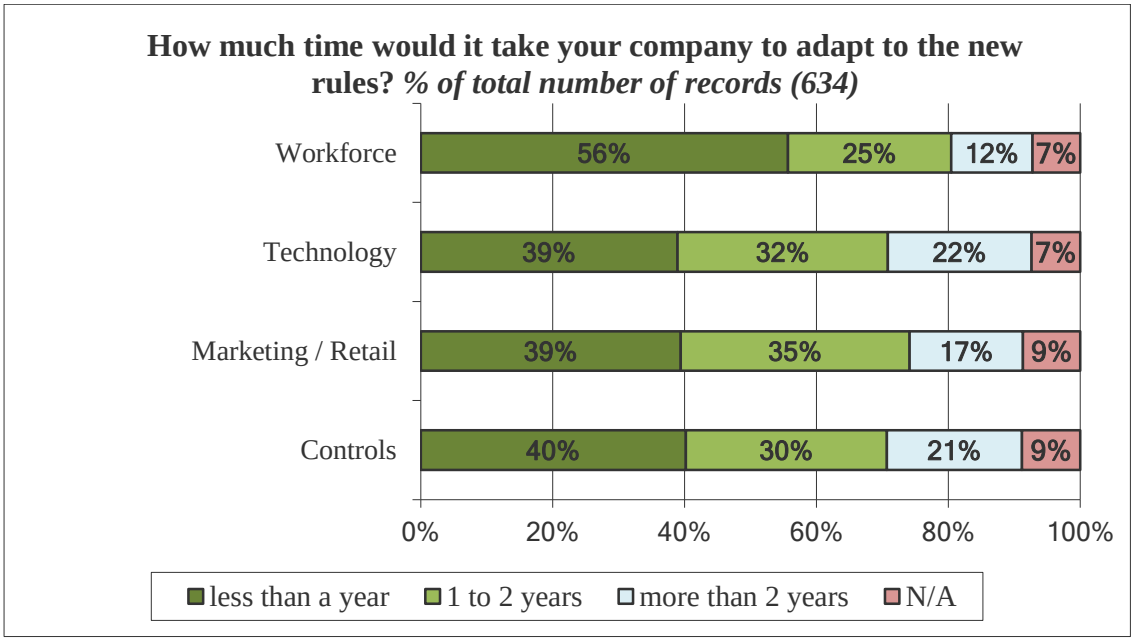
Figure 43: SMEs' assessment of the most expensive adaptations to mandatory origin labelling



Source: Agra CEAS, based on SME Panel survey (2014)

Overall, SMEs indicated that they would need less than a year, or up to 2 years to adapt the various business areas to potential mandatory origin labelling rules (**Figure 44**). Adaptation of technology and adaptation to controls are expected to be the areas expected to take a longer time to adapt, potentially requiring transitions of more than 2 years.

Figure 44: Expected time needed by SMEs to adapt to mandatory origin labelling



Source: Agra CEAS, based on SME Panel survey (2014)

Most SMEs indicated that, if costs were to increase due to origin labelling, the most significant impacts of the **cost increase would be borne by processors** (62% of respondents) and consumers (46% of respondents); while only 26% and 24% of respondents believed the most significant impact would be borne by retailers and farmers respectively[157]. Finally, some 66% considered that mandatory origin labelling would **increase the administrative burden** on their businesses (only 8% believed there would not be any impact).

Although **most respondents** (41%) indicated that the introduction of mandatory origin labelling rules **would not prevent them from taking other actions** to develop or improve their businesses, some 32% of SMEs said it would, while it should be noted that a large proportion of respondents (22%) did not know.

Thus, most respondents (43%) indicated that **a general exemption from compliance for SMEs would help reduce the potential negative impacts** of mandatory origin labelling rules, while 34% indicated that special provisions for SMEs would enable mitigation of costs (for both questions, some 18% believed these measures would not help mitigating the impacts). Moreover, some 54% of SME respondents believed that **voluntary origin labelling would involve significantly lower costs** than mandatory origin labelling; while 23% of respondents indicated origin labelling rules on a voluntary basis would not involve lower costs.

Results from the SME Panel show that a **considerable share of SMEs would not be able to implement mandatory origin labelling in their sector because it is technically not feasible/too expensive.** Mandatory origin labelling under Option 1a was considered to be the most feasible for SMEs and least feasible under Options 2b/c. Adaptations of the label, of the production facilities and of sourcing practices are foreseen by SMEs, the cost of which would

[157] Figures do not add up to 100% as these were independent questions.

most likely be borne by processors/manufacturers or by consumers. Other adaptations such as compliance with controls and adaptation of the technology in place are also anticipated and these would necessitate more than 2 years to be implemented. In addition, the introduction of mandatory origin rules would increase the administrative burden on SMEs.

In view of the above SME Panel results, as well as the findings from the case studies and the FCEC FBO and MC CAs surveys, it can be concluded that **a number of factors would *de facto* mitigate the severity of the anticipated impacts on the technical and economic feasibility of mandatory origin labelling on micro/small-enterprises** versus larger-scale enterprises. In particular, smaller companies tend to source raw material locally where possible, particularly in perishable food sectors (e.g. processed fruit and vegetables), and are not as present in sectors relying on the generally higher investment continuous production models which are the prevailing models in these sectors to optimise efficiency/ competitiveness (e.g. sugar, vegetable oils, flour, starch-based products etc.) (**Box 6**).

This explains why **a large number of SMEs consider mandatory origin labelling to be feasible technically and economically**. In particular, SMEs would benefit from more local sourcing practices (e.g. 73% of respondents exclusively source at local or national level): some 39% of respondents indicated that they source a large proportion (50-100%) of their raw material from local (regional) sources, 34% indicated they source from national sources, while 12% use multiple EU sources and 9% source from outside the EU[158]. As a result, over two thirds of the SMEs indicated that they do not have separate storage for raw material of different sources (which could be because they source at local/national levels or because raw material is not sorted according to source, or because it is not relevant i.e. sourcing is from a mix of multiple origins). Finally, SMEs tend not to be involved in bulk commodity processing which usually requires reaching large economics of scale (and where the costs and impacts of mandatory origin labelling are particularly high).

On the other hand, **where these mitigating factors do not occur, SMEs and micro-enterprises are considered likely to be particularly/disproportionately affected** by mandatory origin labelling rules, as also indicated by the response of 17 MS CAs (out of the 22 MS CAs the responded to this question in the FCEC MS CA survey) (**Figure 39).**

[158] Responses do not add up to 100% as these were separated questions. 'Not applicable' and 'don't know' responses are excluded.

Box 6: Impacts on SMEs - potential mitigating factors

Note: Given the EU definition of SMEs, most FBOs in the food and drink sector are SMEs: FBOs with over 250 employees represent a minority of the companies present in the EU food industry, although they account for substantial shares of the industry turnover and total employment; microenterprises (less than 10 employees) are particularly present in this sector, although they account for a relatively small share of the total turnover and employment.

==========

SMEs are generally expected to be particularly disadvantaged by the origin labelling rules, generally due to their lack of bargaining power, lower presence of vertical integration and lack of the advantages generated by economies of scale. On the other hand, a number of factors can mitigate the severity of the anticipated impacts on micro-enterprises and SMEs vs. larger-scale FBOs. To analyse these factors, it is useful to focus on the aspects posing the most significant challenges for the adaptation of FBOs to specific modalities of indicating the origin, namely:

1. Sourcing patterns and practices for ingredients and/or raw materials.
2. Production processes.
3. Systematic adaptation of labelling/packaging to changes in origin of ingredients and/or agricultural raw materials.

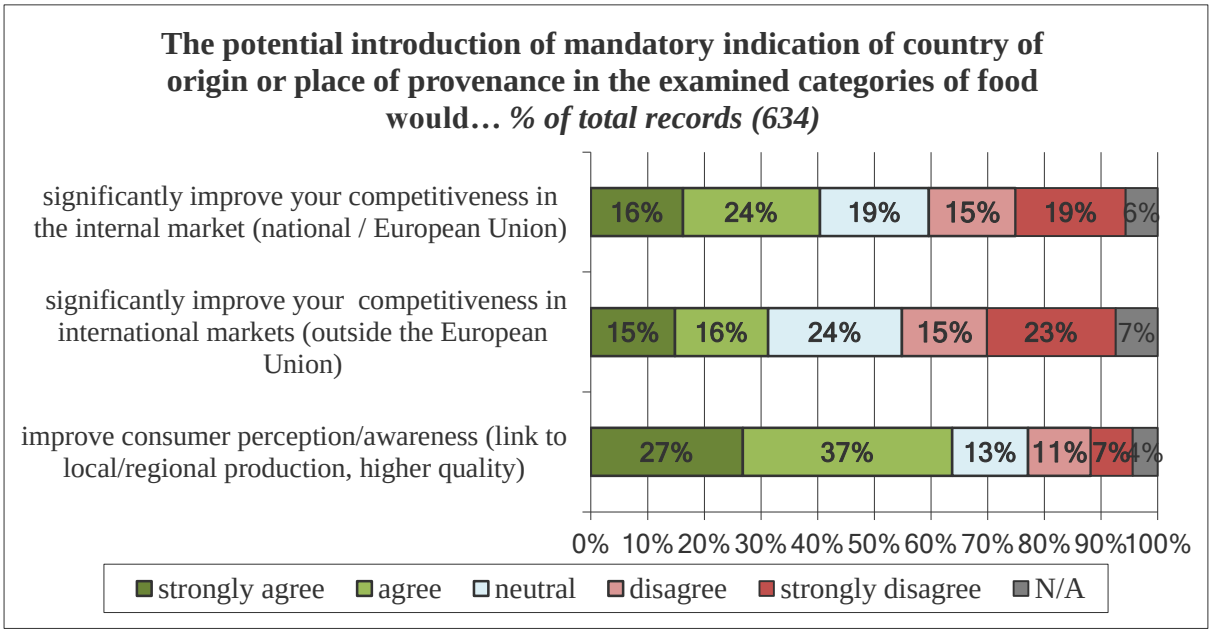
As far as ***sourcing patterns and practices for ingredients and/or raw materials*** are concerned, it is *more likely* that small and especially micro enterprises operating in sectors using perishable raw materials/ingredients (e.g. processed fruit & vegetables) tend to source the relatively limited quantities of raw materials/ingredients they need within the country or even the region where they operate. The challenges and potential adaptation costs stemming from the use of multiple-origin raw materials/ingredients (and/or from frequent changes in the origin mix), would therefore be expected to be minimised for these FBOs. However, challenges and related adaptation costs are expected to be very significant for SMEs operating in sectors where mixing raw materials/ingredients of different origins already before their arrival at the plants represents the normal operational reality. This is typically the case for sectors using flour, sugar, vegetable oils, especially, under modality 'b', if the origin of the agricultural raw materials contained in such ingredients has to be indicated.

As for ***production processes***, small and especially micro-enterprises can turn to their advantage the fact that they normally cannot pursue the scale economies which are required by most continuous production processes, and hence tend not to operate in sectors where large-scale continuous production constitutes the typical business model (e.g. sugar, vegetable oils, flour, starch-based products etc.). This said, some types of (mainly) continuous production processes can be economically sustainable also on a small scale (this is for instance the case of spirits and aromatised wines): if raw materials/ingredients of multiple origins have to be used, also SMEs operating in these sectors will face the challenges posed by continuous production, and will have to bear the related substantial adaptation costs.

Finally, exposure for SMEs and micro-enterprises to potential impacts stemming from ***systematic adaptation of labelling/packaging to changes in origin of ingredients and/or agricultural raw materials*** strictly derives from their specific situation in relation to the aspects discussed before, i.e. sourcing patterns and practices for ingredients and/or raw materials, and batch or continuous nature of production processes. For those FBOs sourcing raw materials/ingredients locally, applying batch production models and dealing with a smaller range of ingredients/final products, challenges posed by systematic adaptation of labelling/packaging are likely to be negligible; on the contrary, for FBOs using raw materials/ingredients from multiple origins which change frequently over time (and possibly also mixed before their arrival at the plant), applying continuous production processes, and dealing with a larger range of ingredients/final products, the challenges to face and the related adaptation costs are likely to be more substantial.

As for the potential benefits of mandatory origin labelling, a majority of SME respondents (64%) thought it **would increase consumer perception/awareness**, assuming that consumers would link origin to 'quality' attributes (**Figure 45**). Most SMEs believed that origin labelling would **improve their competitiveness on the EU internal market, but not on international markets** (although, in both cases, the share of neutral respondents is considerable).

Figure 45: SMEs' assessment of the potential benefits of mandatory origin labelling



Source: Agra CEAS, based on SME Panel survey (2014)

4.8 Impacts on international trade

4.8.1 Overview of impacts

The study aimed to explore the potential impacts on international trade, in terms of:

- Impacts on third country suppliers to the EU;
- The international competitiveness of EU exports (traded volumes; traded values and selling prices; access to and expansion in established geographical markets; entry into new geographical markets);
- Possible changes in the geographical structure and/or in the volume of trade flows between the EU and third countries.
- WTO aspects and country of origin labelling.

Concerning potential impacts **from the perspective of third country suppliers to the EU**, Theme 2 (**Figure 15**) presents the main origins of total EU imports of the three categories of products covered by the study. The following observations can be made:

- Currently, the bulk of the EU imports for the three product categories is accounted for by a range of third country suppliers, with Brazil and the US leading exporters to the EU of both agricultural materials/food ingredients for further processing and finished food products, and Switzerland, Turkey and China – amongst others - following;
- Current trade flows are affected by existing import quotas, SPS rules and restrictions; in the event of reviews in these rules and/or agreements facilitating trade, for example through mutual recognition of SPS rules, trade flows could be significantly affected.

Given the significance of these current third country suppliers, it can be expected that they would be the most impacted by the adoption of mandatory EU rules on origin labelling of the three categories of foods. However, the extent of the impacts will depend on:

- The products/ product sectors in which third country suppliers specialise in. Beyond the key suppliers in terms of the total value of the three categories of foods, for some suppliers of key commodities covered by the study, the impacts can be significant. For example, for ACP suppliers to the EU of cane sugar;
- The current provisions in place in these third countries regarding origin labelling (i.e. whether voluntary or mandatory rules are in place and existing country of origin labelling schemes and practices in those countries).

In particular, the consulted third country stakeholders (Brazil, US, Switzerland and ACP countries for sugar)[159] highlighted their concerns on the potential loss of exports to the EU, in terms of:

a. **Shift of EU FBOs towards EU suppliers**, to avoid managing the complexities deriving from multiple EU and third country origins. It is noted that this sourcing pattern was identified by three quarters of the FBOs that responded to the FCEC FBO survey (**Figure 17**, Theme 2).

[159] Turkey and China were also invited to contribute to the consultation but have not responded.

b. **Additional costs for third country FBOs**, especially if origin indication is required at the level of country detail (also third country FBOs may source raw materials from multiple origins). Especially disadvantaged would be FBOs based in developing third countries, as they might lack the resources and know-how to implement the adaptations required for compliance with EU mandatory origin labelling requirements.

It is noted that whatever rules the EU might be putting in place will have to be in line with World Trade Organisation (WTO) obligations. The WTO Technical Barriers to Trade (TBT) agreement foresees that any measures taken to pursue non-trade objectives (e.g. public health, national security) must be legitimate. Two obligations need to be met: **non-discrimination** (in particular, not only imported products are not treated less favourably, but there is also a detrimental impact), and that the measure is the **least trade-restrictive**. In this context, it is worth noting that the consulted third country stakeholders raised concerns about the potentially discriminatory nature of a "EU vs. non-EU / TC" Option[160], as outlined further in section 4.8.2.

In terms of the potential impacts on international trade, as identified from the **perspective of EU FBOs**, nearly two thirds of the FBOs that responded to the FCEC FBO survey indicated that the impact mostly expected to result from mandatory origin labelling rules are changes in the geographical structure and/or in the volume of trade flows, with the second most expected impact being the international competitiveness of EU FBOs (**Figure 46**). In particular:

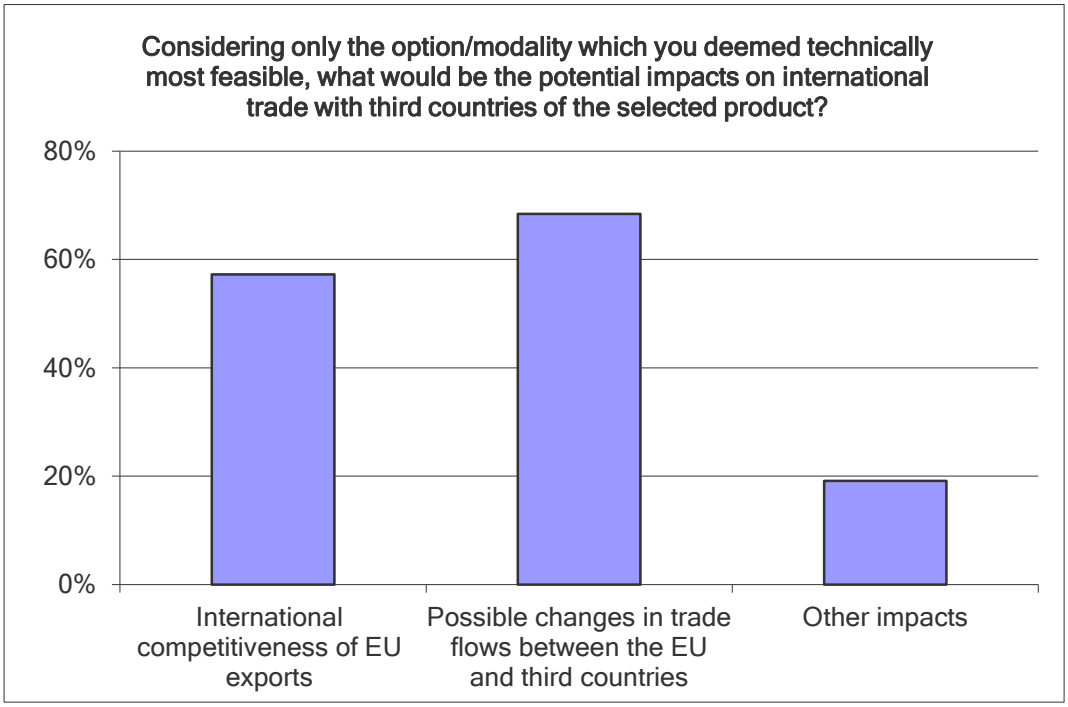
1. ***Impacts on international competitiveness of EU exports***:
   - EU FBOs could become less competitive vis-à-vis third country FBOs, due to additional costs from the implementation of mandatory country of origin labelling rules: this is more significant for the options based on higher detail of origin information, i.e. Options 2 and 3.
   - The reduced competitiveness in terms of selling prices could affect traded volumes, access of EU FBOs and expansion in established geographical markets, and their entry into new geographical markets.
2. ***Changes in the geographical structure / volume of trade flows between the EU and third countries***:
   - The adjustment of EU FBOs' sourcing patterns to the new labelling rules might result in reduced imports of raw materials and food ingredients from third countries, particularly in those sectors for which imports play an important role in supplying these ingredients to EU FBOs. Beyond the role of imports in responding to EU supply deficits and seasonality issues, some specialty products are mainly or entirely made from third country raw materials / ingredients providing the quality specifications required for these products.

[160] Our consultation with the Commission in the context of the mandatory origin labelling study for meat as an ingredient (FCEC, 2013) has also highlighted that in the context of consumer information on food origin labelling, the legitimate objective should consider the level of detail of information, the type of information to be provided to consumers and, most important, what the measures want to achieve (rationale). It was noted that when it comes to consumer information, it is difficult to prove and identify the legitimate objective. To comply with the non-discrimination objective, the safest option is to apply the same rules on imported and domestic products; however, this is not always sufficient, and there could still be implicit (indirect) discrimination, as also demonstrated by the Canada/Mexico complaint against US COOL rules for meat.

- Risk that patterns of "food chauvinism" may emerge, in the event that EU consumers show a preference for products made with only EU raw materials/ ingredients.

More detailed impacts for each of the case study sectors are highlighted in **Table 15**:.

Figure 46: Impact on international trade, according to FBOs (n=152)



Source: FCEC FBO survey (2014), Q34

Table 15: Impacts on competitiveness in international trade, by product sector

Sectors	Impacts on competitiveness in international trade
Category I: Unprocessed foods	
Flour *Cat I*	While imports of flour from Third Countries are negligible, imports of non-EU wheat (grains) are more significant. Imports provide flexibility to EU operators who constantly seek the best price for the required wheat quality specifications. Therefore, towards international competitors (e.g. Turkey, Kazakhstan), EU operators would be disadvantaged if mandatory origin labelling was to be introduced. Moreover, the introduction of mandatory origin labelling rules on wheat to produce flour may be considered by some extra-EU partners to be a non-tariff barrier.
Rice *Cat I*	The EU being a small player, it has no bargaining power in international terms. Non-EU suppliers would be in a position to charge more to export to the EU, as this market is not significant for them in volume terms and would require origin labelled rice. According to the industry, the introduction of mandatory origin labelling in the EU would have a significant adverse impact on the ability of EU operators to secure imports from third country suppliers. Moreover, there is growing concern in recent years on direct imports of pre-packed rice from third country suppliers. Mandatory origin labelling rules would put EU millers/packers of non-speciality long grain *Indica* rice at a competitive disadvantage vis-à-vis third country millers/packers of (single non-EU) origin rice. On the other hand, it could improve the export competitiveness of EU (*Japonica*) speciality rice.
Pre-packed salads *Cat I*	The geographical structure and volumes of trade flows between the EU and Third Countries are expected to change as a result of origin labelling (under Option 2b) in the EU (although salads sourced from TCs account for <10% of EU supplies they can be more important seasonally, when supply levels in the EU are lower).
Category II: Single ingredient products	
Sugar *Cat II*	Refiners that rely on imports of raw sugar cane (from TCs) are concerned about the potential adverse implications of mandatory origin labelling (under any option/modality) on demand for non-EU sugar (i.e. potential discrimination against imported cane sugar). It should be noted that in some cases, refineries work exclusively with cane sugar. In particular, there is concern that EU customers may develop preferences and impose requirements as to the origin of the sugar they buy, and/or that final consumers may attribute features of higher or lower quality to the product according to its origin, despite the fact that this is a standardised product. The introduction of origin labelling implies investments that would make it very difficult for sugar companies in TCs/importers of raw sugar to remain competitive. This would in turn negatively affect the numerous bilateral agreements that the EU has entered into to help TCs in their sugar exports. The ACP Group in particular have already shared these concerns with the European Commission
Sunflower oil	The EU is a net importer of raw material destined to the vegetable oils and fats sector. For all options/modalities, there is concern that the introduction of origin labelling rules would result in consumer preference for the closest origin reference possible, e.g. EU (or

Cat II	specific MS) grown oilseeds. On international markets, the introduction of origin labelling rules would reduce the competitiveness of EU importers of oilseeds and crude oil, if they lead to. as customers requesting a specific origin of imported oilseeds (note: the refining (modality 'a') always takes place in EU MS). This would lead to a segmentation of the market, an increase in the price of raw materials, to potential market disruption in the event of reduced availability from a given origin, and more generally to an increased uncertainty as to the security of supplies.
Frozen potato fries *Cat II*	International potato producers and potato processors in general are competing in a growing market for potato products. While EU demand is flat, the global market demand is growing driven by exports to third countries. The introduction of mandatory origin labelling, and notably under Option 2b, would put EU business operators at a disadvantage vis-à-vis their global competitors and would decrease their competitiveness in these key growing markets.
Category III: Ingredients that represent more than 50% of a product	
Orange juice *Cat III*	As a consequence of mandatory origin labelling, EU operators would be inclined to source from regular suppliers to avoid the technical difficulties (e.g. change in labels) that would result from shifts in origins, hence *de facto* decreased flexibility. Preferred suppliers would be those with sufficient orange supplies, a move which would be detrimental to smaller producing countries. The bargaining power of EU business operators towards suppliers would decline, therefore higher prices are expected. There could also be pressure from the distribution sector to be supplied with preferred origins, if these were indicated at the national level.. The impact would be less extensive for orange juice operators than for other types of fruit juice. Generally speaking, EU-based companies exporting to outside the EU would face a competitive disadvantage vis-à-vis international competitors (e.g. the US, Brazil) for which mandatory origin labelling would not be a requirement.
Tomato passata *Cat III*	Imports of tomato concentrate from Third Countries account for 23% of all tomato concentrate used in the EU. The introduction of mandatory origin rules would therefore have some negative impact on Third Country suppliers, especially as the industry anticipates that all FBOs in the EU would switch to EU tomato sourcing as a consequence of the rules. The introduction of mandatory origin rules under Option 1 might be considered by some non-EU partners as a non-tariff barrier. On the export side, i.e. exports of tomato passata, the indication of EU origin is considered by the industry to possibly result in some positive effects for EU FBOs, as the EU origin stands for quality, food safety and environmental and social standards.
Flour in bread *Cat III*	EU bakeries mostly source from EU millers therefore modality 'a' would have no major impact on international markets. However, under modality 'b', there could be important changes in the geographical structure and trade flows of wheat used to produce flour. This would take place at the level of millers (e.g. increase in prices), while most of EU bakeries do not typically compete on international markets.

Source: FCEC, based on the consultation with FBOs

4.8.2 Impacts per Third Country supplier

This section outlines the more specific legislation currently in place, and impacts expected, for each of the three Third Country suppliers that responded to our consultation[161]. These findings are summarised in **Table 16**. In the case of the ACP suppliers of cane sugar, their position is attached in **Annex 7**.

a) National legislation and experiences

National legislation requiring **mandatory labelling of country of origin** of food and ingredients **currently exists in two out the three countries** that responded to the consultation: Switzerland and the US.

In **Switzerland**, since 2005, the Federal Law on labelling and advertising of foodstuffs (LKV, SR 817.022.21) has introduced the **mandatory provision of the country of origin** ('*pays de production*') as a general requirement for all **(pre-packed) food products**[162]. According to Swiss law, a (pre-packed) food product is considered as originating from Switzerland if it has been entirely processed, or it has been subjected to a substantial transformation in the country. Substantial transformation means any process or transformation whereby the food product acquires its own specific characteristics or a new specific name. These rules apply also to products that are imported into Switzerland from other countries, thereby avoiding any discrimination between foreign products and those domestically produced. As to **ingredients (**'*matières premières ou des ingrédients*'), Swiss law ingredients requires the indication of their origin by means of labelling whenever an ingredient constitutes 50% of a food, or, when the country of origin of the ingredient is different from the country of origin of the food. The Swiss Federal Law on labelling and advertising is **currently under review** and it is difficult to predict at this stage the outcome of the parliamentary process.

In the **United States**, federal legislation on country of origin labelling also exists but **only applies to specific food products** (e.g. chicken, beef, veal, pork, lamb, goat, venison, wild and farmed fish and shellfish, frozen and fresh fruit and vegetables, ginseng, nuts, peanuts and pecans etc.)[163]. The United States Department of Agriculture (USDA) is responsible for the administration and enforcement of origin labelling provisions. No legislation is currently being considered with the objective of extending the list of raw materials requiring provision of country origin or applying such requirements to any of the processed food products covered by the study.

In **Brazil**, there are no rules at present concerning origin labelling.

b) Ensuring compliance with EU mandatory country of origin requirements

In **Switzerland**, compliance with national mandatory requirements on country of origin is generally ensured by requiring suppliers to pass all the relevant information onto the food business operator who is ultimately responsible for the placing on the market of the product

[161] Turkey and China were also invited to contribute to the consultation but have not responded.
[162] The relevant Swiss Federal law is available at **http://www.admin.ch**. Articles 2 point (g), 15 and 16 are relevant for the labelling requirements under consideration (Federal Law on labelling and advertising of foodstuffs (LKV, SR 817.022.21)).
[163] General information on United States general requirements for country of origin labelling can be found at **http://www.ams.usda.gov.**

(Article 37 Swiss Federal Law on labelling and advertising of foodstuffs). As regards compliance with similar rules at EU level, according to Switzerland, it is difficult to assess the technical feasibility of provisions that, in fact, are not yet determined. However, difficulties may arise when **raw materials** are **sourced from different countries** depending on the season, as compliance with origin requirements would result in frequent changes to labelling design. Generally speaking, it can be said that ease of implementation by Swiss exporters and control authorities will largely depend on level of prescriptiveness and the proportionality of country of origin requirements that the EU may introduce. From a trade perspective, it will be essential to ensure that any new requirement to be introduced in this area is designed and applied in **a non-discriminatory** manner. In any event, should the EU consider adopting legislation in this area, this would have to undergo a **compatibility assessment** with the relevant provisions of the 1972 Free Trade Agreement Switzerland – EU and of the WTO-TBT framework.

The **United States** view the potential EU rules on mandatory country of origin labelling as **impractical** for the US industry as well as **difficult to enforce** by US control authorities, especially in relation to **food ingredients**. Currently, the US food chain has no system enabling effective traceability of food ingredients through the different stages of production, processing and distribution. Should origin labelling rules be adopted at EU level, it should be clarified which operators must ensure recordkeeping for traceability purposes. In the United States, for the products currently covered by national origin labelling legislation, this obligation lies generally with retailers: since raw materials are generally shipped in bulk consignments, it is then for the retailer to provide origin information (e.g. through in-store signposting or on-shelf labels). On the other hand, since products covered by the study are typically supplied pre-packed, presumably producers will be those having to provide origin information on labels. Possibly only RFID and SLQ systems would be able to capture origin information and pass it through the food chain until the stage when labelling is designed. Establishment of such a system would be **highly costly**, would require substantial modifications of the production processes and, thus, would **not** appear to be **a viable option** for SMEs as well as producers in developing countries.

Moreover, current sourcing policies depend on a number of factors, some of which are predictable (e.g. seasons), while others are unpredictable (e.g. drought, pests, freezing etc.). It would require considerable investments by operators for ensuring implementation of any necessary adjustments. Imposing the indication of country of origin by means of labelling would ultimately generate **additional costs**, primarily stemming from the need to ensure **segregation of production processes** and frequent re-design and printing of **new labels**.

Finally, mandatory provision of country of origin information would constitute an **additional regulatory layer** on top of the several requirements for which EU law already requires compliance. Other more meaningful consumer information e.g. health-related is considered more important that provision of origin, when space on labels is already limited. Exemptions for smaller packages would therefore need to be considered.

c) Costs and impact associated with compliance and enforcement

As regards **Switzerland**, the costs and impact ensuing from the introduction of mandatory country origin requirements at EU level should not be as significant given the existence of rules on mandatory origin labelling in Switzerland. However, exact impacts could not be established as it is not clear what the EU rules might be. As regards enforcement, bearing in

mind that the costs of controls are borne by food operators only if an infringement is ascertained, allocation of resources and ensuing costs would largely depend on the intensity of the further controls to be performed. In this respect, it must be noted that verification of the correctness of the labelling of food products intended for exports (in this case, to the EU market) is **not a priority** for Swiss control services at present. Furthermore, currently there is no equivalence agreement between Switzerland and the EU whereby the Swiss authorities are required to guarantee the correctness of the labelling of national products destined to the EU market.

For the **United States**, mandatory provision of origin information would lead to **high costs** especially when origin is to be given for the ingredients of a food[164]. Differentiation in production lines and labelling adjustment would represent considerable investments for all producers and exporters willing to trade their products with the EU, whilst government would face increased costs for policing and enforcement. Furthermore, products will be supplied and sold at higher prices, thus being less competitive, while consumer WTP is questioned. In conclusion, the adverse effects that introduction of mandatory origin information may have on trade and competiveness would outweigh the benefits that it could bring to consumers.

As regards **Brazil**, particular concern has been expressed for the vegetable oil sector, where ensuring compliance with mandatory EU country of origin rules would impose the development of segregation policy in the relevant supply and production chain, for which the country has no adequate logistics or infrastructure at present. Ultimately, the costs deriving from ensuring the segregation policy referred above as well as from designing labels specifically intended for the EU market would be passed onto EU consumers. Unnecessary labelling requirements could be ultimately regarded as unjustified trade barrier and be thus challengeable under WTO rules.

[164] The US has raised a number of issues/questions as regards the implications of the mandatory provision of origin labelling in the case of ingredients representing 50% of the final product. It is unclear, in particular, whether the 50% threshold refers to a single ingredient (i.e. sugar) and/or to the sum of two ingredients (e.g. sugar and pulp fruit). It is also unclear if by-product from a concerned ingredient (e.g. flavours or other processing aids) should be taken into account in the calculation. Finally, it is likely that in order to comply with 50% threshold and to allow the relevant calculations, food producers will be required to provide detailed weight or relevant percentages for each ingredient. By disclosing information that is somehow unique to the recipe of the product, formula protection rights may be exposed to undue abuses or violations.

Table 16: Key findings per Third Country supplier

	Existing legislation and conclusion on costs/impacts
Switzerland	Similar rules exist for Switzerland. Relevant are the following rules of the Regulation of the Federal Department of Home affairs about the labelling and advertising of foodstuff (LKV, SR 817.022.21)[165]: According to Art.2(1)(g) of the above, all pre-packed food products must indicate the country of origin. Art. 15(1)-(3) lays down this should be done according to place of farming or last substantial transformation for products wholly obtained in Switzerland, and according to Art. 15(4), these rules also apply to indications of other production countries, to avoid any discrimination regarding products originating in third countries. A comprehensive revision of the federal law on foodstuff is being discussed in the parliament at the time. At the moment, it is not possible to assess the outcome of the parliamentary process. *Conclusion: although under the current Swiss origin labelling legislation (LKV, SR 817.022.21) traceability is ensured throughout the food chain and control systems are in place, the Swiss authorities could not further assess at present the impact of any potential EU measures as this will ultimately depend on the level of detail prescribed.*
United States	Federal legislation on country of origin labelling exists but only applies to specific food products (e.g. chicken, beef, veal, pork, lamb, goat, venison, wild and farmed fish and shellfish, frozen and fresh fruit and vegetables, ginseng, nuts, peanuts and pecans etc.)[166]. *Conclusion: Significant costs and impacts are expected for US processors/exporters, in view of the large range of products covered, in terns of traceability, controls and adaptations of production process /sourcing practices even in sectors where currently there are some rules, as the basis on which traceability is currently ensured under the US rules are the responsibility of retailers rather than the entire chain.*
Brazil	There are no rules at present on origin labelling. *Conclusion: Particular concern has been expressed for the vegetable oil sector, where ensuring compliance with mandatory EU country of origin rules would impose the development of segregation policy in the relevant supply and production chain, for which the country has no adequate logistics or infrastructure at present.*

Source: FCEC, based on Third Country consultation

[165] **http://www.admin.ch/opc**
[166] **http://www.ams.usda.gov/**

4.9 Environmental impacts

The study also tried to assess the potential environmental impacts of the policy options, which were *a priori* identified in particular in terms of:

- Providing a potential incentive to consumption of products produced in proximity;
- Possible risk of increasing the size of labels (and hence of packaging). The impact of country of origin labelling may be combined with other new elements introduced by the FIC Regulation in particular new rules on minimum font size;
- Other kinds of environmental impacts not falling into the above categories.

Amongst the various potential impacts which were identified, the following appear to be the most important:

- ***Incentive to consumption of products produced in proximity***: stakeholders tend to have mixed views on the potential impact of mandatory origin labelling rules in this respect, which also relates to the selected option/modality. In general, higher potential is attributed to Options 2 and 3 (*origin labelling at MS/TC level; other geographical entities as place of provenance*), whereas Option 1 (*origin labelling based on EU/non-EU origin or EU/TC*) is clearly seen as providing no incentive to consumption of products in proximity. Thus, most MS CAs view this as the most significant potential impact of mandatory origin labelling rules, while several MS CAs think the rules would not have a significant impact if Option 1 prevails (
-
-

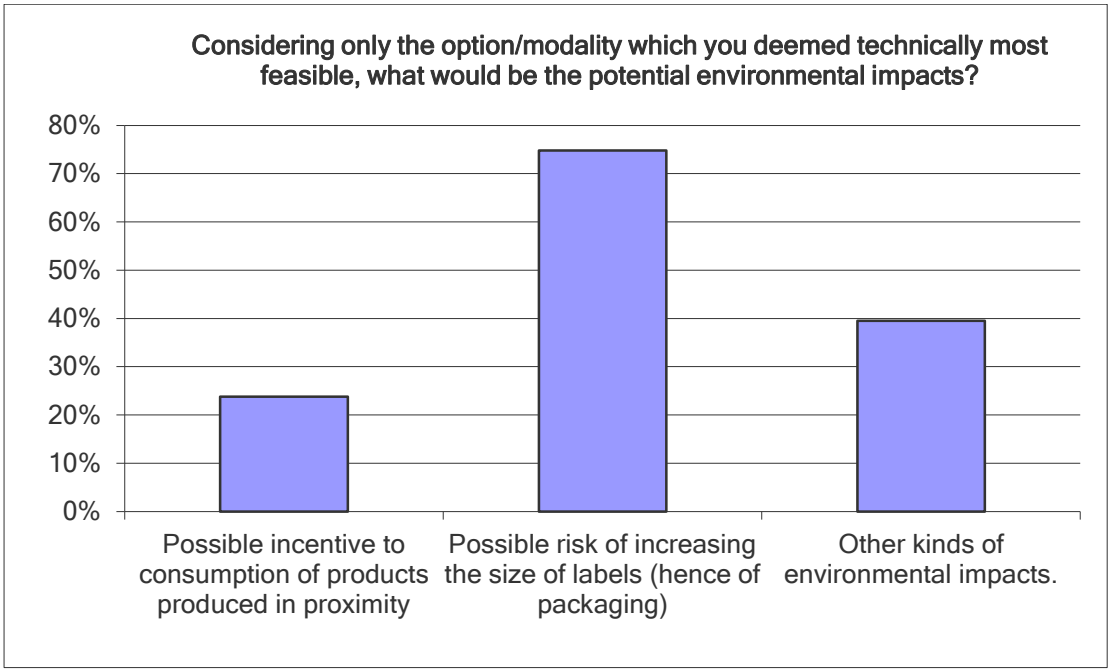
- Figure 48). Similarly, according to most (nearly 80%) of the food supply chain stakeholders there would be no incentive to consumption of products in proximity, which relates to the fact that most stakeholders selected Option 1 (**Figure 47**). On the perception of environmental impact by consumers, the Focus Group discussion concluded that consumers tend to assume that local products are better for the environment, but this is not necessarily the case and the whole life cycle of the products needs to be borne in mind.
- ***Risk of increasing the size of labels / packaging***: The views of the consulted stakeholders are, again, not unanimous on this: three quarters of the food supply chain stakeholders tend to consider this risk as the most important environmental impact of the new rules (**Figure 47**), even in the case of Option 1 which is the most selected amongst the potential options, unlike most MS CAs who view this risk as not significant (
-
-

- Figure 48).
- ***Other environmental impacts***: the most important potential impacts identified were as follows:
    - Increase in the waste of packaging material: packaging stocks might have to be disposed of, due to changes in the mix of origins (particularly when these are frequent and/or unforeseen), and also the increased likelihood of errors.
    - Increase in waste of food/ingredients as such, in the event that the withdrawal of erroneously labelled products from the market would lead to the waste of these products, particularly for perishable foods. Stakeholders noted that unpacking and re-packing food products may often be a less viable option that disposing off the products, for example in the animal feed chain. Also, the use of rest products from another process would not be possible, for example, potatoes suitable for food processing would only be possible to use in animal feed as they would be of untraceable origin. Several stakeholders noted that this contradicts other ongoing EU policy targets and food supply chain initiatives on reducing food waste[167].

Other potential environmental impacts include: reduced efficiency of transport/ logistics, combined with a potential shift towards fewer and larger plants (to offset the additional costs of mandatory origin labelling rules through scale economies); energy inefficiencies associated with non-optimal use of capacity and the need to stop and restart production lines according to changes in origin; and, the additional use of chemicals due to separate production lines, and/or for cleaning lines between production runs.

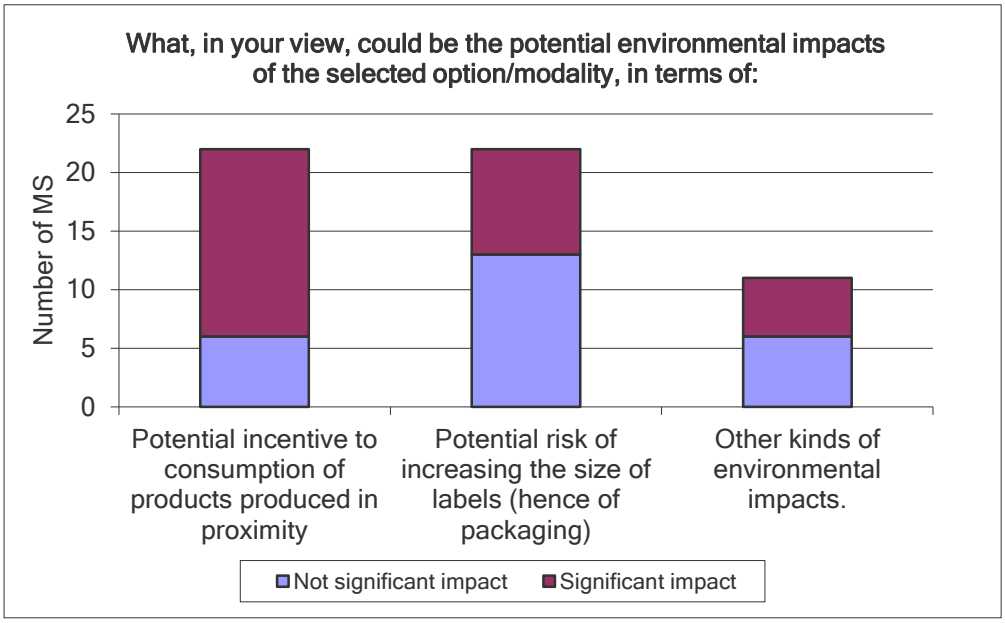
[167] The recent Commission (DG ENV) Communication *'Towards a more circular economy – a zero waste programme for Europe'* sets various targets in this direction including that Member States should develop national food-waste prevention strategies and "*endeavour to ensure that food waste in the manufacturing, retail/distribution, food service/hospitality sectors & households is reduce food waste by at least 30% by 2025*". (**http://ec.europa.eu/environment/circular-economy/**). There is also a food supply chain initiative (Joint Declaration of stakeholders across the food supply chain) with the objective of reducing food waste and contributing to halving EU edible food waste by 2020 (**http://everycrumbcounts.eu**/).

Figure 47: Environmental impacts, according to FBOs (n=147)



Source: FCEC FBO survey (2014), Q35

Figure 48: Environmental impacts, according to MS CAs (n=22)



Source: FCEC MS CA survey (2014), Q22

4.10 Impact by sector

As the three categories covered by the study include a diverse range of products/product sectors of various levels of processing and complexity, the conclusions on the costs and impacts of mandatory origin labelling are drawn across all categories and no further specific conclusions can be made for each of the three categories; for example, in the case of 'bulk' commodities, these can be found in all three categories (e.g. flour: Cat I and ingredient in Cat III; sugar/vegetable oils: Cat II and ingredient in Cat III). This also calls for **caution in extrapolating from individual products to a 'category' as a whole**, which not only is impossible but can also be **potentially biased**.

To overcome this constraint, the analysis throughout Theme 3 presents findings for each of the case study products/product sectors and the Category in which they fall; this is supplemented in the sections below with an overview of the analysis – from supply chain characteristics to costs and impacts - for each of the nine case study products.

It is noted that the present study is a first ever assessment of the broader food categories as stipulated in Article 26(5) of the FIC Regulation. Nonetheless, in the only other example of a broader study found in the literature - the 2014 study on origin labelling of food in Sweden[168] which covered a broader set of products although not as an extensive range as the present study – similar conclusions are reached. The study concluded that "*the costs and benefits of mandatory origin labelling differ substantially across products; this implies that legislation on mandatory origin labelling should be adjusted to each individual product rather than equally designed for all products. It also means that an extension of mandatory origin labelling cannot be motivated with the argument that it already exists and is appreciated by consumers for other products. Rather, costs and benefits must be assessed individually for each product for which mandatory origin labelling is under consideration*."

4.10.1 Unprocessed foods (Cat I)

4.10.1.1 Wheat flour

Organisations contributing to the consultation for this case study: the European Flour Millers (EFM), UK National Farmers' Union (NFU), the Portuguese Association of Millers and Pasta manufacturers (APIM) and 2 individual companies (IT, DE).

2 MS: DE, UK.

Sector overview:

The European Flour Millers (EFM) association represents 90% of the milling capacity in the EU. In total, the EU flour milling industry has a turnover of around €15 billion with around 3,800 companies employing some 45,000 people. Some 45 million tonnes of soft wheat and rye are processed in the EU each year, the largest flour producer being Germany. The flour milling supply chain has an output of 35 million tonnes of different types of flours yearly. Most of the wheat that is used is grown in the EU (the milling industry the largest single user of EU domestic wheat and rye).

[168] AgriFood Economics Centre, 2014. Report 2014:1 Origin labelling of food - costs and benefits of new EU legislation for Sweden

Flour production and destination

In this case study, wheat flour has been examined both as flour packaged and directly sold to end consumers and as flour continuing in the B2B track (e.g. sold to bakers for bread production). Wheat flour sold to the food industry (unpacked) represents 75% to 95% of the EU production.

The industry produces up to 600 different types of flours to meet specific consumer demands. The **main destination** of EU-produced flour **is the bakery industry**, accounting for 72% of flour end use, i.e. about 25 million tonnes (wheat and rye). More specifically, 30% of EU flour is destined to small bakeries, 30% to industrial bakeries and 12% to bakeries in supermarkets. Some 15% of flour is sold to biscuits and rusk manufacturers while about 12% is pre-packed and retailed directly to end consumers. It should be noted that in the UK and Germany, **the market share of flour destined to final consumers** is lower, respectively of 3% and 7% (in 2012) Finally, smaller quantities (5% of the total flour supply) are also sold to other food processors, e.g. high-tech flours are found in confectionery products, soups and sauces, cream products and desserts.

The **German** flour milling industry overall processes 6.6 million tonnes of grain, in 252 mills (2012 figure). German millers produce 5.6 million tons of wheat flour (88% of the total output), and about 750,000 tonnes of rye flour. According to EFM estimates, in **Germany** 92% of the flour goes unpacked to the B2B sector; 3% is sold in 25 kg-bags to small operators for further processing (e.g. bakers but not only). Overall, about 50% of the total production of wheat flour goes to bread production.

In **the UK**, 97% of wheat flour is sold to the B2B sector, of which 75% is sold in bulk; therefore, a larger proportion (than in DE) is sold B2B in bags. The rest (3%) is sold to end consumers in small packs. There were 51 mills in the UK in 2012. The six largest companies account for almost 80% of UK flour production with approximately a further eight companies producing significant quantities of flour. Approximately one third of milling capacity remains in port areas. The largest concentration of mills is in the South East, North East and North West region of England. UK millers produced some 4.1 million tonnes of flour in 2012.

Structure of the flour milling industry

The EU flour milling industry is characterised by an increasingly concentrating sector at national level, although there are still a large number of operators overall. The vast majority of the EU wheat flour industry is still made of **relatively small and medium-sized enterprises** that fall in the SME category[169]. For example, the French flour milling industry is composed of 75% very small enterprises (less than 20 people) which account for 16% of the national turnover, 24% SMEs (20 to 49 people) accounting for 38% of the turnover and 3 companies with more than 250 employees which account for 45% of the turnover. Germany has a similar market structure. The UK flour milling market is relatively more consolidated with a few (6) large companies accounting for 80% of the flour market.

[169] The EU SME definition of turnover corresponds to less than 120-150,000 tonnes of flour/year, although this would correspond to a staff total of 40 people; for the EU definition of micro-enterprises, the turnover definition corresponds to less than 7,000 tons of flour/year, and this would correspond to a staff total well below 10 people).

The main wheat flour producing countries are Germany (5.6 million tonnes), France (4.4 million tonnes), the UK (4.1 million tonnes), Italy (3.8 million tonnes), Poland (3.2 million tonnes) and Spain (2.8 million tonnes). The total EU flour output is 35 million tonnes.

The average use of EU millers' capacity is around 65%, i.e. there is still significant overcapacity in the sector although consolidation has been ongoing for decades. The number of mills in the EU has decreased from around 15,000 mills in Europe in 1960, to around 3,800 companies operating a larger number of mills.

Concentration is continuing in the flour milling industry throughout the EU, although the trend is more advanced in some MS than in others. This move towards an increased concentration has been driven by the need to improve efficiency and profitability, but also by increased regulatory requirements particularly on food safety. In **Germany,** there are currently 300 mills (compared to 1200 mills in the '80s), and their number is expected to shrink further down to 70 over the next 10 years. 63 of these mills supply 90% of the grain flour market. In **northern Europe**, most of the concentration has already taken place, while it is not yet the case in **the South of Europe**, although it is expected to take place given the current overcapacity (small profits) that drives the trend towards an abandonment of family firms by the new generations. In the **Netherlands**, there were 20 mills in the '80s while only 3 mills are currently active. In **Poland**, the number of mills has also been falling from some 1,000 mills in the '90s. In **France**, there is some protection of the current milling industry structure, through restrictions in place in building new milling capacity. **Italy** is dominated by one supplier (Barilla). Similar restrictions were in place in **Spain**, but these have now been removed.

The **degree of vertical integration** in the wheat milling supply chain **is generally low**, albeit variable across the EU. In some MS agricultural co-operatives and shareholder companies have interests both in grain cooperatives and flour milling. Similarly, there are flour milling businesses that are involved in bakeries or other secondary processing enterprises.

Costs, margins & grain sourcing

The flour milling industry is a **thin margin business**. Flour millers take the raw material price which is determined by international wheat markets (grain traders), while they indicate to have little bargaining power towards their customers[170] (the second processing industry), as wheat flour is a very standardised commodity product. In the milling industry, the largest component of **production costs** is the cost of the raw material (wheat). In this context, the extreme price volatility of grain, for example in periods of scarcity vis-à-vis a strong global demand, is a structural issue for flour millers worldwide. Production cost of wheat flour production in Germany is as follows:

- 80% of grain price
- 3-4% energy
- 5-6% freight from mills to customers
- Rest (10%): operational costs (e.g. interest, wages, profit)

[170] A recent Rabobank note confirmed that flour millers are often unable to pass higher costs along the value chain (see Rabobank Industry Note, September 2012).

With respect to **sourcing patterns**, the main criteria driving flour millers' decision are **the quality of grains, its availability and price**. Sourcing can either be local and/or intra-EU and/or extra-EU.

Flour millers operate on a continuous input-output production process. **Blending of various wheat qualities is an essential operation in the flour milling process**: the miller buys, store, blends and mills different types of wheat of different qualities.

At sourcing stage, millers and/or cooperatives may blend different wheat qualities prior to milling in order to achieve a specific grist. However, later at processing stage, they may also blend different flour qualities in order to produce the product demanded by their customers. By blending together the various different wheat (sourcing) and flour (processing) streams, a miller can create further variations in features to their customers, independently of the origin. **It is essential to note that millers store separately grains according to their quality.**

The set-up of the milling operations in each site depends on the mill location, i.e. **its access to raw materials** – which also affects whether a mill relies on domestic supplies, intra-EU and/or extra-EU imports, and finally the customer base which determines the type of flour needed for end use (on the basis of which different wheat qualities are blended). Harvest conditions affect raw materials' availability and quality (climate, diseases, etc.), hence the constant need to adjust sourcing practices.

Wheat price, and more particularly the **transport cost component**, is also a key criterion influencing sourcing decisions. Wheat is a bulk commodity product which is highly standardised. When quality criteria are met, wheat from different origin are fully substitutable, therefore becomes the selective criterion.

The **quality of flour** has to reach a certain specification which is determined by its suitability for a given end-use (i.e. whether bread making or other uses). The quality specification is achieved by sorting grains by quality, and mixing and blending grains to achieve the target specification. Different types of wheat are blended into a range of 'grists' that are then milled. Mixing and blending are thus key technical characteristics of this industry, a process during which origin is not a selective criterion.

Quality aspects encompass the quality of proteins and of starch. A total of 10 indicators (e.g. protein content, protein quality, the Falling Number (measuring sprout damage), enzyme activity, etc.) are used to describe the quality of wheat and have a bearing on how processing is conducted. Depending on availability and mill's access to wheat, expensive wheat is not necessarily that of the highest quality but is of the right quality for the production of a specific product. The **variety of the wheat** is also a key criterion that millers take into account in their sourcing decisions.

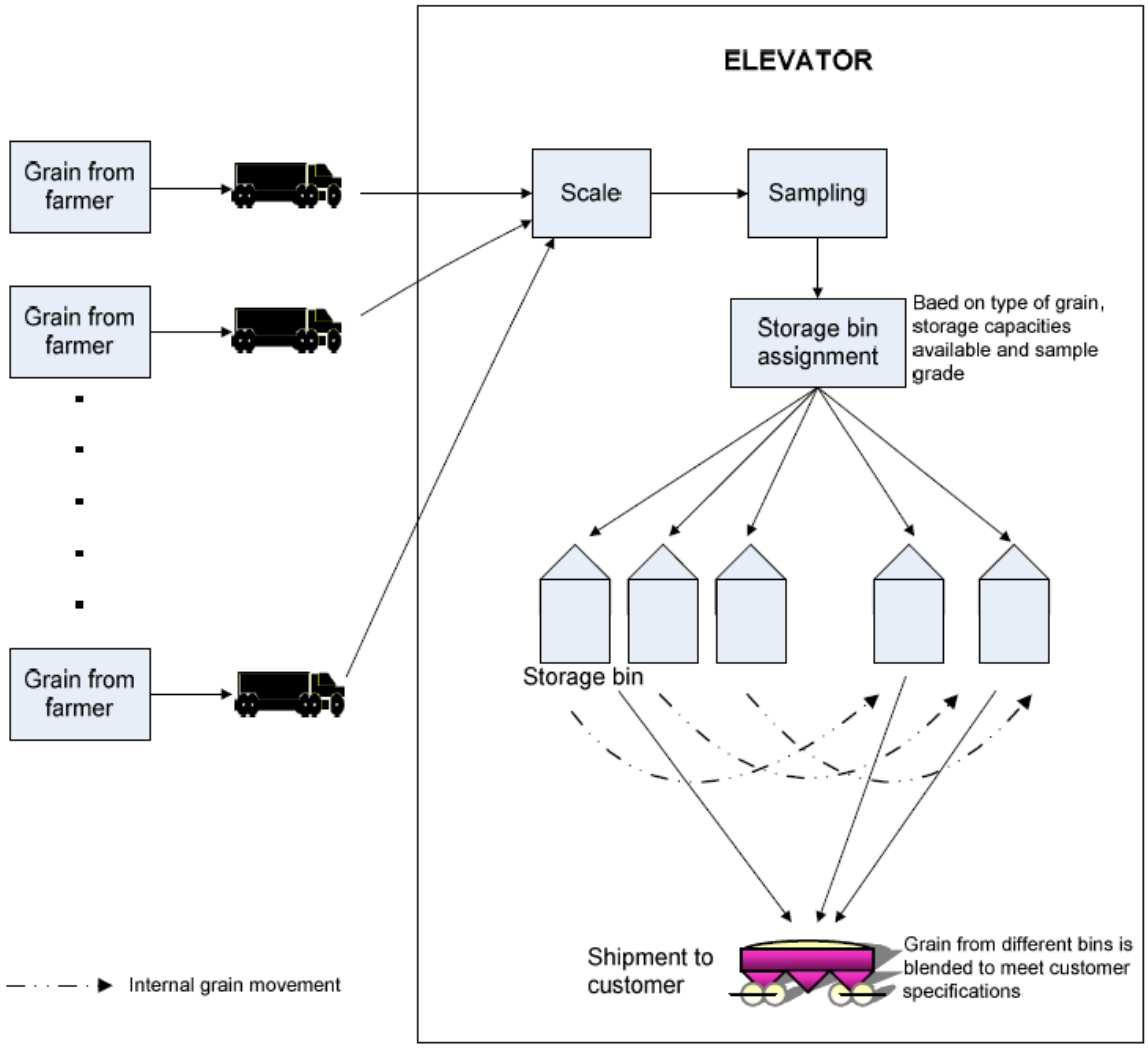
Large mills in the EU are able to supply any flour to any reasonable specification of the customer. In turn, customers decide mainly on price (and, potentially, on other aspects covered by the contract, e.g. supply/delivery conditions). **Contracts** between millers and their customers are usually conducted on an annual basis.

Mixing of wheat origins at various steps of the grain chain

The quality aspect, and associated blending, has a bearing on mixing of origins very early in the flour milling processing chain. Different set-ups exist as to where **quality**

controls (and subsequent blending) take place in wheat flour supply chains, depending on the country, the company, or even the plant. In the UK a lot of quality tests on the wheat are carried out at farm level, but UK mills may also receive wheat from other origins, including wheat that is already mixed and blended and for which the end product (flour) specifications are guaranteed. In this case, no quality controls are performed. Farmers in France, Germany, Poland, etc. are organized in cooperatives, thus a mix of origins through blending takes place at an early stage of the supply chain. At cooperatives' level, in elevators, wheat from different farmers is blended. This implies that different regional/national origins are mixed (see figure below).

Figure: A typical bulk grain handling scenario



In a typical year, **85% of wheat milled in the UK is sourced domestically**, with 6% from other EU countries (mainly France and Germany) and 9% from third countries (mainly Canada and the USA). On average, UK mills use approximately 40% of the national wheat crop.

Of the total quantity of common wheat for commercial milling in **Germany** 6.6 million tonnes (94.7 %) were home grown in 2011/12. Some 368.000 tonnes (5.3 %) came from other EU-countries and from extra-EU countries.

Millers operate with a lead time of about 1 week between the wheat harvest and the conversion into flour. The speed of production is the same across all mills' plants, regardless of the size of operations. This holds true for production of wheat into flour as well as for bread production. Mill capacity is expressed in tons/hour over 24h. A truck load capacity is 24-26 tons maximum. During the continuous milling process, the 'origin' of wheat might change at any moment, e.g. different origins are stored together in the elevator supplying the processing lines, or one elevator is unloaded immediately after the other. Therefore, the end product inevitably contains different origins, in varying proportions.

With respect to the presence of **VCOOL in the sector, this is very limited.** In each of the focus MS (UK and Germany), one voluntary country-of-origin labelling (VCOOL) example was given. These are very small mills that communicate on the national/regional origin of wheat used to produce flour. In addition, in the UK, some bakers see a marketing advantage (i.e. there is consumer interest) to indicate the origin of wheat flour as French in French bread (baguette). To be able to label it as such, they need to use French wheat. This is one case where flour is distinguished on the basis of the origin, but it is understood, as for the other examples, to be a niche market, within an otherwise bulk commodity business.

Structure of the supply chain

Technical specifications	• The quality of wheat/wheat flour is determined by a number of parameters, e.g. protein content, ash content, moisture, water absorption; • Origin does not typically feature in raw material specifications and contractual arrangements, as origin *per se* does not confer the required quality specifications. • Wheat flour from different origins (i.e. with different intrinsic characteristics) is mixed/blended on purpose to achieve certain characteristics, at different stages of the supply chain. Wheat may come from different suppliers/countries (as well as, progressively, from the old/stored harvest to new harvest) to achieve required quality characteristics for constant quality. • The targeted quality specifications of wheat flour are determined by its end use (e.g. dough production) set by customers.
Sourcing	• Sourcing practices are driven by accessibility and quality of wheat required. This means that suppliers/countries of origin, can vary due to factors such as seasonal availability, weather (quality of harvest), food safety standards (diseases), price, etc.; • Overall sourcing pattern by volume/value is: 10% single national (EU or non E of which 2% being locally sourced); about 80% multiple sources EU only; 10% multiple sources (EU and non EU) and less than 1% non-EU only; • On average companies in this sector are typically sourcing from a varying mix of suppliers Changes of suppliers are frequent (3 or more per year) and concern the majority of suppliers. • Mixing of EU and non EU origin (e.g. Canada wheat) is quite prevalent.
Product differentiation	Standard quality, commodity 'bulk' trading: ca. 100%
Degree of vertical integration	Generally low

Production process	• Continuous production process • Continuous blending throughout the production input-output process, to achieve required quality specifications.
Traceability system in place	• One step forward, one step back, in accordance with Regulation 178/2002 i.e. based on HACCP systems.
Processing conferring origin	• According to the Customs Code milling is considered to be a substantial transformation of wheat (into flour). However this definition is inconsistent with the EU food law where milled products are categorized as 'unprocessed'.

Disadvantages

While the origin information would impact the entire sector, as information would need to be passed on to flour processors (e.g. bakers), packs of flour destined to end consumers would in addition need to be labelled individually.

Feasibility/operational costs

Option	**modality a: last transformation (milling)**	**modality b: harvested/farmed (wheat)**	**modality c: harvested + milling**
Option 1: EU / non EU	Feasible/low impact	moderate/high impact	moderate/high impact
Option 2: Member State /third country	moderate/high impact	not feasible/high impact	not feasible/high impact
Option 3: Region	not feasible/high impact	not feasible/high impact	not feasible/high impact

** Either "EU" or "non-EU" is not always possible since the flour can be for instance a blend of French and Canadian wheat.*

The table below provides cost calculations for **modality b in general**, i.e. origin intended as the place of harvest. This is the worst case scenario for which costs could be estimated (although this was not possible in some cases). Depending on the sourcing patterns of each flour miller, the costs indicated in this table refer to either Option 1 (EU/non-EU) or Option 2 (country).

Operational costs

Additional costs for modality b:
1. <u>Sourcing</u>: To avoid costs incurred by changes in wheat origin, millers would be inclined, when possible, to source from a limited number of suppliers (Scenario A), losing in the process the flexibility they need to access wheat of different qualities and prices. The competition among wheat suppliers would be reduced, hence a likely increase in the raw material's price. NB: the more local the origin indication (modalities a→c), the more costly it is for millers. Adaptation of sourcing practices would not always be possible. • For plants operating with EU/domestic wheat only: no costs; • For EU/non EU sourcing (Option 1) or multiple MS sourcing (Option 2): the price of wheat grain would increase due to the implementation of a new system segregating origin. Wheat price could increase by 5.2% according to the industry.

Additional costs for modality b:
It is noted that in MS, such as the UK, where wheat may be sourced from EU and non-EU origins, **Option 1b** (place of harvest at EU/non-EU level) would imply high costs to flour millers, hence a high price increase for bakeries. In other MS, such as BE, DE or FR, most of the wheat used comes from the EU but from different MS. For these MS, **Option 2b** (place of harvest at MS level) would incur sourcing costs equivalent to Option 1b in e.g. the UK.
2. Adaptation of production process: • For plants operating with EU wheat only: no costs; • For EU/non EU sourcing (for a medium sized miller): when origin changes are inevitable, millers would need to re-organise their production facilities so that to ensure a segregation by origin is in place (unless 'EU and non EU origin' is allowed). Currently, wheat is sorted along the production process by quality. A potential segregation by origin would come in addition to the current segregation by quality, from the sourcing until the flour-based products. The combination of decreased flexibility of sourcing practices and the adaptation of the production process to segregate origin along the processing chain is estimated to **cost a medium-sized miller up to €1.3 million** (this includes the expected 5.2% in grain price). • Additional storage capacity (silos) is likely to be needed to segregate wheat and flour by origin (i.e. EU vs. non-EU). Assuming a medium-sized mill processing 100,000 t/year, this could incur a **€200,000 cost**, or €19,000 per year (incl. depreciation and interests[171]).
3. Adaptation of packaging and labels/labelling process: • Packaging material and related costs could result to an additional €29,000 cost for a medium sized mill. The figure takes into account a number of SKUs, a frequency of change and the indirect cost of ordering smaller batches of packaging. The 'origin' changes in the place of harvest are assumed to be triggered at EU/non-EU level for e.g. the UK, and at MS level for e.g. BE.
4. Administrative burden: the additional amount of time spent by staff on administrative issues is estimated to cost €16,500 per year (for a medium-sized mill).
➔ **In total, a medium-sized mill could bear costs amounting to €1.4 million if MCOOL rules under Option 1b were implemented, i.e. 5.5% of the annual turnover of a medium mill. The bulk of this cost would mostly be incurred by the expected increase in wheat price, mostly due to the segregation of the production process by origin of wheat throughout the production chain. The price per tonne of flour could increase by 17.5 €/tonne (this compares with an actual price of 290 €/tonne).**
5. Implementation of additional control by enforcement authorities: Controls by authorities would have to be based on paper documentation as there is no other way to trace origin. The isotope analysis technique does not allow to precisely identifying the origin of wheat. While the technique enables to identify different profiles of wheat grains based on soil characteristics, the 'origin' indication would be provided at the level of broad geographical areas (and not administrative borders). In addition, not all existing soil profiles have been documented and the effect of grain mixes is not known. It is also a costly analysis. RFID is not a feasible method for commodity products such as grain. Flour millers believe that the introduction of **rules that cannot be controlled would inevitably lead to frauds and/or genuine mistakes.**

The above costs for Option 1b **would increase** under Option 2b, and even further under Option 3, as the number of potential changes in the mix of suppliers (hence wheat origins) per year increases with every option, due to origin changes.

[171] Assuming a 20-year depreciation period and 4.5% interest rate.

These costs **would be mitigated** if the origin of wheat could be indicated as 'EU and non EU' (Option 1) or as coming from a group of several Member States (Option 2) on the label, but this could be misleading if not all countries are necessarily involved. Also, the added value to consumers was questioned in this case.

In **modality a**, the place of milling would not be very informative for consumers who may be more interested in where the grain comes from, and could in some cases be misleading, particularly under Option 2.a. (MS level) in small countries which significantly rely on imports of wheat for flour production.

Key factors for the feasibility/costs of modalities b and c, under every option, but particularly Options 2 and 3, are the following:

Technical feasibility: Sourcing and production process

In some cases, not all the production sites of the same miller are delivered by the same wheat suppliers. In addition, as there is continuous blending in the production process, there would be mixing of different origins and 'origin-contamination' in the plant's silos and warehouses from different wheat flows with the same quality but with possible different origins.

In countries that are generally considered self-sufficient in wheat, grain harvests are subject to varying climate conditions which every year establishes the level of self-sufficiency. For instance, in the UK in 2013, which was a bad harvest year, some 2.5 million tonnes of wheat were imported from other countries while the total milling use in the UK is 5.5 million tonnes of wheat, i.e. wheat imports accounted for 45% of the wheat milled in the UK. That year the UK imported wheat from 22 different countries, 14 of which accounted for more than 10,000 tonnes and most of the time the mills where mixing origins to achieve the required quality. The level of wheat imports in 2013 was above-average, but these are likely, albeit infrequent, events which the industry faces.

Administrative costs and burden

Additional time needed to compile, procure and supply origin-related documentation from suppliers and to clients is estimated to require one additional staff member per mill.

Impact on the supply chain and consumer prices: who would bear the cost?

The price of wheat is determined on the world market. This sets the price also for flour, depending on the quality specifications required. The origin of the wheat/flour is not a parameter that typically features in the quality specification requirements put by manufacturers on their suppliers. The grain trading industry is a highly concentrated market, close to an oligopoly situation according to flour millers. As a result of their high bargaining power vis-à-vis millers, grain traders would unlikely bear any cost stemming from potential EU origin labelling rules.

While grain prices are likely to increase due to flexibility loss, farmers are unlikely to benefit from the wheat price increase.

Although **concentration** in the sector is increasing in most MS, there is also a significant presence of micro-enterprises and SMEs in the milling sector. Downwards in the supply chain, processors, e.g. bakeries, are also a fragmented sector while retailers represent a block with a much more significant bargaining power. Therefore, it appears most likely that wheat

flour millers would bear most of the costs relating to the segregation of storage and mill processing (i.e. additional storage, operational costs) while bakeries would bear relevant labelling/packaging costs (e.g. adaptation of design, new printing plates). It is however unclear whether/to what extent the additional origin labelling costs would be transferred to consumer prices via retailers.

Impacts on the internal market

The introduction of mandatory origin labelling **under modality b (place of harvest of wheat)** would create unfair competition between EU operators. Some would be more affected than others depending on the wheat self sufficiency level of the MS.

Imports of wheat flour into the EU are negligible. On the other hand, there is important intra-EU trade in both wheat and flour. Large manufacturers (multinational firms) are likely to make their products in more than one place, i.e. bread buns made in France, Germany, UK, with wheat/flour coming from different origins.

Millers operating in countries that **significantly rely on imports** (extra-EU or intra-EU imports) would be at a competitive disadvantage vis-à-vis millers located in (typically) self-sufficient MS, as different origins would require the segregation of the operations, i.e. additional storage capacity for grain (input level) and for flour (output level), and additional operating costs relating to cleaning, energy, staff and segregated transport. For any Member State 'bad' harvest years lead to an increase in reliance on wheat imports which would in turn incur additional costs (see internal market for details on wheat flour supply chains).

Impacts on competitiveness in international trade

While imports of flour from Third Countries are negligible, imports of non-EU wheat (grains) are more significant. Globally, the EU is self sufficient in wheat and rye and is overall a net exporter of these commodities. However, the EU is not self sufficient in wheat of all qualities needed for all uses and at all times. There is therefore a need for non-EU imports of wheat (often high-quality wheat is needed), which is stronger for some MS (e.g. those with lowest self-sufficiency levels) than for others. Beyond self-sufficiency as such, the specific location of a flour mill also impacts the extent to which it needs non-EU imports, e.g. a PT-based mill can find easier to import US wheat if needed, whereas this would not likely be the case for a mill in PL. **In conclusion, imports provide flexibility to EU operators** who constantly seek the best price for the required wheat quality specifications. Key exporting third countries (to the EU) are the US, Canada, Kazakhstan, Ukraine, Russia. Key importing MS (from third countries) are the UK, IT, NL, ES, SE, RO and the Baltic MS.

Change in contracting would negatively impact the flexibility needed to procure **sufficient quantities of a required quality,** in compliance with the EU food safety standards[172].

Towards international competitors (e.g. Turkey, Kazakhstan)**, EU operators would be disadvantaged** if MCOOL was to be introduced. Moreover, the introduction of MCOOL on wheat to produce flour may be considered by some extra-EU partners to be a non-tariff barrier.

On the other hand, it could improve the export competitiveness of EU (*Japonica*) speciality rice.

[172] e.g. rules on mycotoxins, fusarium toxins, heavy metals, ergot sclerotia, use of plant protection products, etc.

Environmental impacts

Transport by trucks is likely to be increasingly used by flour millers so that to transport smaller quantities of flour, to continue the segregation of the supply chain by origin (which is the only method technically possible to trace origin). Wheat transport by truck is more energy consuming than ship transport. Wastes of wheat along the processing chains would also increase as a result of smaller lots being processed at once (e.g. inevitable waste when machines start, smaller lots are more energy consuming). Issues with packaging are discussed further by the bakery sector.

4.10.1.2 Rice

Organisations contributing to the consultation for this case study: Federation of European Rice Millers (FERM); individual companies[173].

2 MS: IT; NL.

Sector overview:

The Federation of European Rice Millers (FERM) represents over 90% of the EU rice milling capacity; FERM is made up of 21 company members from 8 MS as well as 5 national rice milling associations of Italy, Spain, Portugal, France and Germany.

In the EU, the total rice production in 2012/13 was 1.8 million tonnes, against imports into the EU of 0.9 million tonnes (all figures are on a milled basis). The EU is a small player in the world rice market. World production is 470 million tonnes (on a milled basis). Approximately 37 million tonnes are traded throughout the world but only 0.9 million tonnes are imported in the EU, of which 320,000 tonnes are Basmati rice[174] (on a milled basis). The EU rice sector has been particularly vocal against the rising trend of rice imports from third countries under the various preferential EU trade agreements[175]. The EU rice business operators are characterised by a high presence of SMEs and micro-enterprises which respectively account for 60% and 15% of employment in this sector.

Given this market overview, prices are determined on a world level, with the EU being a minor importer in global terms. World rice market prices are particularly volatile; price volatility is relevant to all bulk commodities, such as wheat and rice, and is affected by significant short term fluctuations in supply volume and quality due *inter alia* to weather conditions. In addition, as this is a staple commodity for many parts of the developing world, it is susceptible to changes in domestic policies in developing countries in the form of, for example, minimum export prices, export restrictions, export taxes, which influence the availability of supply. The impact of such restrictions was most severe in 2008/2009 leading

[173] Including 4 questionnaire responses received through the FBO survey (from associations and companies), which related in particular to rice.
[174] Source of all data: FAOSTAT; Eurostat
[175] In the first half of the 2013/14 marketing year, 27% of deliveries to the EU (616,000 tonnes) originated in countries beneficiary to the Everything-but-Arms agreement (EBA), nearly double the amount delivered during the corresponding period of 2012/2013. To date, these have mostly reflected growing shipments by Cambodia. Nevertheless, against the backdrop of ongoing trade negotiations between the EU and major rice suppliers (including India, Thailand, the US and Vietnam), the potential of larger consignments also being delivered by Myanmar, following the June 2013 reinstatement of EBA benefits to the country, are also deemed threatening to the EU industry.

to a spike in rice prices, but – according to analysts[176] - continues to be highly relevant to today's market. Finally, exchange rates and freight costs also affect sourcing, and these factors are both volatile and variable depending on origin.

In 2012/13 some 35% of imported rice was brown rice (i.e. husked, to be milled in the EU), of which approximately 2/3 was basmati. The remaining 65% was mainly milled rice (i.e. ready to be packed), but also packed rice (i.e. imported in retail-ready packages of up to 20 kg); imports of packed rice are relatively small but increasing (in 2012/13, they accounted for 160,000 tonnes). Retailer own brands are gaining ground in this market, to the extent that nearly all rice mills in the EU are involved in private label, to varying extents. This puts additional pressure on mills, in a sector where 80% of final product price is the cost of rice and the gross margin is particularly tight. Out of home (catering) consumption of rice is another important factor in this market; it is currently estimated at around 30% and continues to be on the rise.

Long grain rice is *Indica*, a group that includes specific varieties such as *basmati* and *fragrant*. *Indica* can come from any country, EU or non-EU; however the *basmati* and *fragrant* varieties can only be sourced from certain origins. Short grain rice is *japonica*. It is mainly grown in Europe (e.g. *arborio* rice) and there are little imports of this type of rice.

In this sector, origin labelling tends to be more extensive than in other sectors examined by this study, and this is linked to the specific provenance of some types/varieties of rice. Certain types of rice have specific qualities or are conducive to different types of dish e.g. rice for making risotto, paella or aromatic rice from Asian origins such as *Basmati* or *fragrant Jasmine*. For such rice, the rice miller may choose to include the country of origin or region of origin if considered to enhance consumers' overall understanding of the rice specificities. Examples of origin labelling for speciality rice include: *basmati*, which can only come from the regions surround the Himalayas (India/Pakistan) and a related code of practice developed for this[177]. There is also an Italian code of practice (Ente-nazionale Risi) setting quality criteria for Italian rice[178]. However, long grain rice without any of the specific qualities or associations referred to above is typically not labelled as it does not have qualities or characteristics distinguishable to the average consumer.

Structure of the supply chain:

Technical specifications	• Quality of rice determined by a number of parameters, depending on variety. For some types of rice e.g. *Basmati, fragrant* there are tight specifications according to national codes of practice e.g. UK, France; • Millers may combine rice from different suppliers/countries to achieve required quality characteristics for constant quality. This means several changes in suppliers/country of origin, which can vary due to factors such as timing of harvests and crop quality variations, market volatility, policy changes in developing countries (significant policy impact, as this is a staple commodity in many parts of the developing world). Also, compliance to EU food safety legislation, e.g. GM rice, aflatoxins, pesticide residues etc. which can be related

[176] E.g., Rice Market Report April 2014, FAO; Rice Market Situation March 2014, DG AGRI.
[177] The UK-India-Pakistani government and industry worked together to develop the UK code of practice for basmati rice, which is also applied by traders/suppliers of basmati rice in other countries. Under the UK *Basmati* code, 15 rice varieties qualify for the *basmati* denomination as coming from the Basmati growing regions of India and Pakistan (whereas about 100 varieties are grown in India-Pakistan); the code also fixes purity criteria.
[178] The ENR is applicable to all Italian rice i.e. recognition of origin (and not variety).

	to particular harvests or climatic conditions, necessitates flexibility in sourcing. • Some varieties, e.g. *basmati* and *fragrant*, can only be sourced in specific places of provenance, inevitably therefore origin in this case is important and safeguarded by codes of practice. • For other standard long grain varieties, origin is not specified by end customers (i.e. processors/retailers) in raw material specifications and contractual arrangements which only cover quality parameters.
Sourcing	• Millers buy directly from origin countries. Retailers are increasingly buying also directly from origin countries (rather than via processors of private labels); • Approximately 35% of imports are brown rice (i.e. husked, to be milled in the EU), and 65% is mainly milled rice (i.e. ready to be packed), but also small volumes of packed rice imports which are increasing; • Sourcing from both EU and non EU origin standard long grain (*Indica*) rice is quite prevalent, even in rice producing MS; • Speciality long grain rice: for *basmati* only 2 origins (India or Pakistan); for *fragrant* mostly 3 origins (Thailand, Vietnam, Cambodia).
Product differentiation	• Within non-speciality rice, standard quality, commodity 'bulk' trading sector, but for some varieties origin is important. Long grain rice (*Indica*) can be sourced from any country, EU or non-EU; however the *basmati* and *fragrant* varieties can only be sourced from certain origins. Short grain rice (*japonica*) is mainly grown in Europe (e.g. *arborio* rice) and there are little non EU imports. • FERM survey of extent of voluntary origin labelling in 6 MS: overall, 23% of surveyed products had specific origin labelling, and 18% had some reference to origin e.g. *Basmati* which can only come from India or Pakistan (regions surrounding the Himalayas). Voluntary origin labelling mainly exists for *basmati*, *fragrant*, IT and ES rice; not for other origins/types of long grain rice.
Degree of vertical integration/ Length of supply chain	Low/not significant. Millers buy directly from origin, and sell directly to food processors/retailers. However, retailers are increasingly involved in buying directly from origin countries for their private label products. Nearly all mills in the EU are involved, to varying extents, in the production for retailer own private labels.
Traceability system in place	• One step forward, one step back, in accordance with Regulation 178/2002 i.e. based on HACCP systems.
Production process	• Continuous or batch production model (depending on the product/mill); • Potential blending during the production input-output process, to achieve required quality specifications.

Disadvantages

In the case of EU grown (short grain) rice, a portion of this rice may already be labelled under voluntary labelling schemes. Such schemes may not only provide origin information as such, but also other information e.g. indicating specific variety such as *Arborio*. The added value of mandatory origin labelling is questioned in this case. In the rice sector, there is also a general disadvantage for non self sufficient vis-à-vis self sufficient rice producing MS for which the origin labelling requirements (under Option 2) would generally be much less constraining.

In the case of non-EU grown (long grain) rice, for speciality varieties such as *basmati* or *fragrant* that are either already covered by codes of practice guaranteeing origin (basmati) or known to be of non-EU origin, there is significant doubt among rice millers as to the value of informing consumers that this is 'non-EU' rice. For non speciality rice (the bulk of standard

long grain *Indica* rice), the value of origin labelling for rice which has no specific characteristics related to origin is questioned.

It is also noted that out of home consumption of rice is quite significant, particularly in rice consuming MS. It is currently estimated at around 30% of the total EU consumption and on the rise (in line with general out of home consumption trends). This rice is mostly offered to the consumer unpacked. There would therefore be a general disadvantage for pre-packed rice (sold as such at retail level) vis-à-vis non pre-packed rice (mostly consumed in catering) for which the labelling requirements would be much less constraining.

Feasibility/operational costs

Milling is not a substantial transformation in the Customs Code rules; therefore, **only one modality is applicable here, the place of harvest** (modality b).

The impacts outlined below **also apply to products derived from rice or broken rice**, such as rice starches and rice flours. For such products derived from rice, the cost impact of mandatory indication of country of origin or place of provenance would be significantly higher than the estimates provided here. The reason for that is that rice starch and rice flour are bulk commodities and served from silos; depending on the availability on the global market the same rice flour or rice starch may be produced from several origins[179].

Option	modality a: last transformation (milling)	modality b: harvested/farmed (rice)	modality c: harvested + milling
Option 1: EU / non EU	n.a.	negligible for *basmati*, *fragrant* and EU rice varieties, but for majority of *Indica* rice can be moderate/high impact	n.a.
Option 2: Member State /third country	n.a.	from negligible to high impact/not feasible	n.a.
Option 3: Region	n.a.	from negligible to high impact/not feasible	n.a.

** Either 'EU' or 'non-EU' is not always possible depending on the sourcing practices of the individual mill and the rice types, e.g. (long grain) Indica rice is most commonly a blend of EU and non-EU origin.*

The extent to which mandatory origin labelling is feasible, and related costs, depends on the sourcing practices of the individual mill and the rice varieties, as some rice varieties are to some extent linked to specific places of provenance (e.g. *Basmati, fragrant, Arborio*). Generally speaking:

1. For mills sourcing from a single (EU) origin: where a miller is sourcing from one country of origin, mandatory origin labelling would imply zero to negligible costs. In practice, this case would only apply to a portion of millers in rice-producing MS. An

[179] Detailed feedback on starch has been provided by the European Starch Industry Association (AAF).

estimated 25-35% of EU-produced (mainly *japonica*) rice consumed in the EU may be milled under these circumstances.

2. For mills sourcing from more than one origins (EU and/or non EU): in this case, the feasibility of origin labelling is questioned, as it would require significant reorganisation of the supply/production chain. Mills in both rice-producing and non-rice-producing EU MS may import from a range of origins, EU and/or non EU. In practice, this case applies to 65%-75% of EU-produced rice and nearly all non-EU rice. For example, one third of Italian millers import *Basmati* rice reflecting growing consumer interest, although the total quantities are very small. The following situations may prevail:

   i. Sourcing from multiple (either EU or non-EU) origins: Option 1 would minimise costs when sourcing exclusively in either of these two regions. Therefore, Option 1 is the most feasible as it reduces the need to segregate sourcing in these cases. Exact costs depend on type of rice being milled. In the case of *basmati*, labelling as non-EU would imply zero to negligible costs, as *basmati* is only grown in Pakistan and India i.e. only non-EU. Similar impacts are expected in the case of *fragrant* (mainly imported from 3 origins: Thailand, Vietnam, Cambodia). However, there is significant doubt among millers as to the value of informing consumers that *basmati* or *fragrant* is 'non-EU' rice. In the case of EU grown rice, a portion of this rice may already be labelled under voluntary labelling schemes, providing not only origin information as such, but also other information e.g. indicating specific variety such as *Arborio*.

   ii. Sourcing from multiple (EU and non-EU) origins: Option 1 would still pose a problem for the majority of (long grain) *Indica* rice. Most commonly, millers are sourcing *Indica* rice from both EU and non-EU origins (including Brazil, Cambodia, India, Italy, Pakistan, Spain, Thailand, US, Vietnam). In the case of non-specialty *Indica* rice, millers using up to 7 different sources are considered a typical case. Distinguishing two regions (EU and non-EU) would give rise to the feasibility problems/costs. In this case, the value of origin labelling for rice which has no specific characteristics related to origin is questioned.

Costs

The table below provides cost calculations for **Option 1b (EU/non-EU - place of harvesting)**, which is the only possible modality for rice. Rice for milling in the EU (which accounts approximately for 30% of all rice imports) can be imported from EU and non-EU countries. When these two sources are mixed, only scenario B (see **Box 4**) is possible.

Additional costs for Option 1b/c:

1. Sourcing and production process: **cost can range from negligible to very significant**, depending on sourcing patterns which vary per milling plant and depending on rice type:

- For either EU or non-EU sourcing: negligible;
- For EU and non-EU sourcing: costs would be very significant, and may require re-organisation (i.e. segregation by origin) of production/storage facilities (unless 'EU and non EU origin' is allowed) which is questioned not only in terms of potential costs but also of technical feasibility. In particular, this case would imply one of the following two scenarios (for majority of mills in the EU only scenario ii below is possible):
  i. Increase storage capacity with silos dedicated to a single origin: **not possible for the majority of mills in Europe** built in urban areas where there are limits to capacity extension. This would result in additional costs for unloading, storage, management and administration of this parallel process. In addition, it would restrict the quantity of stocks that can be held from multiple origins, and reduce flexibility in sourcing between origins, with potential implications for raw material prices.
     - In this scenario, **stock management costs only are estimated at €12-35/t**. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would be €1.5 - 4.4 million.
  ii. Use the same silo for different origins: this would result in additional cleaning costs, efficiency loss from switching between origins, additional logistics/stock management costs and more limited flexibility in terms of sourcing. Some FERM members sourcing from multiple origins have fundamental doubts about the technical feasibility of this scenario.
     - In this scenario, **stock management costs only are estimated at €35/t**. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would be €4.4 million.

The above figures relate only to direct stock management costs as such, and exclude the indirect potential costs stemming from loss of efficiency from switching between origins, and reduced flexibility in sourcing between multiple origins. As such, they therefore **reflect the low end of the estimated costs**.

2. Adaptation of packaging and labels/labelling process*:

- For either EU or non-EU sourcing: negligible;
- For EU and non EU sourcing: **costs are estimated at €8-15/tonne**. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would range from €1.0 up to €1.8 million. These costs are:
  - Packaging and storage costs: €2/t. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would be €0.3 million.
  - Stock management of final packaged products: €0-5/t[180]. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would range from zero up to €0.6 million.
  - Reduction in scale economies for packaging: €6-8/t. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would be €0.8 – 1.0 million.

TOTAL of estimable costs - excluding costs related to loss of efficiency, reduced flexibility (impact on the price of rice), packaging waste - would therefore range **from €20/t to €50/t, equivalent to an increase on existing production costs of between 12% and 30%****. Assuming a medium size EU rice mill handling 125,000 t/year, annual costs would range from €2.5 to €6.25 million.

3. Implementation of additional control by enforcement authorities: considered to be potentially significant but could not be estimated.

* Additional costs are foreseen for packaging waste but could not be estimated.

** This estimate excludes the cost of the raw material (rice). Including the raw material cost, the additional cost would be lower than the above estimate. It s noted that the impact on the price of rice would depend on the sourcing strategies of the individual FBOs.

[180] Logistic costs with retailers are included in this figure.

Option 2b/c would increase costs further than Option 1b, given the increased diversity of sourcing. This depends on the sourcing of individual companies. In the case of EU grown rice, it can be linked to whether companies are located in self sufficient MS or non self-sufficient MS, as the latter are more susceptible to imports. Furthermore, it is not considered to carry any specific added value for consumers. For example, in the case of *basmati* rice, the specificity is the region where this rice grows in India/Pakistan, which is already covered by the existing code of practice; there is no further quality or other difference in sourcing between India and Pakistan.

These costs would be mitigated if 'EU and non EU' (Option 1) or several countries (Option 2) are indicated on the label, but this could be misleading if not all countries are always involved. Also, the added value to consumers was questioned in this case.

Key factors for the feasibility/costs of modalities b and c, under every Option are the following:

Sourcing and production process

At mill level, throughout the year crops come in from the various origins at different times of the year, depending on arrival of crop (2-3 crops per year for each origin, 1 harvest in the EU). The seasonality of supply from each origin country is different and there are continuous changes in supply of rice from each origin throughout the year; there can also be overlap of the harvest periods. Even in the case of speciality products such as *basmati* with only 2 origins (India and Pakistan) all rice irrespective of origin goes in the same silo. Traceability is ensured via a time-based coding system that records what has entered and left the silo every minute; this allows to trace the rice in the silo back to container and then to the contract and shipment details.

In the case of EU and non EU sourcing of standard long grain, the entire production process at mill level would need to be reorganised to adjust to the origin labelling rules. The following two alternative scenarios could prevail:

a. One scenario would be for mills to increase storage capacity with silos dedicated to a single origin. This scenario would only be feasible in the case of mills located in rural areas which are a minority; the majority of mills in the EU are built in urban areas where there are limits to the extent that capacity can be extended in this way[181]. This would imply costs for unloading, storage, management and administration of this parallel process. Where mills can extend capacity, there would also be implications in terms of the quantity of stocks that would need to be held and, given that capacity is unlikely to be extendable to multiple origins, limitations to the extent that millers can respond flexibly to switching sources in the way currently done, thus leading to potential implications for raw material prices.
b. An alternative scenario, where increased storage capacity is not possible (i.e. the majority of mills), is to use the same silo for different origins. This would result in: additional cleaning costs, loss of efficiency/capacity loss from interrupting the process to switch between origins. This option also implies additional logistics/stock management costs and more limited flexibility in terms of sourcing. Some FERM

[181] The historical development of milling locations means that the majority is in urban areas where there are planning restrictions to adding silo capacity. The top 6 milling companies in the EU are mainly/exclusively located in urban areas.

members sourcing from multiple origins have fundamental doubts about the technical feasibility of this scenario.

The above figures relate only to direct stock management costs as such, and exclude the indirect potential costs stemming from loss of efficiency from switching between origins, and reduced flexibility in sourcing between multiple origins. As such, they therefore reflect the low end of the estimated costs.

Moreover, there are certain (plausible) scenarios relating to the procurement of rice from third country suppliers which could imply even higher costs, the extent of which could not be estimated. For example, if a significant third country rice supplier to the EU imposed an export ban (as India it did in 2008) necessitating a shift in origin, this would require a quick switch in packaging, a process which would take up to 16 weeks, potentially leading to out of stock products. This in turn would have serious consequences for millers, including an impact on brand integrity and service and could imply the imposition of fines by retail food service customers. The estimated costs here therefore only reflect increases to regular production costs associated with origin labelling, where the options are technically feasible.

Packaging/labelling process

In both of the above scenarios, there would be additional costs associated with developing multiple packaging, registration of products, increased risk of wastage (both of packaging and non-used rice product stocks), post production storage costs and associated logistical costs. For example, one medium size company with an average number of multiple origins for the main rice varieties estimated that indicating one country of origin (Option 2) would increase its total number of SKUs 4-fold, with all the implications this entails in packaging and stock management costs. Finally, and, depending upon the response of customers (processors and retailers) to new origin labelling rules, there could be additional complications/costs in supplying according to customer requirements.

An estimation of the cost implications could only be made with regard to some elements of the costs identified (see table above). However, costs may vary significantly depending upon the demands of the customer. For example, the costs associated with private label rice would depend in part upon how retailers would respond to the complexity imposed by origin labelling and demands put upon their multiple suppliers.

Extraordinary (but plausible) events may increase very significantly packaging costs as also noted above. EU rice importers need to be flexible in their sourcing practices to offset these risks. It takes 18-20 weeks to get supplies of new packaging; there are also implications in terms of potential packaging waste, as the stock of packing usually lasts 6 months.

Administrative costs and burden

Even where all information is electronically stored, it would need additional staff time to follow the origin related documentation, in particular to retrieve specifications of the suppliers, and to adapt to the specifications of the customer. These costs could not be established, but are considered to be significant and are additional to BAU costs.

As with the operational costs, smaller companies would be particularly disadvantaged as they do not have the administration nor the manpower to handle frequent origin modification.

In terms of the use of potential new technologies to enable controls and/or mitigate their costs, isotope analysis is not used in the rice industry today although there could be grounds for the industry to use it to determine origin. The main reason why it is not used is that it is not considered to be reliable: scientific results of isotope tests appear to be very unstable as soil in bordering regions has similar characteristics and is influenced by climate change. One particular problem is that isotope analysis cannot distinguish between growing regions that straddle an administrative border e.g. Vietnam/Cambodia. DNA tests exist for markers of varieties e.g. *basmati*, to identify the varieties formally recognised by EU legislation and in the UK Code of Practice, but not to tell the difference between India and Pakistan *basmati* rice; this test took 10 years to develop, but the process of establishing testing/analysis has been complex and controversial. Also, in Thailand today there are 4 DNA markers for rice out of >77 types of *fragrant* rice. The research process for the development of these tests is complex and requires therefore significant investment and time to come to full application.

In the absence of reliable analytical tools, how origin labelling could be enforced and legal certainty provided for operators remains unclear.

Impact on the supply chain and consumer prices: who would bear the cost?

As noted above, the price of *Indica* long grain rice is determined on the world market, the EU being a small player (producer/importer) in global terms. Demanding a specific origin for non-speciality *Indica* rice is not a parameter that typically features in the quality specification requirements put by EU millers/packers on their suppliers.

Competition in the sector within the EU tends to be quite strong, with the retail sector increasingly present in the private label rice market. Also, there has been growing concern in recent years by the increase in direct competition from imports of pre-packed rice, currently approaching 200,000 tonnes/year (imports of pre-packed rice in small packages for direct sale to EU consumers were practically zero 5 years ago),

It is therefore unclear whether/to what extent the additional costs of origin labelling would be transferred to consumer prices. The retail sector is increasing its presence in the EU rice market through private label rice competing directly against branded rice of millers/packers, while the catering (i.e. mostly non pre-packed) share of the rice market is very strong in the rice-consuming MS. These two factors are expected to compromise the ability of millers/packers to transfer some of the additional costs of mandatory origin labelling to final consumer prices. Thus, within the supply chain, given the current structure of the sector, it appears most likely that millers/packers would have to bear most of the adjustment costs.

This is particularly the case for millers/packers sourcing non-speciality *Indica* rice from a range of EU and/or non EU origins, putting them at a competitive disadvantage vis-à-vis millers/packers sourcing from a single EU origin (see also impact on intra-EU flows below), but also third country exporters of pre-packed single origin rice (see also impact on international trade flows below).

Impacts on the internal market

Generally, companies in countries relying on imports of rice would suffer more than those in self-sufficient countries. However, the impact would depend on the MS and the type of rice milled. Origin labelling could be feasible when a MS is self sufficient in a type of rice, i.e. short grain speciality rice, e.g. IT for *Arborio* rice. In MS where a type of rice is grown and

widely consumed, consumers would generally expect that rice to come from their own country (e.g. ES, IT). A single mill with single origin source would have negligible cost (e.g. small mill in IT working with local producers only).

For non-speciality *Indica* (long grain) rice, the larger operators in rice producing countries would face similar problems as those in northern countries that are importing all the rice they mill/pack. However, the additional costs associated with applying mandatory origin labelling could potentially favour millers sourcing from a single EU origin and therefore impact upon current patterns of intra-EU trade.

Branded products with relatively larger market shares and an established market position (there is only one pan EU label) are expected to have a competitive advantage as they handle larger volumes and have more bargaining power.

Mandatory origin labelling, on the basis of 'place of farming/harvesting' (modality b) could therefore disturb the free movement of goods within the EU.

Impacts on competitiveness in international trade

According to the industry, the introduction of mandatory origin labelling in the EU would have a significant adverse impact on the ability of EU operators to secure imports from third country suppliers. Given the structure of the global rice market, it is expected that the price would be affected as suppliers would be in a position to charge more to export to the EU, as this market is not significant for them in volume terms and would require origin labelled rice. The EU being a small player, it has no bargaining power in international terms.

It is noted also that the main third country rice suppliers are politically volatile: policy changes in these countries can occur frequently/ be abrupt and can play a significant role in affecting world market prices, this contributing to a context of high price volatility in the rice sector. For example, in 2008 India banned exports and this sparked a significant price hike; in 2011 Thailand introduced new farm support measures at a guaranteed price for 3 years, at a cost that led to the recent government crisis.

Finally, there is growing concern in recent years on direct imports of pre-packed rice from third country suppliers. Mandatory origin labelling rules would put EU millers/packers of non-speciality long grain *Indica* rice at a competitive disadvantage vis-à-vis third country millers/packers of (single non-EU) origin rice.

On the export side, exports of EU rice are relatively limited (11% of total EU production), the majority of which (80%) is *japonica* (short grain) for which origin labelling would not have any significant cost implications and therefore is unlikely to affect exports. However, as regards *Indica* (long grain) exports, mandatory labelling could give additional cost advantages to third country competitors, particularly at the low value end of the I*ndica* market.

Environmental costs

The main environmental impact is a potential multiplication of packaging to accommodate different origins and the associated waste of obsolete/redundant labelling/ packaging stock where packaging needs to be redesigned. Furthermore, a reduced flexibility in sourcing may lead to a new stock of uncertain origin. If unsold, this rice would either have to be unpacked or potentially disposed of (which may prove to be the more economically viable option).

Such impacts undermine concerted efforts in recent years within the industry to reduce wastage to the minimum possible.

There may be also energy inefficiencies associated with non-optimal use of capacity and the need to stop and restart production lines according to changes in origin.

4.10.1.3 Pre-packed salads

The main organisation that contributed to the consultation for this case study was FRESHFEL representing stakeholders of the European fresh fruits and vegetables chain, and their UK and NL members, while additional inputs from the French association ETF (Les Entreprises du Traiteur Frais) and 3 individual companies operating in the NL, BE, FR, IT and ES also fed into this analysis.

2 MS were initially chosen (FR, ES) but data availability issues focused this analysis on NL mainly.

Sector overview:

While the fresh segment of green leaf salads, including notably lettuce, is well documented, very limited data is available on the specific segment of fresh, cut salads sold pre-packed to consumers. Green leaf salads (referred to as 'salads' hereafter) are cleaned, cut and packed by specialised processors, sometimes using controlled atmosphere, which enhances shelf-life.

In the Netherlands, pre-packed cut fresh products represent 30% of all vegetable sales. Pre-packed green leaf salads accounts for almost 40% of the turnover of all 'ready-to-eat' vegetables.

Sales of pre-packed green leaf salads amounted to 24,000 tonnes and €192 million in 2011 in the Netherlands.. Of the various green leaf salads, varieties most commonly used in mixed salads include: lettuce, rocket, iceberg lettuce, lollo rosso, lollo blond, oak leaf, romana, batavia, lamb's lettuce, frisé, radicchio, watercress, Chinese cabbage, beetroot leaves and baby leaves (including spinach and endive). In the Netherlands, the main product groups in mixed salads are:

- Single leaf salads (1 variety per bag);
- Mixes (mix of 4-6 types of salads in a bag)
- Meal salads (one or more types of lettuce with other vegetables (e.g. maize, cabbage) and/or other ingredients (e.g. chicken, cheese, herbs, dressing, nuts). These are usually packed in a dish or container).

In the Netherlands there are 3 very large, 22 medium and 57 small producers of pre-packed fresh cut salads. One of the three largest companies employs more than 1,000 people, and generates a €225 million turnover.

Table: Retail sales of vegetables in the Netherlands in 2011 (in '000 €)

Fresh unprocessed vegetables	1,112,348
Fresh ready-to-eat vegetables	640,511
Canned vegetables	193,931

Frozen vegetables	69,216
Pickled vegetables	50,473
Total	**2,066,479**

Source: Case study interviews/Markt monitor groenten en fruit NL 2012. Productschap Tuinbouw

Table: Breakdown of sales in the pre-cut/prepared vegetable segment in the Netherlands (in '000 €)

	2010	**2011**	**2010/2011 % change**
Lettuce incl. mixed lettuce	184,889	193,127	4%
Stir-fry wok mixes	104,183	107,196	3%
Vegetable soups	37,031	36,901	0%
Mixed cut raw vegetables	28,944	32,615	13%
Carrots	25,996	28,100	8%
Endives	27,401	26,649	-3%
Bami/nasi vegetables	26,290	25,215	-4%
Macaroni/spaghetti vegetables	21,170	23,570	11%
Cut broad beans	17,741	19,223	8%
Spinach	16,889	19,070	13%
Total	**627,839**	**640,511**	**2%**

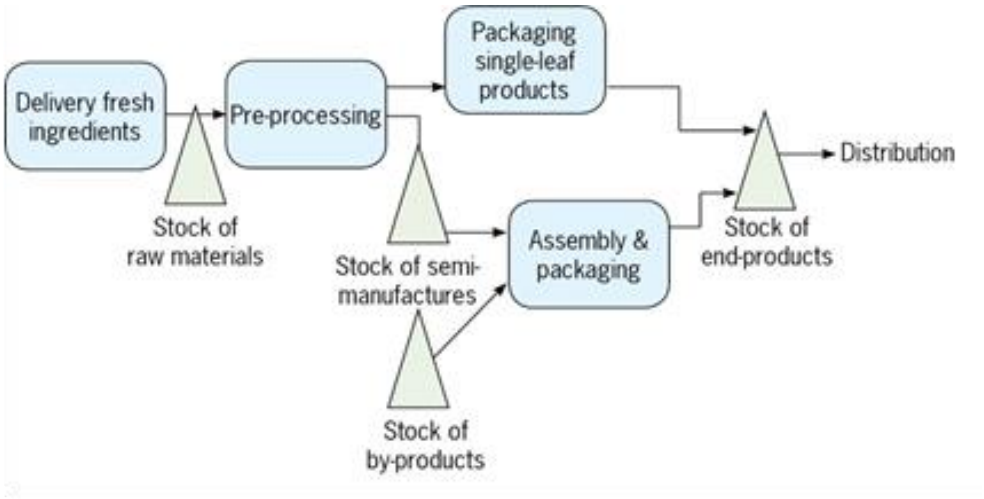
Source: Case study interviews/Nielsen/PT

The production of pre-packed cut salad is a mixed of **batch/continuous production process** which involves the following steps:

- Daily delivery of fresh salads - supply is adjusted depending e.g. on weather conditions;
- Pre-processing, e.g. removing of outer leaves;
- Processing, e.g. cutting, washing, rinsing;
- Mixing of different types of salads, where relevant;
- Packaging;
- Transport to retailers or caterers.

The production process of pre-packed salad is summarised in the figure below.

Figure: Production process of pre-packed salad



Source: Vezet quoted in LEI Wageningen, 2012

Pre-packed leaf salads are **high value products**. Prepared salads (i.e. cleaned and cut) are also often the base ingredients of meal salads, which include various other ingredients (such as meat, fish, eggs, other vegetables, etc.). Fresh cut produces like salads represent a growing segment in the catering market.

As regards **sourcing practices**, geographical origin of the raw materials is generally not a parameter which business operators take into account in their sourcing decisions. Most of the salads used for pre-packed salads are **produced in the EU**, as the product is quickly perishable and is difficult to store for long periods of time: the product shelf life is maximum 6 days. According to stakeholders interviewed, only a very limited share comes from third countries (2%-3% of the total supply of the EU market).

Sourcing depends on **availability** throughout the year, which is governed by seasons and weather conditions impacting harvest. It is therefore common that salads from different origins are mixed in pre-packed salads. For example, processors in the Netherlands may source lettuces from the Netherlands, Germany, France, Belgium, Italy, Spain as well as Egypt and the USA throughout the year. Business operators need to source from a mix of origins to ensure running at full processing capacity. This is particularly true notably during the transition between different growing seasons. For instance, in a Northern MS such as the Netherlands, when supply decreases from domestic sources or from other Northern MS, sourcing from the Southern MS gradually takes over (e.g. Spain, Italy, south of France). This implies **necessary mixes of origins**, e.g. NL/ES, with ES gradually accounting for a higher share in the mix over time. Imports from third countries are also driven by availability issues. Salads are imported usually from Egypt and the US in winter, when the EU production is not sufficient.

The availability issue is exacerbated in the case of salad mixes. For instance a mix salad of rocket, watercress and spinach produced in the UK may involve sourcing from the following origins: UK, ES and the US for watercress; the UK, FR, ES, IT and the US for spinach; the

UK, ES, IT and the US for rocket. This results in 60 potential combinations of different origins[182].

The quality of salads, in particular the **taste and freshness** of the produce, is also a key determinant impacting sourcing practices. Operators within the fresh cutting industry focus on procuring high quality products, the key attribute being freshness, and this is not associated with a specific origin.

Finally, reliability of suppliers is essential in the sector as availability and **timely delivery of salads** have considerable impacts on the running of operations. These may be included in the contract between processors and suppliers (next to quality and food safety). The **unpredictable nature of sourcing** should be highlighted for this sector. In fact, salads are easily and rapidly affected by weather conditions, e.g. heat wave, drought, flooding. As a result, the expected day for delivery may swap on a short notice.

With regard to the **concentration of operators,** there are several large companies in the EU operating multiple production sites in different MS, and these dominate the retail market. Beyond these, the sector is almost entirely composed of SMEs and micro-enterprises. There are hundreds of such small operators in the EU, ranging from medium to small/micro companies mainly operating to other distribution channels, e.g. catering.

With respect to the presence of **VCOOL in the pre-packed fresh F&V sector,** this is very limited. There is no voluntary origin labelling for fresh cut vegetables on a large scale, although the geographical origin indication is sometimes labelled for small scale production, notably for regional and seasonal products (such as peeled asparagus and locally sourced salads). In some instances, retailers require that some products have a specific origin (e.g. 'only from Holland').

Overall, the industry considers there is a **weak consumer interest/demand for origin** indication in this market. Introducing MCOOL rules would not change consumers' consumption patterns. Stakeholders interviewed highlighted that quality, taste, price, and health attributes are the main determinants driving consumers' purchasing decisions in this market. This conclusion is drawn from current consumer behaviour which shows that the mandatory origin label on unprocessed fruit and vegetables does not impact consumer decision-making at the time of purchase.

Structure of the supply chain

Technical specificities	• **Availability and quality**, e.g. freshness and taste of the salads drive the sourcing practices in the sector. This means that suppliers/countries of origin, can vary due to factors such as seasonal availability, weather (quality of harvest), food safety standards (diseases), price, etc. • Origin does not typically feature in raw material specifications and contractual arrangements, as origin *per se* does not confer the required quality specifications
Sourcing	• Due to perishability issues, **most of salads used in pre-packed green salads come from the EU**. Only 2-3% come from third countries, e.g. Egypt or the

[182] Similarly, The LEI Wageningen 2012 study indicates that mixed salads typically contain 4 to 6 different types of salads. For instance, a processor located in the Netherlands could source from 7 different countries to cover supplies for all types of salads, implying that a large number of different origins, and combinations of origins, is possible for each pre-packed mixed salad bag.

	US, and notably in the winter period. • As a result, processors must source from a **varying mix of suppliers** throughout the year; • The mix of suppliers, and consequently origins, **increasingly varies as the product becomes more complex**, i.e. in mixed salad bags production.
Product differentiation	Pre-packed fresh cut green salads are a high value product
Degree of vertical integration	-
Production process	• Mix of batch/continuous production process
Traceability system in place	• One step forward, one step back, in accordance with Regulation 178/2002 i.e. based on HACCP systems. Salads delivered to the plant are given a unique code indicating information on the grower, the lot number or harvest date, the quantity and quality. The end product is also attributed a specific lot number with notably the end-by date and the customer.
Process conferring origin	• For the purpose of this analysis, the cutting/cleaning/packaging of fresh salads is considered a substantial transformation.

Feasibility/operational costs

	modality a: Place of last transformation (processing)	**modality b: Place of harvest (salads)**	**modality c: Both**
Option 1: EU / non EU	feasible /low impact	feasible /moderate impact	not feasible/high impact
Option 2: Member State /third country	feasible /moderate impact	not feasible/high impact	not feasible/high impact
Option 3: Region	not feasible/high impact	not feasible/high impact	not feasible/high impact

Technical feasibility and operational costs and operational costs for Option 1

Option 1a was considered to be the most technically feasible. **Option 1** in general (EU/non-EU origin indication) was considered by the sector to provide little informative value for consumers, given that most salads come from the EU. Similarly, the relevance and added value of modality a (place of processing) was questioned since the name of the manufacturer is already a compulsory requirement for business operators[183] in the sector. Moreover, modality a (place of the last substantial transformation) was considered to be potentially misleading in the case of pre-packed salads, because, for this product, it can reasonably be

[183] i.e. for the FBO responsible for labelling the food information. This can be either the salad processor (or any food processor) or the retailer if the goods are produced for a private label.

assumed that the most sensible 'origin' for consumers would be the place of harvest of salads. Therefore if an origin is indicated, consumers would tend to understand this as being the place where salads were harvested.

Technical feasibility and operational costs of Option 2/modality b (place of harvest at MS/third country level)

Additional costs for Option 2b
1. Adaptation of sourcing: Fresh cut salad processors would try to reduce as much as possible the number of origins from which they source; however, availability (seasonality) issues would limit this practice.
Adaptation of production process: Costly inefficiencies would result from the frequent breaks in production due to a move towards smaller batch processing. In particular, in a medium-sized plant, the estimated production loss due to MCOOL would amount to 12.5 hrs of foregone production, i.e. 45,000 units every day. In addition, other costs would be incurred by inefficiencies due to running smaller batches e.g. investment in additional storage capacity, new software for management and planning (estimated at up to €10,000/plant), etc. All expected costs would increase in the case of mixed salads.
2. Adaptation of packaging and labels/labelling process: - Pre-printed labels: The cost of changing pre-printed labels would incur direct costs such that this is in practice technically not feasible. - On-line printing: The cost of using on-line printing of origin would imply significant investments in printing equipment, which could amount up to €400,000 for a medium-sized plant. In both cases, packaging costs come in addition to those incur by running smaller batches. They also exclude packaging waste (which could not be estimated).
3. Administrative burden: Additional staff time would be needed due to the increased complexity of operations, for instance to ensure that supply of packaging is accurate and timely, to manage complex stocks, to accurately label origin on products, to retrieve origin information from flour suppliers, to adapt own specifications and to accurately deliver customers according to their specifications. These costs could not be estimated but are considered to be high.
5. Implementation of additional control by enforcement authorities: These costs would largely depend on how control costs are performed in every MS.

The main issue with respect to Option 2b (MS/third country origin indication) is the cost relating to **frequent change of origin labels**. Two solutions have been examined:

1. **Pre-printing origin on packages.** As an evidence of freshness and the quality of the product, salads are typically packed in transparent bags which are pre-printed with the necessary information. Pre-printed packs are procured by salad processors from outsourced packaging suppliers. Pre-packed salad processors already use different pre-printed packages that are designed and imposed by customers (brands) or retailers (for private label production). If MCOOL was to be introduced, salad processors could decide to keep **a stock of different pre-printed bags to account for all possible combinations of origins.**
    - Pre-printed foils would need to be redesigned to include the origin indication[184], the cost of which amount up to €230 per new design, i.e. for 1 origin. A medium plant commonly used about 100 different types of pre-printed foils/labels, therefore the

[184] Issues with the current size of labels are foreseen, as the information is likely to form a long text.

total additional costs of redesigning salad bags could potentially amount to a one-off investment of up to €23,000 for 1 origin. When extrapolating this to the number of potential origins for single-ingredient salads, and to the number of SKUs in a large company, the costs of redesigning labels would be extremely high.

- In the case of **mixed salads**, a similar redesign of labels should be done at ingredient level (e.g. rocket: Italy; watercress: UK, etc.), implying numerous potential combinations to cover for in terms of pre-printed packaging, e.g. in the case of mixed salad bag with rocket, watercress and spinach, there could be up to 60 combinations. In addition, **small and medium sized plants** often deal with many different customers, hence a high number of SKUs and small batches.
- The use of additional pre-printed foils is likely to incur a series of other costs pertaining to ordering, stocking and managing smaller batches of packages and it would increase the **overall complexity of the operations**. For instance, the delivery time of preprinted foils (packaging) used for salads is 4 weeks[185], any shortage would disrupt production.

→ **The cost of changing pre-printed labels would incur direct costs such that this is in practice technically not feasible.**

2. **On-line printing.** It could be possible to print the origin information on the package at the packaging line, as currently done for shelf life information and batch number. Using existing printers seems technically difficult because of the nature and length of the information to be printed. To ensure printing does not turn into the new production bottleneck, investments in new printers would be needed to maintain a similar production and to be able to print this new type of information. A new printer is estimated to cost up to €8,000 per production line. A large processor, producing 250 million pre-packed salads per year, could have up to 50 different production lines. **The total one-off investment** would therefore **amount up to €400,000**, excluding the adjustments needed to install the equipment on existing lines.

→**The cost of using on-line printing of origin would imply significant investments in printing equipment.**

All expected costs would increase **in the case of mixed salads**. For storage, the various ingredients would be stored separately by origin whereas they are currently segregated on the basis of the quality/type of the product.[186]

Moreover, both packaging options would involve dramatic changes in the current production process, notably due to smaller production batches to be able to isolate (and correctly label) origin.

- **Frequent breaks in production** would occur whenever the origin of salads changes. According to a study by LEI Wageningen (2012)[187] examining impacts of origin labelling in the Netherlands, "*stopping and cleaning the belt for [salads] from another origin takes around 15 minutes, involving 4-5 people standing at a stopped belt. The number of times that the belt has to be stopped could double [vis-à-vis the*

[185] Pre-printed foils are usually ordered quarterly.
[186] For example, to produce a mixed salad, batches of the various components are mixed and chosen according to the number of units to be produced for the customer, not according to the origin of the ingredients.
[187] LEI Wageningen, 2012. Origin labelling: Cost analysis for producers and consumers.

current situation]". The 15-minute disruption is needed to adjust and clean the line between each origin-specific batch, switch pre-printed packages or modify printing settings, and conduct the necessary administrative procedure[188]. Assuming a typical plant processes 3,600 salad bags/hour, this would imply a **production loss equivalent to 900 salad bags per origin change**. With this decrease in output, the relative weight of the staff cost or other fixed costs would be higher.

- Drawing a representative assumption as to the **average number of origin changes per day** is a very difficult exercise as it depends on the salad type and the period of the year. For example, if a number of ingredients are ongoing an origin-switching phase due to seasonality (e.g. from NL to ES origin), the number of changes to produce a single- or mixed-salad bag would be high to very high. Assuming a conservative estimate of one daily break in production for half of the products made in a representative plant, which could produce 100 different SKUs (different packages, composition and weights). Then the total idle time due to changing packaging would amount to **12.5 hours** (50 x 15 minutes). Processing plants work on a 16 hour basis, with two 8-hour shifts. Therefore a 12.5 hour idle time would result in a daily output loss almost equivalent to that of an entire production line[189]. To compensate, FBOs could decide to build a new production line, involving an up to €1.5-2 million investment[190].
- In practice, **the number of changes is likely to be much higher**. For instance, rocket is sourced year-round, from three different origins and could be used in e.g. 20 different products in one plant. Rocket is only one salad type.
- Moreover, one additional member of staff would be needed for logistics and administration works. This would cost about 25 €/h for 2x8h, i.e. up to 400 €/day.
- **Inefficiencies in the process** are also foreseen at different stage (e.g. storage, waste in production, etc.).
- Country-of-origin labelling under Option 2 would also incur **other costs**. It would necessitate **adjustments of the software** used to place orders and to plan the production, which could cost up to €10,000/plant. Additional costs would result from the time/software needed to optimize daily production, so that to reduce production breaks to a minimum.
- The introduction of MCOOL rules at country level would require that **green salads of different origins are stored separately,** potentially leading to an extension of business premises (additional storage would also be needed for packaging). The costs of such extension have not been examined in detail by stakeholders.

The investment needed to comply with MCOOL rules would have a **comparatively larger impact on small and medium-sized companies**. All labelling costs would be generated at processors' level and the extent to which these could be passed on to retailers/consumers is unclear.

[188] These estimates were provided on the basis of current experience with changing packaging to adapt to customers' requirements.
[189] It also corresponds to 50 times the production loss (900 salad/hour) estimated for 1 origin change.
[190] This investment would require additional space in the plant, which is not necessarily available.

The increasing complexity of operations is likely to augment the **risk of error** associated with country-of-origin labelling especially when growing seasons are overlapping between countries.

Overall, including all various cost elements (e.g. extra production lines, packages, software, administrative burden, etc.), the industry estimates that country-of-origin labelling under modality b for pre-packed cut green salads would lead to **an increase in consumer price** (i.e. at retail level) **of up to €0.15 per package** This estimate is in line with the contribution of an individual FBO who indicated between 10 and 12% in price increase if MCOOL rules were to be introduced.

Impacts on the internal market and on competitiveness in international trade

As a result of the potential introduction of mandatory origin labelling rules, the industry foresees a potential geographical segmentation of the EU market. It also anticipates potential changes in the geographical structure and volumes of intra-EU trade flows of raw material, as well as trade flows between the EU and Third Countries (as salads are sourced both from the EU and TCs).

Generally speaking, the competitiveness of EU exports on international markets would be negatively impacted by the introduction of origin labelling, in terms of e.g. their selling prices or access to and expansion in established/new geographical markets.

4.10.2 Single ingredient products (Cat II)

4.10.2.1 Sugar

Organisations contributing to the consultation for this case study:

Comité Européen des Fabricants de Sucre (CEFS), including DE and IT members; European Sugar Refineries Association (ESRA, representing sugar refineries in BG, FI, FR, PT, RO, ES and the UK); European Association of Sugar Traders (ASSUC representing 60 companies in 16 MS), including PL, RO and Scandinavian members; the ACP sugar Sub-Committee on Sugar (representing ACP and LDC cane sugar suppliers); Portuguese Association of Sugar Refiners (Associação do Refinadores de Açúcar Portugueses - ARAP); Polish Association of Sugar Refiners (Związku Producentów Cukru w Polsce); Bulgarian Association of Sugar Traders; UK National Farmers' Union (NFU); individual sugar refining companies in several MS (UK, DE, IT, PT, DK, FI, IE and SE); individual retail stores chain (UK) .

MS: DE, IT.

The case study covered both beet sugar and cane sugar; the contributions to the consultation process provided a balanced representation of these two sub-sectors.

Sector overview:

The EU is the world's leading producer of beet sugar, with around 50% of the world total. However, beet sugar represents only 20% of the world's sugar production; the other 80% is produced from sugar cane. The EU is also a leading world importer of raw cane sugar for refining. The EU sugar market is regulated by production quotas, a minimum beet price and

trade mechanisms, and falls under the EU single common market organisation[191]. The total EU production quota of 13.3 million tonnes of sugar is divided between 19 MS. Most of the EU's sugar beet is grown in the northern half of Europe, where the climate is more suited to growing beet. The most competitive sugar beet producing areas are in northern France, Germany, the United Kingdom and Poland.

The EU also has an important refining industry that processes imported raw cane sugar. Cane sugar is imported from countries with which the EU has concluded preferential import agreements (in the case of newer MS, the agreements may have been negotiated at the national level). In particular, the African, Caribbean and Pacific states (ACP) and Least Developed Countries (LDC) benefit from quota-free, duty-free access to the EU market up to 3.5 million tonnes[192]. In addition, the EU has several sugar import quotas that allow a total of about 1 million tonnes of reduced- or zero-duty imports each year (the main beneficiaries are the Balkans and Brazil).

Since the reform of the EU sugar policy[193], the EU has evolved over the last years from a net exporter of sugar to a net importer[194]. The EU is now 80-85% self-sufficient in sugar, which is produced by about 100 factories in 19 MS from sugar beet, grown close to the sugar processing plants by approximately 170,000 beet farmers. The remaining 15-20% consist of imports of sugar cane, which is mainly in the form of raw sugar (about 75%), refined sugar in bulk (about 20%), or 'specialty sugars' packed and labelled for direct consumption (about 5%).

The above self sufficiency rates mask significant differences between MS. Some MS do not grow sugar beet at all (sugar quotas allow production only in 19 MS), and thus depend entirely on imports from inside and/or outside the EU, whereas other MS may be net exporters of raw/refined sugar. As transport of sugar beet over longer distances is costly, there is no intra-EU trade of beets and these are typically processed close to the place of harvest. However intra-EU trade of raw (or refined) sugar is important. Hence, sugar sold on a national market may have very different origins.

At the level of processing sugar beets into raw sugar (1st processing stage), as sugar beets are highly perishable and transport costs are considerable, the sugar processing plant are located close to where beets are grown. Therefore, in terms of production, raw beet sugar is in most cases from a local source, namely the area around the sugar factory. However, at the level of refining raw sugar into the end product (2nd processing stage), sourcing practices become

[191] Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007.

[192] Under Article 9 of Council Regulation (EC) No 1528/2007 of 20 December 2007 (the Market Access Regulation), for the ACP non-LDC countries a safeguard clause exists and will remain in place until 2015. This is triggered if more than 3.5 million tonnes of sugar are imported into the EU in a single year from all ACP countries, which has not been the case since the measure started in 2009. Until the end of the 2016/17 marketing year, the maximum level of sugar imports from ACP/LDC countries is expected to be in the range of 2.1 – 2.2 million tonnes.

[193] In 2006 the EU reformed its sugar regime in order to increase the competitiveness and market orientation of the EU sugar industry. Key elements of this reform were a gradual 36% cut in the EU support prices for both EU producers and ACP/LDC preferential exporters and a reduction of the EU quota of sugar production. The 2006 sugar reform took into account the preferential access for ACP and LDC sugar producers.

[194] Report from the Commission to the European Parliament and the Council: Evolution of the sugar imports in the European Union from LDC and ACP countries Commission report referred to in Article 5 (3) of Commission Regulation (EC) No 828/2009. COM(2013) 323 final. Brussels, 31.5.2013.

more complex, as refiners may be processing not only beet sugar (from various EU origins) but also cane sugar (imported from non-EU origins) as well as co-refining and blending these.

The mixing/blending of EU and non EU origins can be quite extensive in some refineries/MS, depending also on self sufficiency rates as discussed above. For example, sugar consumption in Italy amounts to about 1.65 million tonnes/year, of which only 0.5 million tonnes is produced on the basis of local sugar beets, and the rest is covered by either imported raw cane sugar that is then (co-)refined in Italian factories, or by imports of refined sugar (EU and non EU). Thus, most sugar packages for sale to consumers in the Italian market consist of a blend of sugars from different origins (both in terms of beet/cane and in geographical origin).

Origin has no consequence on the quality or the taste of the sugar: although sugar can be made out of sugar beet or sugar cane, there is no distinction possible at the level of the refined end product (refined beet sugar and refined cane sugar are identical; on the molecular level, they are simply sucrose). In fact, sugar is a completely standardised product clearly defined by European legislation. Regulation 1308/2013 establishing a common organisation of the markets in agricultural products[195] provides for clear definitions for "White sugars" and "Raw sugars" and the standard quality specifications for both of them (aspect, polarisation, moisture, ash content, colour type and colouring). Furthermore, the characteristics of refined sugar are laid down in Directive 2001/111/EC[196], which specifies that '(white refined) sugar' consists of *at least 99.7% sucrose*[197]. Hence, considering that sugar is a uniform and standardised product, the source (beet or cane) and the place of its harvesting (inside or outside the EU) are irrelevant as far as the quality of the sugar is concerned.

In view of this, voluntary origin labelling is generally considered to be limited. It exists currently for certain '*specialty sugars*', mainly cane sugar, to promote their specific character and to differentiate their products on the market; this is a niche sector, accounting (as described above) for <5% of cane sugar imports (i.e. <1% of the EU sugar market). There may nonetheless exist some company specific voluntary labelling for beet sugar but this is thought to account for a small share of the market[198]; in Italy, for example, a couple of sugar producers also sell purely Italian sugar under a voluntary origin labelling scheme, although this concerns only a small proportion of the sugar manufactured and is available at a limited number of specific supermarkets only. In this sector, there are also products carrying other non-origin specific voluntary labels: for example, the Fairtrade label (which may be relevant for the social conditions under which the sugar cane was grown, but which is not related to the quality or the taste of the sugar), or the Red Tractor label used in the UK (which may be relevant for the environmental conditions under which sugar beet is grown, but again does

[195] Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007.
[196] Council Directive 2001/111/EC of 20 December 2001 relating to certain sugars intended for human consumption.
[197] Directive 2001/111/EC clearly defines the properties, composition and labelling provisions for the following sugars intended for human consumption: semi-white sugar, sugar or white sugar, extra-white sugar, sugar solution, invert sugar solution, invert sugar syrup, glucose syrup, dried glucose syrup, dextrose or dextrose monohydrate, dextrose or dextrose anhydrous and fructose.
[198] Some companies voluntarily provide origin information on certain products, but this is not considered to be representative of the overall practices of the EU sugar sector since this practice is believed to only concern a small quantity of the sugar produced.

not relate to the quality or the taste of the sugar). These initiatives are generally placed in the broader context of the current market trend, in which many other types of grocery and food products may also carry a voluntary origin (or other voluntary) label.

It is estimated that about 15% of the sugar in the EU is sold on the B2C market and used in a variety of other food products, in some of which it could be the ingredient representing >50% of the product (e.g. jams and marmalades, sugar confectionery etc.).

Structure of the supply chain

Technical specifications	• Sugar is a completely standardised product; • Quality of white and raw sugar is defined by European legislation (Regulation 1308/2013 provides definitions and standard quality specifications; Directive 2001/111/EC provides characteristics of refined sugar); • Origin does not typically feature in raw material specifications and contractual arrangements, as origin *per se* does not confer the required quality specifications. • Sugar (cane or beet) from different origins is mixed/blended, at different stages of the supply chain.
Sourcing	• Overall sourcing pattern by volume/value is: 80-85% EU beet sugar; 10-15% non-EU cane sugar (of which ca. 75% raw and 25% refined); • Imports of cane sugar from ACP/LDC suppliers in accordance with preferential trade agreements with these countries; traders buy based on price, total crop yields and their seasonal availability, logistic constraints, etc.; • Sugar beet processing into raw sugar tends to be close to where beets are grown, as sugar beets are highly perishable and transport costs are considerable; • At sugar refining level, geographical shifts in supplies are frequent in the course of a year and between years, to allow optimal sourcing at the best price; • With the current practices, sugar companies refine raw sugar from multiple origins, and some factories perform a co-refining process; • Mixing of EU and non EU origin (i.e. beet and cane) is quite prevalent as the end product (refined sugar) is standardised and not affected by raw sugar origin or type (i.e. whether cane or beet or co-refining).
Product differentiation	• Standard quality, commodity 'bulk' trading: ca. 100%; • Voluntary origin labelling exists only for specialty products, mainly cane sugar and is a market niche (<5% of cane sugar imports i.e. <1% of the EU sugar market)
Degree of vertical integration	The degree of vertical integration depends on whether the plant is involved in sugar beet processing or in refining: • In sugar beet processing, the level of vertical integration is very high because of the close relationship to farmers; • In sugar refining (beet or cane or co-refining), the multiple sources of the supply make it difficult to have a high degree of vertical integration.
Production process	• Continuous production process • Continuous blending throughout the production input-output process, to achieve required quality specifications.
Traceability system in place	• One step forward, one step back, in accordance with Regulation 178/2002 , i.e. based on HACCP systems.
Processing conferring origin	• According to the EU Customs Code, **the refining of raw sugar does not confer the origin to the sugar**, raw sugar imported from a third country and refined in an EU MS would have as origin the third country.

Disadvantages

Considering that sugar is a uniform and standardised product, as also clearly laid down by the provisions of EU legislation on raw and white sugar definitions/specifications, the EU sugar industry argues that the place where the sugar beet/cane was harvested or where the sugar was produced is irrelevant in terms of the final product quality, characteristics or added value of this information to the consumer.

Furthermore, the industry is concerned that there might be a negative association of the non-EU label with 'lower quality', thus making this a non-tariff barrier for sugar cane exporting countries (ACP/LDC and other preferential suppliers). In any case, it is noted that the non-EU label would only pertain to the origin of the raw material, since the production (i.e., the refining that finally guarantees the quality) would anyhow have taken place in the EU itself, respecting the EU regulations on e.g. purity and also traceability.

The origin information would impact the entire sugar supply and sugar using sectors, as information may need to be passed on to sugar users where sugar represents >50% of a product (e.g. manufacturers of jams/marmalades and certain confectionery products).

It is estimated that only 15% of sugar used in the EU is sold as such to the final consumer (B2C), the remaining 85% being used in the manufacturing of other products (B2B). However, the end uses of sugar are not known at the moment of its production (with a few exception of direct procurement of sugar by large volume buyers, e.g. soft drinks manufacturers). Therefore origin labelling rules would have implications for the entire sugar production/supply chain although the rules would only apply to products sold pre-packed to the final consumer, i.e. to the 15% B2C share of the sugar production.

Feasibility/operational costs

Option	**modality a: last transformation (processing)***	**modality b: harvested/farmed (sugar beet/cane)**	**modality c: harvested + processing**
Option 1: EU / non EU	Moderately feasible /high impact	Moderately feasible /high impact	Not feasible/high impact
Option 2: Member State /third country	Not feasible/high impact	Not feasible/high impact	Not feasible/high impact
Option 3: Region	Not feasible/high impact	Not feasible/high impact	Not feasible/high impact

** According to the EU Customs Code, the **refining of raw sugar does not confer the origin to the sugar**; raw sugar imported from a third country and refined in an EU MS would have as origin the third country.*

*** Either "EU" or "non-EU" is not always possible since the refined sugar can be a blend of cane and beet (raw) sugar.*

The whole production chain (starting from the storage of the raw material, followed by the processing and refining processes, until the storage of the end product and its packaging/labelling) is currently conceived in such a way that the flows are not segregated according to geographical origin; furthermore, the actual production takes place in a

continuous process, without stoppages when shifting from one source to another or when changing its composition.

Mandatory origin labelling would therefore result in very high investment to segregate the flows at the different steps in the production process (including storage and transport) even at the level of EU / non-EU origin (Option 1). This would either take the form of (at least) doubling the production lines (which would then not be exploited at full capacity), or of frequent breaks in production leading to loss of production and productivity (Scenario B). In addition it would restrict flexibility to source from a wider range of suppliers, as preference would be give to sourcing from a smaller number of suppliers to minimise segregation costs (Scenario A). Both of these effects would result in a significant impact on prices, although the extent of this could not be quantified.

Operational costs

Additional costs for Option 1:
1. Sourcing: To avoid costly changes of origin, traders/processors would buy from a limited number of suppliers, losing in the process the flexibility they need to adapt their sourcing practices based on seasonal availability, raw material quality or price (which depends on a range of factors, including weather/climate conditions). We can distinguish between two scenarios: • For plants operating with EU sugar beet only: no costs; • For EU/non EU sourcing: costs would be very significant, and would require re-organisation (i.e. segregation by origin) of production facilities, unless 'EU and non EU origin' is allowed. Sugar refining plants practicing co-refining would be in a particularly difficult situation as the raw cane sugar coming from non-EU countries is mixed with raw beet sugar coming from EU countries.
2. Adaptation of production process: • For plants operating with EU sugar only: no costs; • For EU/non EU sourcing: o Storage: Traditional sugar silos would not longer be appropriate and would need to be replaced by new ones. Silos typically hold between 5,000 – 60,000 tonnes of sugar. It is estimated that a new silo with a capacity of 5,000 tonnes would cost up to €1 million while a 60,000 tonne silo would cost up to €12 million; storage capacity would need to be multiplied by 2, to allow separate EU and non EU origin storage. The total investment required at the level of each plant would therefore amount between €2 and up to €24 million for 2 silos of capacity ranging between 5,000 and 60,000 tonnes (depending on the size of operations). o Additional operational costs such as cleaning costs, transport costs, energy and staff could not be estimated.
3. Adaptation of packaging and labels/labelling process: • For plants operating with EU sugar only: limited costs, i.e. one-off adjustment of label only • For EU/non EU sourcing: there would be additional labelling costs but these could not be estimated. In addition, this would interfere with the continuous production line and would require additional cross-checking to ensure compliance.
4. Adaptation/adjustment of traceability system: • For plants operating with EU sugar only: no costs • For EU/non EU sourcing: the only way to ensure traceability would be by adjusting the production process, i.e. by duplicating the storage etc and/or shifting production model to batch production thus reducing efficiency/generating efficiency losses.
5. Administrative burden: • For plants operating with EU sugar only: no costs

Additional costs for Option 1:
• For EU/non EU sourcing: there would be additional costs to perform online monitoring and reporting as required to ensure compliance, but these could not be estimated.

The above costs for Option 1 **would increase** under Option 2, and even further under Option 3, as the number of potential changes in the mix of suppliers per year increases with every option, due to origin changes. As a result, processes would have to be re-organised and multiplied according to the number of origins, thus undermining efficiency and productivity.

These costs **would be mitigated** if the origin of sugar could be indicated as 'EU and non EU' (Option 1) or as coming from a group of several Member States (Option 2) on the label, but this could be misleading if not all countries are necessarily involved. Also, the added value to consumers was questioned in this case.

Key factors for the non feasibility high costs of every option, particularly Options 2 and 3, are the following:

Technical feasibility: Sourcing and production process

Since, as indicated above, the end product (refined sugar, whether of beet or cane or the result of the co-refining process) is standardised, there is currently no need to segregate these flows. The production lines for sugar (cane or beet or co-refining) thus work in a continuous process that cannot be interrupted to separate sugar batches; moreover, they are designed to have the capability to process large volumes at once[199].

Origin labelling would require turning a continuous production process into batch production (so that input-output flows at each stage of the production process can be easily distinguished). This would imply (regular) stoppages of the production, to perform cleaning and allow origin traceability, leading to efficiency/productivity losses.

Furthermore, there would be need to segregate storage (silos) and transport facilities. Currently, at the level of the raw sugar storage (silos or warehouses), the raw material with different origins is stored mixed. Mixing of raw sugar of different origins may have already occurred at transport. For cane sugar, mixing may easily have occurred at transport, because the shipping vessels used to import sugar from third countries may have been loaded in different harbours, and/or because the raw sugar was temporarily stored in the final harbour in silos without segregating the flows by country of origin. The same applies to storing refined sugar in silos at the end of the continuous production line; all white sugar is currently stored together (there is no segregation) and it is not technically possible to chemically differentiate it according to origin. As a consequence, mandatory origin labelling for sugar would require entirely new storage facilities, silos, bulk handling processes and transport methods differentiating sugar origins.

Production of sugar is capital intensive, and the total investment in a sugar refining plant is estimated to cost up to €300 million (including the price of land, the processing equipment, and the storage facilities). Sugar beet is harvested in September/October and then processed

[199] In the case of sugar beet, these production lines consist of: slicing of the beets, diffusion of the sugar they contain into warm water, purification by using quicklime (CaO) and carbon dioxyde (CO2), evaporation of the syrup obtained, and crystallization in cooking equipment under vacuum.

up to the month of January/ February, so during about half of the year. Since it would not be cost efficient to close the factory for the remainder of the year, the sugar refining plants strive to extend the production period by also processing sugar cane (in so-called co-refining, which processes either raw sugar or intermediate syrup), and also blends refined beet sugar and refined cane sugar to meet demand[200].

Traditional sugar silos used for storage (at both input and output levels) are core flow. This means that the sugar that is last to enter the silo is the first to come out. Silos typically hold between 5,000 – 60,000 tonnes of sugar. The currently used sugar silos could not be used for this. It is not only because of the required segregation, but also because additional consideration has to be given to ground loading as it is not possible to completely empty one silo adjacent to a full one. Therefore, new separate silos that could withstand the pressure placed on the ground (i.e. for reasons of structural stability) would have to be built. It is estimated that a new silo with a capacity of 60,000 tons would cost up to €12 million, while a 5,000 tonne silos would cost up to €2 million.

Furthermore, there would be additional impact on labelling/labelling costs: even in the case of a requirement to indicate the origin of sugar at EU/non EU level, the packaging labels would have to be tailored to the origin. This would interfere with the continuous production line and would require additional cross-checking to ensure compliance (see below).

Administrative costs and burden

The current traceability system does not require segregation of raw material according to origin along the supply or processing chain. As a consequence, any form of compulsory origin labelling would require additional monitoring and reporting to demonstrate compliance. This could only be done through paperwork as it is not possible to chemically distinguish refined sugar according to origin, and would therefore result to an increase in red tape, administrative costs and thus a loss in competitiveness of the EU sugar refining sector.

In addition, it is highly likely that this system would at times fail, thereby leading to increased product recalls (recalls end up being more costly than the labelling itself).

Impact on the supply chain and consumer prices: who would bear the cost?

The raw material (raw sugar) typically accounts for a high proportion of the total production cost, therefore efficiency/productivity losses or increases in raw material price significantly affect the final price of refined sugar.

Some of the impacts of mandatory origin labelling are easier to quantify than others. The loss of competitiveness due to the reduced flexibility in sourcing and productivity inefficiencies that is linked to the additional processing stages needed for origin segregation are difficult to quantify, but are considered to be very significant. These changes impact sugar companies'

[200] During the EU sugar campaign, usually running from September to January, the plant runs 24 hours a day/7 days a week. Sugar beets of various growers are processed at the same time and it is technically not feasible to allocate the sugar produced in a sugar plant to sugar beets supplied by a specific farmer. Moreover, it is also common practice for sugar manufactured by a plant to be mixed with additional white sugar from other origins, the mixture of which allows the manufacture of additional products. As for the refining of raw (cane) imported sugar, it lasts all year long but it is either made in dedicated plants or in plants also producing beet sugar. With the current practices, sugar companies produce or refine raw sugar from multiple origins, and some factories perform a co-refining process, where raw sugar (or intermediate syrup) coming from sugar beet and raw sugar coming from sugar cane is refined in a combined fashion.

ability to buy raw materials at competitive prices and interfere with the long-established relationships with the EU and non-EU agricultural community (see also below).

Impacts on the internal market

The introduction of mandatory origin labelling would create a situation of unfair competition, or a non-level playing field, between EU operators. Some would be more affected than others depending on the self sufficiency level of each MS. In addition, it is noted that only 19 MS have sugar beet production; the remaining MS are obliged to import sugar.

Intra-EU trade of sugar beet is negligible. On the other hand, there is important intra-EU trade in both raw and refined sugar.

In countries that are net importers of raw/refined sugar, imports come from different geographical origins and are not stored according to origin. Processors operating in countries that significantly or exclusively rely on imports (from non-EU countries or other MS) would face a competitive disadvantage vis-à-vis processors located in (typically) self-sufficient MS. This is because FBOs in importing MS would require more segregation of operations as there would be more origins involved, i.e. additional storage capacity for raw sugar (input level) and for refined sugar (output level), and additional operating costs relating to cleaning, energy, staff and segregated transport.

Additionally, refiners that rely on imports of raw sugar from sugar cane are concerned about the potential adverse implications of mandatory origin labelling on demand for non-EU sugar (i.e. potential discrimination against imported cane sugar - see also below). In some cases, refineries work exclusively with cane sugar: ESRA stresses that EU cane refiners totally rely on imports of raw cane sugar from non-EU countries and that this is the only raw material that full-time refiners can process. Several EU cane sugar refineries in MS such as IT, PT, BG and the UK have individually presented their concerns during the consultation for this study. In one MS, following the 2006 reform of the EU sugar regime, a leading refining company has invested €130 million to built up a new plant exclusively refining cane sugar (the company was previously refining sugar beet) with a total capacity of 300,000 tonnes/year, supplying 40% of this MS's production of sugar (and meeting <20% of this MS's sugar consumption volume).

Impacts on competitiveness in international trade

Globally, the EU used to be self sufficient in sugar but this position has changed in recent years through the implementation of EU policy changes in this sector and preferential agreements with certain less developed countries (in particular ACP and LDC sugar producers). As already discussed, in several cases sugar refiners proceeded to strategic investments to focus on sugar cane vs. sugar beet, following the various policy changes that took place in this sector in the course of last decade.

The EU processing/refining sugar industry is concerned that the introduction of mandatory origin labelling would ultimately segment the market by making customers (whether these are industrial buyers or the final consumers of sugar or sugar-based products) develop preferences and impose requirements as to the origin of the sugar they buy. In particular, there is concern that consumers may attribute features of higher or lower quality to the product according to its origin, despite the fact that this is a standardised product. Also, given the Customs Code rules currently in force, all the sugar refined within the EU by EU

companies is qualified as a non-EU originating product; as refining does not confer origin, the introduction of compulsory origin labelling could be misinterpreted by consumers.

In addition, due to the logistics involved to ensure segregation, origin labelling rules would make it practically impossible for the industry to maintain the current practice of having multiple suppliers. This would make it very difficult for sugar companies importing raw sugar to remain competitive and would thus negatively affect the numerous bilateral agreements that the EU has entered into to help third countries in their sugar exports. The ACP Group in particular have already shared these concerns with the European Commission.

As noted above, some of these impacts are easier to quantify than others. The loss of competitiveness that is linked to the loss of flexibility to switch between different suppliers and to the various impacts on internal and international trade, and the loss of productivity that is linked to the additional processing stages needed for origin segregation are difficult to quantify, but all these efficiency losses are important.

Environmental impacts

If the mandatory origin rules lead to the need to segregate the production process according to origin, this would increase the environmental footprint of sugar because additional transport would be required (to ensure continuous segregation of origins), additional waste would be generated (each interruption of the continuous production process, generates waste), increased energy would be used (if the process has to be duplicated in additional production lines or if additional factories have to be built, or due to the switching from continuous to batch processing), and additional cleaning would be required (whenever the continuous production process is interrupted to change origins, cleaning would be necessary).

4.10.2.2 Sunflower oil

The main organisation that contributed to the consultation for this case study was FEDIOL (European Federation of vegetable oil and protein meal industries), while additional inputs from IMACE (European Margarine Association) and 6 individual companies operating in the EU, in PT, in IT, in the UK, DE and NL also fed into this analysis.

2 MS: FR, PL.

Sector overview

FEDIOL, the European Federation representing the vegetable oil and protein meal industries, encompasses 12 national member associations of oilseed crushers and refiners in the EU and individual companies, located in 5 EU MS where there is no national association or where the national association is not a member of FEDIOL. Overall FEDIOL covers 35 companies and some 150 processing sites in 17 EU Member States, i.e. oilseeds crushers and/or crude vegetable oils refiners, representing about 80% of the EU crushing and refining activity.

The vegetable oil supply chain includes: crushing, refining and bottling. Companies in the EU can be involved in one, two or all of the three stages of the vegetable oil production. The EU oilseed processing industry is active in 17 EU Member States while crushing and refining activities are concentrated mainly in 9 MS: Germany, the Netherlands, France, Spain, the UK, Italy, Czech Republic, Poland and Belgium. Oilseeds and crude oil are transported to the

crushing/refining facilities by truck, barges, trains or sea ships, while refined oils are mostly transported by trucks.

The EU vegetable oil sector has an annual turnover of €25 billion, of which about **54% is accounted for by refined vegetable oils for food applications**, including the case study product, i.e. sunflower oil. Production of refined vegetable oils for food amounted to 13 billion tonnes in 2012. Refined vegetable oils are either sold as such to final consumers (e.g. bottled sunflower oil, bottled blend of different oils) or to secondary processors for uses in other products, e.g. in sauces and margarines notably, vegetable oil could represent more than 50% of the food.

As in other commodity sectors, crushing, refining and bottling of oilseeds are **continuous production processes**. This implies a continuous supply of raw material which has implications on sourcing practices. The level of concentration is high in the sector. It is characterised by a low presence of SMEs (7-8% of the total sector volume/value) and negligible presence of micro-enterprises (less than 1%).

Therefore EU vegetable oil **production structures across Europe tend to be homogeneous and composed of large operators.**

The case study focuses on refining and bottling of sunflower oil, however the costs and the various implications of the introduction of mandatory origin labelling would be the same for other types of vegetable oil.

As regards sourcing practices for refining, the primary raw ingredients –i.e. seeds or fruits – come from **multiple sources worldwide**, whether from different non-EU and/or EU countries. Sourcing nationally or locally is not a common practice in the sector. For example a rapeseed plant in the EU would easily source from 8 different countries of origin (both EU and/or non EU) on an annual basis. Changes in the mix of suppliers are frequent and may occur five or more times a year[201]. When changes in the mix of suppliers occur, they may affect a small or high number of suppliers depending on the individual sourcing practices of the refinery. The use of multiple sources of raw material, and frequent changes in the mix of suppliers are **used to secure supplies** at all times. Raw material availability is impacted worldwide by a number of factors, e.g. seasonal availability, weather/climate variations affecting harvested quantities, product quality (e.g. oil content in seeds) and price. It can therefore happen that seeds usually sourced from country A are sourced from countries B and C instead, because of issues with availability, oilseed quality and/or price. These changes are unpredictable. **Similar issues apply to bottlers** of refined vegetable oils and mixes of suppliers may change depending on availability, quality and in particular, price. As a large proportion of the price paid is accounted for by transport costs, bottlers tend to source mainly from the closest refinery/ies although this is not always possible.

As a general principle, it should be noted that the characteristics (e.g. taste, quality, safety) of an oil are given by the technology, equipment and know-how/technique used to carry out the refining of the crude oil, which is otherwise a standard product. All safety and quality controls are made upon arrival of oilseeds at the refinery, regardless of the place of harvest. Oilseeds are **bulk commodity products**, some of them are exchanged on international

[201] The industry notes that this is a relatively low estimate. Refineries may source from 12 different countries in some cases. As a result, the number of origin switches throughout the year can reach from about 50 changes up to 140 changes in some cases.

markets on the basis of standard specifications (e.g. quality criteria) in which origin is not a determining criterion. On this basis, there is **no scope for product differentiation** in oilseeds and very limited ways for competitors to differentiate in the vegetable oil sector, except for characteristics cited above which relate to the specific refinery.

Therefore, in most instances **the place of refining confers the origin of vegetable oil** for food applications. Three rules apply depending on various possible cases, as follows:

- For single seed/fruit[202] bottled oils, the country of origin is given by **the place of refining**. An oil fully refined in Germany would have a German origin, regardless of where the oilseeds were harvested and/or where the crude oil was produced (crushing).
- When blending between oils from the same seed occurs, and if one oil weights more than 50% of the blend, the origin is conferred by **the place of refining** of the predominant oil (i.e. that representing more than 50% of the blend).
- When no oil accounts for more than 50% of the blend, then the COO is given by **the place where blending** took place. A bottled oil blended in Belgium and composed in equal parts of oils refined in Germany, France and the Netherlands will have a Belgian COO.

In **France**, around 80% of the sunflower seeds crushed in France come from the domestic production, given its competitive advantage in terms of proximity and the significance of available supplies in French seeds. However, seeds from various other origins are also used. The remaining 20% of processed sunflower seeds mainly come from Central and Eastern Europe from both EU and non-EU countries such as Spain, Italy, Romania, Bulgaria, Russia, Moldavia, Argentina or Ukraine. French crushers processed some 1.3 million tonnes of sunflower seeds into 550,000 tonnes of crude oil in 2012. As for the rest of the EU, concentration and vertical integration between crushers, refiners and bottlers is a common feature of the French vegetable oil sector.

From the crushing operation onwards, th**e sector is characterised by large import/export flows of crude and refined oils in the EU but also with non-EU countries**.

In France, a total of 430,000 tons of crude sunflower oil was refined in France in 2012. French imports in the sector totalled 230,000 tonnes, of which the majority was crude oil from non-EU countries, mainly from Ukraine, Argentina and Russia. The rest was refined oils in bulk and in bottles. France exported 440,000 tonnes of oils (crude, refined in bulk or in bottles) mainly to the EU (94% of the total exports). The apparent French consumption/use of sunflower oil was 341,000 tonnes in France in 2012. It is estimated that **70% of the sunflower oil consumed in France has been produced from seeds <u>not</u> harvested in France**.

French operators have strong relationship with Belgium notably, which is often used as a secondary supplier, e.g. while the majority of the bottled sunflower oil available at retail level on the French market is normally bottled in France, the presence of oil bottled in Belgium is as much as 20%.

In **Poland** on the other hand, there is no sunflower seed production or crushing.

[202] to increase readability, only 'seeds' are mentioned in this report but it is noted that vegetable oils can also be produced from fruit e.g. coconut or palm oil.

Limited amounts of sunflower seeds are imported for direct use in food and animal feed. The majority of these imports (about 85%) came from EU countries such as Hungary, Czech Republic or Germany. Poland is however a significant player in the **refining and bottling** activities. In 2012, 92,300 tonnes of sunflower oils were imported into Poland, including 18,000 tons of refined oil and 74,100 tons of crude oil, from both EU and non-EU countries, but most notably from **Ukraine (78% of all crude oil imports**). Some 16,000 tonnes were imported from the EU (e.g. CZ, SK, HU & DE). The **total refining capacity** was estimated to amount to **74,000 tonnes** of sunflower oil in 2012. Concentration is high in the sector and vertical integration prevails. Bottlers largely source from Polish refiners, while occasionally they may supply from the Czech Republic.

As to the destination markets, it is estimated that the total use (about 74,000 tonnes) of refined sunflower oil in Poland divides into 20,000 tonnes sold in bottles to final consumers and 54,000 tonnes sold to food processors (e.g. margarine production). The sunflower oil share in the total Polish bottled oil market (166 million litres) amounted to 12.6% in 2012.

With respect to the presence of **VCOOL in the sector, this is very limited.** There is a niche market for French sunflower oil produced from French seeds that have been crushed, refined and bottled in France. The production of this origin-labelled sunflower oil involves segregation by origin along the supply chain. This product entails a price premium which is paid by the consumer. It should be noted that due to seasonality of sunflower seed harvest, the production of the VCOOL product stops several months in the year while continuous sales are ensured via stocks.

Structure of the supply chain

Technical specifications	• Quality of the sunflower seed is determined by a number of parameters, e.g. oil content. • Origin does not typically feature in raw material specifications and contractual arrangements, as origin *per se* does not confer the required quality specifications. • Mixing of origins occur at different stages of the supply chain. Sunflower seeds/crude oil may come from different suppliers, located in different countries depending on availability, price, quality requirements. • Mixing of different vegetable oils can also occur to achieve specific characteristics
Sourcing	• Sourcing practices are driven by accessibility, price and quality of seeds available. This means that suppliers/countries of origin, can vary due to factors such as seasonal availability, weather (quality of harvest), food safety standards (diseases), price, etc.; • Overall sourcing pattern by volume/value is: limited quantities (<20%) are sourced from a single country (EU or non-EU country) while multiple sourcing from EU countries only (>25%), from a combination of countries in and outside the EU (>25%) and from non-EU countries only (>25%) are frequent. • On average companies in this sector are typically sourcing from a varying mix of suppliers Changes of suppliers are frequent (3 or more per year) and may concern the majority of suppliers. • Mixing of EU and non-EU origins (e.g. Ukrainian crude oil) is quite prevalent.
Product differentiation	Standard quality, commodity 'bulk' trading: ca. 100%
Degree of	Significant

vertical integration	
Production process	• Continuous production process • Continuous blending throughout the production input-output process, to ensure continuity in production
Traceability system in place	• One step forward, one step back, in accordance with Regulation 178/2002 i.e. based on HACCP systems.
Process conferring origin	• The place of refining usually confers the origin to the product according to the Customs Code definition. In a particular case, when no oil accounts for more than 50% in a blend, the place of blending confers the origin.

Feasibility/operational costs

In a continuous production process, supplies have to be regularly complemented and cannot be stored separately. Mixing of same (crude/refined) oils from different countries in storage tanks of refiners and bottlers is unavoidable. As a consequence, at certain points in time, it is impossible to isolate the origin of the oil that is bottled. The only alternative to be able to identify – and label – origin would be to **segregate production by origin**. All impacts and costs indicated below stem from this necessary assumption and approach.

	modality a: Place of last transformation (refining)	**modality b: Place of harvest (oilseeds)**	**modality c: Both**
Option 1: EU / non EU	Feasible/low impact In all examples: Up to 3 €/tonne of oil + administrative burden: up to 0.1 €/tonne of oil	not feasible /high impact FR: up to 219-332 €/tonne of sunflower oil PL: up to 70-87 €/tonne sunflower oil Representative plant*: up to 220-332 €/tonne of rapeseed oil + administrative burden: up to 0.3 €/tonne of oil	not feasible/high impact
Option 2: Member State /third country	Feasible/moderate-high impact (only for bottlers) FR: up to 53-100 €/tonne of sunflower oil PL: up to 46-118€/tonne of sunflower oil Representative plant*: up to 47 – 100€/tonne of rapeseed oil	not feasible/high impact FR: up to 347-453 €/tonne of sunflower oil PL: no sunflower seed production** Representative plant*: up to 356-455 €/tonne of rapeseed oil	not feasible/high impact

	+ administrative burden: up to 0.1 €/tonne of oil	+ administrative burden: up to 0.3 €/tonne of oil	
Option 3: Region	not feasible/high impact	not feasible/high impact	not feasible/high impact

***** While the case study focuses mainly on sunflower oil, the industry has provided data on a typical, representative plant of the sector producing *rapeseed oil*. The hypothetical company is assumed to be based in Germany, to crush 600,000 tonnes of rapeseed and to refine 240,000 tonnes of crude oils. This representative company is assumed to source rapeseed from France, Germany, Belgium, Spain, Romania, Hungary, Russia and Ukraine.

** this case study assumes that the consumer preference for 'domestic' oil, i.e. 'EU' origin under Option 1 or '[country of residence]' under Option 2, is such that consumers would prefer switching to oil substitutes rather than buying vegetable oil from other origins.

Note: With regard to the alternative option of indicating a group of countries on the origin label, under modality a, i.e. when the origin is conferred by the place of last substantial transformation, this was considered difficult to implement and assumed to involve costs in the same order of magnitude as those detailed under Option 2/modality a.

Operational costs

Additional costs for modality b (place where oilseeds were harvested)

1. Adaptation of production process:

In all cases, this is by far the highest cost element within the total cost

- For **crusher/refiners**, the largest cost is incurred by segregating the production process to ensure origins of oilseeds can be traced along the chain. This includes:
  - the investment in additional storage and production capacity: grain silos, additional unloading lines for grain, oil tanks and dedicated processing lines[203] (the latter being the largest cost)
  - the costs incurred by smaller runs and impacts on product quality

→ From ~195 up to 305 €/tonne of oil for crushers, depending on the option

- For **bottlers**, segregating the production lines involves similar types of costs, albeit to a more limited extent as in the case of bottlers, production lines are not duplicated:
  - the investment in additional storage and production capacity: additional refined oil storage, additional warehouse storage, cleaning costs.

→ From ~15 up to 30 €/tonne of oil for bottlers, depending on the option

2. Adaptation of packaging and labels/labelling process:

- For crusher/refiners, no labelling cost is foreseen
- Packaging and labelling costs would be borne by **bottlers**: costs were estimated at up to €3/1000L of oil for a EU/non-EU label and up to €13/tonne of oil for labelling at country level, although this would depend on the specific sourcing practices of bottlers[204].
- On-line printing was considered not feasible with the current equipment (see technical feasibility).

[203] Several assumptions were made: a 5-year depreciation for new equipment and buildings, a premium price for a part of oil production (as certain origins would likely be preferred by consumers), and a 7% annual financial cost of the investment.
[204] Each new label is assumed to be designed in 10 different languages.

Additional costs for modality b (place where oilseeds were harvested)
3. Adaptation/adjustment of traceability system: • At all stages of the supply chain, traceability would be ensured by the physical segregation of origins. Additional burden relating to documentation is included in the administrative burden • For **crusher/refiners**, additional analyses of segregated oil 'batches' are foreseen, amounting to an additional cost of 2.5 €/tonne of oil (current cost is 0.5 €/tonne) • For **bottlers**, a general management cost was also foreseen, in view of the overall additional complexity (e.g. additional records, organising labelling, etc.)
4. Administrative burden: **additional staff time** would be needed for each 25 tonne-truck, of about 30 min for modality b (as documents are needed along the entire supply chain). Assuming a gross salary of up to €2,500/month, the administrative burden for companies would be **up to 0.3 €/tonne of oil** for modality b (10 min/up to 0.1 €/tonne are foreseen for modality a as document are only needed between refining and bottling).
5. Implementation of additional control by enforcement authorities: Controls by authorities would have to be based on **paper documentation** as there is no other way to trace origin. Innovative techniques on traceability are deemed ineffective.

Note: for the purpose of simplifying the analysis, 1000L has been considered equivalent to 1 tonne of oil. In reality, 1000L of oil weight 0.92 tonne.

Technical feasibility

Option 3, relating to the place of provenance (region), was deemed impossible to implement altogether as technical difficulties/costs pertaining to both modalities a and b would reach a critical level implying a entire reshaping of the vegetable oil and fat sector and an overall reduction in the production capacity at EU level. More specifically, it is not technically feasible to trace and label the place of harvest of oilseeds at regional level as this does not correspond to any existing market for oilseeds, the specifications of which are given at the national level (modality b – place of farming). Similarly, it was deemed not possible to produce a 'regional' oil at a large scale given that storage, production, and even the traceability system in place are not set up at the regional level (modality a – place of refining).

For all options, modality c was also excluded from the analysis for vegetable oil because it combines the technical difficulties and costs pertaining to both modalities a and b which individually tend to reach critical levels.

For those options that have been analysed (i.e. 'technically feasible'), the industry notes that it would be very complicated to implement them in practice. They would lead to higher costs, but also breaks and shortages in the supply chain and would require a complete change in existing practices for the sector. MCOOL could potentially lead to a non-level playing field in the internal market for vegetable oils.

Information to consumers

In the case of modality b (place of harvest of oilseeds), it is believed MCOOL under this modality would provide **meaningless, if not misleading, information to consumers** as it would wrongly suggest that oilseeds from a particular country have specific quality characteristics. In fact, if any differentiation exists in that sector, it is conferred by the refinery, i.e. the place where refining takes place would be the most meaningful piece of information.

As for **modality a** (place of refining), indicating the place of refining/blending would also not help consumers to assess the quality of the product. In this context, the industry indicates **that the implementation of voluntary origin labelling offers a flexible and meaningful alternative.**

Impact on the supply chain and consumer prices: who would bear the cost?

For all options, it is assumed that additional costs incurred by the introduction of MCOOL would be passed on from the upstream operations (crushers/refiners) to downstream stages of the supply chain (retailers), and ultimately to consumers resulting in a price increase for bottled oil and products using vegetable oil.

In the case of **Option 1a** (place of refining/EU-non EU level) all bottled oils refined in Europe would bear the EU label, even though the raw material clearly comes from non-EU origins, e.g. peanut oil or coconut oil. The cost associated with Option 1a relates to the **change of labels.** Each label would have to be re-designed to include the 'EU origin' in up to 10 versions (languages, SKUs, etc.), resulting in an estimated cost of up to 3 €/tonne of oil. Moreover, there might technical difficulties in adapting labels given the new requirements set out in the FIC Regulation 1169/2011, which include notably a minimal font size and additional compulsory information (e.g. nutrition tables).

On-line printing was considered not feasible with the current equipment. This is only done for end-by dates which are typically printed on the cap. In view of the complexity of the origin information, new machines would be needed (able to print letters in another part of the packaging, e.g. the bottle).

Impacts on the internal market

In the case of **Option 2a** (place of refining/MS level), the introduction of mandatory COOL would likely lead to a consumer national preference for vegetable oils produced in its country. As refining confers the origin of the oil in most cases this would imply higher transport costs to ensure refining takes place in the national refineries. Furthermore, the demand for domestic oilseeds would increase, **reducing flexibility of intra-EU flows** between business operators. In particular, refiners/bottlers located in small oilseed producing countries, and which rely on imports from larger MS, would be negatively impacted in terms of access to raw materials. This would eventually lead to a **shift of bottling/refining capacities from smaller to larger MS, where domestic oilseed production would be held back.** In turn, this would imply closing factories, employment losses and an overall loss of competitiveness in small countries due to changes in the current intra-EU trade flows.

Most of the time, bottlers source from one main refinery usually located in the same country. In this case, it is possible to label the country of origin on bottles, which is conferred by the place of refining. However, several times in a year, bottlers change and diversify their usual mix of suppliers (e.g. due to availability/quality of oils, price) and source in other countries, including outside the EU. Moreover, bottlers located in small MS, with limited refining capacities, regularly source from other countries. In such cases, oils from different origins are mixed, leading to 2 possible cases:

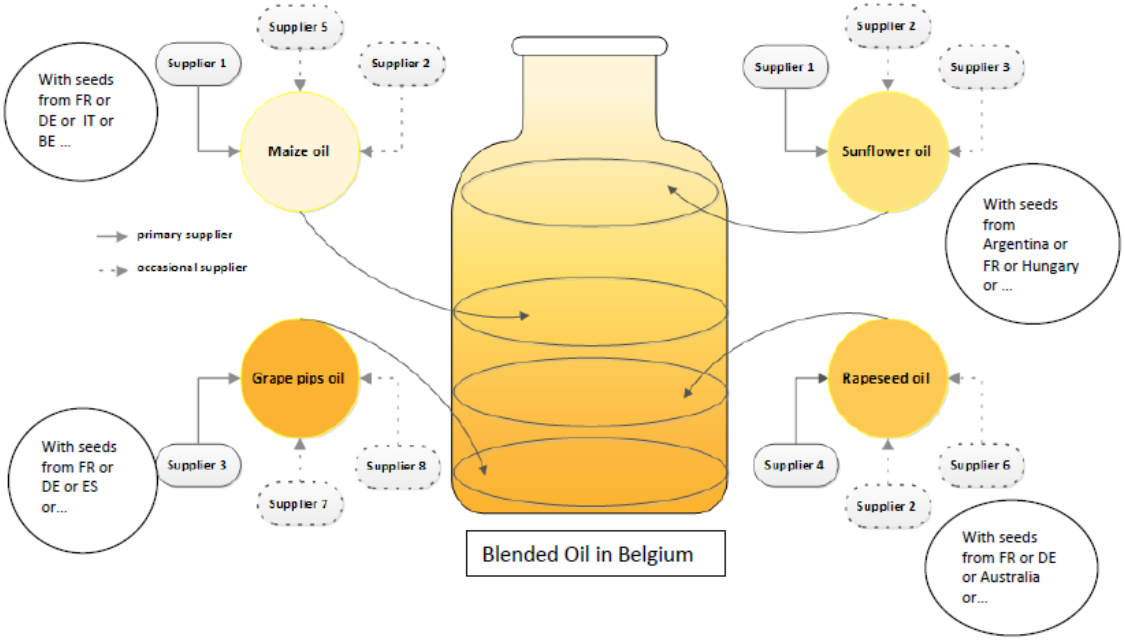
- While oil coming from the usual supplier may prevail in the blend (in which case, no change in labelling is necessary), an oil from a different origin may represent **more than 50% of the blend** and would be labelled as such. It may then convey

contradictory messages as to the origin of the oil produced in a given plant and **confusion** in consumers' mind. This applies to both EU-level and MS-level origin indications.

- Bottling companies, especially those located in small MS, could develop a blending strategy so that a blend is never made of more than 50% of single-origin oil, in which case the origin is conferred by the place of bottling. This would lead to bigger working capital (e.g. higher investments) in some countries compared to others. Also, **consumers would be misled and confused** as to the origin of such a blend compared to other blends for which the indicated origin is the place of refining (more than 50%).

In the case of mixed vegetable oils, the potential confusion embedded in the origin indication may also be significant. In fact, vegetable oils and fats are not always sold to the final consumers or to mass caterers as single seed oils. Blends mixing different oilseeds (e.g. maize oil, sunflower oil, rapeseed oil) enable to achieve particular features, e.g. a specific nutritional profile or qualities needed for a specific intended use, such as frying. Such blends often have one prevailing oil type, i.e. one botanical origin would weight more than 50%.

The figure below evidences the potential complexity as to the origins embedded in a blended bottled oil composed of more than 50% of sunflower oil.



Source: FEDIOL

In this example, the origin is the place of refining of the sunflower oil, which is neither the place of provenance of any of the seeds, nor the place of refining of the other oils, nor the country of blending and bottling of the final product.

The above costs for Option 1b **would increase** under Option 2b as the number of potential changes in the mix of suppliers (hence oilseed origins) per year increases with every option.

Impacts on competitiveness in international trade

It should be noted that the EU is a net importer of raw material destined to the vegetable oil and fat sector.

For all options/modalities, the introduction of MCOOL would entail a consumer preference for the closest origin reference possible, e.g. EU (or specific MS) grown oilseeds. On international markets, the introduction of MCOOL would reduce the competitiveness of EU importers of oilseeds and crude oil.

In particular, the introduction of mandatory COOL rules **at third country level** would further impact international trade. Customers would likely request a specific origin of imported oilseeds (the refining (modality a) always takes place in EU MS). This would lead to a segmentation of the market, an increase in the price of raw materials, to potential market disruption in the event of reduced availability from a given origin, and more generally to an increased uncertainty as to the security of supplies.

Environmental impacts

In the case of **Option 2** (MS/third country level), the likely preference of consumers for the domestic product would result in additional transport costs, thus increased CO_2 emissions, although this could not be estimated.

4.10.2.3 Frozen potato fries

Organisations contributing to the consultation for this case study: the European Potato Processors' Association (EUPPA), the Belgian potato traders and processors' national association (Belgapom), and individual companies of the potato processing sector located in various MS (UK, SE, SP, SK, SV, PT, PL, NL, IE, IT, DE, FR, DK, CZ, BE and AT).

MS: DE, BE

Sector overview:

The European Potato Processors' Association (EUPPA) covers 5 national associations (in the potato belt – FR, NL, BE, DE, UK) and 11 companies, accounting for about 80% of the French fries production in the EU. The turnover of all EUPPA firms totalled €6.1 billion in 2011/2012.

More than 90% of potatoes used for processing in the EU are grown in North-West European MS, in the area delimited by the cities of Hamburg, Frankfurt, Paris and London. Also named the 'potato belt', the area encompasses five EU MS: the Netherlands, Belgium, France (north), Germany (north-west) and the UK (south-east). Poland is a also significant producer. While there is no national association in Poland, the main potato processing companies are members of EUPPA. Starch potatoes are considered a different sector.

Table: Volumes of potatoes produced and processed in the EU 'potato belt', average 2011-2012 (in '000 tonnes)

	Production	Processing

Belgium	3,853	3,450
Germany	7,477	2,850
France	5,085	1,150
Netherlands	3,549	3,700
UK	4,579	1,300
Total	**24,542**	**12,450**

Source: Agrimarkets, World Potato Markets and EUPPA

There are numerous potato transport movements across the borders of the 5 EU MS of the potato belt. Potatoes can easily get bruised due to prolonged handling or transport. For the potato processing sector, it is particularly important to avoid such defects as they result in loss of key quality attributes and increased rejection rate (potatoes are cut in pieces, a process by which any defect becomes more visible to end consumers). Transport over long distances also incurs high costs[205]. Processing plants are therefore located **close to growing areas to minimise transport distances both for quality and cost reasons**. They also tend to be located close to country borders to be able to source from different areas to secure supply and to access a large potato variety mix. Potato processors source on average from a 100-150 km radius.

Potato processors therefore exclusively source raw materials in the EU[206]. **The (country of) origin of potatoes is not a factor that processors take into account when sourcing.** Potatoes (excluding starch potatoes) have had **no policy supported market regime** and the sector has developed driven by market forces only. Profit margins in this sector are thin therefore operators try to capture the maximum market efficiency through economies of scale, i.e. processing large volumes. In this context, location in a potato producing zone is a relevant business factor, but there is no country-related relevance in this industry.

The **mix of suppliers changes daily**, given that the majority of the raw materials directly come from farmers. S**ourcing practices** vary depending on a number of factors:

- Availability of (specific) potatoes: potatoes are supplied year-round to processors. This implies a year-round supply calendar, based on combining early varieties (harvest in mid-July) and main varieties (harvest in October) while storage of potatoes allows supply during winter[207]. Moreover, processors may require specific potato varieties, which are best grown in certain regions because of preferred soil types. These varieties might be sourced from different regions/countries to spread risks and ensure sufficient supply.
- Quality of the annual harvest, i.e. climatic conditions, diseases, etc. If due to climatic circumstances the supply of potatoes in one country/ region is low, processors would seek to supply in other countries. There are widely used quality standards for potatoes.
- Price.

[205] Transport of potatoes is expensive especially as the water content is ca. 80% in fresh potatoes. Water is removed to different extent during processing, depending on the product. Due to water loss, the total weight (conversion factor) is be divided by 2 from fresh potato to French fries, by 4 to produce crisps and by 6 to produce potato flakes or granulates.

[206] There are some potato imports from Switzerland and North Africa but these are only destined to the fresh market.

[207] Potatoes are stored at farmers' or traders'.

The potato sector has developed specific quality standards to which farmers adhere on a voluntary basis. Quality standards are widely used in the sector and are equivalent between MS. These are: VVAK[208] in the Netherlands, Vegaplan in Belgium and QS[209] in Germany. There is no equivalent quality system in France (although there are GlobalGAP requirements) and more than 1,000 French farmers are members of the BE Vegaplan.

Processing plants may either contract directly with farmers or use traders as intermediaries. This depends on the prevailing farm structure at the national level. In the UK and the south of BE, potato farms are large and farmers directly contract with processors. In the north of BE, in FR and in DE on the other hand, potato parcels are smaller and contracting via traders is more frequent[210]. Large potato processors may even sell potato seeds to farmers, as part of the contractual arrangements which also include the quantity, the variety, the conditions of delivery and the delivery period. Contracts with farmers are usually set for 1 year or 3 years.

Traders are typically large operators, specialised in potato trade. Their role is to be able to procure large quantities of different quality for a 'just in time' delivery to processors. They also add value to farmers by identifying for them the most remunerative market given the crop quality/variety. There is some vertical integration between traders and potato processors. With the consolidation taking place in the potato farm sector, farmers are increasingly specialised in potato growing and marketing while traders tend to lose their added value.

Final products of potato processing include notably: French fries, potato crisps and potato flakes and granulates used to produce mashed potatoes or potato snacks. Each of these end products requires specific potato characteristics. To achieve these in a standardised way, different varieties are increasingly used for each market (fresh potatoes, fries, crisps/chips, other products), thereby creating specialist markets which have implications on sourcing practices.

French fries production is a continuous process, which takes place all year-round, 24/7 with the exception of 2 days every fortnight when production stops for sanitary reasons. In a representative French fries plant up to 20/30 trucks come to the factory daily. While the standard processing capacity is 10-15 tonne/h for potato specialities, the line capacity is 25 tonne/h for French fries production.

At storage stage, **potatoes are stored** by farmers or traders **according to their quality characteristics** (i.e. often, varieties are not mixed) **but not according to origin**. Quality specifications impact how the production process is carried out. While potatoes are stored in boxes in the UK (by habit), bulk storage facilities are used in continental Europe in which origin gets lost. Therefore potatoes with similar characteristics but produced in different countries could be used to produce a single product (SKU).

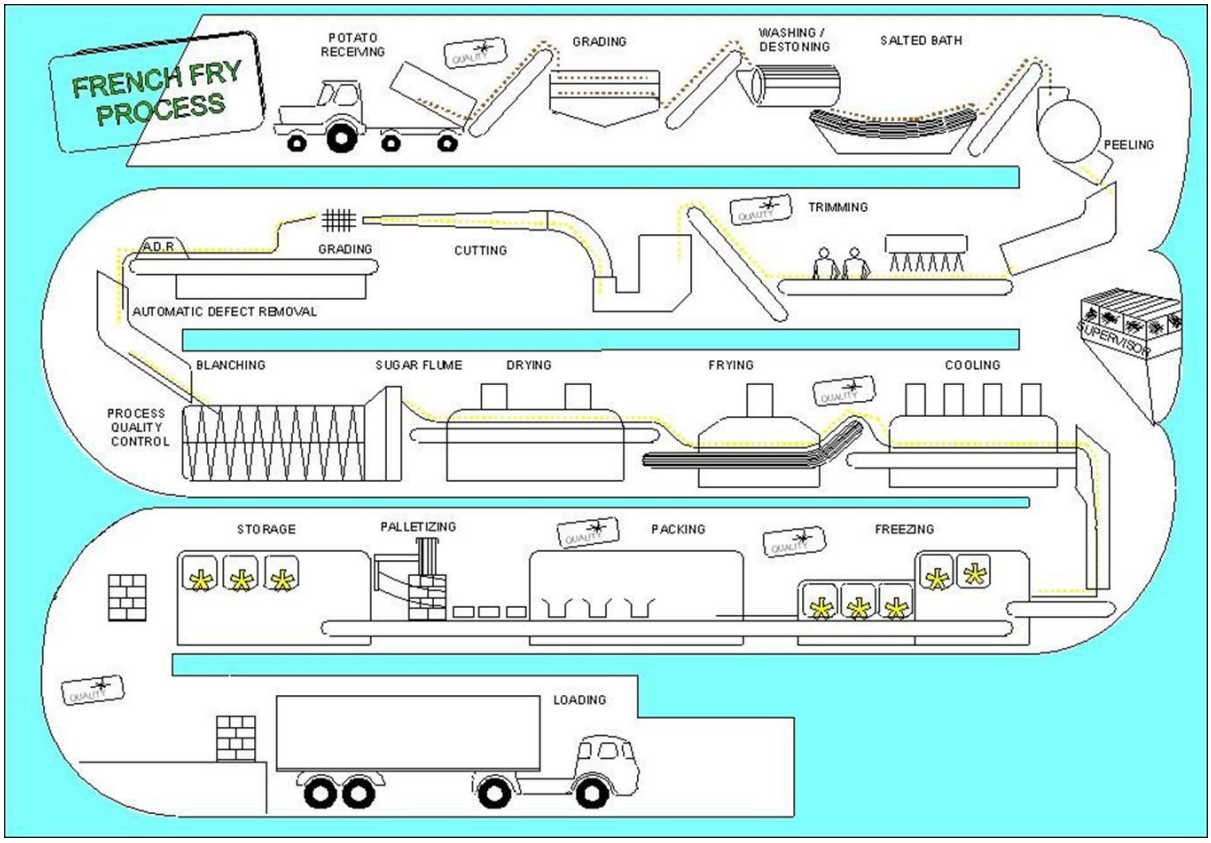
Upon arrival, it is decided where the delivered potato lot will be used, depending on the quality characteristics of the lot: size, solid contents, sugar levels, defects, etc. If necessary, salt baths are used to sort the waxy/glassy potatoes with low solid contents as they give bad texture fries and dark frying colours. A key criterion is the **sugar level**, which is important for the frying quality and on the basis of which the processing line is adjusted e.g. blanching time

[208] VVAK = Voedselveilige Akkerbouw (food safety certificate)
[209] Qualität und Sicherheit
[210] There are 2,000 potato growers in the UK ; 7,500 in BE ; 17,000 in FR (including fresh potato growers) ; and, 30,000 in DE. The average UAA of potato parcels in FR is 6 ha.

is likely to vary according to the sugar level. Best quality potatoes go to the French fries production, while the lower quality is used for mashed or flakes.

The full French fries production chain is presented in the figure below. The whole production process takes from 1 to 1.5 hours from the delivery of fresh potatoes to the packaged French fries.

Figure: the French fries production process



Source: EUPPA

During processing, automated sensors look for defects and potatoes are discarded if they do not comply with the standard requirements at different stages, including potato shape requirements. At cutting, more defects become visible (e.g. potato strips with black spots). Residual pieces of potatoes are also removed from the processing line, such as the quarter-round residual bits from the outer edge of the potato. Overall, rejected potatoes account for 5% of the French fries process. Potatoes fit for consumption but unfit for French fries production are sent to specialised plants which transforms them into a potato flakes (used in a variety of products). There are therefore connections between the different potato processing productions, which may take place all in the same plant for convenience. Other rejected potatoes may be sent to feed or digestors to produce biogas.

Of the total French fries production from the 5 MS of the potato belt, 75% is consumed in the EU and 25% is exported to third countries all over the world. The EU market for French fries is growing, driven by an increasing export demand, which is in line with the global increasing consumption of potato products all over the world.

Belgium is the largest potato importer and processed potato exporter in the world. BE factories process some 3.6 million potatoes, which are grown in BE but also from FR, NE and DE. Imports from other MS is essential for BE operators as only 3 million tonnes are grown domestically, including potatoes destined to the fresh market. For this reason, many Belgian processors are located close to the borders with France, Germany and the Netherlands where they source a large proportion of their raw materials. Dutch processors are also located close to the Belgian and German borders. Similarly, French factories source 10-15% of their raw materials from Belgium. As explained above, cross border transport movements are significant in the sector.

There are no SMEs in the French fries producing industry as economies of scale are essential to remain viable[211].

With regard to **distribution**, on average in the UE, the majority, i.e. about 50-60%, of all French fries is private labelled (retailers' brand). In Belgium, the proportion of private-labelled fries is 80%. In many MS, there are only a few top potato processing companies that supply branded French fries to retailers. Retailers are in a strong bargaining position.

Potato processors have automated **traceability** systems in place, which enable them to trace products one step back and one step forward in the supply chain, based on the production lot code which is printed on each consumer packaging unit. The country of origin of a specific lot of potatoes/French fries can thus be identified if need be. More specifically, the traceability system enables to trace the potatoes to the specific farmer/s' delivery, a complete information which includes country of origin.

With respect to the presence of **VCOOL in the sector, this is negligible in the potato fries market.** A leading French fries processor developed 3 niche products with a voluntary origin label. Production only takes place part of the year, as supplies cannot be secured year-round due to the origin constraint. *Increase in costs for these products is about 8%. This cost increase should not be extrapolated to the rest of the sector to estimate the impacts of potential MCOOL rules. In fact, all costs would be exacerbated in similar constraints were to apply to the whole sector. For instance, the French harvest would need to be stored to supply French potatoes all year long.*

A leading caterer in France require that potatoes they use come from domestic sources only, a measure taken in the aftermath of the horsemeat scandal in 2013. However, this is not communicated to final consumers as it is not possible to source domestically only year-round.

In the UK, the Red Tractor scheme is a horizontal, cross-sector quality scheme for agricultural products which *de facto* provides an origin indication as only British produce can qualify. It is used for potatoes destined to fresh consumption but French fries producers in the UK do not use the Red Tractor label on their products. The UK domestic production is usually self-sufficient but in bad harvest years, processors would import, e.g. from Belgium, making any origin assurance difficult.

Structure of the supply chain

Technical specifications	• The quality of potatoes that processors need depends on the finished product. It is determined by a number of parameters, e.g. sugar level, solid contents, size,

[211] There are about 20% of the potato processing sector as a whole e.g. crisps production

	shape, defects, etc. • Origin *per se* does not confer the required quality specifications. • At storage, potatoes are sorted according to their quality specifications and not by origin. The origin indicated is lost early in the process. • In view of the large volume processed (25 tonne/h; 24/7), batches of different potato lots are mixed to ensure a continuous supply.
Sourcing	• Sourcing practices are driven by availability, price and quality/specifications of the potatoes for a given process. • While potato sourcing is exclusively done in the EU, cross-border movements of raw material are very common practices. Sourcing is based on quality/availability criteria, which are somewhat impacted by the growing area, but not the country of origin as such, i.e. a growing area may stretch across 2 countries. For instance, 10-15% of potatoes processed in France come from Belgium, higher proportions come from abroad for NL and BE operators. • sourcing pattern by volume/value is: 10% multiple national EU sources and 90% multiple EU sources • Changes of suppliers are very frequent (3 or more per year) and concern the majority of suppliers (contracts are made at the individual farm level)
Product differentiation	Possible through brands, but bulk of French fries are sold under private labels.
Degree of vertical integration	Limited
Production process	• Continuous production process
Traceability system in place	• One step forward, one step back, in accordance with Regulation 178/2002 i.e. based on HACCP systems.
Processing conferring origin	• Potato processing is a substantial transformation of potatoes.

Feasibility/operational costs

Option	**modality a: last transformation (processing)**	**modality b: harvested/farmed (potatoes)**	**modality c: both**
Option 1: EU / non EU	Feasible/low impact	Feasible /low impact	Feasible/moderate impact
Option 2: Member State /third country	Feasible/moderate impact	Not feasible/high impact	Not feasible/high impact
Option 3: Region	Feasible/moderate impact	Not feasible/high impact	Not feasible/high impact

Modality a would not pose major problems to the potato processing industry. The main costs envisaged under these scenarios would be to change labels. However, different processing stages are sometimes carried out in different locations, e.g. deep frying in one MS and

packing in another. In such cases, the origin indication could provide a partial, potentially confusing piece of information to consumers.

Option 2b would have the highest impact on the sector while also posing technical feasibility issues.

Voluntary origin labelling does not attract similar costs.

Specifically for French fries/potato processors, it would be feasible and easier to be able to indicate a group of MS as most potatoes used in French fries production come from a limited area in the EU (this would imply being able to indicate up to 4 MS for French fries). However this cannot be extrapolated as being a feasible option to other sectors e.g. frozen vegetables where raw materials are sourced in many different MS.

Operational costs

Additional costs for Option 2b:
1. Sourcing: There would be significant sourcing issues under Option 2b. Assuming a specific origin would be preferred for technical reasons (labelling) or due to pressure down the chain (scenario A), it would be technically unfeasible to source all year-round with potatoes of the needed quality (and in sufficient volumes). Raw material price would inevitably increase as supply would be restricted to a certain area only.
2. Adaptation of production process: • Additional storage for potatoes by origin • Additional operational costs such as: - Additional transport costs due to distance sourcing and segregated transport; - Increased complexity of operations, from sourcing to managing a batch-like processing and to distribution
3. Adaptation of packaging and labels/labelling process: • Pre-printed label costs estimated at up to €1,500-5,000 per SKU • On-line printing: would require frequent 10-min breaks to change settings, which could total 2 h of production loss in 1 day (24h). In a plant running at 25 tonne/hour, this would imply a 50 tonne production loss, i.e. 8% of production.
4. Adaptation/adjustment of traceability system: The current traceability would need to be changed completely, the cost of which could not be estimated
5. Administrative burden: burden would require additional staff time but no additional staff member would be needed as such
➔ The total additional operational cost was estimated at up to **0.10-0.15 €/kg** of finished product, which could result in a 10-15% retail price increase (depending on the SKU).

Operational impacts and costs

Mandatory origin labelling under **Option 2b** would imply **segregation by batches** of different national origins. This would result in significant inefficiencies in production due to frequent breaks for the production of one SKU. Most likely, potato processors would tend to **source** from a single country to avoid the complexity of handling various origins in a plant, although this would reduce the current sourcing flexibility for quality/costs reasons, increase risks of supply shortages, and potentially impact the quality of the final product.

Some factories are dedicated to specific types of products such as formed products made from small potatoes or potato flakes. These plants use specific varieties and/or discarded potatoes coming from French fries producing factories. This means that different lots of potatoes are constantly mixed as sourcing is done from different French fries plants, themselves sourcing from different farming areas. It is always possible to trace back the origin of these products if need be, on a case-by-case basis. A mandatory country of origin labelling however would create very small batches and waste in these plants.

With respect to **packaging costs**, currently packaging is pre-printed and stored for 1-2 years. There are two scenarios:

- Pre-printing of origin on packaging. This would increase packaging costs as: smaller volumes of packaging would be ordered by SKU (each origin-labelled packaging becomes a new SKU), and the production chain would need to be regularly interrupted to match the packaging foil and the potatoes' origin.
- On-line printing, right after packing has taken place. Assuming printers currently in use for printing the end-by date could be adapted, on-line printing of packaging would result in high inefficiencies at plant level given the current continuous supply. Changing the settings to print a different origin would require a 10 min break in production every time origin needs to be changed. This would also increase the error rate.

Both scenarios would increase packaging waste (due to errors or non-matching packaging and origin).

The increased number of SKUs resulting from changes in packaging would in turn result in increased **need for storage capacity**, hence increased **energy costs**, and would complicate the overall distribution of finished production.

Controls would necessarily be based on documents as there are no other methods able to verify the origin of a product. This raises concerns as it opens the door for potential frauds and/or genuine errors.

At different stages, there would be additional production losses and inefficiencies, the most important of which would be stemming for packaging changes (estimated at up to 8% production loss). MCOOL would augment production costs for the same quality of the final product, while the value of the origin information was questioned by the industry.

The industry anticipates a total production cost increase of up to **0.10-0.15 €/kg** of finished product. Depending on the type of product, this could mean a 10-15% increase in the retail price.

Administrative costs and burden

Additional time needed to compile, procure and supply origin-related documentation from suppliers and to clients is estimated to result in additional staff time, but not to the extent that a new member of staff would be needed.

Impact on the supply chain and consumer prices: who would bear the cost?

Under Option 2b, the significant cost increase foreseen for potato processors would need to be passed on to consumers.

Impacts on the internal market

There is a risk that mandatory origin labelling **under modality b (place of harvest of potatoes)** would lead to non-level playing field amongst EU potato processors. Assuming that one origin is preferred, due to pressure from retailers/consumers or to simplify packaging operations, processing plants located close to borders would be indirectly put at a disadvantage. At a more general level, larger potato-producing MS would have a competitive advantage over smaller potato producers, although the availability and specific quality issues in the potato sector are such that all processors would face negative impacts (see sourcing practices).

Impacts on competitiveness in international trade

French fries producers and potato processors in general are competing in a growing market for potato products. While EU demand is flat, the global market demand is growing driven by exports to third countries. The introduction of MCOOL, and notably under Option 2b, would put EU business operators at a disadvantage vis-à-vis their global competitors and would decrease their competitiveness in these key growing markets.

Environmental impacts

Mandatory origin labelling would result in an increase in transport distances. In fact, to simplify labelling operations and/or due to retailer or consumer pressure for a preferred origin (most likely, the domestic origin), potato processors would be inclined to source potatoes within the national borders. In many cases, production plants are located closed to borders, therefore potatoes grown just across the border would be diverted to other, farther plants.

4.10.3 Ingredients that represent more than 50% of a food (Cat III)

4.10.3.1 Orange juice

The main organisations that contributed to the consultation for this case study were AIJN, representing the EU fruit juice industry, from fruit processors to packers of consumer products, some of its company members in FR, BE, UK and DE, its national members in the UK (the British Soft Drinks Association), ES (ASOZUMOS - Spanish Fruit Juice Association) and BE (AIJNEC - the Belgian Federation of Fruit Juices and Nectar Producers), and individual companies operating in BE, NL, ES, SE, DE and AT.

3 MS: ES, UK, BE

Sector overview:

AIJN estimates that there are between 800 to 850 juice producers in the EU, which together employ about 21,000 people across the EU and generated a €13,000 billion turnover in 2012. The total EU fruit juice and nectar consumption was 10.4 billion litres in 2012, down by 3.3% compared to 2011. The fruit juice and nectar segments respectively amounted to 6.8

and 3.6 billion litres (L). In the EU, the fruit juice and nectar consumption has been decreasing since 2009[212].

In **Spain**, there are 10 large and 7 smaller orange juice producers which employ about 2,000 employees.

In the **United Kingdom**, fruit juice may be produced by two distinct categories of firms: specialised fruit juice producers and soft drinks producers. Some 50 companies are dedicated fruit juice producers, 40 of which are micro-enterprises and 10 are small companies. In addition, there are 230 soft drink manufacturers in the UK, some of which offer and produce fruit juice in their product range. In the soft drink sector, 10 manufacturers are large firms, the rest being smaller-scale production. The overall sector employs about 2,500 people. In the UK, private labels account for 64% of the fruit juice market. Juices not made from concentrate and smoothies are predominantly branded products while juices obtained from concentrate are predominantly private-label products (see below for definitions).

In **Belgium**, the market is very fragmented as a lot of small companies operate in the sector. Belgium is not a large market in terms of consumption. It ranks 5th in the EU in terms of per capita orange juice consumption, with 10.2-10.5 L per capita a year, totalling 120 million L of orange juice. This compares with a total 211 million L fruit juice and nectar consumption in Belgium (2% of the EU market). However, Belgium is a leading importer of orange juice from outside the EU and a global trade player, accounting for 9% of the global juice imports and 8% of global juice exports (comparatively only 1% of imports into Belgium are consumed domestically). Fruit juice importers are based at the ports of Antwerp, Ghent, and Zeebrugge. The largest importers are Citrosuco, Louis Dreyfus Commodities and Citrovita (Ghent and Antwerp) which together generate a €25 million turnover. Overall, the BE fruit juice industry employs 750 persons and has a turnover of €140 million.

France and Germany are also important fruit juice producers.

In **France** there are about 50 companies producing juice and 4,300 employees in the sector. 20% of the companies in the FR sector have 200 employees or more, the rest being mainly represented by small companies (up to 10 employees). In France, approximately 65% of the orange juice is marketed via private labels (retailers), the remaining 35% of the market being branded products. In France the output per plant ranges from 2 million to 250 million litres. This highlights the diversity of operators in terms of size: around 10 plants process over 100 million litres while the rest have much lower outputs. In this context, there are no typical representative plant in this sector in France.

In **Germany,** the tradition is to produce apple juice. The market is characterized by many small scale (apple) juice producers. In total, there are about 400 companies involved in juice production (any type), but the 5 largest companies in the sector produce 85% of total output. Companies that are members of the German fruit juice association represent some 7,500 employees.

In 2012, the most important EU MS in terms of fruit juice and nectar consumption were: Germany (2,607 million L; 25.1%), France (1,681 million L; 16.2%), UK (1,329 million L;

[212] AIJN, 2013. The liquid fruit market report

12.8%) and Spain (1,046 million L; 10.1%)[213]. Orange juice was the preferred juice across the EU, ranking first in consumers' preference (38.5%), followed by flavour mixes (19.9%)[214].

Fruit juices and nectars are classified according to the definitions established in the Council Directive 2001/112/EC (as last amended), which are as follows:

- **Fruit juice**: the fermentable but unfermented product obtained from the edible part of fruit which is sound and ripe, fresh or preserved by chilling or freezing of one or more kinds mixed together having the characteristic colour, flavour and taste typical of the juice of the fruit from which it comes. This is referred to Not From Concentrate juice (NFC).

- **Fruit juice from concentrate:** the product obtained by reconstituting concentrated fruit juice with potable water. This is referred to From Concentrate juice (FC).

- **Concentrated fruit juice**: the product obtained from fruit juice of one or more fruit species by the physical removal of a specific proportion of the water content. Where the product is intended for direct consumption, the removal shall be at least 50 % of the water content.

- **Water extracted fruit juice**: the product obtained by diffusion with water of pulpy whole fruit whose juice cannot be extracted by any physical means, or dehydrated whole fruit.

- **Fruit nectar**: the fermentable but unfermented product which is obtained by adding water with or without the addition of sugars and/or honey to the products defined above to fruit purée and/or to concentrated fruit purée and/or to a mixture of those products,

Fruit juices are also used as ingredients in a number of other food categories which are not governed under harmonised definition at the European Union level. In the absence of such harmonisation, there is a certain degree of consensus among the industry regarding the definitions listed below (list not exhaustive):

- **Freshly squeezed juice:** Freshly squeezed fruit, not pasteurised, chilled with a short shelf-life (a few days).
- **Chilled juice:** Products that are distributed and sold via the chilled (low temperature) distribution chain (although this may or may not be technically necessary).
- **Ambient juice:** Products that are distributed and marketed via the ambient distribution chain.
- **Smoothies:** Blend of fruit puree and juice with a thick, smooth texture. Dairy ingredients (e.g. yogurt) and/or functional elements (e.g. aloe vera, gingko, ginseng) may be added. Smoothies can be sold either chilled or at ambient temperature. Smoothies may be packaged or freshly made by caterers. Their classification under the juice and nectars categories depends on the juice content and/or ingredients.
- **Multi-fruit juices / nectars:** Product in which no single flavour is perceived to be dominant e.g. tropical mixes, red fruits, summer fruits, cocktail mix, multi-fruit juices.

[213] AIJN, 2013. The liquid fruit market report
[214] AIJN, 2012. The liquid fruit market report

- **Juice drinks**: Flavoured and non-carbonated products with a juice content of 0-24.9%. Sugar, flavourings and food additives, such as colors may be added.

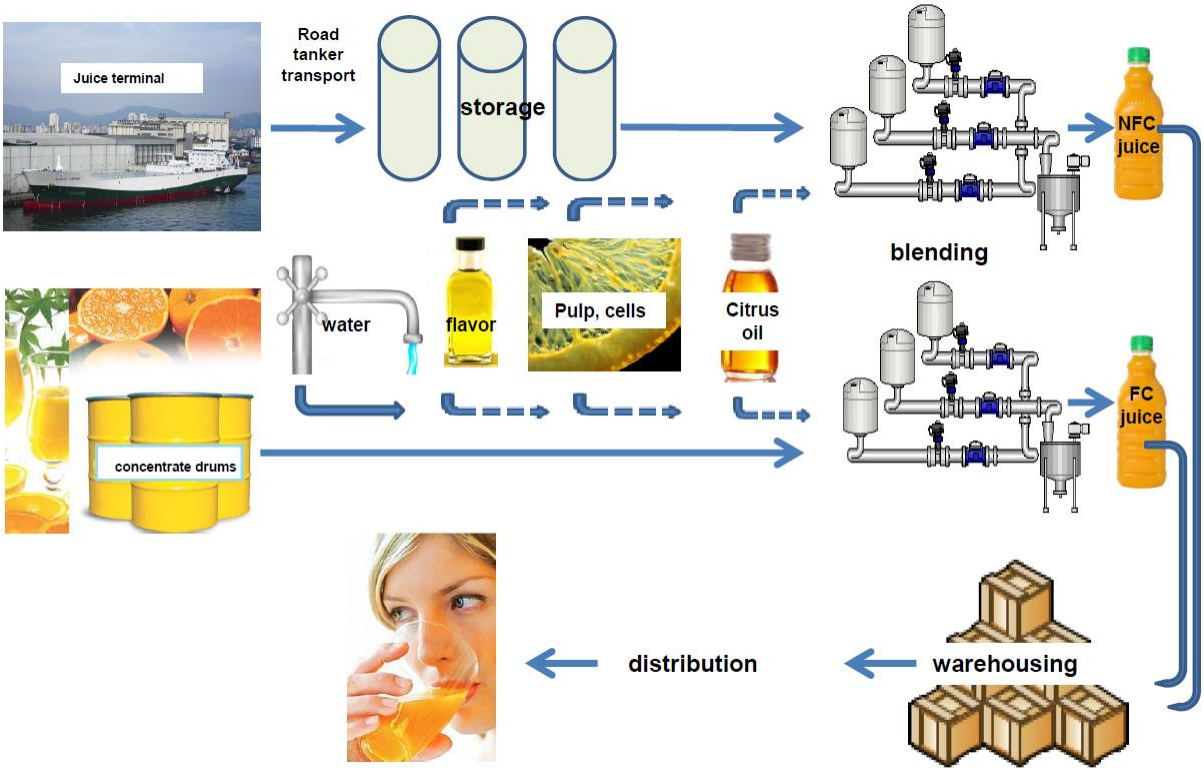
The production of orange juice involves the following steps, from harvest of fruit to distribution to end consumers. These are:

1. First processing: Harvest fruits are washed, graded and sorted in processing factories. Juice is extracted in juice extractors that process oranges individually. Flavour is also extracted, as is pulp, citrus peel oil (used in the flavor industry, including in drinks), peel and other by-products which are used for animal feed. The juice may subsequently be concentrated.
2. Transport: Juice is then transported to the destination markets. Not from concentrate (NFC) juice is pasteurized and transported in bulk (i.e. with water content) while concentrated juice (FC) is transported in smaller containers.
3. Reconstitution: at destination (e.g. in the EU), concentrated juice is mixed with water to levels prior to concentration. For both FC and NFC, flavor is then restored by addition of specific ingredients (e.g. citrus oil gives bitterness). Pulp (fruit cells) can also be added.
4. Blending and bottling: Different orange juices are then blended to achieve standard specifications (or juices from different fruits are blended in the case of mixed fruit juices). The juice is finally bottled, usually in carton, glass or plastic bottles.

Blending and mixing of juices from different origins confer the specificities of the juice. The different parts of the orange, e.g. pulp, flavour, oil, are separated at an early stage of the process. This has major implications in terms of determining the geographical origin of the final juice, as any of these ingredients may be obtained from different origins.

The production process of orange juice is illustrated in the figure below.

Figure: Orange juice production – from transport to the end consumer



Source: AIJN

As for **sourcing practices** in the orange juice production sector (in volume/value), less than 1% of orange juices were sourced in a single local source, 10% of orange juices used were sourced from multiple sources, only located in the EU while the large majority of orange juices (90%) used to produce orange juice in the EU came from multiple sources outside of the EU[215]. More specifically, some 80% of the EU demand for orange juice is covered by imports from Brazil, while another 10% is supplied by US business operators (mainly located in Florida).

Generally speaking, it is too risky to rely on a single source to procure raw material for orange juice production, as quality and availability of oranges is likely to vary during the year, while orange juice production must be continuous and homogeneous. Orange processors plan a year-round programme of supply based on the different harvest seasons, expected quality while spreading supply risks across a number of locations. For instance, citrus imports from South African were banned in November 2013 for the rest of the year over fears that a fungal disease, the citrus black spot, could propagate in the EU. Oranges are sourced based on quality and taste/variety specifications which include notably: sweetness, acidity, colour, solid contents.

The flexibility in the mix of suppliers (and origins) is therefore necessary **to secure a stable supply, to cope with changes in harvest yields, to reduce risk of shortages to a minimum and to smooth price fluctuations.** In addition, this flexibility is important for FBOs as they need to produce according to required specifications[216], for which a consistent, good quality

[215] It should be noted that the EU orange production, located in Southern EU MS, is mainly destined to the table orange markets and not for processing.
[216] The product recipe is intellectual property of the operators

supply is necessary. This flexibility and supply planning is particularly needed for Not From Concentrate (NFC) juices as these are more perishable than concentrates, i.e. more difficult to source. The flexibility in sourcing is even more vital in other juices (i.e. other than orange juice) for which growing areas/production volumes are more limited.

In the specific case of orange juice, the majority (80%) of the EU demand for juice/concentrate comes from Brazil. Consequently the blending of juices from different origins is less of an issue in the case of orange juice. However, the aromas, essential oils, and/or cells that are used to restore orange juice can come from very different places. There is no legal requirement as to the origin of these raw materials in fruit juice production.

Although oranges are grown in Southern EU MS, the EU production is very limited vis-à-vis the demand for orange juice production and is destined to table fruit consumption. This is because:

- Margins are higher for table oranges. Roughly 15-20% of oranges are not marketed for fresh fruit consumption when fruits do not meet the requirements of the fresh fruit market. Discarded oranges are processed into orange juice (although blending with sweeter varieties is needed, see below).
- The EU orange production is limited due to seasonality of the harvest: the harvest season in Spain, the largest orange producer in the EU[217], is winter. During the summer, oranges are imported from other countries (e.g. Morocco, South Africa, Israel, Turkey, Mexico, Argentina);
- Varieties produced in the EU are not optimal for juice production. For example the Spanish orange variety 'Valencia late' has a high acidity while Brazilian oranges are sweeter.

The **traceability system** in place in the (orange) juice supply chain is not suitable for origin labelling purposes. The industry notably highlighted the difference between being able to trace the origin of a lot/bottle if necessary, and mandatory on-pack labelling. Traceability is a multi-step, multi-operators approach. Individual IT systems operating at the various stages of the supply chain are different, are not linked and are conceived to trace products one step back and one step forward. In the global commodity supply chains such as orange juice, the number of operators involved (e.g. traders and other intermediaries) would make origin indication very complex. Furthermore, the industry notes that there are currently no tests able to accurately verify the origin of a juice, let alone a blend of juices from different varieties and/or origins, therefore MCOOL would be paper-based only and would be difficult to control.

The presence of **VCOOL in the orange juice sector** is considered to be limited because raw materials come from outside the EU. The industry believes that consumer purchase decision is largely based on price and on the type of orange juice, e.g. chilled or ambient juice.

For juices in general, origin-labelled products are considered to be niche products, with limited and fragmented initiatives indicating origin generally at the national level. For instance, in the apple juice industry, some SMEs in the UK indicate the country of origin as part of their marketing strategy. In France and in Germany, retailers' brands have specific labels for fruit juices, e.g. Marmande tomato juice. 'EU/non-EU' labelling was considered to

[217] Spanish orange production accounts for 2.5% of the total world demand.

provide only vague information to consumers, who would unlikely be willing to pay more for this level of origin information.

For mixed fruit juices, the relevance of indicating origin was questioned, as the ingredient that represents more than 50% of the juice is not necessarily the one consumers would expect. For instance, lychee juice is mixed with 85% apple juice. The introduction of origin indication of the main ingredient (<50%) in mixed juices could create expectations for all other ingredients (e.g. that of lychee juice) contained in the mix, with the risk of a technically complex and confusing origin information. Moreover, in some other cases, none of the juices contained in the mix accounts for more than 50% of the blend. This is for instance the case of cranberry juice, which may contain grape, apple and cranberry juice to varying levels.

Structure of the supply chain

Sourcing	• **Some 90% of orange juice/concentrate come from outside EU** (notably 80% is supplied by Brazil, 10% by other countries notably the US but also South Africa, Egypt, etc.). • Only 10% come from the EU. There are mainly oranges not fit for fresh consumption and that require blending with other non-EU orange varieties. • **Availability and price** of orange juice/concentrate drive import sourcing practices in the sector. Orange juice is a particular case since most of imports come from only 2 large countries. However, within a country (e.g. Brazil) sourcing patterns are determined according to availability, price, quality of harvest (e.g. weather, plant diseases), etc. • Raw material specifications and contractual arrangements implicitly include origin information, i.e. location of the supplier.
Product differentiation	Orange juice is globally traded as a commodity product, although product differentiation is achieved through brands and techniques/recipes used by orange juice processors.
Degree of vertical integration	-
Production process	• Mix of batch and continuous production process
Traceability system in place	• One step forward, one step back, in accordance with Regulation 178/2002 i.e. based on HACCP systems.
Process conferring origin	• The reconstitution of orange juice/concentrate into marketable orange juice is **not considered** to be a substantial transformation

Feasibility/operational costs

	modality a: Place of last substantial transformation	**modality b: Place of harvest (oranges)**	**modality c: Both**

	(processing)		
Option 1: EU / non EU	Feasible/moderate impact for orange juice Not feasible /high impact for all other juices	Feasible /moderate impact for orange juice Not feasible/high impact for all other juices	Feasible/moderate impact for orange juice Not feasible/high impact for all other juices
Option 2: Member State /third country	Feasible/moderate to high impact for orange juice Not feasible/high impact for all other juices	Feasible/moderate to high impact for orange juice Not feasible/high impact for all other juices	Feasible/ high impact for orange juice Not feasible/high impact for all other juices
Option 3: Region	Not feasible/high impact	Not feasible/high impact	Not feasible/high impact

Technical feasibility and operational costs

Orange juice is a relatively simple case with respect to MCOOL given that the majority of oranges are grown in a limited number of countries (Brazil and US mainly) and squeezed in the same country (**Box 5).** As a result, blends of orange juices/concentrates are also from a limited number of possible origins. The situation may result much **more complex for other juices.** For instance in apple juice production, apples are sourced from a mix of different EU and non-EU countries. The pineapple juice production also has a complex supply chain (although there would be only non-EU sourcing). In the case of mixed juices, the ingredient that represents more than 50% of the blend may not be the one providing the main flavour to the juice. This is notably the case of lychee juice, which is usually blended with more than 50% of apple juice (as this is the standard recipe). **The issues identified with regard to origin labelling highlight the overall complexity of the products.** In these cases, the origin labelling would be technically very challenging even under Option 1 (EU/non-EU) and would result in major cost implications.

Micro-enterprises and SMEs would be the most impacted. Most of them are expected not to have the capacity to invest and adapt to MCOOL rules, especially under modality b (e.g. redesign of labels, adapting operations to isolate origin). Only the largest companies may be able to make the necessary capital and financial investments, although significant costs are foreseen due to the overall complexity of operations and red tape.

In terms of origin modality, **the reconstitution and bottling of orange juice is not considered to be a substantial transformation according to the Customs Code**. Moreover, no origin rules apply to other components (flavour, citrus oil, pulp, peel, etc.). Moreover, due to the perishability of fresh oranges, **the last substantial transformation (squeezing of oranges) takes place close to the place of production (where oranges were harvested).** Therefore, **modalities a and b *de facto* lead to similar cost implications.** For 90% of the supply, the harvest and squeezing of orange are operations carried out outside the EU. This is a specificity of the orange juice sector which is not repeated in other juice supply chains.

Option 1 is therefore considered to be the most technically feasible for orange juice**.** Adaptation to MCOOL rules under Option 1 (modality a, b, or c) would require a one-off redesign of packaging of all SKUs, the cost of which is likely to be relatively limited although it could not be estimated. The impact of EU supplies of orange juice accounting for 10% of supplies (mostly from Spain) has not been examined. For FBOs sourcing both within and outside the EU, the impacts of Option 1 (as is the case for other juices) are expected to be similar to those of Option 2 for FBOs sourcing from non-EU countries only (the orange juice is a particular case in this regard as most of it is imported from non EU countries).

Option 2 (national/third country level) would encourage dependence on constant sources of supply as switching sources would result in technical difficulties (e.g. changes in labels, segregation of production). As a result, small exporting countries could be left out of the supply chain while the largest countries would strengthen their position (e.g. Brazil for orange juice). This would therefore decrease flexibility of supplies and the bargaining power of EU business operators towards orange suppliers, which could impose higher prices more easily. MCOOL could also have impacts on the quality of the final product. Furthermore, with a reduced flexibility, EU operators would become more exposed to market risks such as currency exchange rates or tariff changes.

In the EU, orange juice processors may be juice extractors (in orange producing MS), 'bottlers', 'compounders' or a combination of all three. While a 'bottler' may deal with up to 100 different SKU labels (e.g. 0.5 L, 1 L, plastic, carton or glass bottles), large compounders have more complex operations and could deal with about 500 different fruit raw materials which are then combined into thousands of products and sold to bottlers. The administrative and operational burden due to MCOOL would be divided between the two types of operators: compounders would ensure that the supplied materials match the agreed origin and that it is isolated/segregated (if needed). Bottlers would have to ensure that their bottling operations are designed so as to guarantee that all SKU labels match the product's origin.

Costs

Additional costs Option 2 for orange juice/Option 1 for other juices

1. Sourcing and production process:

- **Sourcing**: As a consequence of MCOOL, EU operators would be inclined to source from regular suppliers to avoid the technical difficulties (e.g. labels) that would result from shifts in origins, hence *de facto* decreased flexibility. Preferred suppliers would be those with sufficient orange supplies, a move which would be detrimental to smaller producing countries. The bargaining power of EU business operators towards suppliers would decline, therefore higher prices are expected. There could also be pressure from the distribution sector to be supplied with preferred origins, if these were indicated at the national level, exacerbating the flexibility loss.
- **Storage facilities**: additional storage facilities would be needed to keep orange juices from different (third country) origins separated. This would result in large one-off investments (to be depreciated over the years) as well as a number of variable costs due to the increased complexity of operations (logistics, administrative procedures, etc.).
- **Operational costs**: batches of orange juice, sorted by origin, would need to be processed individually, implying costs in planning production and likely inefficiencies arising from the segregation of operations

2. Adaptation of packaging and labels/labelling process:

For bottlers, which would bear the highest costs regarding labelling of SKUs, different labels would be pre-printed to match possible origins; these would create additional costs due to :

- redesign of existing labels;
- the additional storage capacity needed to store new packages;
- the increased complexity of operations (e.g. management of stocks, ensuring match between processed raw material and labelling)

On-line pre-printing has not been envisaged.

4. Additional administrative burden: a number of actions would need to be undertaken to ensure MCOOL is correctly implemented. These include for instance:

- Update of good manufacturing practice (GMP) documentation of the production facilities;
- Paperwork production and compliance checks at different stages: reception of ingredients, matching processing and labelling, controls of end product labels and information to clients.
- Training and information to members of staff
- Ordering and managing origin-labelled packaging materials (e.g. ensuring sufficient and correct stocks)
- Taking origin into account at product development stage, as a new limiting variable.

This would result in up to 2 additional FTE/plant (depending on the company size and product portfolio), i.e. up to €50,000-100,000 /year/plant depending on the MS.

5. Implementation of additional control by enforcement authorities: this would only be paper-based as no method currently exists that accurately identifies the geographical origin of a product.

➔ Total cost estimate (for all juices, under Option 1)**: expected + 16% increase in production costs**

Production costs for the entire sector have been estimated to increase by up to €50-100 million under Option 1 (impacts equivalent to Option 2 for the specific case of orange juice). Given a 10,387 million litre production of juices and nectars in the EU in 2012, this would

Additional costs Option 2 for orange juice/Option 1 for other juices
result in up to €0.01 additional cost increase per litre of juice produced. This is a low end estimate which only includes the quantifiable direct costs. These costs exclude expected increase in raw material price, waste costs, and depreciation costs, which are estimated to add an additional €0.01-0.02/L, resulting in **expected additional production costs of up to +€0.02-0.03/L**. **These costs largely exceed the net margins in the sector.**

Impacts on the internal market

Under Option 1, no impact on intra-EU trade is foreseen for orange juice FBOs. For other juices however, raw material may be sourced from EU/non-EU countries (e.g. apple juice). Assuming that customers/consumers would favour the EU origin, this would distort the EU level playing field and put operators sourcing only from the EU at a competitive advantage vis-à-vis others.

Impacts on competitiveness in international trade

As a consequence of mandatory origin labelling, EU operators would be inclined to source from regular suppliers to avoid the technical difficulties (e.g. labels) that would result from shifts in origins, hence *de facto* decreased flexibility. Preferred suppliers would be those with sufficient orange supplies, a move which would be detrimental to smaller producing countries. The bargaining power of EU business operators towards suppliers would decline, therefore higher prices are expected. There could also be pressure from the distribution sector to be supplied with preferred origins, if these were indicated at the national level, exacerbating the flexibility loss.

In the case of orange juice, this impact is much lower than for other types of fruit juice. Generally speaking, EU-based companies exporting to outside the EU would face a competitive disadvantage vis-à-vis international competitors for which mandatory origin labelling would not be a requirement.

4.10.3.2 Tomato passata

Organisations contributing to the consultation for this case study: Organisation Européenne des Industries de la Tomate (OEIT); Associazione Nazionale degli Industriali delle Conserve Alimentari Vegetali (ANICAV - IT); I major EU manufacturer of tomato sauces

MS: ES, IT.

Sector overview:

It is estimated that in the EU there are 185 manufacturers of tomato products, of which 154 are represented by the OEIT (this includes both private and cooperative companies).

Tomato passata is produced in all the major tomato growing MS, in particular Italy, Spain, Portugal, Greece and France; more generally, these are also the main tomato processing countries in the EU. Passata is a low tomato concentrate product. It is either produced from fresh tomatoes (as has been the case in Italy since 2010) or from tomato concentrate (as is the case in other countries).

The sector processes annually 9 million tonnes of fresh tomatoes, equivalent to a crop covering about 150,000 ha, and has a turnover of more than €3.5 billion while it generates directly and indirectly employment for more than 40,000 people.

This sector is characterised by an important presence of SMEs; there are no specific figures for passata producers as such, but SMEs are estimated to represent about 70% of the total number of people employed in the entire tomato processing sector, and 50% of the sector's turnover.

Passata or tomato puree (and in a more general way, also other tomato based products such as ketchup and tomato concentrate) is produced on the basis of fresh tomatoes (so-called first transformation) and/or on the basis of tomato concentrate (so-called second transformation). The use of tomato concentrate ensures the continuity in the production flow all year round, as follows:

- During the harvesting period of tomatoes (August to October), **fresh tomatoes** are used in a continuous production process, whereby production batches are identified every hour for traceability reasons[218]. Since fresh tomatoes cannot be transported over long distances, the tomatoes used are **supplied by farmers close to the factory**. In practice this also means that the **country of origin of the 'first transformation' products is also the country of origin of the tomatoes**, since there is no cross border supply, with the exception of a limited volume between Spain and Portugal.
- In order to have a continuous production of passata over the whole year (thus also outside the harvest period), factories use only fresh tomatoes in Italy, or also concentrate in other countries. This concentrate may have been produced in the same factory during the harvesting period and then stored, or it may be bought on the (international) market. Concerning the latter, it is estimated that in 2013, **77% of the concentrate used by EU producers is of EU origin** and 23% is imported from outside the EU (in particular, from the US or from China)[219].

Despite this difference in the use of raw material, the end product passata is, in fact, highly standardised with a quality defined in such a way that it leaves little or no room for product differentiation[220].

Nonetheless, despite the highly standardised nature of passata, voluntary origin labelling is relatively extensive in some of the producing MS, notably Italy and Greece, although it is low in others. In Italy, all leading brands indicate origin voluntarily, and for several types of

[218] The sector applies traceability systems combined with audits from big tomato buyers; the schemes seem to be working well (for EU grown tomatoes).

[219] According to data provided by the OEIT, the percentage of imports from outside the EU has grown by 3% compared to 1997, when imports from outside the EU accounted for 19%, and 81% of tomatoes were of EU origin.

[220] Its quality is mainly defined in terms of the quantity of soluble solids present, measured on the so-called °Bx of degree Brix scale, which leaves little or no room for differentiation. This scale is also used for other tomato based products: on this scale, tomato paste has 28-30 °Bx, tomato ketchup scores 14 °Bx, tomato puree (passata) °12 Bx, whereas tomato juice can be as low as 5 °Bx. In fact, the production process starts with the juice extracting from washed and graded tomatoes, whereby the outer skin and the seeds are separated from the juice; this juice is heated to avoid quality degradation, and is then concentrated in several steps in vacuum evaporators, yielding, as said, passata, ketchup or concentrate (obviously, the product obtained after the evaporation can be mixed with other ingredients such as sugar and spices to yield the taste wanted, especially for ketchup). The high °Bx concentrate can than be used again to produce lower °Bx products such as passata, primarily by adding water.

products. Origin labelled products account for about 80% of the Italian market. In Greece, voluntary origin labelling covers about 75% of the tomato processed products. In other producing MS (FR, PT, ES), there are examples of VCOOL products but these account for minor shares of the national market.

Producers of tomato concentrate do not source according to the country of origin of tomatoes. They base their sourcing decisions on the price at which they can buy the required volumes of tomatoes that meet their technical requirements. The quality and availability of tomatoes depend on weather conditions or other factors affecting yields/harvest. The price difference of non-EU tomatoes can be from 10 to 30% lower than that of EU tomatoes depending on exchange rates.

For tomato concentrate producers, the mix of suppliers of tomatoes (mostly EU tomatoes) varies very frequently notably due to the seasonality of harvest. For food manufacturers using tomato concentrate, the number of changes in the mix of suppliers of concentrate (of EU and non-EU origin) is much less frequent. Large food manufacturers may apply their own quality audit system to the upstream supply chain to complement existing traceability systems.

The price of tomato concentrate on the international market is influenced by the cost of growing tomatoes in key world suppliers, including US and China. According to the EU tomato industry, the conditions under which tomatoes are grown in the EU (including the cost of land, energy, and labour, the use of PPP, environmental rules, the exchange rate vis-à-vis TCs, etc..) result in higher production costs for EU grown fresh tomatoes and, consequently, tomato concentrate. As tomato concentrate is of standardised quality, passata made from EU grown tomatoes is in principle equivalent to passata of non-EU provenance. However the EU tomato processing industry argues that the quality of the entire tomato supply chain is high as it complies with EU norms in terms of environment (e.g. PPP use) and working conditions, while high levels of traceability are ensured from the harvest to the final product. In their view, this provides a sufficient basis from which to distinguish EU from non-EU tomato products (including passata).

Structure of the supply chain

Technical specifications	• End product (passata) is highly standardised - quality of passata is mainly defined in terms of the quantity of soluble solids present; • Origin does not typically feature in raw material specifications and contractual arrangements, as origin *per se* does not confer the required quality specifications.
Sourcing	• Passata produced from fresh tomatoes (1st transformation) or from concentrate (2nd transformation); • 1st transformation products (i.e. processing of fresh tomatoes) are typically produced close to fresh tomato production (fresh tomatoes cannot be transported over long distances); • Overall sourcing pattern of tomato concentrate by volume/value is: 77% EU origin/provenance; 23% non EU origin/provenance; • On average companies in this sector are typically sourcing from a relatively stable mix of suppliers.
Product differentiation	Standard quality, commodity 'bulk' trading.
Degree of vertical integration	Quite significant in terms of some concentrate manufacturers producing also passata and other tomato-based products.

Production process	• Mainly continuous production process
Traceability system in place	• One step forward, one step back, in accordance with Regulation 178/2002 i.e. based on HACCP systems.
Process conferring origin	• The transformation of concentrate into tomato passata **is considered to be a substantial transformation** (as is the transformation of fresh tomatoes into concentrate, or the direct transformation of fresh tomatoes into passata)

Disadvantages

Option 1 is considered to provide only **advantages**. For this reason, the EU tomato industry (OEIT) is for the most part in favour of Option 1b for all tomato products having tomato as the primary ingredient; their preferred indication on the label in this case is *"Made with EU/Non EU ingredient, in X"* (i.e. indicate first the origin of the ingredient followed by the origin of the product, to improve consumer understanding)[221].

The key reason put forward by the industry is that an EU origin label would benefit consumers, by informing them and enhancing consumer trust (e.g. in the social, environmental and quality-related conditions in which tomatoes have been grown. It is argued that if the labelling is linked to the place of provenance of the raw material instead of the place of last substantial transformation (as currently per the Customs Code definition), it would reduce the prevalence of misleading labelling in this sector. Nonetheless, it is clear that mandatory origin labelling would protect and favour the European tomato growers. The industry expects that MCOOL in the EU would drive stricter production standards in the US and China, more in line with current EU standards, which would reduce the pressure on EU growers due to cheap imports of concentrate.

Currently, the EU exports variable quantities of concentrate to third countries, depending on stocks, which can be important. TCs are said to be interested in the quality of EU tomato products. Exports to competing countries are obviously very limited (e.g. in the US, there is ample domestic production and production costs are lower).

Options 2 and 3 are not considered to provide any added value to consumers, while they would reduce the current flexibility of the second transformation industry (production of passata). Such operators need to have access to a wide mix of suppliers across the EU. The EU tomato industry argues that, as passata is a standardised product and as common rules apply across the EU, any raw material of EU origin has the same quality regardless of where it is sourced in the EU.

Feasibility/operational costs

Option	**modality a: last transformation (concentrate into passata)**	**modality b: harvested/farmed (fresh tomatoes)**	**modality c: harvested + processed**
Option 1: EU / non EU	feasible/low impact	feasible/low impact	feasible/low impact
Option 2:	feasible/low impact	feasible/low to	feasible/low to

[221] See OEIT position statement. The French member of OEIT is however against the indication of the place of production for tomato sauces and ketchup (TARIC 2103.20).

Option	**modality a: last transformation (concentrate into passata)**	**modality b: harvested/farmed (fresh tomatoes)**	**modality c: harvested + processed**
Member State /third country		moderate impact	moderate impact
Option 3: Region	*By extrapolation from the above, in theory, this option would be feasible/low to moderate impact. However, its added value is questioned.*		

** In the EU, the origin of the tomatoes used for the production of concentrate/passata is mostly local, thus national.*

Operational costs

Additional costs for Option 1b (place of harvest of tomatoes at EU/non EU level)
1. Adaptation of production process: • **First transformation processors** (i.e. fresh tomatoes processed into passata) necessarily source locally, as fresh tomatoes are highly perishable and transport costs are high. This characteristic makes the origin labelling under modality b very easy for these operators. • For **second transformation processors** (i.e. concentrate processed into passata), the labelling of EU/non-EU would be an issue for those using non-EU grown tomatoes (23% of all tomato concentrate used in the EU). In order to avoid high/not feasible costs of segregation production processes, operators would eventually switch to use concentrate of EU origin/provenance (Scenario A).
2. Adaptation of packaging and labels/labelling process: • For both types of processors, there would be limited costs incurred by the one-off re-design of labels, the cost of which could not be estimated.
3. Adaptation/adjustment of traceability system: -
4. Administrative burden: The cost of the likely increased administrative burden could not be estimated.
5. Implementation of additional control by enforcement authorities: -

The additional costs of mandatory origin labelling are overall expected to be negligible to low (to moderate as we move to a higher level of detail). A key reason is the current structure of the supply chain and sourcing practices in this sector, in particular the fact that 77% of tomato concentrate used in the EU is produced from EU tomatoes. This would imply that operators using tomato concentrate of non-EU origin (which accounts for 23% of all tomato concentrate used in the EU) would eventually switch to use concentrate of EU origin/provenance, rather than applying the higher/not feasible costs of segregation of sourcing, production and storage facilities. Currently, the main incentive for EU FBOs to procure non-EU tomato concentrate is the price difference, which can range from 10 up to 30% depending on exchange rates. As discussed above, production costs are higher in the EU due to more expensive production factors (labour, energy) but also because of a comparatively stricter legislation in terms of food safety and environmental requirements.

In particular, at the level of the first transformation, production process (production of concentrate/passata from fresh tomatoes), there would be zero to low costs. This is because, as fresh tomatoes are very perishable and transport is expensive, the first transformation takes place in the same region, hence country (although there are some minor exceptions) as the

place of farming. The cost of adapting the label on the packaging is considered to be negligible.

At the level of the second transformation, i.e. production of passata from tomato concentrate[222], there are three possible scenarios:

1. The concentrate is produced by the same factory during the harvest season and stored for processing later on. In this case, there is no need to adapt further the packaging. The industry notes that there are no figures indicating the extent to which this scenario applies but that the trend among FBOs is moving into an increased prevalence of this scenario;
2. The tomato concentrate is bought on the international market, but is produced from EU grown tomatoes exclusively (which is the case for 77% of tomato concentrate, part of which used for passata production in the EU):
    - Under Option 1b (EU/non EU level), there would be no additional cost;
    - Under Option 2b (the place where the concentrate was produced is *de facto* the place of harvest of fresh tomatoes), the production batches would need to be segregated by origin. This would reduce the flexibility of the second transformation industry to source concentrate from different EU suppliers. However, since most passata producers work with a relatively stable mix of concentrate suppliers, it can be expected that they would switch to using concentrate from a single MS or a few MS, so that the origin is easily identifiable. Overall, therefore the cost is expected to be low to moderate;
3. The concentrate is produced with non-EU tomatoes: since this concerns 23% of the total concentrate supply in the EU, it can be expected that instead of making the necessary investments and segregate production facilities by origin, passata producers would switch their supply to 100% EU origin (which is admittedly the industry's goal besides consumer safety and global sustainability). This, however, would imply slightly higher prices of the EU concentrate. Tomato concentrate from the EU is generally 10-30% (depending on exchange rates) more expensive that third country concentrate due to its higher production costs which – according to the EU tomato industry - are the result *inter alia* of complying with stricter social and environmental legislation.

Option 2b would involve higher costs, which could not be estimated by the sector. These costs are expected to range from **low to moderate** for FBOs, as there are limited tomato-producing MS in the EU.

Impact on the internal market

The introduction of mandatory origin labelling **under Option 2b (place of harvest of fresh tomatoes)** could lead to unfair competition between EU operators, to the extent that consumers may expect/perceive differences in quality and therefore favour one rather than another MS origin/provenance. The EU tomato industry points out that the conditions of production are equivalent across the main tomato producing (southern) MS and that there are no quality differences or differences in production standards, while the end product (passata) is of standard quality.

Impacts on competitiveness in international trade

[222] This is not the case for Italy

Imports of tomato concentrate from Third Countries account for 23% of all tomato concentrate used in the EU. The introduction of MCOOL rules on TC suppliers would therefore have some negative impact, especially as the industry anticipates all FBOs in the EU to switch to EU tomato sourcing. The introduction of mandatory origin rules under Option 1 might be considered by some non-EU partners as a non-tariff barrier.

On the export side, i.e. exports of tomato passata, the indication of EU origin is considered by the industry to possibly result in some positive effects for EU FBOs, as the EU origin stands for quality, food safety and environmental and social standards.

4.10.3.3 Wheat flour in bread

Organisations contributing to the consultation for this case study: International Association of Plant Bakers (AIBI); Federation of Bakers(UK); Confartigianato Panificatori (IT); Federation of Large Bakeries of Belgium FGBB (BE); Cereal Ingredient Manufacturers' Association; individual companies (BE, DE, UK)[223].

2 MS: DE, UK; BE added at the request of AIBI.

Sector overview

The International Association of Plant Bakers (AIBI) has, at present, 15 national member organisations including Norway and Russia (Turkey is an associate member of AIBI). AIBI thus represents 2,054 of industrial plant baker companies and more than 421,000 employees[224]. According to 2012 data by AIBI[225] (covering the 13 MS that are members of AIBI), although bread production is relatively stable in a number of countries (e.g. Finland, France and Germany, Greece, and Italy), in most countries it is slightly decreasing.

Bread consumption patterns differ widely between EU MS. The highest consumption level is recorded in Bulgaria with an average of ~95 kg per head per year and the lowest consumption is in the UK with ~32 kg and Spain with ~36 kg. On average the European consumer consumes ~58 kg bread/head/year based on data from the 16 countries members of AIBI, which can be stated as stable in 2012 with a tendency of a slight decrease. Most countries with an average consumption of more than 50 kg bread/head can be considered as bread-eating countries, i.e. referring to bread as a key staple food.

Production structures across Europe are also very different. Bulgaria, the Netherlands, the UK and Finland have the highest percentage market share of industrial bakeries (from 87% in Bulgaria to 75% in Finland). By contrast, the market share of craft bakers in southern European countries is very high (particularly in Greece (94%) and Italy (85%)), although their relative market share is decreasing on average across the EU. Both industrial and craft bakers (with a market share respectively, of 44% and 37% across the 13 MS covered by AIBI) have lost market shares in the EU to retailers' own production which represents in

[223] Including 9 questionnaire responses received through the FBO survey (from associations and companies), which related in particular to flour in bread/bakery products..
[224] In the 13 MS that are members of AIBI, the organisation represents a total of 1,047 bakery companies and 116,500 employees (employment data only available for 11 MS). In addition, in 11 of these MS, AIBI estimates that there are approximately 94,000 craft bakery companies.
[225] AIBI Break Market Report. Latest data available, July 2013.

some countries up to 20% of the market share. Retailers' share of the bread market is expected to increase further with the rising success of new selling concepts (bake off/frozen dough products), consumer demand for convenience along with "freshness" in the store, and significant price competition.

The proportion of industrial to craft/retailer market share has a bearing on the impact of the potential introduction of mandatory origin labelling rules, as pre-packed bread is mainly (but not exclusively) the product of industrial bakeries. The share of industrial bakeries in the total bread market in the 13 MS that are members of AIBI roughly represents the market that would be at the very least impacted by the rules. Thus**, typically the impact of mandatory origin rules would be primarily on industrial bakeries who are the main producers of pre-packed bread, although those craft bakeries producing for the pre-packed bread market would also be impacted**.

According to AIBI estimates, overall in the EU, **the market roughly splits 50-50 between pre-packed bread and non pre-packed bread**; but the proportion differs between MS, as already noted and further discussed below. Overall, the trend of convenience shopping means that there will be a continuously increasing market share of pre-packed bread in the EU.

Within these overall estimates, there are **significant variations between MS**. For example, in Greece and Italy only 6% and 15% of the break market, respectively, is accounted for by industrial bakeries. At the other end of the spectrum, in the UK, the market share of industrial bakeries is 80% which is also the market share of sliced/wrapped bread in this country. In the other case study MS (Belgium and Germany), the proportions of pre-packed to non pre-packed bread are estimated, respectively, at 20%-80% and 40%-60%.

Craft bakers are typically micro-enterprises. In the MS covered by the case studies (Belgium and Germany), AIBI estimates that there are, respectively, 3,100 and 11,000 craft bakeries accounting for 48% and 45% of the market; against 60 and 50 industrial bakeries, respectively in these two countries, accounting for 52% and 40% of the market. In the UK, 47 industrial bakeries account for 80% of the market (the number of craft bakeries is not available).

Industrial bakeries can be small, medium or large enterprises. For example, according to AIBI data, in Belgium on average industrial bakeries employee 63 people, while in the UK and Germany average employment per industrial bakery is, respectively, 345 and 700 people. Typically, in the MS covered by AIBI, industrial bakeries account for <1% to <5% of the total number of companies, although their average market share across these MS is 44%.

As noted above, **retailers** roughly account for up to **20%** of the bread market in the 13 MS represented by AIBI. In-store supermarket/retailer bread (baked in premises for B2C) is **not pre-packed bread**.

BE: There is a stiff price competition between retailers and therefore a high price pressure on producers. The industry notes that margins are shrinking in the bakery sector. Consumers have a strong interest in authentic, natural, convenient and indulgent food. In Belgium there are ongoing discussions around the nutritional benefits of bread. Bake-off of bread in retailers) has increased over the years to respond to the consumer need and perception of freshness of bread.

UK: The trends of freshness, health and dietary issues continue. The business environment stays challenging and will continue like this. The £3.5 billion bakery market in UK forecasts to continue to grow to £4.3 billion by 2016. Sliced/wrapped bread accounts for 80 % of the market and freshness is the no 1 issue when buying. Further trends are health/lifestyle and dietary issues. The challenging business environment of the last years is likely to continue for some time. Bread continues to be an exciting area of activity and innovation.

Structure of the supply chain

Technical specifications	• Quality of wheat/wheat flour determined by a number of parameters, e.g. protein content, ash content, moisture, water absorption; • Quality specifications determined by use in the final product and customer requirements. Suppliers of flour combine flour wheat from different suppliers/countries (as well as, progressively, from the old/stored harvest to new harvest) to achieve required quality characteristics for constant quality. This means several changes in suppliers/country of origin, which can vary due to factors such as seasonal availability, weather etc.; • Origin does not typically feature in raw material specifications and contractual arrangements, as origin *per se* does not confer the required quality specifications.
Sourcing	• Overall sourcing pattern by volume/value is: 35% single national (EU or non EU); 50% multiple sources EU only; 15% multiple sources (EU and non EU); • On average companies in this sector are typically sourcing from 2-3 countries, but sourcing can be from 4-6 countries in a 'bad' harvest year; • Mixing of EU and non EU origin (e.g. Canada wheat) is quite prevalent.
Product differentiation	Mostly standard quality, commodity 'bulk' trading: ca. 90%; Mostly high value products: < 10% specific products
Degree of vertical integration	Varies depending on the MS, e.g. it is low in BE but high in the UK.
Traceability system in place	• One step forward, one step back, in accordance with Regulation 178/2002 i.e. based on HACCP systems.
Production process	• Continuous or batch production model for the bakery sector (depending on the bakery product/plant): for bread baking the most common is continuous; • Continuous blending throughout the production input-output process, to achieve required quality specifications.

Disadvantages

There is a general disadvantage for pre-packed bread vis-à-vis non pre-packed bread, for which the labelling requirements are generally much less constraining.

It would be misleading for consumers to have the origin labelled on pre-packed bread and not for the rest of the bread market. This is particularly the case in MS where non pre-packed bread accounts for the largest part of the market (which, currently, is the case in most of the 13 MS that are members of AIBI). The potential new rules would in fact add to a whole range of labelling requirements on pre-packed bread; there are also labelling requirements currently on non pre-packed bread, but these are generally less constraining than those for pre-packed bread.

Feasibility/operational costs

Option	modality a: last transformation (milling)	modality b: harvested/farmed (wheat)	modality c: harvested + milling
Option 1: EU / non EU	low impact/feasible	moderate/high impact	moderate/high impact
Option 2: Member State /third country	moderate/high impact	high impact/not feasible	high impact/not feasible
Option 3: Region	high impact/not feasible	high impact/not feasible	high impact/not feasible

** either 'EU' or 'non-EU' would not always be possible since the flour can be for instance a blend of French and Canadian wheat.*

Costs

The costs for **Option 1a** (place of processing at EU/non-EU level) are low and involve a one-off cost to modify the label. In fact, the flour used as an ingredient in EU bakeries is almost entirely milled in the EU (imports of flour into the EU are only negligible). The last place of transformation of the ingredient 'flour' would consequently almost always be 'EU'. However, wheat for milling can be imported from EU and non-EU countries such as Canada, US, Ukraine (see case study on wheat flour).

In **modality a**, the place of milling would not be very informative for consumers who may be more interested in where the grain comes from. It could in some cases be misleading, particularly for small countries relying significantly on imports of wheat for flour production (who can therefore not sufficiently/at all source flour made of wheat harvested in their own country).

The table below provides cost calculations for m**odality b in general**, i.e. origin intended as the place of harvest. This is the worst case scenario for which costs could be estimated (although this was not possible in some cases). Depending on the sourcing patterns of each bread manufacturer and of their suppliers (flour millers), the costs indicated in this table refer to either Option 1 (EU/non-EU) or Option 2 (country). These are the **additional costs borne at the level of the bread manufacturers**, the cost of the flour millers have been estimated in the flour case study.

Additional costs for modality b (place of harvest)*
1. Sourcing and production process: **The price of flour as an ingredient would increase**, assuming that flour millers are able to pass on their cost increase to their B2B customers, i.e. the bread manufacturers in this case. The extent of the price transmission would depend on the supplier/buyer bargaining power which depends on the prevailing conditions in each market. For the estimates of the cost increase for flour, see the flour case study. In addition, bread manufacturers' production processes may require **re-organisation of production facilities**, in order to ensure the continuity of the segregation by origin throughout bread production. This is to ensure the identification/isolation of origin (i.e. where wheat was harvested) up until the bread labelling stage.

Additional costs for modality b (place of harvest)*
It is noted that in MS, such as the UK, where wheat may be sourced from EU and non-EU origins, **Option 1b** (place of harvest at EU/non-EU level) would imply high costs to flour millers, hence a high price increase for bakeries. In other MS, such as BE, DE or FR, most of the wheat used comes from the EU but from different MS (see flour case study). For these MS, **Option 2b** (place of harvest at MS level) would incur sourcing costs equivalent to Option 1b in e.g. the UK.
2. Adaptation of packaging and labels/labelling process: ➢ Total packaging/labelling costs would depend on the number of modifications required and number of SKUs/packaging. Assuming a **medium sized plant** and a low-moderate scenario with 2 modifications per year for 1 product and 3 types of packaging for that product, the annual printing layout costs would be up to €1,000 – €5,000, and annual costs of printing plates (3 different types of packaging material) up to €38,000 - € 44,000; thus, total annual costs in this case would amount up to €39,000 - €49,000. ➢ Costs for each individual company would depend on the number of wheat-based bakery products. A small company would typically produce 10-20 products. Therefore, on the basis of the above annual costs per product, and assuming 2 modifications per year for 10-20 products, a small company's total annual costs could reach up to €390,000 - €980,000. ➢ Medium to large bakeries have many products and 10s to 100s of packaging material references (e.g. in one large bakery case 800-900 SKUs were indicated). ➢ Besides, the industry notes that re-design and approval of new labels by customers are complicated and time-consuming operations. ➢ **The above figures therefore reflect the low end of the estimated costs, since the change in the place of harvest would likely change several times a year and apply to more products.** Again, the changes in the 'place of harvest' are assumed to be triggered at EU/non-EU level for the UK, and at MS level for e.g. BE.
3.Packaging waste costs (costs of residual obsolete stocks): Depending on the transition period, all packaging stock can be used therefore costs are likely to be minimal.
4. Labelling/packaging supply management costs: Additional staff time would be needed due to **the increased complexity of operations**, for instance to ensure that supply of packaging is accurate and timely, to manage complex stocks, to accurately label origin on products, to retrieve origin information from flour suppliers, to adapt own specifications and to accurately deliver customers according to their specifications. These costs could not be estimated but are considered to be high.
5. Implementation of additional control by enforcement authorities: These costs would largely depend on how control costs are performed in every MS.

** Depending on the sourcing patterns of each bread manufacturer and of their suppliers (flour millers), the costs indicated in this table refer to either Option 1 (EU/non-EU) or Option 2 (country).*

Generally speaking, costs foreseen under Option 1b would increase under Option 2b, as the number of potential label modifications per year is likely to increase, due to multiple origin changes. This would depend on the sourcing of individual companies, and can be linked to whether companies are located in import dependent (usually smaller) MS or self-sufficient (usually larger) MS, as the latter may have less need to import and therefore be less susceptible to origin changes (see also impacts on the internal market below).

These costs would be mitigated if **'EU and non EU'** (Option 1b) or **several countries** (Option 2b) are indicated on the label, although consumer could be ultimately misled if not all countries indicated on the label are involved. Also, the added value to consumers was questioned in this case.

Key factors for the feasibility/costs of modalities b (and c), under Option 1, but particularly Options 2 (and 3) are the following:

Sourcing and production process

After every new harvest, the new flour is only gradually introduced in the bakery production sites, mixed with flour from the previous harvest, over a period of several weeks, so as to ensure constant quality specifications. In some cases, not all the production sites of the same bakery are delivered by the same supplier. As a result, for one bakery product, produced according to the same recipe (e.g. same amount of wheat flour, same ingredient list) but in several production sites, would have different flour 'origins' and would need to have different labels. In addition, as there is continuous blending in the production process, different origins would be mixed at individual plant level, while 'origin-contamination' would occur in the plant's silos between different flour origins. To avoid this, full segregation by origin should be organised.

The costs of segregation are particularly significant. One European multinational company indicated that segregation for 1 additional origin only (i.e. in the case of Option 1, EU/non EU) would imply purchasing 30 additional storage tanks (at company level, i.e. across different sites), at the total cost of €150,000/tank. This results in a total €4.5 million investment for the firm. This is a one-off cost, but it excludes the costs of installing equipment, the costs of other adjustments to ensure segregation throughout the production process, additional staff costs, and annual maintenance and operational costs.

Packaging/labelling process

On-line printing was considered unfeasible given the current existing printing equipment. The end-by date of pre-packed bread is currently printed either on the package or on the bread clip. Existing printers are considered unfit to print complex origin information: the complexity and multiple variations of the text to print and the move from number-only to number and letter printing have been pointed out as the main issues. The industry claims that the equipment needed to achieve this does not currently exist on the market. Furthermore, the size of the text is another element that discarded on-line printing as a possible alternative, e.g. it would be impossible to print it on bread clips, while notable adjustments would be needed to fit the (varying) information on package.

The time needed to adjust/ implement the modifications in labelling/packaging required with every change in origin is long. The case studies indicate that it would take at least up to 4-6 weeks before a new label and up to 6-8 weeks before the new packaging (foils or bread bags or paper bags or cardboards) are ready. The range of packaging material is significant, and it is even more complicated since they are purchased from different suppliers. Bakeries have typically 10s to 100s packaging material references; a large bakery indicated 800-900 references of packaging material. In the case of private labelled products, any change in packaging would be even more difficult, as this first needs to be approved by the retailer. With this process, it can reasonably be expected that the label needs to be changed several times a year, and in some cases that the origin of the flour would have changed after the new labels/packaging are ordered (thus resulting in redundant/obsolete packaging).

There would also be costs for the management of packaging supplies (ordering new supplies, as more packaging changes would be necessary; managing existing packaging stocks), and potential increase in packaging waste costs due to redundant stocks as a result of changes in

origin (the environmental impact of packaging waste as such is discussed separately). Beyond the environmental impact, there are also waste management costs incurred by companies. Bakeries try to limit the stock of their packaging up to 3-6 months' sales; as noted above, the range of both packaging material and suppliers is very significant, and this adds to the complexity of managing packaging material orders and potential waste. It is impossible to give an overall estimate of the costs for the destruction of the old packaging, but one case study plant indicated that the packaging stock can account for € 2- 3 million; this could be the potential upper level of stock to be wasted in case of redundancy.

Administrative costs and burden

Additional time needed to retrieve specifications of the suppliers of the flour, to adapt to manufacturer specifications and the specifications of the customer. These costs could not be established, but are considered to be significant and are additional to BAU costs.

As with the operational costs, smaller companies would be particularly disadvantaged as they do not have the administration or the manpower to handle frequent origin modification.

Impact on the supply chain and consumer prices: who would bear the cost?

Starting with the price of wheat, this is determined on the world market. This sets the price also for flour, depending on the quality specifications required. For bread/bakery product manufacturers, it is the quality that drives where they buy their (wheat) flour from, in order to achieve a certain standard quality that consumers expect on a certain bakery product. The origin of the wheat/flour is not a parameter that typically features in the quality specification requirements put by manufacturers on their suppliers.

Concentration in the sector is not high in most MS, with a large number of micro-enterprises and SMEs significantly present in this sector. Even in MS where concentration is higher (e.g. the UK), there is a small number of flour suppliers supplying the 47 industrial bakeries that account for 80% of the UK bread market. Thus, within the supply chain, given the current structure of the sector, it appears most likely that bakeries would have to bear all the relevant labelling/packaging costs (i.e. adaptation of design, new printing plates, etc…).

This is particularly the case for bakeries in smaller countries that are relying significantly on imports, putting them effectively in a competitive disadvantage vis-à-vis suppliers in (typically) larger self-sufficient MS. Those bakeries are consequently obliged to change more frequently their labels/packaging than bakeries in larger self-sufficient countries. On average companies in this sector are typically sourcing from 2-3 countries, but sourcing can be from 4-6 countries in a 'bad' harvest year. A combination of EU and non EU (e.g. Canada) sourcing is also prevalent in this sector. For bakery products using a mix of flours, e.g. white and wholemeal, the matrix of suppliers (and potential mixes of origins) is multiplied x2.

Even in cases where vertical integration is more prevalent, there is some reliance on imports from other sources (e.g. one BE mill, where 90% of wheat flour comes from 'integrated' mills as the company has its own mills, but 10% comes from up to 2-3 different suppliers with various mixes of origins, while the mills have a range of suppliers and may change suppliers). Due to the continuous blending of the flour during the production process to meet quality specifications, all flour would need to be identified by origin even in the case where only 10% of the flour is a mix of origins; it is not feasible/too costly to keep this flour segregated during the production process from the 90% known single origin flour.

It is unclear whether/to what extent the additional costs of origin labelling would be transferred to consumer prices. The retail sector is increasing its presence in the bread/bakery products market competing directly against pre-packed bread, while the non pre-packed share of the bread market continues to be very strong in most MS. These two factors may cushion some of the impact that the additional costs may have in terms of the extent to which manufacturers would be able to transfer some of the cost of mandatory origin labelling to final bread/bakery product prices.

Impact on the internal market

Companies in smaller countries relying on imports of flour would suffer more than those in larger and self-sufficient countries. Generally speaking, Belgian flour and bread producers are relying on imports of raw materials such as wheat and other cereals. Some MS in the EU rely on significant volumes of imports. Therefore, the cost and administrative impact for mandatory origin labelling (particularly under Option 2.b) would be much higher for bakeries in wheat importing countries than for similar bakeries in wheat producing MS (more likely to be self-sufficient). Mandatory origin labelling, on the basis of 'place of farming/harvesting' (modality b) would therefore result in unfair competition and disturb the free movement of goods within the EU.

Impacts on competitiveness in international trade

EU bakeries mostly source from EU millers therefore modality a would have no major impact on international markets. However, under modality b, there would be important changes in the geographical structure and trade flows of wheat used to produce flour, at the level of millers (e.g. less flexibility would result in higher wheat prices) but most of EU bakeries do not typically compete on international markets.

Environmental costs

Increased packaging waste is expected due to unadjusted or obsolete/redundant labelling/ packaging.

4.11 Conclusions

A range of options and modalities were assessed, including the '*no policy change'* option. According to the majority of consulted MS CAs and FBOs (across the food supply chain), ensuring the effective implementation of voluntary origin labelling rules under Article 26(3) of Regulation (EU) No 1169/2011 would provide a sufficient and satisfactory solution for responding to EU consumer calls on geographical origin labelling for the three categories of food covered by the study.

Moreover, most of MS CAs and food supply chain stakeholders are **against the introduction of mandatory rules on a horizontal basis for the three categories as such**, due to the diversity of products potentially covered and the lack of common understanding for the 'single ingredient' category. It was therefore generally considered **more appropriate to determine whether mandatory rules need to be introduced on a case by case basis**, i.e. for particular products / product sectors, as is the case with other existing vertical legislation in this field (e.g. olive oil, honey, fresh meat etc.).

For those against the introduction of origin labelling rules on a mandatory basis there are questions of relevance, technical feasibility, effectiveness and efficiency. In particular, the key concerns identified are as follows:

1) Whether mandatory rules are a relevant tool to meet the objective of improving consumer information. This is because origin labelling (especially in the context of the EU internal market) does not give any indication as regards to the product quality or the safety of foods – which is one of the main reasons why consumers want to know the origin of food, the other being to favour national or local production (Theme 1). It is therefore considered to be of little informative value to consumers. Beyond this, consumers appear to be more interested to know the origin of fresh food rather than processed food. However, as each category covers a diverse range of foods understood by the consumer to be fresh, unprocessed, lightly processed and/or further processed, it is difficult to ascertain the extent to which consumers would be interested in the origin of food on the basis of the three categories covered by the study.
2) The rules are expected to lead to very divergent impacts between sectors, ranging from negligible to very considerable / disproportionate costs to being technically not feasible in some cases. The exact impact will depend on the option/modality, the product / product sector, the MS, and/or the particular context of each FBO. Therefore, a horizontal approach is not considered appropriate.
3) Where there are considerable / disproportionate cost increases, these are expected to lead to increased consumer prices. As concluded in Theme 1, although willingness to pay (WTP) for the additional costs as expressed by consumers was found to be relatively high, the majority of MS CAs and FBOs generally consider it to be weak/absent, while the current awareness and uptake of existing voluntary schemes in the food sector (including PDO/PGI) is generally low and the higher prices of these foods are an underlying factor.
4) To ensure an effective implementation of mandatory rules will involve complex and costly controls for both MS CAs and FBOs, while the effectiveness of controls on the origin/provenance of foods based on documentary checks – the only means available today - is questioned. There will be further difficulties of implementation, as the introduction of mandatory rules for the three broad categories of foods would

enlarge the scope of existing controls to cover virtually the entire food supply chain. There is concern that these issues may potentially create room for more fraud.

Article 26(3) is therefore considered as a partially or entirely satisfactory solution by those against the introduction of rules on a mandatory basis, as expressed by the majority of stakeholders and 15 MS CAs (out of the 24 MS CAs that responded to the consultation). This is on the condition that implementing rules for voluntary origin labelling are clear and meaningful to consumers, while costs of implementation need to be taken into consideration in all cases.

On the other hand, the key concerns (expressed by 2 MS CAs) why voluntary origin labelling under Article 26(3) is not sufficient/ satisfactory are that it only covers the primary ingredient and could be difficult to establish this for certain categories of products, particularly for multi-ingredient foods, while there could still be a significant gap where voluntary schemes are not widespread or do not exist.

Several (7) MS CAs noted that, as the implementing rules for Article 26(3) are not known yet, it is difficult to position themselves on the necessity to introduce origin labelling rules on a mandatory basis, while the adequacy of Article 26(3) also depends on the products concerned. This is not surprising given the varying extent to which voluntary origin labelling is currently available in the various MS and product sectors, and the divergence in the scope and specifications of existing schemes (as outlined in Theme 2).

In terms of the potential options/modalities, both MS CAs and FBOs generally indicated that **the higher the level of processing and sector complexity** (particularly for products with multiple sourcing practices and continuous production and blending processes), **the less the level of detail that is considered feasible to provide** on the origin/provenance of foods. As for **consumers**, their preferences for the different options were mainly investigated through specific questions of the FCEC consumer survey in relation to representative products in each of the three categories examined by the. This has been thoroughly analysed in Theme 1.

Option 3 (label indicating other geographical entities as place of provenance *[region]*) was generally **considered by most MS CAs and FBOs to be not feasible**, for the following reasons: 1. there is no universally accepted definition of '*region'*; 2. traceability is more complicated than in the other options and is even considered not feasible in some cases; and, 3. there is potential for overlap/confusion with existing EU quality schemes (PDO/PGIs) that could undermine the added value of these schemes.

In the case of **MS CAs**, as noted above, the majority consider Article 26(3) to be a partially or entirely satisfactory solution, while they largely do not consider appropriate the introduction of rules on a horizontal basis; only 2 MS CAs clearly favour the introduction of mandatory rules. It should be borne in mind that MS CAs are largely still forming their position on the issues under study particularly while awaiting the implementing rules on Article 26(3) regarding voluntary origin labelling. Even though it is difficult to identify clear trends, in the event that rules need to be introduced, the **preferred policy options/modalities of MS CAs** are shaping as follows:

- Option 2 (label indicating the MS or TC) is considered more relevant in some cases for consumers than Option 1 (label indicating EU/non-EU origin or EU/third country), This depend on products: Option 2 was supported by 13 MS CAs, and Option 1 by 8 MS CAs.

- Those supporting Option 1 indicated that, since all standards in the EU should be applied in the same way, an "EU / non EU" indication would indicate a high level of quality and safety for all food, particularly for ingredients that represent more than 50% of processed multi-ingredient foods, which is more important for consumers than their origin.
- For most of the MS CAs that supported Option 2 (and Option 3), the appropriateness of modality 'a' or 'b' would depend on individual products concerned and can only be established on a case by case basis. Generally, if food products are processed: mostly modality 'a'; if unprocessed: mostly modality 'b').
- Some MS questioned the relevance of origin information for certain products as established under the Community Customs Code. A food product's last, substantial, economically justified processing or working in some cases also includes packaging, while in other cases it may not include processing as this might be understood by consumers (e.g. sugar refining is not considered as substantial transformation).

In the case of **FBOs,** the key observations on the options and related modalities are related to their **technical feasibility**. In particular, on the basis of collected evidence, the following conclusions can be drawn:

1. **Option 1** is **always considered more feasible** (or at least less challenging) than Option 2. However, all of the consulted stakeholders along the food supply chain pointed out that in the case of continuous production process and blending of EU / non EU ingredients, mandatory origin labelling even under Option 1 would pose serious operational challenges and require radical adaptations.
2. **Generally, mostly modality 'a'** (origin as determined in accordance with the EU Customs Code - mainly corresponding to the country of the last substantial transformation) **under Option 1 is considered technically more feasible** by FBOs.

The main reasons why some **options/modalities** are considered **not feasible relate to current business practices**. The most crucial elements are the need to perform very significant adaptations in the production processes and sourcing practices (both for suppliers of raw material and for processors of the final product). In particular:

- *Incompatible sourcing patterns and practices*. The key aim of food product manufacturers is to achieve the required quality specifications at competitive prices; this is particularly the case for standard commodity products (e.g. sugar, flour) for which competition is high and prices are formed at world markets. As also described in Theme 2, the current sourcing practices are often very complex and involve multiple EU and also non-EU origins; in many cases origins change frequently over time; the mixing of different origins can occur at various stages in the chain, and already before the arrival of the raw material at the processing plants.
- The *need to switch to smaller production batches, and/or to interrupt continuous phases of the production process* in order to achieve segregation by origin within the plants. Both adaptations require very significant investment, while at operational level they generate very considerable inefficiencies.
- *Systematic adaptation of labelling/packaging to changes in the origin(s) of food ingredients*: in view of the frequent change of origins (see point a. above), this can require very frequent changes of packaging/labels and additional investment in printing

equipment, and can result in underutilisation of packaging lines and in an increase in waste packaging material.

- The need to adapt significantly the *traceability* system, to ensure constant tracing of the origin throughout the supply chain (rather than current one step forward one step back traceability for food safety purposes).

In terms of the implementation of those **options considered technically feasible**, the **costs (and feasibility) of the required adaptations are a key concern**. By and large, the consultation of FBOs has revealed **two main scenarios** that would emerge, in case mandatory origin labelling rules are introduced, so as **to achieve full (cumulative) traceability along the supply chain** for the purposes of origin labelling[226] (**Box 4**):

- In scenario A (adaptations in sourcing practices), there would be a loss of flexibility in sourcing with implications in terms of the availability, quality and prices at which raw materials can be obtained. This is one element of the estimated operational costs.
- In scenario B (adaptations in the production process), there would be:
  - Additional costs for investment in duplicating/extending production capacity, e.g. in silos, storage and new production lines. The costs of this scenario are particularly high, to the point that is considered not feasible from an economic point of view (and in many cases not feasible from a technical point of view).
  - Where possible, instead of undertaking such an investment, FBOs would opt to convert to batch production, or shift to smaller batches. In this case, there would be efficiency losses resulting from the discontinuation of the previous (continuous or larger batch) production process model, due to the required disruptions when switching between origins. In addition, there would be cleaning costs between batches (to avoid origin cross-contamination), and additional logistics/stock management costs; these costs, which are less substantial than efficiency losses, depending also on the tolerance level that would eventually need to be set, are another element of the estimated operational costs.
- In both scenarios, there would be additional labelling/packaging costs, administrative costs and burden, and further impacts in terms of competitiveness, internal market, international trade and environmental issues.

The evidence collected on **the potential additional operational costs**[227] that would emerge from the above scenarios is **very heterogeneous between products / product sectors, MS and individual FBOs**. This is due to the diversity of the sectors and situations that can prevail. Despite our attempts to harmonise the data collection and the scenarios/assumptions

[226] As concluded in Theme 2, the existing EU traceability requirements for food safety purposes are not really a baseline for providing origin labelling information. the key constraint is that, as they are designed to serve a different purpose, they only provide at present "*one step forward/one step back*" traceability (which is sufficient for the purposes of ensuring food safety), rather than cumulative traceability throughout the supply chain, and they are not designed to trace the geographical origin as such of food ingredients, which would be the requirement for establishing origin traceability.

[227] The specific aspects considered in the assessment were the following: Adaptation of sourcing practices and possible changes in the mix of suppliers of the various ingredients; Adaptation of production process of the final food product; Adaptation of packaging and labels/labelling process; Adaptation of marketing practices of the final product; Adaptation/implementation of traceability systems; Implementation of additional internal controls required to ensure compliance with mandatory origin labelling rules; Any other possible aspects specified by FBOs.

followed in the analysis of the options/modalities, this is inevitably subject to the specificities and data availability in each sector. This makes it difficult to carry out a systematic analysis of the data and not possible to compare quantitative estimates, as they refer to specific situations and assumptions. Even though caution is therefore required in extrapolating and drawing general conclusions, the following overall patterns emerge from our main findings:

- **For each option/modality, the extent of additional costs can vary considerably**, and will depend on the specific operational situation prevailing for each FBO at the time of the potential introduction of the rules, thus the scenario of adaptations that FBOs would consider most feasible to pursue (**Box 4**). This will depend on the current features of the particular supply chain, as determined by the factors highlighted in Theme 2, i.e. including sourcing practices, the production model (whether continuous or batch), the degree of vertical integration, the presence of SMEs and scale of operations, the competitive structure and resulting bargaining power along the supply chain, and the current status of traceability systems and practices. Thus, plant-level or MS-level estimates can differ significantly. For this reason, in most cases, no EU-average level estimates could be provided by the present analysis.
- From the case studies conducted under the study it can be concluded that **adapting the structure of the supply chain** (such as: simplifying sourcing practices, reducing batch sizes, reducing intermediaries, increasing scale, repositioning product range) is **more cost effective than investing** in the adjustments that would be required in the production process to ensure for example complete segregation of the supply chain under current sourcing practices (as discussed under technical flexibility, **Box 4**).
- The **most impacted cost items** have been identified by food supply chain stakeholders to be as follows:
    - adaptation of sourcing practices and possible changes in the mix of suppliers;
    - adaptation of production process of the final product;
    - adaptation of packaging and labels/labelling process;

  Traceability costs could not be distinguished as such; as to ensure full traceability would require the above adaptations, **traceability costs** are **embedded in the costs related to adaptation of sourcing practices/production process** in particular.
- Bearing in mind the above issues, the **additional costs under Option 1 are generally lower**, or much lower, **than under Option 2**. Similarly, **additional costs under modality 'a' are generally lower**, or much lower, **than under modality 'b'.**
- With all due caveats relating to the limited comparability of data, the scale of impacts can be distinguished between the two broad scenarios of required adaptations (A and B) as follows:
    a. A **scenario where the adaptations pertain to duplicating/expanding the production process** (scenario B.i, **Box 4**). This concerns in particular 'bulk' commodities with continuous production process, and extensive blending of EU and non EU sourcing (e.g. sugar, vegetable oils, flour). In these cases, the required investment costs - even under Option 1 - are too high for the scenario to be feasible in economic terms, while they are often also not feasible in technical terms (e.g. planning permission not possible for plants located in urban zones).
    b. A **scenario where feasible adaptations of the existing production process can be made** (scenarios A and B.ii/iii, **Box 4**). **Additional costs under Option 1 range from negligible** - where there is no mix of EU and non EU origins (e.g. tomato passata; pre-packed cut green salads; some products in the

rice sector) - **up to +30% of production costs**, where there is a mix of EU and non EU origins. **Additional costs under Option 2 range from +15% to +>35% of production costs**. These costs are specific to the production of the final products, and are – at least partly - in addition to the costs likely to be incurred at the earlier stages of the supply chain (where the latter were not the place of the last processing of the final product).

- In most cases (i.e. under the various options/modalities and for the range of products/product sectors), the **additional costs exceed the current levels of profitability** as the consulted sectors indicated that operating margins are generally tight (i.e. <5%).

A key concern of both MS CAs and FBOs remains the **feasibility and effectiveness of enforcement based on paper documentation**, as there are no other methods to control origin of food products. In Third Countries, this would be very hard to enforce. Within the EU, in the context of constrained budgets allocated to controls, the need to prioritise to maintain focus on food safety would jeopardise the enforcement of any new rules. **The complexity of enforcement and lack of effective controls would increase the risk both of genuine errors and potential fraud**.

In terms of the **additional administrative costs and burden**[228], the general observation is that mandatory origin labelling would lead to an increase in costs; the greater the level of detail the higher the cost. **Additional costs of controls for the three categories covered by the present study are expected to be higher than previous estimates of such costs in the case of fresh meat or meat products**; this is because in the meat sector there is an established system of traceability starting from animal identification –and this is most developed in the beef sector – which can serve as the basis for the MC CA controls. In terms of who is likely to be affected by the new IOs, the results of the MS CA survey indicate that an impact is expected to occur both for MS enforcement authorities and/or private operators, across all obligations:

- For MS CAs, **familiarisation with the IOs/training and data inputs/record keeping related to inspections and audits (verification checks)** are the main areas expected to be affected. The resulting increase in control costs is in terms of the **number of staff needed to perform verification checks at FBO point**. However, only 7 MS CAs provided some quantitative estimate of the scale of the anticipated additional costs. In particular, **2 MS** indicated that the introduction of mandatory origin labelling rules for the three categories of products covered by the study would result in **up to a 3-fold and 10-fold increase in their current levels of control costs.** The other **5 MS** that provided some data indicated that the **increase in costs could range from 5% to 20-30%.** No further distinction in terms of costs per option/modality was provided, beyond the general observation that the more the level of detail the higher the cost.
- **Given the current tendency of stable or reduced state budgets allocated to national control authorities for food controls, as the priority remains the enforcement of food safety, enforcement of origin labelling rules will not always be on the top of the list of control priorities.** Although any increase in costs is expected to be passed on to FBOs expected to be ultimately passed on to FBOs through the charging of fees (under

[228] It has not been possible, neither for MS CAs nor for FBOs, to separate the costs resulting from what might be the new information obligations (IOs) generated by future legislation on mandatory origin labelling (SCM model) from control costs more generally **(Table 13)**.

Regulation 882/2004) this would not solve the issue of allocating sufficient budgets from state coffers specifically to perform controls along the food chain.

- In the case of **FBOs**, additional costs are also expected, beyond BAU as such. These costs are in addition to any potential cost transfer from MS CAs to FBOs through (increased) fees charged to perform controls. In some of the examples provided the **total control costs** are **negligible in the case of Option 1, but become more substantial in the case of Option 2** (ranging from €16,000 to €210,000 /year/plant) **although they account for a relatively small share of the total additional costs of mandatory origin labelling.**

It is **not considered possible**, at least in the short to medium term, **to mitigate the traceability and control costs through** advances in **technology** (e.g. radio-frequency identification (RFID), isotope analysis), as the technology uptake at the moment more generally in the food supply chain, is virtually non-existent. The industry indicated that RFID tools have been tested by a number of food companies and have proven not cost-effective. By and large, both MS CAs and FBOs, remain unconvinced that isotope analysis can provide a cost-effective solution for wider implementation of origin verification controls, as the costs of this testing are high, the available test methods are not widely tested yet, and the technology is not applicable across the range of food products, particularly where ingredients are mixed.

The additional operational costs highlight the **extent of potential increases in the price of the final products** that may result from the introduction of the rules. The actual extent to which the additional costs will be transmitted to the price of the products (i.e. whether there will be full or partial price transmission) are difficult to estimate. It will depend on a range of factors, including the competitive structure of the food supply chain, the degree of vertical integration and the level of bargaining power that prevails between the different actors along the supply chain. The available evidence suggests that although there is imperfect price transmission in agri-food supply chains, especially in markets where retailer concentration is particularly high, some price increase should be expected due to the additional costs.

In terms of potential impacts on **the internal market**, available evidence suggests that Options 2 and 3 would affect the competitive position of FBOs particularly in terms of: MS that are not self sufficient in raw material (which will vary by product / product sector); FBOs using a range of ingredients and producing a range of products, as the complexity of providing origin labelling would multiply in this case; and, FBOs sourcing from third countries in sectors where imports play a key role (i.e. EU is not self sufficient). In addition, potential changes in intra-EU trade flows (with a particular disadvantage for FBOs situated in MS border regions), and the risk that patterns of "food chauvinism'' may emerge, have been identified by stakeholders as potential impacts in terms of disturbing the free movement of goods in the EU.

In terms of **international trade,** the potential impacts identified are in terms of changes in the geographical structure / volume of trade flows between the EU and third countries, a risk that patterns of "food chauvinism" may emerge, and reduced export competitiveness of EU FBOs vis-à-vis third country competitors. The need to ensure compliance with international WTO/TBT obligations was also highlighted as a key concern, in the event that implementation of any new rules creates conditions of discrimination vis-à-vis imports from third countries.

As for potential **environmental impacts**, although views tend to be less unanimous amongst stakeholders, the following were identified as the most important: mandatory origin labelling could provide an incentive to consume products produced in proximity; on the other hand, it carries the risk of creating packaging waste where frequent/unforeseen changes in sourcing result in obsolete packaging costs. Other potential environmental impacts include the increase in actual food waste, in the case of errors and recalls (the occurrence of which was considered likely to be frequent due to the complexity of ensuring traceability and controls), which contradicts ongoing joint EU food supply chain initiatives to minimise food waste.

The above costs and impacts would be mitigated if '*EU and non EU*' (Option 1) or several countries (Option 2) are indicated on the label. In particular, the alternative option of labelling a group of MS has been examined in some cases, as a compromise between Options 1 and 2. The extent to which labelling a group of MS would enable the mitigation of costs depends on the specific operational situation of FBOs, notably on their sourcing practices. As for all other options examined, the extent of additional costs can vary considerably. Moreover, these alternative options could be misleading if not all countries are always involved leading to potential consumer mistrust. Also, the added value to consumers was questioned in this case.

The results of the SME Panel and the case studies, highlight that **a number of factors would *de facto* mitigate the severity of the anticipated impacts on the technical and economic feasibility of mandatory origin labelling for micro/small-enterprises (**a sector that is very present in the EU food supply chain, as discussed in Theme 2) versus larger-scale enterprises. In particular, smaller companies tend to source raw material locally where possible, particularly in perishable food sectors (e.g. processed fruit and vegetables), and are not as present in sectors relying on the generally higher investment continuous production models which are the prevailing models in these sectors to optimise efficiency/ competitiveness (e.g. sugar, vegetable oils, flour, starch-based products etc.). However, **where these mitigating factors do not occur, SMEs and micro-enterprises are considered likely to be particularly/disproportionately affected** by mandatory origin labelling rules, as also indicated by the response of 17 MS CAs (out of the 22 MS CAs the responded to this question in the FCEC MS CA survey).

No further conclusions could be drawn on a 'category' basis, i.e. for each of the three categories of foods covered by the study, as these comprise a broad and diverse range of products/product sectors of various levels of processing and complexity. Therefore, an **extrapolation from any considered product/product sector case to a 'category' as a whole** is considered not only impossible but can also be **potentially biased**[229]. The summary table of the potential impacts for each case study sectors, sorted by category (**Table 17**), provides an overview of the complexity and the variety of situations between product sectors within each category.

All stakeholders noted the **need for a full scale impact assessment** in the event regulatory measures should be envisaged. It was also highlighted that any future rules will need to

[229] A similar conclusion is drawn in the only other example of a broader study found in the literature, the 2014 study on origin labelling of food in Sweden which covered a broader set of products although not as an extensive range as the present study: "*the costs and benefits of mandatory origin labelling differ substantially across products; this implies that legislation on mandatory origin labelling should be adjusted to each individual product rather than equally designed for all products*."

ensure consistency with implementing rules for voluntary origin labelling under Article 26(3) and with existing mandatory origin labelling rules in specific sectors.

Table 17: Summary of potential impacts on FBOs, by sector

Sector	Technical feasibility of options/modalities	Additional operational costs	Expected adaptations (scenarios)	Additional administrative burden
Category I: Unprocessed foods				
Flour *Cat I*	**Option 1a/2a: low to moderate impacts** **Option 1b/c/Option 2b/c: costs are expected to be high to very high,** depending on millers' sourcing practices.	**The cost of flour could increase by €17.9 /t to up to €43.9/t (Option 1b) and more than €43.9/t for Option 2b. This would be an additional 6%-15%** on current prices (290 €/t).	**A and B.i**	The additional amount of time spent by staff on administrative issues under modality 'b' is estimated to cost from €16,000 /year/plant (Option 1) to €112,000 /year/plant (Option 2) (EU average staff costs, for a medium-sized mill).
Rice *Cat I*	**Option 1b/c:** -For either EU or non-EU sourcing: negligible costs; -For EU and non-EU sourcing: significant costs. **Option 2b/c increases costs further than Option 1b** ***modality a = b***	**Total additional costs** would range **from €20/t to €50/t, i.e. 12%-30% increase in production costs**. This largely exceeds profitability in the sector.	**B.ii**	*The administrative costs could not be estimated*
Pre-packed salads *Cat I*	**Option 1b/c: negligible to low costs** **Option 2b/c: high additional production costs**	**Estimated cost would amount to €0.15 per package (salad bag), equivalent to a 10-15% increase in production costs**.	**B.ii**	*The administrative costs could not be estimated*
Category II: Single ingredient products				
Sugar *Cat II*	**Option 1: negligible to high impact** **Option 2: high impact** ***modality a = b***	To duplicate storage capacity would cost individual plants from €2 million up to €250 million depending on the size of operations. Other costs (incl. administrative costs) could not be estimated.	**A and B.i**	*The administrative costs could not be estimated*

Sector	Technical feasibility of options/modalities	Additional operational costs	Expected adaptations (scenarios)	Additional administrative burden
Sunflower oil *Cat II*	**Option 1b/c: high costs** **Option 2b/c: high costs**	**Option 1b/c:** up to €220-€332/t of oil **Option 2b/c:** up to ~€350-€455/ t of oil	**B.i**	The additional costs for a typical representative (large scale) plant would range from €84,000 – 210,000 /year (modality 'a'–modality 'b', respectively). This is assuming an additional 10 up to 30 min staff time needed for each 25 tonne-truck, to provide documents along the entire supply chain (assuming a gross salary of up to €2,500/month).
Frozen potato fries *Cat II*	**Option 1 a/b/c and 2a: negligible impact** **Option 2b: very high impact** ***modality a = b but cross border trade is significant***	The total additional costs would amount up to €**0.10-0.15 increase per kg of finished product**, which could result in a 10-15% retail price increase (depending on the SKU).	**A**	*The administrative costs could not be estimated*
Category III: Ingredients that represent more than 50% of a product				
Orange juice *Cat III*	**Option 1: low impact for orange juice; moderate to high for other juices**, in particular where there is mix of EU/non EU (e.g. apple juice and mixed fruit juices) **Option 2: moderate (scenario A) to high (scenario B) impact for orange juice; high for other juices.** ***modality a = b***	**The total additional production costs** are estimated to amount **up to +€0.02-0.03/L of juice.** These costs largely **exceed the profitability** in the sector.	**A and B.ii**	The additional amount of time spent by staff on administrative issues is estimated to cost up to €50,000-100,000 /year/plant.
Tomato passata *Cat III*	**Option 1b/c: negligible to low costs** **Option 2b/c: costs are expected to range from low to moderate**	Option 2b/c would generally involve higher costs than Option 1b/c, but these could not be estimated by the sector.	**A**	*The administrative costs could not be estimated*
Flour in bread *Cat III*	**Option 1a/2a: low to moderate impacts** **Option 1b/c/Option 2b/c: costs are expected to be very high, to the extent that modality 'b/c' is not considered feasible**,	**Total packaging costs could amount up to €390,000 - €980,000 per year** for a medium-sized plant. These figures reflect the low end of the estimated costs and do not include other types of costs incurred by the adaptation of sourcing practices, production facilities,waste, etc.	**B.iii**	*The administrative costs could not be estimated*

5 Overall conclusions

The conclusions below are drawn from the findings of the study (Themes 1 to 3); these are based on the analysis of the data and information provided by the literature review and the extensive stakeholder consultation and have been validated by an expert Focus Group.

The analysis of consumer attitudes towards geographical origin labelling (Theme 1) indicates that consumers declare a strong interest in knowing more about the origin of the various food products covered by the study, although there are differences in this interest between products and between Member States. At the same time, there is evidence of a **'*paradox*' in consumer attitudes towards origin labelling, in that there is a discrepancy between stated strong interest and revealed purchasing behaviour**.

In particular the study findings confirmed that consumer interest for origin labelling of food continues to be strong, as also noted in previous studies. This interest is mainly motivated by the stated consumer preference for domestic/local products, and the, to some extent linked, association of the foods' origin to perceptions of compliance to safety and quality attributes (including e.g. animal welfare). For consumers, knowing where their food comes from can be a trust element *per se*, i.e. consumers place greater trust in domestic products, and this is also likely to be linked to a perception of higher food safety in local food chains. Also, consumers may want to support the national/local economy.

The findings also indicate that there are differences in consumer interest and approaches to origin labelling by Member State, as well as between products. This suggests that a harmonised horizontal approach across Member States and products may not be appropriate. In this context, it is noted that there is no uniform pattern across the EU or food products in terms of consumer understanding of origin labels (particularly whether these should refer to place of harvest or processing), or awareness/uptake of voluntary origin labelling schemes; this partly explains why voluntary schemes remain confined to particular Member States and product groups.

While those consumers that are interested in origin labelling perceive a strong link between foods' origin and food safety, quality and compliance with other standards (e.g. animal welfare) and support of local/domestic economies and environmental impacts ('food miles'), there is concern that this is actually a misperception. Origin labelling does not actually convey this information (although it will sometimes do so) and using origin labelling in this way is misleading and will not improve consumer information. For food safety and other EU quality standards in particular, the perception that there is a difference between Member States undermines the strong safety/quality framework established in EU law.

Overall, on the basis of the available evidence on the EU food supply chain structure (Theme 2) and potential costs and impacts of the possible options/modalities of mandatory origin labelling (Theme 3), the study concludes that **introducing rules on a horizontal basis for the diverse range of products** potentially falling within the scope **of the three categories covered by the study** is, in practice, not feasible.

A key finding of the study is that the **technical feasibility, costs and impacts of the various options/modalities differ significantly by product/product sector**. The reasons for this lie in the specific characteristics and complexity of the supply chain in the various sectors, including sourcing practices, the degree of self-sufficiency, the production process model (continuous versus batch), the extent of vertical integration in the supply chain and relations

(bargaining power) between suppliers and buyers and the scale of operations. All these factors determine the extent to which adaptations are required to ensure traceability for origin labelling purposes across the entire supply chain, particularly in terms of the production process and sourcing practices which are by far the main cost components, and the resulting operational costs.

For certain sectors, in particular 'bulk' commodities with continuous production process and extensive blending of EU and non-EU supplies (e.g. sugar, vegetable oils, flour) and those with complex supply chains involving trade on the world spot market, the required investment and operational costs - even under Option 1 (EU/non EU or EU/Third Country)- are often not technically feasible (e.g. required planning permission is not possible for plants located in urban zones) and where feasible costs are too high. For other products/products sectors, the challenges posed by origin labelling may not be as extensive, but can still be considerable, as shown by the analysis of each sector in Theme 3. Costs would be mitigated if 'EU and non EU' (Option 1) or several countries (Option 2) are indicated on the label. In particular, the extent to which labelling a group of MS enables to mitigate costs depends on the specific operational situation of FBOs, notably on their sourcing practices. As for all options examined, the extent of additional costs can vary considerably. Moreover, these alternative options could be misleading if not all countries are always involved leading to potential consumer mistrust. Also, the added value to consumers was questioned in this case. An indication of the extent to which origin labelling can be feasible is provided by the prevalence of voluntary origin labelling; as concluded in Theme 2, this generally tends to occur: a) where there is significant consumer interest; and, b) where traceability to the indicated level of origin is feasible and can be ensured at a reasonable cost, that consumers are willing to cover in a premium or that manufacturers are prepared to cover.

A key constraining factor in the introduction of generalised rules on origin labelling on a mandatory basis is the difficulty in enforcement, as also highlighted by the expert Focus Group. In Third Countries, these rules would be very hard to enforce. Within the EU, overall budgets allocated to controls cannot be increased; enforcement authorities therefore foresee that they would need to prioritise controls to maintain the emphasis on food safety which is a more critical issue. Although it is anticipated that the costs of compliance would be passed to FBOs through the collection of fees (under Regulation 882/2004), this does not address the issue of securing sufficient funding for the control authorities as such. Furthermore, enforcement would be on the basis of paper/documentation checks as, in the foreseeable future, there are no other effective methods to control origin on food products. There is therefore considerable concern that the above challenges of effectively enforcing any new rules would create a risk for potential fraud. The question of liability along the supply chain also arises.

As the three categories covered by the study include a diverse range of products, no further conclusions on costs and impacts can be drawn for each of the three categories. For example, in the case of 'bulk' commodities, these can be found in all three categories (e.g. flour: Cat I and ingredient in Cat III; sugar/vegetable oils: Cat II and ingredient in Cat III). Furthermore, there is a lack of common understanding as to which products the 'single ingredient category includes, while the definition of ingredients that represent >50% of a food is too general and raises boundary issues vis-à-vis the same/similar products with the same ingredients present just <50% in a product. Thus, an **extrapolation from any considered product product/sector case to a 'category' as a whole** is considered not only impossible, but could also be **potentially biased**. In conclusion, the adverse effects that the generalised introduction

of mandatory origin labelling on a horizontal basis of the three categories of foods covered by the study may have on costs, the internal market and EU trade and competiveness would outweigh the benefits that it could possibly bring to consumers.

All stakeholders noted the **need for a full scale impact assessment** in the event regulatory measures should be envisaged. It was also highlighted that any future rules will need to **ensure consistency with implementing rules for voluntary origin labelling under Article 26(3) and with existing mandatory origin labelling rules in specific sectors.**

List of references

Agrifood Consulting GmbH (2013). Aufmachung und Kennzeichnung von Lebensmitteln aus Sicht der Verbraucher: Empirische Untersuchungsbefunde. Göttingen University. January 2013

AgriFood Economics Centre (2014). Report 2014:1 Origin labelling of food - costs and benefits of new EU legislation for Sweden

Arbeiterkammer (2012). ProduktkennzeIcHnungenam LebensmItteLsektor. available at**:** http://www.arbeiterkammer.at/bilder/d138/Produktkennzeichnung_2012.pdf"

Areté Research in Consulting and Economics (2014). Study on assessing the added value of PDO/PGI products.

Assured Food Standards (2012). Red Tractor Labelling Audit. London, UK

BEUC (2013). Where does my food come from? BEUC consumer survey on origin labelling on food/ January 2013

British Retail Consortium (2010). "Principles on Country of Origin Information" guidance document, available at: http://www.brc.org.uk/downloads/principles_on_country_of_origin_ information_241110.doc

BMRB (2010). Citizens' Forums on Food: Country of Origin Labelling BMRB/RS/4510-6881

BVDF (2012). Geschäftsbericht 2011/2012 http://www.bvdf.de/in_zahlen/

Buxel, H. Schulz, S. (2010). Akzeptanz und Nutzung von Güte- und Qualitätssiegeln auf Lebensmitteln. Ergebnisse einer empirischen Untersuchung. Münster 2010

Campden BRI (2010). Developing a Framework for Assessing the Costs of Labelling Changes in the UK. Report for DEFRA. May 2010

Campden BRI (2011). National Country of Origin Labelling Evaluation. Commissioned by DEFRA. May 2011

Campden BRI (2012). 2012 Comparative Study to the National Country of Origin Labelling Evaluation 2011. June 2012

Capgemini, Deloitte and Ramboll Management (2010). EU Project on Baseline Measurement and Reduction of Administrative Costs. Final Report for the European Commission. February 2010

EAS (2004). The introduction of mandatory nutrition labelling in the European Union. Impact Assessment undertaken for DG SANCO, European Commission. November 2004

ECN (2012). Report on competition law enforcement and market monitoring activities by European competition authorities in the food sector. European Competition Network, May 2012

EUFIC (2011). LABEL (Food Labelling to Advance Better Education for Life). project funded under the European Commission's 7th Framework Programme 2008-2011.

European Evaluation Consortium (2003). Evaluation of the food labelling legislation. available at: http://ec.europa.eu/food/food/labellingnutrition/foodlabelling/effl_conclu.pdf

European Commission (2004). Report from the Commission to the Council and the European Parliament on the implementation of Title II of Regulation (EC) No 1760/2000 of the European Parliament and of the Council establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products. COM/2004/0316 final, 2004

European Commission (2006). Labelling: competitiveness, consumer information and better regulation for the EU. Directorate E - Safety of the food chain. DG SANCO Consultative Document. February 2006

European Commission (2008). Impact assessment report on General Food Labelling Issues. Commission Staff Working Document. Brussels, SEC (2008)92

European Commission (2008). Impact assessment report on Nutrition Labelling Issues. Commission Staff Working Document. Brussels, SEC (2008)94

European Commission (2008), prepared by EIM Business & Policy Research. Self-Regulation Practices in SANCO Policy Areas.

European Commission (2009). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A better functioning food supply chain in Europe COM(2009) 591 final Brussels.

European Commission (2009). The functioning of the food supply chain and its effect on food prices in the European Union. European Economy Occasional Papers 47, May 2009.

European Commission (2009). Impact Assessment Report for a communication on agricultural product quality Policy**.** DG AGRI, Version: 08-4-09

European Commission (2009). EU Commission's Impact Assessment Guidelines. SEC(2009) 92, 15 January 2009.

European Commission (2010) Report from the Commission to the European Parliament and to the Council on the overall operation of official controls in the Member States on food safety, animal health and animal welfare, and plant health. COM(2010) 441 final. Brussels, 25.8.2010.

European Commission (2011). Minimizing regulatory burden for SMEs Adapting EU regulation to the needs of micro-enterprises. Report from the Commission to the Council and the European Parliament. Brussels COM(2011) 803 final

European Commission (2011). EAHC. Consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods.

European Commission (2012). High Level Forum for a Better Functioning Food Supply Chain. DG ENTR, HLF.015 final December 2012

European Commission (2012). Study on price transmission in the sugar sector. By Areté Research in Consulting and Economics. Final Report. October 2012

European Commission (2012). Europeans' Attitudes Towards Food Security, Food Quality and the Countryside. Special Eurobarometer 389. July 2012

European Commission (2013). The study of the functioning of the meat market for consumers in the EU, DG SANCO. 2013

European Commission (2013) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Smart regulation - Responding to the needs of small and medium - sized enterprises. Brussels, 7.3.2013, COM(2013)0122 final.

European Commission (2013) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Commission follow-up to the "TOP TEN" Consultation of SMEs on EU Regulation. Brussels, 18.6.2013, COM(2013) 446 final.

European Commission (2013). Report from the Commission to the European Parliament and the Council regarding the mandatory indication of the country of origin or place of provenance for meat used as an ingredient.

European Commission (2013). Consumer market Study on the functioning of voluntary food labelling schemes for consumers in the European Union EAHC/FWC/2012 86 04.

European Commission (2014), prepared by TNS Opinion & Social. Special Eurobarometer 410. Europeans, agriculture and the Common Agricultural Policy (CAP).

FCEC (2009). Study on fees or charges collected by the Member States to cover the costs occasioned by official controls. Final Report for DG SANCO, European Commission. January 2009. Food Chain Evaluation Consortium.

FCEC (2013). Study on the application of rules on voluntary origin labelling of foods and on the mandatory indication of origin or place of provenance of meat used as an ingredient. Final Report for DG SANCO, European Commission. July 2013

Food Standards Australia New Zealand (2006). Feasibility Study into Extending Country of Origin Labelling to Selected Packaged Fruit or Vegetable Whole Food Produce.

FoodDrink Europe (2013-14). Data & Trends of the European Food and Drink Industry 2012

FSA (2006). Administrative Burdens. Measurement Exercise. Final Report**.** June 2006

FSA (2007). Food Labelling Consumer Research. *What Consumers Want* A Literature Review. March 2007

FSA (2009). A Research study into consumers' attitudes to food labelling. Food Safety Authority Ireland, December 2009

Gallup Organisation (2009). Europeans' attitudes towards the issue of sustainable consumption and production. Flash Eurobarometer 256 for the European Commission

GFK Custom Research (2010). Willingness to spend more for local food. Available at: http://duz.lebensministerium.at/duz/duz/theme/view/894720/835441/450

Halstead John M, Luloff, A.E. and Stevens, Thomas H (1992). Protest Bidders in Contingent Valuation. In Northeastern Journal of Agricultural and Resource Economics, vol. 21, Oct 1992

Kireeva I. (2012). Origin labelling in the European Union. ERA Forum. Volume 12 (4) March 2012

LEI (2008). Administrative burdens in the European food industry with special attention to the dairy sector. October 2008

LEI (2011). The impact of private labels on the competitiveness of the European food supply chain. Final Report for European Commission. January 2011

LEI (2012). Herkomst in de supermarkt Consumenten over de rol van herkomst bij hun voedselaankop. LEI report 2011-044 Wageningen March 2012

Mason, Hayes & Curran (2012*).* Impact assessment of EU Food Information Regulation (1169/2011) on food manufacturers and retailers. Report for GS1.

NatCen (2010 a). Country of origin labelling: A synthesis of research. Final Report for the Food Standards Agency. January 2010.

NatCen(2010 b). Country of Origin Labelling: Omnibus Research. Report.FSA, January 2010

OPTEM (2005). The European Consumers'attitudes regarding product labelling. Report for DG SANCO, European Commission. May 2005

Svensk Dagligvaruhandel och Livsmedelsföretagen (Swedish Retail and Food Federation) (2007). Riktlinjer för frivillig ursprungsmärkning av livsmedel och som får användas utöver obligatoriska krav

Test-Achats/Test-Aankoop, Altroconsumo, OCU, Deco Proteste (2012). Origin of Food. Final Version September 2012.

Tiessen J., Rabinovich L., Tsang F., van StolkAssessing C. (2008). The impact of revisions to the EU horizontal food labelling legislation. RAND Corporation available at http://www.rand.org/content/dam/rand/pubs/technical_reports/2008/RAND_TR532.pdf

Taloustutkimus (2010) Omnibus survey available at http://www.taloustutkimus.fi/

Taloustutkimus (2011) Suomi Syö 2011. Available at http://www.taloustutkimus.fi/ajankohtaista/uutiskirje/uutiskirje-7-2010/suomalaiset-haluavat-lautaselle-/

TNS Emor (2014). Food labelling Study *(Toidumärgistuse alane uuring*)

TNS Radar survey (2008) available at http://www.tns-gallup.fi/index.php?zx=/

Verbeke W., Roosen J. (2009). Market Differentiation Potential of Country-of-origin, Quality and Traceability Labeling. Estey Centre Journal of International Law and Trade Policy, 2009, vol. 10(1)

WTO (2013). Dispute Settlement: United States — Certain Country of Origin Labelling (COOL) Requirements (Dispute DS384). http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds384_e.htm

List of Annexes

Annex 1: Terms of reference of the study

In a separate document

STANDARD FORMAT FOR TERMS OF REFERENCE (TOR)

Full title: "Study on the mandatorv indication of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food"

Lead Official/s & Unit: Alexandra Nikolakopoulou, Natassa Alvizou, Magdalena Haponiuk, Christophe Didion, Unit E4 - Nutrition, food composition and information, DG SANCO

DG Co-chef de file: **Unit 01 DG SANCO**

1 Purpose of the contract

This contract aims at performing a study to collect data for the Commission to draft a report on the mandatory indication of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food.

1.1 Context of the study work

Regulation (EU) No 1169/2011 of the European Parliament and of the Council on the provision of food information to consumers ("the FIC Regulation")[1] introduces a set of provisions on origin labelling of foods. In particular: it frames the voluntary origin indications; it provides for the mandatory indication of country of origin or place of provenance of unprocessed meat of pigs, poultry, sheep and goats; it requires the Commission to produce reports to examine the feasibility of extending mandatory origin labelling to other reports.

Definitions of "place of provenance", "country of origin", and "unprocessed products" are given in Article 2 of the Regulation:

"Country of origin" is determined in accordance with Council Regulation (EEC) No 2913/92, which provides the following rules:

- Article 23 defines goods "wholly obtained" in a country:

"1. Goods originating in a country shall be those wholly obtained or produced in that country.

2. The expression 'goods wholly obtained in a country' means:

(a) mineral products extracted within that country;

(b) vegetable products harvested therein;[...]

(d) products derived from live animals raised therein;

(e) products of hunting or fishing carried on therein;

[1] Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004, OJ L 304, 22.11.2011, p. 18.

(f) products of sea-fishing and other products taken from the sea outside a country's territorial sea by vessels registered or recorded in the country concerned and flying the flag of that country;

(g) goods obtained or produced on board factory ships from the products referred to in subparagraph (f) originating in that country, provided that such factory ships are registered or recorded in that country and fly its flag; [...]

(j) goods which are produced therein exclusively from goods referred to in subparagraphs (a) to (i) or from their derivatives, at any stage of production.

3. For the purposes of paragraph 2 the expression 'country' covers that country's territorial sea. "

• Article 24 clarifies that "goods whose production involved more than one country" shall be:

"deemed to originate in the country where they underwent their last, substantial, economically justified processing or working in an undertaking equipped for that purpose and resulting in the manufacture of a new product or representing an important stage of manufacture".

"Place of provenance" means any place where a food is indicated to come from, and that is not the "country of origin" as determined in accordance with Articles 23 to 26 of Council Regulation (EEC) No 2913/92 establishing the Community Customs Code[2]; the name, business name or address of the food business operator on the label shall not constitute an indication of the country of origin or place of provenance of food within the meaning of this Regulation.

"Unprocessed products" is defined by reference to point (n) of Article 2(1) of Regulation (EC) N° 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs,[3] as follows: "foodstuffs that have not undergone processing, and includes products that have been divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep-frozen or thawed".

Currently mandatory rules on origin labelling exist for several sectors, such as honey[4], fruit and vegetables[5], fish[6], beef and beef products[7], olive oil[8], wine[9], eggs[10], imported poultry[11].

[2] OJ L 302, 19.10.1992, p. 1.
[3] OJ L 139, 30.4.2004, p. 1.
[4] Council Directive *2001/110/EC* relating to honey, OJ L 10, 12.1.2002, p. 47.
[5] Council Regulation (EC) No 1234/2007 of 22 October 2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products (Single CMO Regulation) and Commission Implementing Regulation (EU) No 543/2011 of 7 June 2011 laying down detailed rules for the application of Council Regulation (EC) No 1234/2007 in respect of the fruit and vegetables and processed fruit and vegetables sectors, OJ L 157, 15.6.2011, p. 1-163.
[6] Council Regulation (EC) No 104/2000 on the common organization of the markets in fishery and aquaculture products, OJ L 17, 21.1.2000, p. 22.
[7] Regulation (EC) No 1760/2000 of the European Parliament and the Council establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products, OJ L 204, 11.8.2000, p. 1.
[8] Commission Implementing Regulation (EU) No 29/2012 of 13 January 2012 on marketing standards for olive oil, OJ L 12, 14.1.2012, p. 14-21
[9] Council Regulation (EC) No 1234/2007 of 22 October 2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products (Single CMO Regulation).
[10] Commission Regulation (EC) No 589/2008 of 23 June 2008 laying down detailed rules for implementing Council Regulation (EC) No 1234/2007 as regards marketing standards for eggs, OJ L 163, 24.6.2008, p. 6-23.
[11] Commission Regulation (EC) No 543/2008 of 16 June 2008 laying down detailed rules for the application of Council Regulation (EC) No 1234/2007 as regards the marketing standards for poultrymeat, OJ L 157, 17.6.2008, p. 46-87.

Moreover, specific rules on origin labelling for spirit drinks and aromatised wine products are in the process of adoption[12] [13].

In the context of the FIC Regulation, the European Parliament and the Council consider that there is a need to explore the possibility to extend mandatory origin labelling for other foods. Therefore, the FIC Regulation requires the Commission to prepare 7 reports covering the following foods: (1) types of meat other than beef, swine, sheep, goat and poultry; (2) milk; (3) milk used as ingredient in dairy products; (4) meat used as an ingredient; (5) unprocessed foods; (6) single ingredient products; and (7) ingredients that represent more than 50% of a food. Based on the conclusions of the reports, the Commission may submit proposals to modify the relevant Union provisions or may take new initiatives, where appropriate, on a sectoral basis. The deadline for the Commission to present the abovementioned reports is the 13 December 2014 with the exception of the report on the meat as ingredient that must be presented by 13 December 2013.

1.2 Objectives and general approach of the study

The main objectives of this study are as follows:

a) to collect data that would allow the Commission to consider the need for consumers to be informed regarding the origin of the following foods:
   - unprocessed foods;
   - single ingredient products;
   - ingredients that represent more than 50% of a food.

b) to examine the operational feasibility of providing mandatory indication of the country of origin or place of provenance of those foods.

The study will also provide an analysis of the costs and benefits of the introduction of mandatory labelling of origin or place of provenance for the foods concerned, including the legal impact on the internal market and the impact on international trade.

The costs and impact of mandatory origin/provenance labelling will depend on the actual definition of country of origin and place of provenance, the type of players that need to participate (SMEs, microenterprises) and on the extent to which such information has to be traced back, based on the different identification and registration systems in place for the different types of foods concerned. The study will assess the feasibility and costs of different ways of expression of the country of origin or place of provenance for unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food. EU (or non-EU/third country), country (Member State or third country), a different geographical area, or a combination of these.

Moreover, different modalities for the definition of the provenance shall be considered for the different foods.
The impact of introducing such origin labelling should be assessed considering the following areas:

Food supply chain: the economic impact on the food supply chain should be assessed in the context of costs and feasibility of applying origin labelling for the foods in question. In particular:

- For unprocessed foods, the focus should be on the farming industry and food industry (EU or third countries).
- For single ingredient products, the focus should be on the food industry but also on the farming industry, especially in relation to agricultural products, such as coffee, flour etc. (EU or third countries).
- For ingredients that represent more than 50% of a food, the main focus should be on the food industry (EU or third countries). The different points in the process shall be examined, e.g. processing, packaging etc.

For each of these sectors, the existing origin/provenance labelling rules should be taken into account. The existing traceability systems should also be considered. The Commission policy is that micro-enterprises should

[12] Recast of Regulation (EC) No 110/2008 of the European Parliament and of the Council of 15 January 2008 on the definition, description, presentation, labelling and the protection of geographical indications of spirit drinks, OJ L 39, 13.2.2008, p. 16-54

[13] C0M(2011)530 Proposal for a Regulation of the European Parliament and of the Council on the definition, description, presentation, labelling and the protection of geographical indications of aromatised wine products.

no longer be covered by EU legislation unless it is clearly demonstrated that it is necessary and proportionate to cover them.[14] The contractor should estimate the possible negative or positive impacts on micro-enterprises, the risk whether their exclusion could materially affect the capacity of mandatory origin requirements to achieve its goal taking also into account the share of micro-enterprises and the possible obstacles to microenterprise development.[15]

Internal market: impact on the internal market shall be assessed. Any national origin labelling rules shall also be studied.

Trade: impact on trade with third countries shall be analysed from the perspective of possible distortion due to difficulties to implement the labelling requirements in third countries. Labelling systems applicable in the main trading partner countries should also be studied.

Competitiveness of enterprises, including cost and price competitiveness, capacity to innovate, necessary flexibility in sourcing and international competitiveness.

Environment: potential environmental impacts in terms of providing an incentive to consumption of products produced in close proximity, possible risk of increasing the size of the labels leading to increase of packaging and other kinds of environmental impacts such as waste of ingredients or packaging.

Consumer behaviour: the study shall take into account the need of consumers to be informed on the origin of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food; it shall also analyse consumer behaviour as regards the level of willingness to pay for additional information related to origin/provenance of these products and if, appropriate for more or less extensive information related to origin /provenance thereof (geographical level). The study should also look at consumer ability to understand and make use of such information.

Administrative burden: impact on the administrative burden on farmers, producers, traders, food manufacturers, retailers and the Member States, as well as on the implementing of the controls to ensure a proper system of origin labelling shall be studied. This work should be carried out following the methodology established by the European Commission.[16]
The study should evaluate the situation and possible impact of origin labelling in EU28 but also include a number of case studies in different sectors and Member States.

1.3 Use of the contract

SANCO E.4 (Nutrition, Food Composition and Information) is the unit in charge of performing the study.

Associated SANCO Units:

Associated DGs: SG, LS, AGRI, MARE, TRADE, MARKT, ENTR, ENVI, CLIMA

2 Task(s) to be performed by the Contractor

2.1 Scope of the study

The contractor should identify the groups of products falling under the three categories of unprocessed foods, single ingredient foods and ingredients that represent more than 50% of a food, excluding those products which are covered by existing legislation or by other reports under Article 26 of Regulation (EC) No 1169/2011. The exclusions should be duly justified.

Unprocessed foods: Given that the majority of unprocessed foods are already covered by rules on mandatory origin labelling, this section would include indicatively cereals (including rice, flour, couscous), pulses and potatoes. **Single ingredient products:** Agricultural products are mostly unprocessed (excluding wine, olive oil, already covered by specific rules). There is no definition of single ingredient products in the Union legislation.

[14] SMEs with less than 10 employees and a turnover or balance sheet total equal to or less than 2 million Euro.
[15] For example, if a firm is exempt from legislation provided it does not employ more than 10 people, there would be an incentive to ensure that the threshold is not crossed, thus restricting employment growth.
[16] http://ec.europa.eu/governance/impact/commission_guidelines/commission_guidelines_en.htm .

Single ingredient should only cover processed food. A strict interpretation of the term "single ingredient" could lead to a situation where a tomato puree might need to be analysed whilst a tomato puree containing salt or herbs not. A case by case analysis would need to be done. This category would include indicatively peeled tomatoes, sugar, seed oils, flaked grains, pop corns and snack nuts, potato crisps, spices, coffee, cacao powder, tea. A list of other examples should be proposed by the consultant and agreed with the Commission's services. **Ingredients that represent more than 50% of a food:** the legislator seems to identify the ingredient as basic products, thus excluding processed ingredients such as industrial preparations. This section would include indicatively flour in bread. A list of other examples should be proposed by the consultant and agreed with the Commission's services.

Moreover, the contractor should examine particular cases where it is already clear for the consumer that the raw material used is not cultivated in the EU (like cocoa beans for a Belgian chocolate) and in which cases the absence of the indication of its origin would not create doubts or confusion for the consumers.

2.1.1 Time frame

The study work will refer to the current situation.

2.1.2 Geographical coverage

The study will refer to EU28. The main third countries trading partners should also be considered the impact on international trade. A list should be proposed by the consultant and agreed with the Commission's services.

The study should comprise at least 3 case studies for each of three categories of foods in question. These case studies should ensure a representative overview in terms of production, trade volume and geographical coverage of the foods concerned (to be agreed with the Commission's services). The selection of the third countries should ensure a representative overview in terms of trade volume of the foods concerned.

2.1.3 Actors

Sectors particularly by this study are food industry in general, retail/distribution sector, traders (imports / exports), EU farmers, consumers and national competent authorities

In order to perform the study, the contractor should consult national and EU regulators (in charge of food labelling, agriculture, consumer protection and other relevant issues), as well as relevant food business operators, involved in the food chain, from the farm to the fork (in particular SMEs), farmers, processors, traders, retailers at national and European levels. The study needs to involve third countries trading partners too. The study should also involve relevant Non-Governmental Organisations, in particular those dealing with consumer protection and rights.

Public research organisations active in agriculture and food chain economics, food labelling, and consumer behaviour analysis should be consulted.

An indicative list of relevant stakeholders to consider is provided in **Annex I.**

2.2 Study themes

Theme 1: Consumer's interest in the origin of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

Consumers' attitude towards origin labelling of the unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food shall be studied. The focus shall be on consumer interest, understanding and preferences in relation to information on origin, to different types of origin labelling of these different types of foods, as well as on willingness to pay more for additional information on origin. It should also assess the proportion of consumers with strong preference and possibility to pay for additional information, making them aware that information from various private voluntary labelling systems may be available.

This analysis shall be carried out using three sources of information: studies and data already available on consumer attitude towards origin labelling, including empirical evidence on consumer preferences as regards origin in EU28. Additional qualitative assessment should be provided based on meetings with relevant bodies (consumer organisations, industry, retailers and other stakeholders) in the framework of the case studies [and the general market overview].

Theme 2: Characteristics of the food supply in relation to unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

The study shall elaborate an overview of the structure and characteristics of the whole supply chain in the three sectors in question: unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food. The consumer stage shall be understood as sales to final consumer including foods delivered by mass caterers. The analysis should include the description of existing methods and systems of traceability and controls in the supply chain in view of the analysis of the feasibility of applying origin labelling. An overview of the national rules and labelling systems already in place shall also be provided.
An estimation of the frequency of changing supply sources and mixing of different sources by food industry should be provided.

Theme 3: Identification and description and analysis of economic, social and environmental impacts of the main options related to origin labelling of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food.

The contractor shall identify and describe separately the possible options of origin labelling of the three different categories of product in question and analyse for each of them the respective advantages and disadvantages of the different options, taking into account the structure and characteristics of each sector and supply chains as described in Theme 2.

Considering the geographical level of origin labelling and the accompanying modalities, the following options and aspects shall be considered:

The following options and aspects shall be considered:

- Option 1: origin labelling based on a) EU/non EU origin or b) EU/third country;
- Option 2: labelling indicating the Member State or third country;
- Option 3: other geographical entities as place of provenance.

In the case of unprocessed products, the country of origin is to be determined in accordance with the Union Customs Code (see Article 2.2 of Regulation (EU) 1169/2011). There is no need to analyse place of provenance for this category of foods.

In the case of single ingredient foods (processed) and ingredients that represent more than 50% of a food, the country of origin of the food is to be determined in accordance with the Union Customs Code (see Article 2.2 of Regulation (EU) 1169/2011). This means that it would mainly correspond to the country of the last substantial transformation. However, the study will also examine the option of more extensive origin information.

The impact on the supply and food production chain should be assessed in the context of feasibility and costs of introducing mandatory origin labelling in each of the foods concerned, considering the above mentioned options.

The cost of origin labelling shall be assessed from the perspective of administrative and direct costs for the whole supply chain and food processing and distribution. Existing traceability systems should be taken into account. The likely impacts of mandatory origin labelling of the foods in question shall also include impact on cost/price competitiveness and innovative competitiveness of food business operators. Possible impacts of possible shortage of supply (e.g. following adverse climatic conditions or food safety crisis) should also be assessed.

The impact on intra-union exchanges and on external trade shall be assessed from the angle of possible segmentation of the EU market and changes of trade flows, given the fact that operators could refrain from supplying the foods concerned from other or certain countries or from mixing different origins.

Trade with third countries shall be analysed from the perspective of: a) competitiveness b) origin labelling systems already applied by the main trading partners and c) additional import requirements for exporting third countries and its implications in terms of the WTO rules, both in terms of SPS and TBT Agreement.

The impact of the options on the administrative burden for the Member States and the controllability of the origin labelling shall be studied. The analysis should take account of the controls on the implementation of origin labelling, administrative costs and red tape for private and public entities.

This work should be carried out following the methodology established by the European Commission[17].
Impact on consumers will also include analysis of how labelling based on each of the above mentioned options influence consumers' choices, for instance environmental and climate effects.

Impact on environment will be analysed taking into account the consumers' preferences for foods produced in proximity, in accordance with certain standards but also the risk of increasing the size of food labels.

2.3 Tasks

The contractor is required to provide the Commission with the necessary quantitative and qualitative data, as well as analytical and descriptive inputs on the impacts as identified in the specific respective request under point 2.2. These inputs shall be consistent with the policy requirements, quality and standards necessary to conform to the Commission's Guidelines on Impact Assessment.

Task 1: Structuring

- Identification of information sources, quantitative and qualitative database, studies, people to be interviewed, appropriate case study areas, etc. papers, evaluation and impact assessment reports and other publications relevant in the study area.
- Creating methodology and tools for the assessment of each of the themes of the study.
- Selection of Member States and sectors for case studies. The final choice of countries and sectors for the case studies will have to be discussed and validated by the Commission before the collection of information starts.

Task 2: Observing

Data collection and processing should be performed drawing from desk research, but supported by IT- based expert survey, telephone or face-to-face interviews (as found suitable within the data collection agenda), and broad consultations within the respective Member States and third countries and stakeholders.

Task 3: Analysing

The analysis to be carried out must be based on well-established and acknowledged methods used. The reasoning followed in the analysis, indicating among other things, the underlying hypotheses of the reasoning, and the limitations of the analysis, must be clearly described.

Task 4: Overall assessment

Drawing on above analysis, the results of the assessment are to be brought together in a consistent format to allow for assessment of the technical feasibility and the economic, impacts of the various options.

[17] http://ec.europa.eu/governance/impact/commission_guidelines/commission_guidelines_en.htm

Methodology

As an indication, the following methodological steps are foreseen:

I. Provide an overview of the existing situation with regard to origin labelling of the foods concerned/ Baseline per MS/ Best practices compendium.

A dynamic economic model based on several scenarios should quantify future direct and indirect economic impacts that are likely to occur (both intended and unintended ones) as a consequence of introducing different ways of mandatory origin labelling on the foods concerned. Drawing from this model, a qualitative analysis according to several scenarios should be elaborated.

II: Technical feasibility per sector (operational - e.g. traceability) - a disaggregated approach is appreciated.

III: Problem definition and EU added value per sector - the same definition of the 'sector' as espoused above applies.

IV: Economic viability per sector - assessment of the commercial ecosystem created by the labelling:

- cost-benefit analysis

- internal market (distributional effects, SME effects including more specifically impacts on micro-enterprises)

- international dimension - trade effects from the perspective of: a) competitiveness b) origin labelling systems already applied by the main trading partners and c) additional import requirements for exporting third countries and its implications in terms of the WTO.

- administrative burden and legal impact

- economics of non-compliance (e.g. case of outbreak, misleading labelling, etc)

V. Social and environmental impact

VI. Key implementation indicators - indicators to be monitored for policy implementation success.

The following methods are expected to be employed as a minimum strategy to access the necessary data:

- desk research (for inventory especially) - desk review of available resources: grey literature, online marketing and competent authority resources, with an attempt to establish a life-cycle of labels in use (i.e. still in use, no longer in use, etc);

- consumer survey/poll in 28 MS;

- stakeholder consultation - a representative sample should be targeted via e-survey (to be prepared by the contractor in consultation with the Commission) followed by telephone interviews or focus groups addressed on basis of evidence the contractor will provide them with;

- consumer attitudes and consumer willingness to pay;

- case studies;

- focus group: to refine the findings resulting from desk-research and consultative methods - a position paper will be submitted to a focus group for internal reflection and constructive discussion; the contractor is expected to present the results of the work done and to act as facilitator in this process.

Following the analysis of the questionnaire, a selected number of interviews will be carried out face to face or over the telephone to collect additional information. These interviews should be done on the basis of a representative sample, i.e. sufficient coverage in terms of countries and actors involved. The sample should be balanced in terms of geographical cover.

The results of the assessment are to be brought together to allow for assessment of the technical feasibility and the economic social and environmental impacts of the measures proposed in themes.

Conclusion on the advantages and disadvantages of the various options to be established.

The contractor is to work in close collaboration with project officers at the European Commission in charge of follow-up of the contract. The contractor is expected to develop and implement a methodology that ensures that all the evaluation tasks are sufficiently well covered, including:

1. a detailed work plan covering at least: a project plan, detailed timetable, budget, a list of experts and their CVs to be involved in the contractor's team, indicating the task in the project plan to which they will be committed. [Note: no on the spot visits are foreseen in this study];

2. a description of the complete methodology (building on the proposed guidance in annex II), including consideration given to past surveys to Competent Authorities in the concerned countries, and to other stakeholders; the contractor shall provide a selective overview of answers received.

Proposals for further methodological tools that may contribute to achieving the objectives of the study will be considered positively when evaluating the proposals.

3 Description of Experts skills & profiles

3.1 Experience required

The contractor should possess

- proven experience in assessing the instruments of the EU policies ;
- proven knowledge of the agricultural sector, traceability and labelling, food supply chain economy, trade in agricultural products and consumer behaviour with special focus on data collection & analysis and policy development;
- proven experience in the field of impact assessment, especially for social, economic, and consumer related topics;
- proven experience with techniques, tools, and assessment methodologies in conformity with the state of the art.

The contractor should possess high level expertise required for the tasks to be carried out. Therefore he or she should:

- Indicate profile and categories of the experts of the contractor's team;
- Designate the expert to be team leader for the whole exercise of evaluation to be carried out.

The contractor must meet the following criteria:

- The contractor's team responsible for implementing all the tasks related to the objectives includes at least one team leader with a relevant post graduate university qualification. The team leader should ensure uninterrupted coordination with the European Commission.
- Members of the team are to be assigned according to the necessary knowledge and skills for performing the various tasks and subtasks required.
- Excellent English language skills are required, both written and spoken.
- Demonstrated capability to access documents and interact with informants in all countries as necessary for the completion of the tasks.

4 Organisation of the work

4.1 Budget allocated

Foreseen maximum amount: EUR 240.000

4.2 Overall management of the contract

The contractor is requested to produce records/minutes of meetings and to submit them to the Commission for approval the week following the meeting.

4.3 Reporting and deliverables

The present assignment includes the submission of a series of deliverables: reports and presentations. The contractor will deliver the following reports at key stages of the evaluation process: inception report, interim report, draft final report and final report. Each report should be written in English or in French, and critically assessed as it provides the basis for tracking the quality of the work done by the evaluator. These reports will be submitted to the Commission, which may ask for complementary information or propose adjustments in order to redirect the work as necessary. Reports must be approved by the Commission. With work progressing and in the light of new findings, revisions of reports already approved may be necessary.

It is essential that all the reports be clear, concise, unambiguous and comprehensive. They should also be understandable for non-specialists. The presentation of the texts, tables and graphs has to be clear and complete and correspond to commonly recognised standards for studies to be published. A structured and precise elaboration of add-ons based on previous deliverables at every stage of the process is requested (for example, this could be done via colour-coding parts of the report developed at the offer, inception, interim and draft final stage). An indicative size of each report to be provided is (excluding annexes):

• inception report: up to 50 pages

• interim report: up to 120 pages

• final report: up to 240 pages

The reports should be provided to the Commission in both MS-Word and Adobe Acrobat (PDF) format with the charts in Excel. They should be accompanied, where requested, by appropriate annexes and delivered in accordance with the deadlines and requirements set out in the Terms of Reference and agreed with the Commission.

Furthermore, the following reports and presentations shall be delivered:

Kick-off meeting report

After signature of the contract, the contractor will participate in a kick-off meeting with the Commission. The purpose of this meeting is to verify:

- the contractor's understanding of the Terms of Reference;
- the proposed general approach to the work (methodology, planning, structure of deliverables etc.);
- the composition and eligibility of the contractor's team.

Inception report — within 6 weeks after the kick-off meeting

The inception report completes the structuring phase of the study. It aims at describing the organisation of the work, adapting and substantiating the overall approach, the methodology required for each evaluation question and/or specific task requested as well as the work plan outlined in the proposal, including the planned timelines. It should set out in detail how the proposed methodology will be implemented, and in particular lay out clearly in tabular form how the method allows each task to be answered via establishment of judgement criteria and within these, of evaluation indicators. A further column highlighting choice of relevant evaluation tools should complete the table. The inception report should develop such a chart to a level that allows the Commission to gain a good understanding of the evaluation tools and related methodological steps proposed.

The report may complete and/or suggest additional evaluation questions the contractors consider suitable. As such, this document will provide an opportunity to make a final check on the feasibility of the method proposed and the extent to which it corresponds with the task specifications.

The known sources of information, use of tracers (case studies), contact persons in Member States, as well as the way the contractor will interact with Member States representatives will be fully clarified at this stage.

The inception report is submitted to the Commission. On the basis of discussion, including with the contractor, changes and improvements may be requested. Final version of evaluation tasks/questions suggested by the contractor and evaluation indicators to be used will be validated by the Commission at this stage. The contractor will submit a final version within two weeks.

Interim report within 5 months

This report will provide information on the analysis of data collected. The contractor should already be in a position to provide: a) aggregated data mined for the purposes of the study and b) preliminary findings and conclusions regarding the evaluation tasks/questions. The report will provide the Commission with an opportunity to check whether the study is on track and whether it has focused on the specified information needs. The contractor will submit a revised interim report with the necessary updates after discussion with the Commission.

Draft final report within 9 months

This document will provide the preliminary conclusions of the contractor in respect of the tasks in the task specifications. These will be based on evidence generated through the evaluation. Any judgements provided should be clear and explicit. It will also provide a technical overview of the analysis process highlighting limitations and possible bias therein.

The draft final report(s) should include an executive summary of not more than 10 pages (synthesis of analyses and conclusions), the main report (structure to be confirmed by the Commission services but planned to reflect the content of the assignment), technical annexes (inter alia the Task Specifications and a compilation of all requested country-based information) and a draft one-page summary of the Key Messages (conclusions in bullet form) of the study. The latter should precede the executive summary.

Final report — to be submitted within 15 days of communication of comments made by the Commission on the draft final report

The final report should have the same structure as the draft final report. It will take account of the results of the comments and discussions with the Commission regarding the draft final report insofar as they do not interfere with the autonomy of the contractor in respect to the conclusions. The executive summary (including the Key Messages section preceding it) should be provided.

The copyright of the reports remains with the Commission.

4.4 Quality Assessment

The Commission will have to agree on a quality assessment of the final report.

For details on minimal requirements regarding quality assessment of the deliverables, please see Annex III.

In order to ensure the necessary quality for such work requested by the Commission, contractors should be constantly minded that:

- the study shall respond to the information needs, in particular as expressed in the terms of reference and following discussions with the Commission;
- the methodology and design shall be adequate for proceeding to the tasks and for obtaining the results needed to answer the questions;
- collected data must be adequate for their intended use and their reliability must be ascertained;
- data shall be analysed systematically to answer the study questions and to cover all the information needs in a valid manner;
- findings shall follow logically from and be justified by the data/information analysis and by interpretations based on pre-established and rational criteria;
- conclusions for being valid shall be non-biased and fully based on findings.

5. Timetable

5.1 Timetable for the work and deliverables

The contractor is to start the desk-work on **15 November** and the contract should be completed within **9 months** from the signature of the contract.

6. List of annexes with specific information

Relevant Union legislation and statistics, databases and other information available at the Commission services.

(Detailed information allows better offers and more focused work of the contractor)

Indicative list of relevant stakeholders

Acronym	Full name	Area of work and links
ASS. I. CA.	Associazione Industriali delle Carni	http://www.assica.it/ assica.bruxelles@skynet.be
AIJN	European Fruit Juice Association	aijn@aijn.org http://www.aijn.org/
BEUC	European Consumers' Organisation	www.beuc.eu Ruth.Veale@beuc.eu
Spirits Europe	European Spirits Organisation	http://spirits.eu/info@spirits.eu
CEEV	Comité Européen des Entreprises Vins	ceev@ceev.be http://www.ceev.be/index.html
CO PA-COG ECA	European farmers European Agri-cooperatives	mail@copa-cogeca.eu http://www.copa-cogeca.be
EDA	European Dairy association	eda@euromilk.org
ECA	European Cocoa Association	catherine.entzminger@eurococoa.com www.eurococoa.com
ERRT	European Retail Round Table	Large retailers http://www.errt.org/ errt@errt.org

ESA	**European Snacks Association**	
EUFIC	**European Food Information Council**	**FLABEL/ focus on nutrition label; http://www.flabel.org/en/**
EuroCommerce	**Retail, Wholesale and International Trade Representation to the EU**	**commerce, wholesale and retail** **bastings@eurocommerce.be**
EuroCoop	**EU Community of Consumer Cooperatives**	**consumer cooperatives info@eurocoop.coop 00 32 2 231.07.57**
FoodDrinkEurope	**Confederation of the food and drink industries of the EU**	**Food and drink industry** **http://www.fooddrinkeurope.eu**
FRESHFEL	**European Fresh Produce Association**	**http://www.freshfel.org/asp/index.asp**
NFU	**National Framers Union**	**British Farmers www.nfuonline.com**
PFP	**Primary Food Processors**	**www.pdf-eu.org**
PROFEL	**The European Association of fruit and vegetable processing industry**	**profel@agep.eu**
UEAPME	**European Association of Craft, Small and Medium-Sized Enterprises**	**info@ueapme.com**

Basic EU legislation:

- Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers
- All EU legislation: http://eur-lex.europa.eu/

EU Origin labelling legislation:

- Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products
- Commission Regulation (EC) No 1825/2000 of 25 August 2000 laying down detailed rules for the application of Regulation (EC) No 1760/2000 of the European Parliament and of the Council as regards the labelling of beef and beef products
- Commission Regulation (EC) No 543/2008 of 16 June 2008 laying down detailed rules for the application of Council Regulation (EC) No 1234/2007 as regards the marketing standards for poultrymeat
- Commission Regulation (EC) No 589/2008 of 23 June 2008 laying down detailed rules for implementing Council Regulation (EC) No 1234/2007 as regards marketing standards for eggs
- Commission Implementing Regulation (EU) No 29/2012 of 13 January 2012 on marketing standards for olive oil
- Commission Implementing Regulation (EU) No 1333/2011 of 19 December 2011 laying down marketing standards for bananas, rules on the verification of compliance with those marketing standards and requirements for notifications in the banana sector.
- Commission regulation (EC) No 607/2009 of 14 July 2009 laying down certain detailed rules for the implementation of Council Regulation (EC) No 479/2008 as regards protected designations of origin and geographical indications, traditional terms, labelling and presentation of certain wine sector products
- Council Directive 2001/110/EC of 20 December 2001 relating to honey

Research related to origin labelling:

- Country of Origin Labelling: A Synthesis of Research. Oxford Evidentia, 2010. http://www.food.gov.uk/multimedia/pdfs/coolsyn.pdf
- National Country of Origin Labelling Evaluation. Campten Technology Ltd. For DEFRA.2011. http://randd.defra.gov.uk/Document.aspx?Document=FO0433 10224 FRP.pdf
- Feasibility Study into Extending Country of Origin Labelling to Selected Packaged Fruit of Vegetable Whole Food Produce. Food Standards Australia New Zealand, 2010. http://www.finance.gov.au/obpr/docs/cool-food-produce.pdf
- Developing a Framework for Assessing the Costs of Labelling Changes in the UK. Campten TechnologyLtd for DEFRA.UK 2010. http://archive.defra.gov.uk/evidence/economics/foodfarm/reports/documents/labelling-changes.pdf
- Commission impact Assessment on the proposal for a Regulation on the provision of food information to consumers. http://ec.europa.eu/food/food/labellingnutrition/foodlabelling/publications/ia general foo d labelling.pdf
- Rand report: Assessing the impact of revisions to the EU horizontal food labelling legislation http://www.rand.org/content/dam/rand/pubs/technical_reports/2008/RAND_TR532.pdf
- JRC report on quality schemes http://foodqualityschemes.jrc.ec.europa.eu/en/documents/Finalreport 000.pdf
- Food Safety Authority of Ireland - A Research Study into Consumers' attitudes to Food Labelling December 2009 http://www.fsai.ie/WorkArea/DownloadAsset.aspx?id=8900

Administrative burden:

- Study on administrative burden reduction associated with the implementation of certain Rural Development measures. CAP GEMINI, Deloitte and Ramboll 2011. http://ec.europa.eu/agriculture/analysis/external/rd-simplification/index en.htm

Statistics:

- Eurostat Agriculture statistics http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database
- Weekly prices of live animals and carcasses: http://ec.europa.eu/agriculture/markets/index en.htm

Offer

The methodology of this study must be drawn by the tenders taking into account the objectives and scope described above and existing good practice. The final methodology will be agreed by the Commission and the Contractor during the inception phase.

The tenders are required to:

- prove understanding of the scope and objectives by drafting an intervention logic,

- prove ability to address the tasks envisaged by breaking them down as in the attached model (model - table $n^0$1),

- clearly detail the different steps of the process specifying required resources (human and financial) and time (model - table n°2),

- present timetable of main milestones of the process

Table n°1

Evaluation task Judgement criteria	Indicators	Data Sources

Table n°2

Task	Expert (name, category specialisation)	Time required

Tenders are not expected to restrict themselves to listed minimum requirements. Proposals for additional methodological tools that may contribute to addressing the evaluation questions in a more satisfactory manner will be considered positively when evaluating the proposals.

Inception report

This report will describe in more detail the way the evaluation will be conducted and the methodology. It will provide proposed content of the questionnaires (if any), interview questions (if any), focus group outlines (if any) and the list of organisms to be consulted and also the number of interviewees and their positions and names (if any) (model - table n°3).

This document will provide the Commission with the opportunity to check the feasibility of the method proposed and the extent to which it corresponds with the needs outlined in the terms of reference.

Table n°3

Evaluation task	Judgement criteria	Indicators	Data Sources	Survey questions, interview questions, focus group outlines	List of organisms to be consulted, interviewees, their positions and names	Timetable of consultation

Interim Report

This report shall describe the work completed (most of the fieldwork should be finished):

- list of reviewed documents,

- number of questionnaire and interviews completed,

- summary of preliminary results of the investigation,

- validation of data,

- the way the contractor intends to make the results of interviews comparable,

- (if relevant) list of problems the contractor faced in his work in the framework of the specific contract,

- a process advancement table with critical analysis on the progress of the fieldwork.

Draft Final Report

Evidence from evaluation tools	Findings: factual statements derived from the available evidence	Conclusions: the evaluators' interpretation of the evidence, applying transparent judgment criteria	Possible recommendations: recommended changes or improvements

Annex 2: List of some organisations consulted through the on-line survey of FBOs

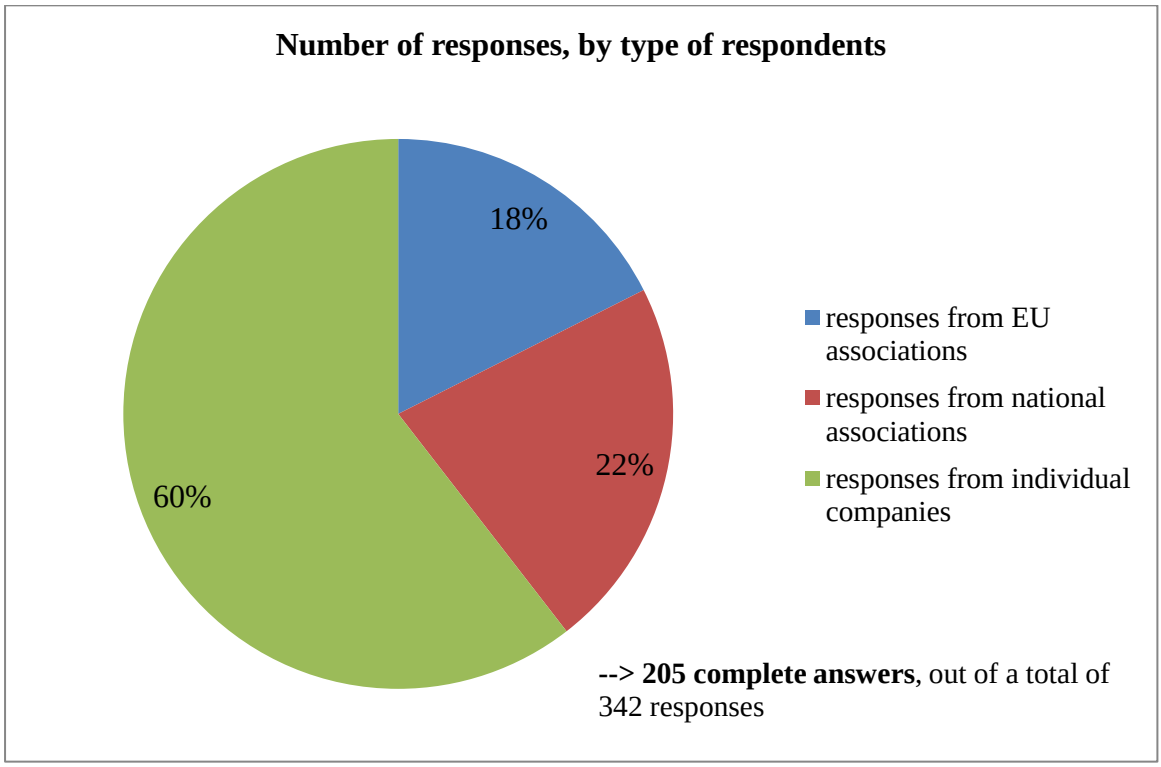
The following list of organisations is mostly based on the attendees' list to the Stakeholder Workshop organised by Agra CEAS Consulting as part of this study (see section 1.6). It is noted that this list does not intend to be exhaustive and contributions from many other professional organisations or different types of FBOs have been received and have been taken into account in the analysis (e.g. companies/industrial plants could contribute in their individual capacity).

PFP	Primary Food Processors
AAF	European Starch Industry Association
EFM	European Flour Millers
EUVEPRO	European Vegetable Protein Federation
FEDIOL	Federation of the EU vegetable Oil and Protein
CEFS	Comité Européen des Fabricantes de Sucre
ECA	European Cocoa Association
ECFF	European Chilled Food Association
ADEPALE	Association Des Entreprises de Produits ALimentaires Elaborés.
CEEREAL	European Breakfast Cereal Association
CULINARIA EUROPE	
UNAFPA	Union of Organisations of Manufacturers of Pasta Products of the European Union
ESA	European Snacks Association
UEAPME	Union Européenne de l'artisanat et des petites et moyennes entreprises
UEAPME food forum	NL Bakers Associations NBOV
EUSALT	European Salt Producers' Association
CAOBISCO	Chocolate, biscuits & confectionery of Europe
FDE	FOODDRINK EUROPE
OEIT	European Organisation of Tomato Industries
PROFEL	European Association of Fruit and Vegetable Processors
FDF	Food and Drink Federation (UK)
COPA-COGECA	Committee of Agricultural Organisations in the EU
ECF	European Coffee Federation
EUPPA	European Potato Processors
FEDIMA	Federation of EU manufacturers and suppliers of ingredients to Bakery, Confectionary and Patisserie industries
IMACE	International Margarine Association of the countries of Europe
UNESDA	Union of European Beverages Associations
CEEV	Comité Européen des Entreprises Vins
SpiritsEUROPE	SpiritsEurope
ERRT	European Retail Round Table
FERM	Federation of European Rice Millers

AIPCE-CEP	Association des industries du poisson de l'Union européenne
BEUC	Bureau européen des unions de consommateurs
COCERAL	Comité du commerce des céréales, aliments du bétail, oléagineux, huile d'olive, huiles et graisses et agrofournitures de l'Union européenne
ECSLA	European Cold Storage and Logistics Association
ECVC	European Coordination Via Campesina
EMRA	European Modern Restaurant Association
EUROCOMMERCE	European Representation of Retail, Wholesale and International Trade
EUROCOOP	European Community of Consumer Cooperatives
AIBI	International Association of Plant Bakers
AIIPA	Italian Association of Food Product Industries
IFOAM-EU GROUP	International Federation of Organic Agriculture Movements — European Union Regional Group
INDEPENDENT RETAIL EUROPE	EU representation of groups of independent retailers to EU and international institutions
AESGP	Association of the European Self-Medication Industry
CEFIC	Conseil Européen des fédérations de l'industrie chimique
EHPM	European Federation of Associations of Health Product Manufacturers
AIJN	European Fruit Juice Association
BDSI	Association of the German Confectionary Industry
CNA	Italian Organisation for crafts and SMEs
FEDERALIMENTARE	Italian Food and Drink Industry Federation
ENSA	European Natural Soyfood Association
ENSA	European Natural Soyfood Association
FRUCOM	European Federation of the Trade in Dried Fruit, Edible Nuts, Processed Fruit & Vegetables, Processed Fishery Products, Spices, Honey and Similar Foodstuffs
	Italian Small Business in Europe
Semouliers	Union des Associations des Semouliers de l'UE
EHIA & ETC	European Herbal Infusions Association and European Tea Committee
NFU	UK Farmers
CEJA	European council of young farmers
CIBE	International Confederation of European Beet Growers
EUCOFEL	Trade of fruit and vegetables
FRESHFEL	European Fresh Produce Association
CONXEMAR	Spanish Association of Wholesalers, Importers, Manufacturers and Exporters of Fisheries and Aquaculture Products.
ANCIT	Italian Association of Preserved Fishery Products
	German Federation for Food Law and Food Science e.V.

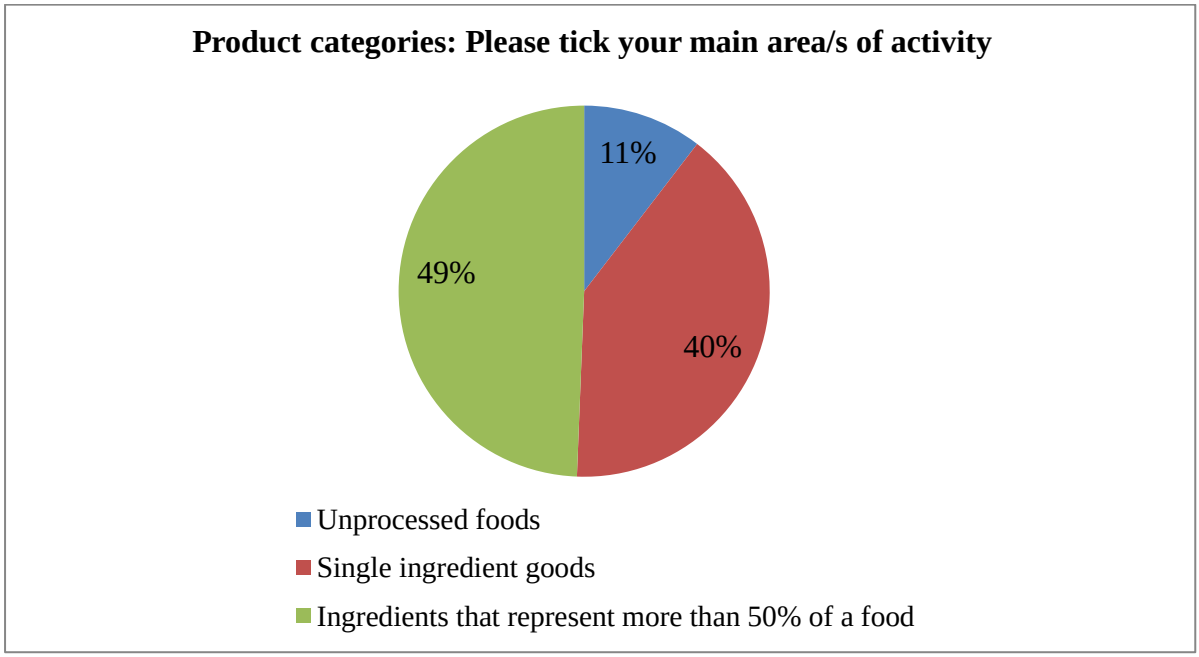
Annex 3: Base data of FBO response sample

Q1 – Number of responses, by type of respondents (%)



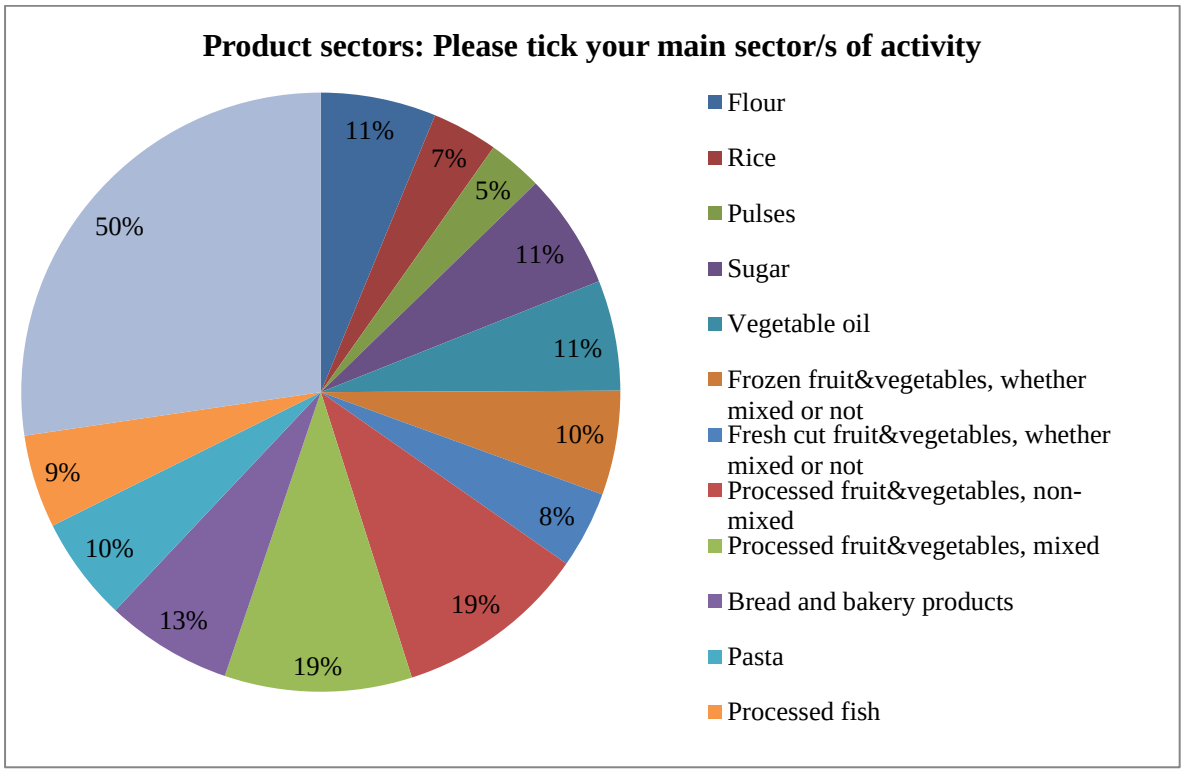
Source: FCEC FBO survey (2014)

Q2- Number of responses on the main area of activity, by product category (%)



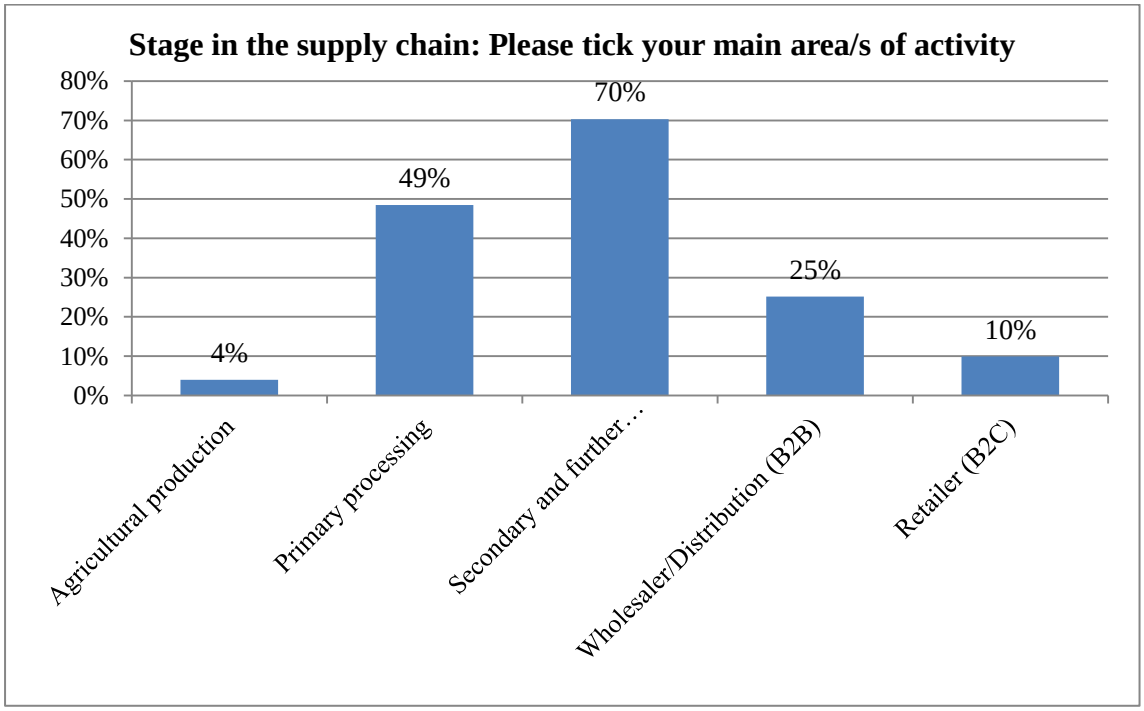
Source: FCEC FBO survey (2014)

Q3 – Number of responses on the main area of activity, by type of product (%)



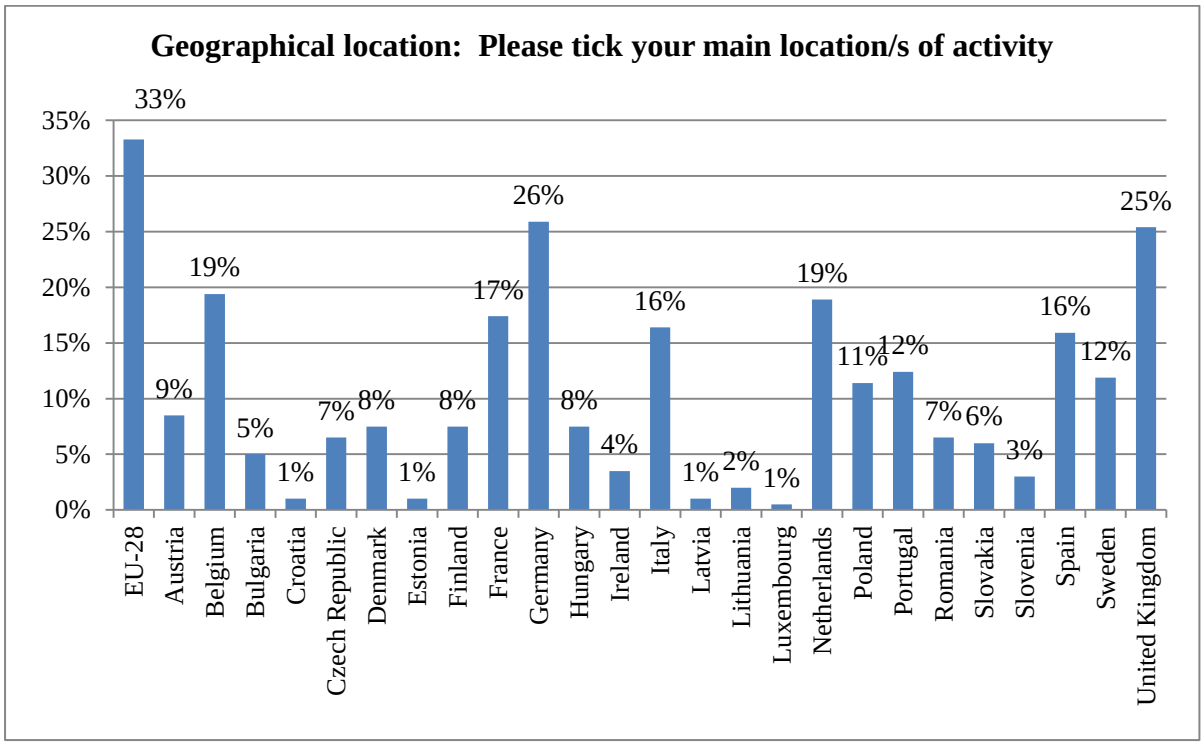
Source: FCEC FBO survey (2014)

Q4 – Number of responses, by stage in the supply chain of respondents (%)



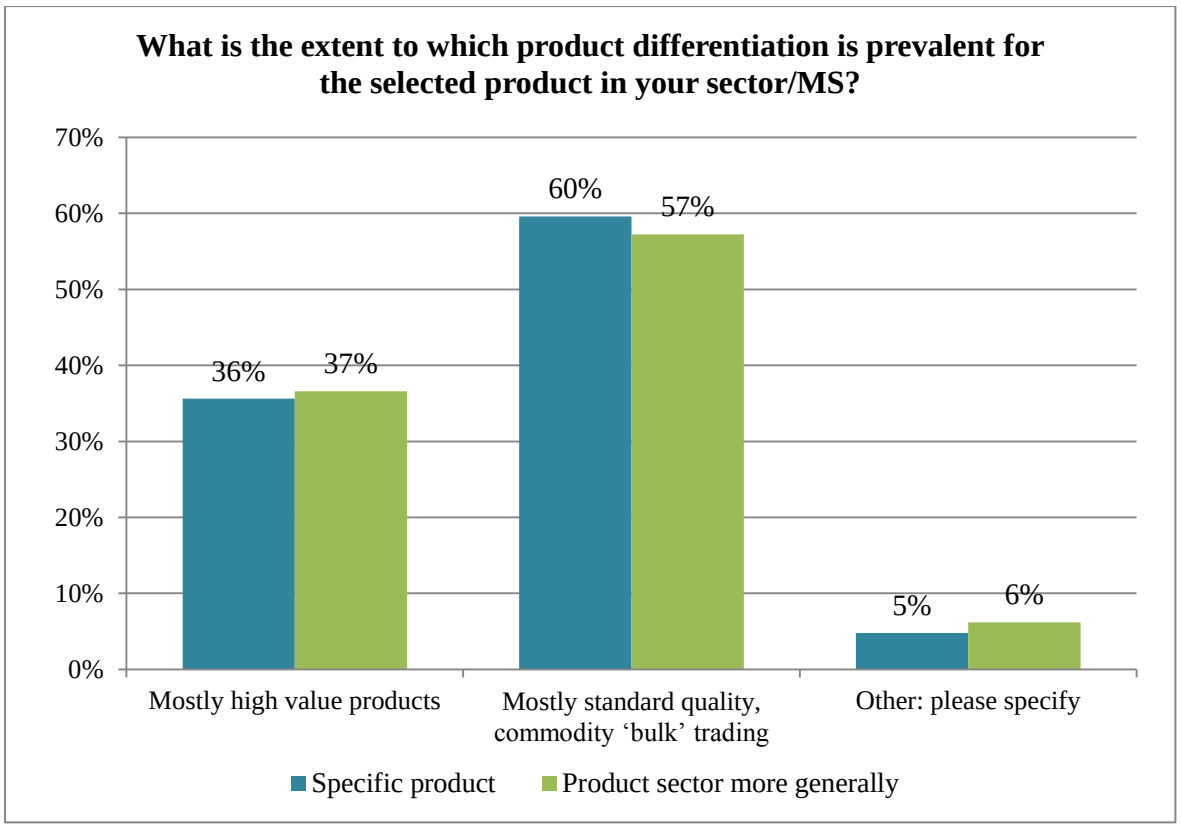
Source: FCEC FBO survey (2014)

Q5 – Number of responses, by geographical location of respondents (%)



Source: FCEC FBO survey (2014)

Q7 – Number of responses, by extent of product differentiation (%)



Source: FCEC FBO survey (2014)

Annex 4: Consumer survey questionnaire

In a separate document

Survey to MS CAs on mandatory COOL rules in "other foods"

1. Identification data

----- Introduction ------

Please read this note carefully before you proceed to the questions and data collection.
This consultation and data collection takes place in the framework of the study on the application of rules on the mandatory indication of country of origin or place of provenance of unprocessed foods, single ingredient products, and ingredients that represent more than 50% of a food. The study, which was commissioned by DG Health and Consumers of the European Commission (DG SANCO) to the Food Chain Evaluation Consortium (FCEC) in December 2013, is led by Dr Maria Christodoulou of Agra CEAS Consulting.

Regulation (EU) No 1169/2011 of the European Parliament and of the Council on the provision of food information to consumers introduces a set of provisions on origin labelling of foods. Amongst others: it frames the voluntary origin indications; it provides for the mandatory indication of country of origin or place of provenance of unprocessed meat of pigs, poultry, sheep and goats; and it requires the Commission to submit a report on the mandatory indication of country of origin or place of provenance of unprocessed foods, single ingredient products, and ingredients that represent more than 50% of a food to the European Parliament and the Council. In the case of the mandatory indication of country of origin or place of provenance of unprocessed foods, single ingredient products, and ingredients that represent more than 50% of a food, the Commission must submit the report by 13 December 2014.

This study, led by DG SANCO, aims to provide input for the Commission to assess the need for the consumer to be informed regarding the origin of unprocessed foods, single ingredient products, and ingredients that represent more than 50% of a food and the operational feasibility of providing the mandatory indication of country of origin or place of provenance of these foods. The mandatory indication of country of origin or place of provenance of milk, milk used as an ingredient in dairy products and types of meat other than beef, pig, poultry, sheep and goat is assessed in another on-going study, led by DG Agriculture of the European Commission (DG AGRI).

As outlined in the FIC Regulation Working Group meeting of 21 February, the FCEC team has developed a detailed list of questions addressed to Member State Competent Authorities, with a view to collecting relevant information and data to feed into the draft final report of the FCEC analysis which is due to be presented to the European Commission in June 2014.

The aim of the questions is to assist your organisation in collecting specific information and cost data on the implications of the various options considered in the study. A comprehensive description of the various themes of the study is provided in the Terms of Reference (ToR) of the study. We would invite you to read thoroughly the relevant sections of the ToR before proceeding to the examination of the various issues raised in this questionnaire.

http://ec.europa.eu/food/food/labellingnutrition/foodlabelling/docs/tor_266-1061_en.pdf

Please note that the following abbreviations are used in this questionnaire:
- EU: European Union
- MS: Member State
- SME: small-medium enterprises
- ToR: Terms of Reference (of the study)

Survey to MS CAs on mandatory COOL rules in "other foods"

The study covers any sector/product falling into the following categories of food, as follows:

• 'Unprocessed products' are defined by reference to point (n) of Article 2(1) of Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs: 'unprocessed products' means foodstuffs that have not undergone processing, and includes products that have been divided, parted, severed, sliced, boned, minced, skinned, ground, cut, cleaned, trimmed, husked, milled, chilled, frozen, deep-frozen or thawed'.

• Single ingredients products. There is no definition in EU legislation of 'single ingredient' foods. Efforts should be focused on identifying/examining some examples of products that would fit into the category, and not any attempt to make a definition for this category.

• 'Ingredients that represent more than 50% of a food' fall within the scope of what is defined in Article 2(2)q of the FIC Regulation as a "primary ingredient" with respect to the quantitative criterion of that definition. A primary ingredient' means an ingredient or ingredients of a food that represent more than 50 % of that food or which are usually associated with the name of the food by the consumer and for which in most cases a quantitative indication (QUID) is required.

Foods subject to mandatory origin labelling rules (i.e. unprocessed meat) or covered by other studies foreseen in Regulation (EC) No 1169/2011(i.e. dairy, other types of meat and meat ingredients) are excluded from the scope of this study.

The information you provide will be treated on a strictly confidential basis. All data collected through the survey will be used by the FCEC for statistical analysis of the costs related to the examined origin labelling rules only.

This questionnaire is available in English only.

THE FCEC THANKS YOU IN ADVANCE FOR YOUR COOPERATION

If you have any questions on this questionnaire or need any further clarifications of the issues raised and/or the consultation process, please contact us by e-mail at:
anne.marechal@ceasc.com

1. Please provide the following identification information

Member State	
Organisation	
Contact person	
Email address	
Telephone number	

Survey to MS CAs on mandatory COOL rules in "other foods"

2. Consumers' attitudes

2.1. Consumers' interest in the origin of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

2. How would you define consumers' interest in origin labelling for the following examples of foods , in your country?

	strong	medium	weak	absent
Flour, e.g. wheat flour	◯	◯	◯	◯
Rice	◯	◯	◯	◯
Pulses, e.g. dry beans, lentils	◯	◯	◯	◯
Sugar	◯	◯	◯	◯
Vegetable oil (other than olive oil), e.g. sunflower oil	◯	◯	◯	◯
Frozen fruit&vegetables, whether mixed or not, e.g. beans, peas, carrots, frozen cut mixed vegetables	◯	◯	◯	◯
Fresh cut fruit&vegetables, whether mixed or not, e.g. prepacked cut green salad	◯	◯	◯	◯
Processed fruit&vegetables, non-mixed, e.g. frozen potato fries, tomato purée (passata), canned peaches	◯	◯	◯	◯
Processed fruit&vegetables, mixed, e.g. mixed fruit juices, vegetable soups	◯	◯	◯	◯
Bread or bakery products	◯	◯	◯	◯
Pasta	◯	◯	◯	◯
Processed fish, e.g. canned tuna	◯	◯	◯	◯
Other (please specify)	◯	◯	◯	◯
Food more generally, excluding meat, dairy, etc.	◯	◯	◯	◯

Please specify and explain the reasons behind your position, providing any evidence in this respect (results of studies, surveys etc.).

3. How would you define consumers' interest in origin labelling for food more generally (considering only the categories covered by this study, i.e. excluding meat, dairy, etc.), for each option on the geographical level of origin indications?

	strong	medium	weak	absent
EU/non EU origin or EU/third country	◯	◯	◯	◯
Member State or Third Country	◯	◯	◯	◯
Other geographical entities as place of provenance (region)	◯	◯	◯	◯

Please explain the reasons behind your position, providing any evidence in this respect (results of studies, surveys etc.).

4. How would you define consumers' interest in origin labelling for food more generally (considering only the categories covered by this study, i.e. excluding meat, dairy, etc.), for the following modalities on the level of origin indications?

	strong	medium	weak	absent
Place of last substantial transformation (processing)	◯	◯	◯	◯
Place of farming	◯	◯	◯	◯
Both	◯	◯	◯	◯

Please explain the reasons behind your position, providing any evidence in this respect (results of studies, surveys etc.).

5. Are there, in your country, any national voluntary schemes concerning the origin of the food products covered by this study?

- ◯ Yes
- ◯ No
- ◯ Do not know

Please indicate any comments

6. If yes, indicate which, and briefly describe the product sector to which they apply and key modalities of this/these national voluntary scheme(s):
Please, provide examples of such schemes and food products covered.

7. Are such national voluntary schemes considered satisfactory from the consumers' point of view?

- ◯ Fully satisfactory
- ◯ Partially satisfactory
- ◯ Unsatisfactory
- ◯ Do not know

Please explain the reasons behind your position

8. Are there, in your country, any private voluntary schemes, developed by producers or retailers, concerning the origin of the food products covered by this study?

- ◯ Yes
- ◯ No
- ◯ Do not know

Please indicate any comments

9. If yes, indicate which, and briefly describe the product sector to which they apply and the key modalities of this/these private voluntary scheme(s):
Please, provide examples of such schemes and food products covered.

10. Are such private voluntary schemes considered satisfactory from the consumers' point of view?

- ◯ Fully satisfactory
- ◯ Partially satisfactory
- ◯ Unsatisfactory
- ◯ Do not know

Please explain the reasons behind your position

11. Would the provisions of Article 26(3) of Regulation (EU) No 1169/2011 be a satisfactory solution - as far as consumers are concerned – for the food products covered by this study rather than imposing mandatory indication of origin for these products in general?

- ◯ Fully satisfactory
- ◯ Partially satisfactory
- ◯ Unsatisfactory
- ◯ Do not know

Please explain the reasons behind your position

2.2 Consumers' willingness to pay in the origin of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

12. How would you define consumers' willingness to pay for additional origin information on the following examples of foods, in your country?

Note: the concept of willingness to pay of consumers derives from the assumption that additional origin labelling requirements are likely to result in additional costs for Food Business Operators, which in turn are likely to pass on such costs (fully or partially) to consumers by increasing the final price of food products. Consumers may thus be interested in knowing the origin of food products, but they may or may not be willing to pay more to receive that information, or to a varying extent depending on the food product.

	strong	medium	weak	absent
Flour, e.g. wheat flour	◯	◯	◯	◯
Rice	◯	◯	◯	◯
Pulses, e.g. dry beans, lentils	◯	◯	◯	◯
Sugar	◯	◯	◯	◯
Vegetable oil (other than olive oil), e.g. sunflower oil	◯	◯	◯	◯
Frozen fruit&vegetables, whether mixed or not, e.g. beans, peas, carrots, frozen cut mixed vegetables	◯	◯	◯	◯
Fresh cut fruit&vegetables, whether mixed or not, e.g. prepacked cut green salad	◯	◯	◯	◯
Processed fruit&vegetables, non-mixed, e.g. (frozen) potato fries, tomato purée (passata), canned peaches in syrup	◯	◯	◯	◯
Processed fruit&vegetables, mixed, e.g. mixed fruit juices, vegetable soups	◯	◯	◯	◯
Bread or bakery products	◯	◯	◯	◯
Pasta	◯	◯	◯	◯
Processed fish, e.g. canned tuna	◯	◯	◯	◯
Other (please specify)	◯	◯	◯	◯
Food more generally, excluding meat, dairy, etc.	◯	◯	◯	◯

Please specify and explain the reasons behind your position, providing any evidence in this respect (results of studies, surveys etc.).

Survey to MS CAs on mandatory COOL rules in "other foods"

3. Economic, social, and environmental impacts of the main options of origi...

Note: Our ultimate target is to try to establish the implications for enforcement authorities, in terms of compliance costs (i.e. the cost of controls) and administrative burden, (i.e. the cost related to information obligation that each option is likely to involve).

Information obligations that may arise from EU legislation have implications in terms of staff time needed, qualification of staff needed, staff unit costs, therefore on the costs of tasks to be delivered. In particular, the following tasks may arise from the information obligation stemming from the new rules:
1. Notification of (specific) activities or events
2. Submission of (recurring) report
3. Information labelling for third parties
4. Non labelling information for third parties
5. Application for individual authorisation or exemption
6. Application for general authorisation or exemption
7. Registration
8. Certification of products or processes
9. Inspection on behalf of public authorities
10. Cooperation with audits & inspection by public authorities, including maintenance of appropriate records
11. Application for subsidy or grant
12. Other

The answers you provide in this section will be crucial to enable us to determine more precisely the potential additional administrative burden and control costs of each of the options defined below.

Relevant options and related modalities

Relevant options on geographical level of origin labelling:
1. Origin labelling based on a) EU/non-EU origin or b) EU/third country.
2. Member State or Third Country.
3. Other geographical entities as place of provenance (region).

Modalities to be considered for each of the 3 above options:
a. Place of the last substantial transformation of the product (i.e. as determined in accordance with the EU Customs Code).
b. Place where the main ingredient was harvested;
c. Both of the above.

Note: the status quo option is the implementation of voluntary origin labelling, as provided in Article 26(3) of Regulation (EU) No 1169/2011.

13. Which of the above options (and related modalities) should be adopted, if mandatory origin labelling rules for the three categories of food examined by this study were to be introduced, and why?

As this study covers a wide range of products, you may wish to provide more than one answer (i.e. combination of option/modality). In this case, please complete this questionnaire from this point on (i.e. question Q13 onwards) separately for each answer you wish to provide.

Please also specify in the text box below whether each answer you may wish to provide (i.e. combination of option/modality) applies to specific products/sectors, and indicate which ones.

	Modality a	Modality b	Modality c
Option 1	◯	◯	◯
Option 2	◯	◯	◯
Option 3	◯	◯	◯

Please specify and explain the reasons behind your position

14. To what extent would the option/modality selected in the previous question, be likely to involve additional compliance costs (i.e. control costs) for enforcement authorities? To what extent would the level of controls need to be increased? Please refer to the introductory note in this section for compliance costs and administrative burden definitions.

Please provide the expected change compared to current average levels of controls/costs in your country (in € and %)

*** From our past experience we assume change will be increase (i.e.+%), but please adjust if no change (i.e. current level) or even decrease (i.e. -% change) is anticipated.**

Current level of controls in €	
Change (increase*) in €	
Change (increase*) in % against current level	

15. To what extent would the selected option/modality be likely to involve new information obligations (i.e. obligations related to information collection and reporting as listed in the table below)? Which actors are likely to be affected by these information obligations: MS enforcement authorities; private operators?

	Enforcement authorities	Private operators
1. Notification of (specific) activities or events	☐	☐
2. Submission of (recurring) report	☐	☐
3. Information labelling for third parties	☐	☐
4. Non labelling information for third parties	☐	☐
5. Application for individual authorisation or exemption	☐	☐
6. Application for general authorisation or exemption	☐	☐
7. Registration	☐	☐
8. Certification of products or processes	☐	☐
9. Inspection on behalf of public authorities	☐	☐
10. Cooperation with audits & inspection by public authorities, including maintenance of appropriate records	☐	☐
11. Application for subsidy or grant	☐	☐
12. Other: Please specify	☐	☐

Please specify and/or indicate any comments

16. What is the expected additional impact of the selected option/modality on other administrative costs for MS enforcement authorities for the three most important obligations you identified in the previous question, in terms of:

staff time needed (in man days over a one-year period)

*** From our past experience we assume change will be increase (i.e. +%), but please adjust if no change (i.e. current level) or even decrease (i.e. -% change) is anticipated.**

Current level in man days	
Change (increase*) in man days	
Change (increase*) in % against current level	

17. What is the expected additional impact of the selected option/modality on other administrative costs for MS enforcement authorities for the three most important obligations you identified in the above question, in terms of:

Qualification of staff needed - staff unit costs (in €/man day)

*** From our past experience we assume change will be increase (i.e. +%), but please adjust if no change (i.e. current level) or even decrease (i.e. -% change) is anticipated.**

Current level in €/man day	
Change (increase*) in €/man day	
Change (increase*) in % against current level	

18. Would innovation (e.g. isotope analysis, Radio Frequency Identification (RFID) techniques, etc.) be effective in terms of its potential to limit additional costs in the medium term, especially as far as the implementation of traceability along the supply chain is concerned?

- ◯ Yes
- ◯ No

Please explain the reasons behind your position

19. Would the impact on additional compliance costs (i.e. control costs) and on administrative costs (i.e. information obligations) in the case of milk and dairy products be any different than the costs described above for the 3 categories of foods covered by this study?

	Yes, higher costs	Yes, lower costs	No difference
Impact for milk	◯	◯	◯
Impact for dairy products	◯	◯	◯

If yes, please explain why in the text box.

20. What previous experience relating to the introduction of mandatory labelling rules in the food sector could be considered as comparable to the introduction of origin labelling rules, in terms of potential impact on controls and administrative costs and burden in your country?
Please indicate comparable cases e.g. the introduction of mandatory labelling for beef; forthcoming mandatory labelling for meat of pigs, poultry, sheep and goats, or any other comparable food labelling rules.

21. In the comparable examples indicated in the previous question, what were the additional compliance costs and administrative burden incurred by the Competent Authorities in your country due to the implementation of those comparable labelling rules?
Please indicate costs in terms of additional man days over a one-year period and in €/man day. Please refer to the introductory note in this section for compliance costs and administrative burden definitions.

22. What, in your view, could be the potential environmental impacts of the selected option/modality, in terms of:

	Significant impact	Not significant impact
Potential incentive to consumption of products produced in proximity	◯	◯
Potential risk of increasing the size of labels (and hence of packaging)	◯	◯
Other kinds of environmental impacts you deem relevant: please specify.	◯	◯

Please specify and explain the reasons behind your position

The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro. Within the SME category, a small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million. Within the SME category, a microenterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million.
Commission Recommendation of 6 May 2003, 2003/361/EC
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:EN:PDF

23. Would SMEs and micro-enterprises be particularly/disproportionately affected by the selected option/modality? If this is the case, what measures could be taken to mitigate such impacts?

- ◯ Yes
- ◯ No

Please explain the reasons behind your position

24. What would be the potential benefits of the selected option/modality?

- ☐ It would support local farmers/production
- ☐ It would support EU farming more generally
- ☐ It would reduce food miles / beneficial for the environment
- ☐ Increased traceability would contribute to enhancing food safety
- ☐ It would enhance product value for consumers
- ☐ It would reduce the prevalence of misleading labelling
- ☐ It would enhance consumer trust in the EU food chain
- ☐ Other potential benefits: please specify

Please specify and explain the reasons behind your position

Annex 4: Consumer survey questionnaire

In a separate document

Annex 5: Consumer survey results (Pragma report)

European Commission
Directorate General for Health and Consumers

"Study on the mandatory indication of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food"

Final Report

prepared by

Pragma

on behalf of

c.c.i.a.a. 343341 trib. Roma 3007/71 c.f. 00819770587 p.iva 00934911009

Pragma Srl
Sede centrale: 00162 Roma, Via Nomentana n. 134 Tel. +3906844881 Fax

INDEX

PART I: THE SURVEY

1.1 Universe and sample

The universe of reference of the survey are purchasers of at least one of the 11 target products (Table C), resident in one of the 15 countries within the scope of the survey (Table A), accounting for 88.2% of total EU population.

Considering that target products have a large consumption base, figures on general population aged 18+ were used as a proxy for the universe of reference[230]. Therefore, an equal number of interviews were assigned to each country and then national probabilistic samples were built, with (soft) quotas set on national population figures, by age, gender and level of urbanization[231]. Raw data were then weighted by importance of the population of the 15 target MS (Table A), in order to reflect the actual proportion of these MS in the total EU population. If not otherwise indicated, the report refers to total EU weighted data.

The sample thus reflects the EU population. The biases, mainly in terms of age and education, are due to the CAWI approach, which tends to oversample younger and more educated respondents.

Overall, **5,370 interviews were completed** (with country quotas ranging from 350 – in IT and UK – to 390 in CZ). As shown in the tables below, the sample is almost equally distributed between men (49%) and women (51%), with an average age of 45 and is distributed between 'predominantly urban' (42.7%), 'intermediate' (36.2%) and 'predominantly rural' (21.1%). As anticipated, the educational level of respondents in the sample was medium (44.2% of respondents) to high (39.7% of respondents) (excluding respondents 'still studying' and refusals), which is a common bias in the CAWI approach. In terms of occupational status, the

[230] Source: Eurostat Statistics Demography, National Data 2013
[231] Source: Eurostat Rural Urban Region Statistics (OCSE revised)

sample was divided between inactive (45.2%) and active respondents (54.8%), with a good spread across different professional levels/categories.

Table A - Sample Structure by Country and Type of Region (% values)

Code	Country	Population 18+		Interviews	
		A.V. (Mio)	%	Weighted	Unweighted
AT	Austria	7,0	1,9	102	362
BE	Belgium	8,9	2,4	129	356
BG	Bulgaria	6,1	1,7	91	359
CZ	Czech Republic	8,7	2,4	129	391
FR	France	51,0	14,0	752	350
DE	Germany	68,7	18,9	1.015	355
EL	Greece	9,1	2,5	134	351
HU	Hungary	8,1	2,2	118	356
IT	Italy	49,7	13,7	736	350
LT	Lithuania	2,4	0,7	38	359
PL	Poland	31,5	8,7	467	366
RO	Romania	16,2	4,5	242	352
ES	Spain	38,4	10,5	564	352
SE	Sweden	7,6	2,1	113	361
UK	United Kingdom	50,3	13,8	741	350
EU15		**363,6**	**100,0**	**5.370**	**5.370**

Country	Type of Region			Total
	Predominantly Urban	Intermediate	Predominantly Rural	
AT	35,3	26,5	38,2	100
BE	68,8	22,7	8,6	100
BG	20,9	45,1	34,1	100
CZ	26,4	41,1	32,6	100
FR	36,6	36,8	26,6	100
DE	47,9	39,0	13,1	100
EL	58,6	12,0	29,3	100
HU	17,8	40,7	41,5	100
IT	38,0	43,1	18,9	100
LT	42,1	23,7	34,2	100
PL	25,7	30,8	43,5	100
RO	10,8	45,2	44,0	100
ES	48,2	38,7	13,1	100
SE	23,0	57,5	19,5	100
UK	70,3	26,6	3,1	100
EU15_W	**42,7**	**36,2**	**21,1**	**100**
EU15_U	**37,7**	**35,4**	**26,9**	**100**

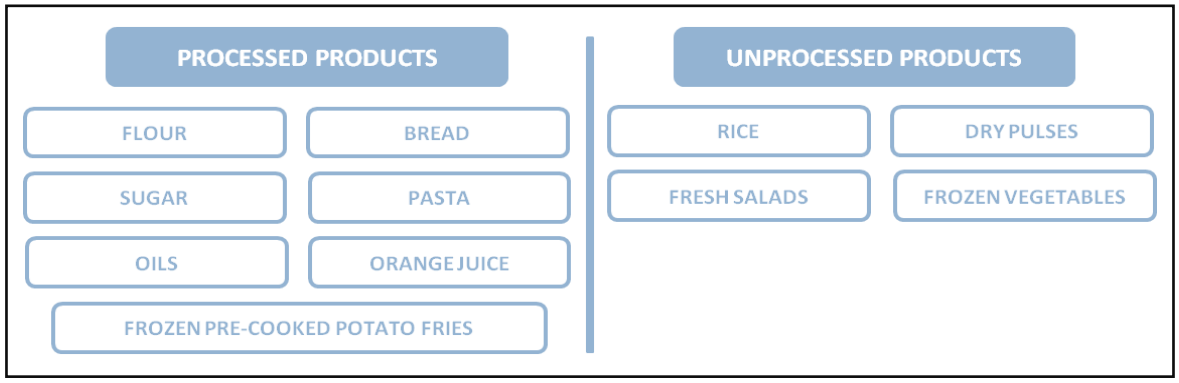
Table B - Sample Structure by Gender, Age, Education and Occupational Status (% value, mean)

Country	Gender		Age						Total	Age Mean
	Male	Female	18 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65+		
AT	48,0	52,0	10,8	16,7	18,6	19,6	19,6	14,7	100,0	46
BE	49,6	50,4	11,6	14,7	17,8	18,6	16,3	20,9	100,0	47
BG	35,2	64,8	13,0	18,5	20,7	21,7	19,6	6,5	100,0	43
CZ	39,5	60,5	13,3	20,3	21,9	14,8	18,8	10,9	100,0	43
FR	46,3	53,7	10,0	14,2	19,4	20,3	21,4	14,6	100,0	47
DE	49,3	50,7	10,1	15,0	17,1	20,3	20,6	16,9	100,0	47
EL	53,0	47,0	17,0	22,2	27,4	21,5	10,4	1,5	100,0	38
HU	46,6	53,4	11,7	18,3	19,2	15,8	18,3	16,7	100,0	46
IT	47,1	52,9	8,0	19,2	18,6	19,7	15,1	19,4	100,0	47
LT	43,2	56,8	13,5	18,9	18,9	24,3	13,5	10,8	100,0	43
PL	46,7	53,3	11,8	19,9	17,8	18,4	19,1	13,1	100,0	45
RO	47,1	52,9	12,4	19,5	24,1	18,7	22,4	2,9	100,0	42
ES	48,9	51,1	9,9	20,4	22,2	19,0	13,1	15,3	100,0	44
SE	46,0	54,0	13,4	15,2	13,4	15,2	16,1	26,8	100,0	49
UK	58,8	41,2	11,5	17,7	17,9	18,9	18,6	15,4	100,0	46
EU15_W	**49,0**	**51,0**	**10,7**	**17,5**	**19,1**	**19,3**	**18,2**	**15,1**	**100,0**	**45**
EU15_U	**47,0**	**53,0**	**11,9**	**18,1**	**19,8**	**19,1**	**17,5**	**13,7**	**100,0**	**46**

Country	Educational Status					Educational Level			Total
	Low Education	Medium Education	High Education	Still Studying	Refusal	Low	Medium	High	
AT	21,6	16,7	21,6	9,8	30,4	36,1	27,9	36,1	100
BE	10,8	45,4	27,7	10,8	5,4	12,8	54,1	33,0	100
BG	0,0	51,6	34,1	8,8	5,5	0,0	60,3	39,7	100
CZ	2,3	53,8	23,8	11,5	8,5	2,9	67,3	29,8	100
FR	10,4	50,8	30,1	6,5	2,3	11,4	55,7	32,9	100
DE	17,7	11,8	23,1	14,7	32,7	33,7	22,5	43,8	100
EL	5,2	37,0	37,0	14,1	6,7	6,5	46,7	46,7	100
HU	6,8	52,5	25,4	8,5	6,8	8,0	62,0	30,0	100
IT	8,3	40,9	36,0	9,6	5,2	9,7	48,0	42,3	100
LT	0,0	37,8	43,2	10,8	8,1	0,0	46,7	53,3	100
PL	1,3	23,6	38,0	13,1	24,0	2,0	37,5	60,4	100
RO	0,8	19,9	49,8	13,3	16,2	1,2	28,2	70,6	100
ES	14,2	36,6	35,2	9,4	4,6	16,5	42,6	40,9	100
SE	5,3	25,7	31,9	15,9	21,2	8,5	40,8	50,7	100
UK	26,3	40,6	21,2	9,2	2,8	29,9	46,1	24,0	100
EU15_W	**12,3**	**33,8**	**30,3**	**10,8**	**12,7**	**16,1**	**44,2**	**39,7**	**100**
EU15_U	**16,1**	**36,4**	**31,8**	**11,1**	**12,0**	**19,1**	**43,2**	**37,7**	**100**

Country	Occupation Status						Total
	Retired or unable to work through illness	Student, Unemployed, Not working	Self Employed	Top/Middle Level Employed	Clerical Worker	No Clerical Worker	
AT	28,0	19,0	10,0	13,0	15,0	15,0	100
BE	31,5	23,8	4,6	6,2	18,5	15,4	100
BG	9,7	18,3	17,2	20,4	15,1	19,4	100
CZ	20,9	23,3	12,4	13,2	14,7	15,5	100
FR	26,9	19,5	5,3	13,7	18,3	16,3	100
DE	24,6	19,4	11,5	9,0	16,1	19,5	100
EL	6,0	35,1	17,2	14,2	12,7	14,9	100
HU	27,4	24,8	10,3	7,7	8,5	21,4	100
IT	19,1	30,4	13,2	9,4	19,9	8,0	100
LT	12,8	20,5	17,9	23,1	10,3	15,4	100
PL	21,6	20,8	11,8	12,8	14,8	18,2	100
RO	12,3	19,3	11,9	20,2	20,2	16,0	100
ES	15,1	33,5	10,8	11,0	13,8	15,8	100
SE	30,4	23,2	11,6	8,0	8,0	18,8	100
UK	21,2	22,8	14,7	12,0	10,8	18,4	100
EU15_W	**21,4**	**23,8**	**11,4**	**11,7**	**15,6**	**16,2**	**100**
EU15_U	**20,4**	**23,5**	**12,1**	**12,9**	**14,5**	**16,5**	**100**

Table C - List of Products



Note (FCEC): for the purposes of the consumer survey, two categories of products were used:

- *'unprocessed' products, i.e. products for which no clear processing stage can be identified by consumers. These include rice, dry pulses, fresh salads and frozen vegetables; and,*
- *'processed' products, i.e. products which clearly involves processing from a previous, 'ingredient' stage. For these products, consumers are able to differentiate the harvest stage and the processing stage which has implications in terms of origin indication (modality a: place of processing; modality b: place of harvest).*

This categorisation is used in this Report only for the purpose of the consumer survey and should not be confused with the official existing definition for 'unprocessed foods' as per Regulation (EC) No 852/2004 on the hygiene of foodstuffs.

As anticipated, frequencies of purchase were quite high for all products (Table D): purchasers of processed products ranged between 77.6% for oils and 90.1% for pasta, the only exception being for purchases of frozen pre-cooked potato fries (55.7% of the total sample). Purchasers of processed products ranged from 65.8% for dry pulses to 87% for rice.

Table D - Frequencies of Purchased Products by Country (% values)

Country	Processed Products						
	Flour	Sugar	Oils	Bread	Pasta	Frozen Pre-cooked Poteto Fries	Orange Juice
AT	79,4	77,5	76,5	77,5	86,4	49,0	72,5
BE	68,2	86,8	74,4	70,5	90,7	59,7	75,2
BG	86,8	85,7	83,5	91,3	85,7	27,2	70,3
CZ	93,0	92,2	92,2	82,2	92,2	57,4	72,1
FR	88,0	93,1	81,8	67,2	94,3	66,3	88,6
DE	82,3	89,1	81,7	78,3	90,1	60,9	75,0
EL	79,1	85,2	48,1	68,7	86,6	20,1	79,3
HU	89,0	85,6	84,7	78,2	84,0	42,4	71,2
IT	92,0	94,3	68,9	76,9	93,2	64,3	81,1
LT	89,5	92,1	84,2	94,6	86,8	23,7	75,7
PL	88,9	90,4	88,2	85,2	92,7	54,6	86,5
RO	89,3	91,3	89,7	92,6	82,2	23,6	75,1
ES	87,8	87,8	71,8	86,3	92,9	46,0	78,2
SE	84,1	83,9	69,0	85,8	85,8	46,9	67,3
UK	65,2	81,7	73,1	91,4	84,3	62,6	78,0
EU15_W	**83,6**	**88,9**	**77,6**	**80,6**	**90,1**	**55,7**	**79,2**
EU15_U	**84,2**	**87,8**	**78,1**	**81,8**	**88,6**	**46,9**	**76,3**

Country	Unprocessed Products			
	Rice	Dry Pulses	Fresh Salads	Frozen Vegetables
AT	80,4	42,2	81,4	72,5
BE	84,5	58,1	68,2	69,8
BG	86,8	85,7	90,1	59,3
CZ	94,6	79,1	58,1	82,9
FR	92,6	80,3	69,4	77,1
DE	79,7	45,6	83,1	76,1
EL	85,1	74,6	56,7	62,7
HU	89,0	69,5	74,8	68,6
IT	90,3	86,3	85,4	79,7
LT	89,5	47,4	63,2	54,1
PL	88,2	64,7	67,7	74,5
RO	87,6	75,9	78,1	68,5
ES	92,0	82,1	79,3	71,6
SE	81,4	46,9	85,0	82,1
UK	84,3	45,1	88,0	78,3
EU15_W	**87,0**	**65,8**	**78,4**	**75,2**
EU15_U	**87,1**	**65,6**	**75,1**	**71,9**

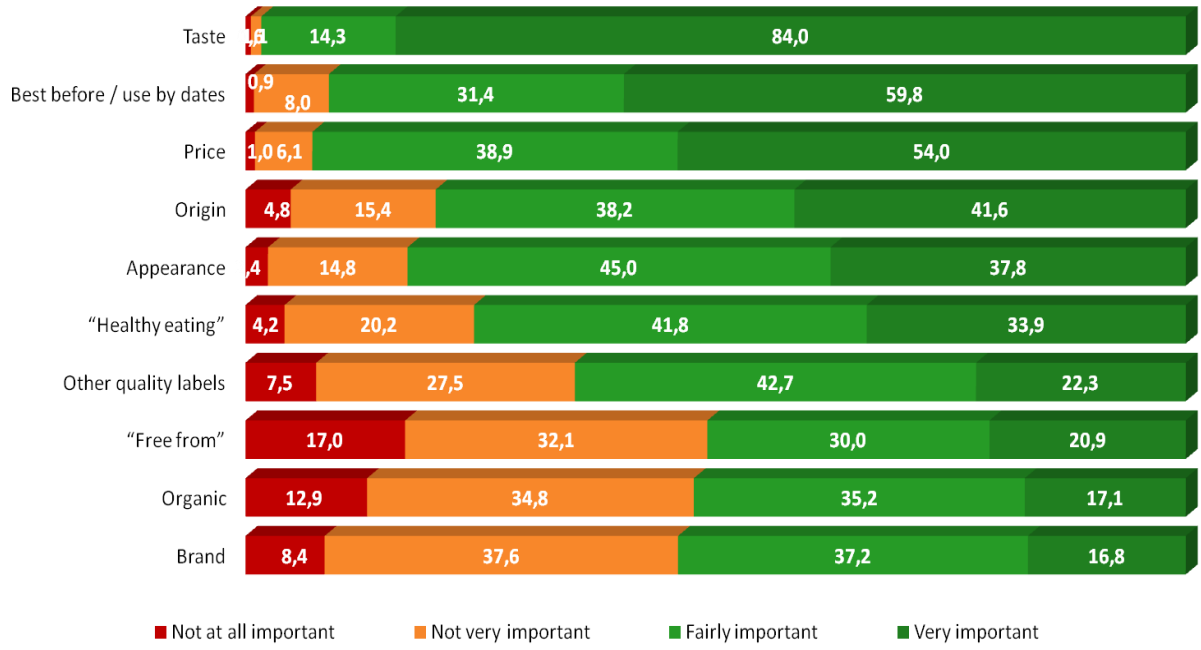
1.2 Choice criteria when buying food products

To begin with, respondents were asked a set of questions aiming at understanding the importance of the origin of food products in comparison with other purchasing criteria (‘items’). As shown in Graph A, looking at the results of items considered ‘very important’, taste is by far the most important criteria (84%), followed by expiry date (59.8%) and price (54%). Brand and organic production are the least important items for respondents in the sample.

Origin is considered ‘very important’ by almost four respondents out of ten (41.6%), ranking at the fourth place (out of 10 prompted items). Together with those considering the food product origin ‘fairly important’ (38.2% of the respondents), the share of respondents who consider origin as an important item when purchasing food goes up to 79.8%.

At country level it is worth noting that respondents in Italy are by far the most concerned with the origin of food (62.5% consider it 'very important'), followed by respondents in Austria (51.1%). Respondents in RO, BG, FR, SE and EL rank origin as slightly less important, but still above the average, while respondents in DE, CZ, HU POL, and LT consider origin as slightly less important than the sample's average. Finally, respondents in the UK, BE and ES appear to value comparatively less food origin (see Annex. Table F).

Graph A - Q.1: When you buy food products, how important is each of the following aspects? (% values, total sample)



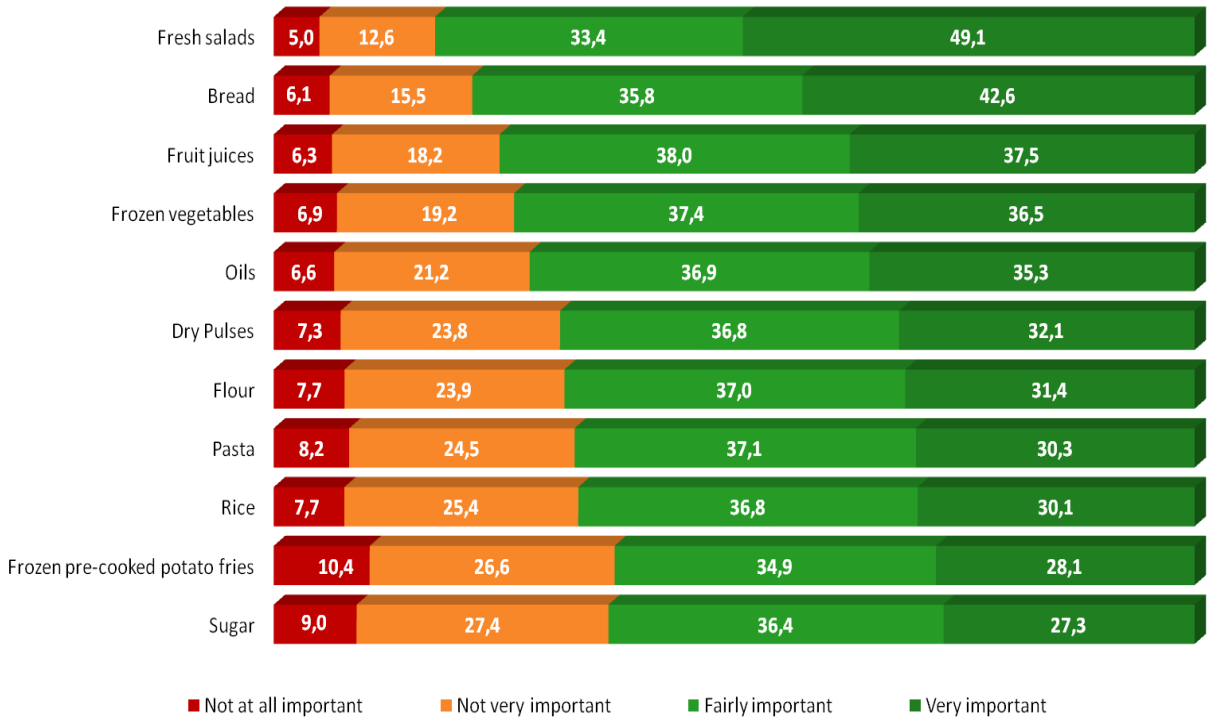
1.3 Importance of origin labelling on food products and ingredients

1.3.1 Level of interest

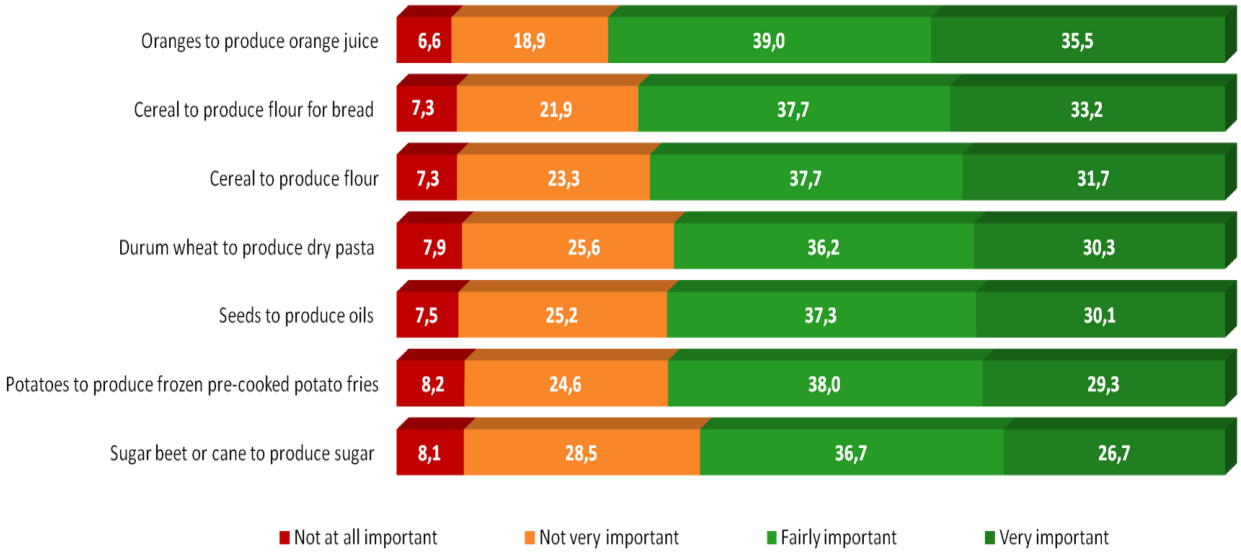
The sample was then asked to indicate the extent to which it is important to them that the origin is labelled of each target product (Graph B). The results show that in this case, i.e. **focusing on the question of origin for a specific product, a majority of respondents consider important to have an indication of origin (or provenance)**: the majority of respondents indicate that origin labelling is important for all products (sum of 'fairly important' + 'very important' ranges from 82.5% to 63.7%), with the highest score for fresh salads (49.1% consider it 'very important'), followed by bread (42.6%). On the other hand, origin is considered less important for sugar (27.3% of respondents consider it 'very important') and frozen pre-cooked potato fries (28.1% of 'very important' answers).

In terms of origin labelling of ingredients, the level of importance is overall high (Graph C), although slightly lower than for food products and more homogeneous across the board. The share of respondents indicating that origin is 'very important' ranges from 35.5% for oranges (to produce orange juice) to 26.7% for sugar beet (to produce sugar).

Graph B - Q.2: How important would it be for you that the label in each of the following food products indicates the product origin, that is where the food product was produced/processed? (% values, total sample)



Graph B - Q.2a - And how important would it be for you that the label in each of the following food products indicates the origin of the following ingredients, that is where the ingredients come from (place of farming)? (% values, total sample)



When ranking 'processed' products and their respective ingredients according to the share of 'very important' responses (Table D), the ranking order does not change much. This means that there is a positive correlation between the importance of origin information for a product and the importance attributed to its ingredient.

Table D - Importance of origin labelling for products and their respective ingredients

Product	Very Important (%)		Ingredient	Very Important (%)
Bread	42,6	↘	Oranges	35,5
Fruit Juices	37,5	↗	Cereals for flour for bread	33,2
Oils	35,3	↘	Cereals for flour	31,7
Flour	31,4	↗	Seeds	30,1
Pasta	30,3	→	Durum wheat	30,3
Pre-cooked potato fries	28,1	→	Potato	29,3
Sugar	27,3	→	Sugar beet	26,7

At MS level (see Annex. Table G and H), some tendencies are quite evident: respondents in Italy, Greece and Romania appear to be the ones most interested in the information on origin, as they account for the highest share of 'very important' responses for 11 products and 7 ingredients. In addition, Austrians are particularly interested in receiving information on specific products and ingredients. On the other hand UK respondents, and to a lesser extent, Belgian, Spanish and Lithuanian respondents, have the lowest shares of 'very important' responses overall.

Finally, the variance[232] between countries is higher for oils (40%) and pasta (39%) while it is relatively lower for sugar (29.5%) and frozen pre-cooked potato fries (30.4%). This means that responses were more consistent for sugar and potato fries and more disperse for oils and pasta.

	Min	Max	Diff
Sugar	16.9	46.4	29.5
Frozen pre-cooked potato fries	17.6	48.0	30.4
Flour	17.4	51.2	33.8
Fresh salads	32.7	68.4	35.7
Frozen vegetables	21.2	57.1	36.0
Fruit juices	23.1	60.2	37.1
Rice	17.4	54.6	37.2

[232] The variance is calculated as the difference between the maximum and minimum share of 'very important' responses. It is the square of the standard deviation.

Pulses	16.2	54.1	37.9
Bread	26.1	64.4	38.3
Pasta	17.3	56.3	39.0
Oils	18.4	58.3	40.0

1.3.2 Reasons of interest

Looking at the reasons why respondents consider important that the origin is indicated on the label, **two main issues** were identified (Table E and Annex Table J and K). On one side, some items refer to **a 'special' relationship with the local territory** (perceived as the country or specific region of residence) which amount to 42.8% of total sample: products from own country (16.9%, notably Lithuania: 31.1%), local food (13.2%) and support to local producers (12.7%, with higher scores in HU 19.1% and UK 18.1%). On the other side, there are aspects referring to **a quality reassurance**, all together accounting for 36.1%: origin reassures on product quality (12.9%), satisfies the need to know place of provenance (12.4%), reassures on product safety (10.8%, notably Italy: 16.9%).

Other issues are linked to the environment preservation (6.0%), the partially related item on distance travelled by the product (6.8% and 13.8% in SE) and, finally, origin as a terms of comparison (6.4% and 11.2% in BG).

If all responses are grouped together (first, second and third most important reason), the support to producers of the country of residence becomes the most frequent reason (14%) while the variance between countries tends to decrease.

Table E – Q.3: Which are the three main reasons why you consider it important that the origin is indicated on the label? (% values, total sample)

Reasons	Most Important	All Responses
I can choose food products produced in my country / I trust more food products in my country	16,9	13,7
I can choose local food, I trust more local food products	13,2	11,9
It reassures me on the quality of the food products I buy	12,9	13,2
It allows me to support producers in my region/country	12,7	14,0
I need to know where the food products I buy come from	12,4	11,5
It reassures me on the safety of the food products I buy	10,8	11,6
It allows me to know whether food products have travelled a long distance	6,8	8,4
It helps me to choose between different products	6,4	8,3
It reassures me that food products have been produced in an environment-friendly way	6,0	6,6
Other	1,7	0,9
Total	**100,0**	**100,0**

1.3.3 Level of information required

The next step consisted to analyse the importance of origin labelling in terms of the level of information to be indicated, a theme which was also thoroughly explored in the WTP section.

A portion of the sample (i.e. among those respondents who indicated purchasing the concerned product and were randomly selected for evaluating that product in the WTP exercise) was then asked to express a preference towards 4 levels of information (if the selected product was 'unprocessed') or 7 levels (if the selected product was 'processed').

The following Graphs C and D (as well as in the Annex, Tables L and M) illustrate the results.

Overall, a large majority of respondents require some level of information on origin. **However, it should be noted that a minority of respondents indicated that they are not interested in receiving information on origin**; these accounted for between 15.2% (dry pulses) and 26.1% (rice) of respondents for 'unprocessed foods' and between 19% (fruit juices; oils) and 27% (frozen pre-cooked potato fries) in the 'processed foods' category.

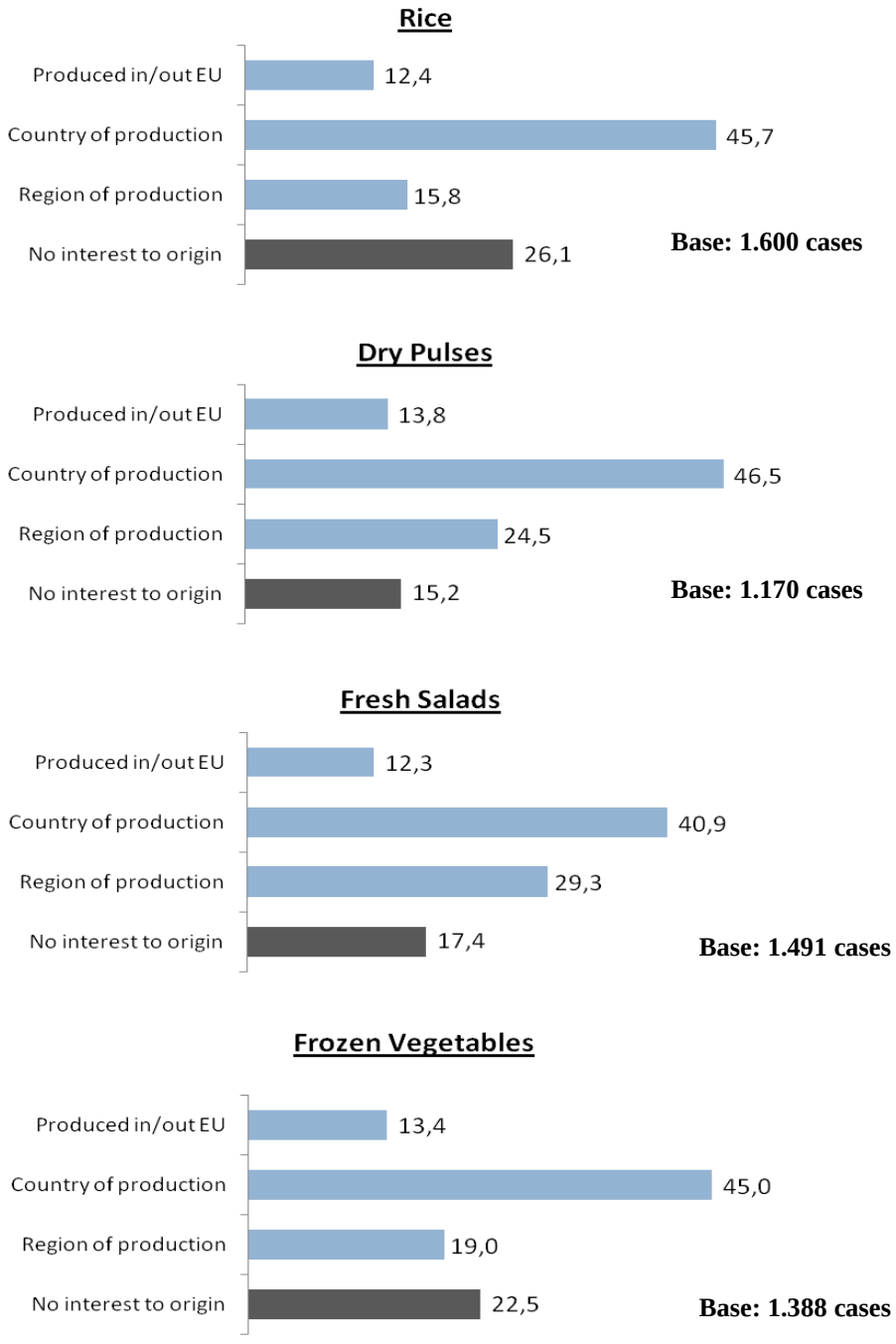
Among the possible options, **country of production is definitely the preferred choice with respect to all products, both 'unprocessed' and 'processed' products (in the latter case it applies to both product and ingredient).**

Besides, it is worth mentioning some interest for the region of production for fresh salads (29.3% of respondents) and dry pulses (24.5%) as well as for bread (30.1% of responses in the sample, grouping together results for both the product and its ingredient).

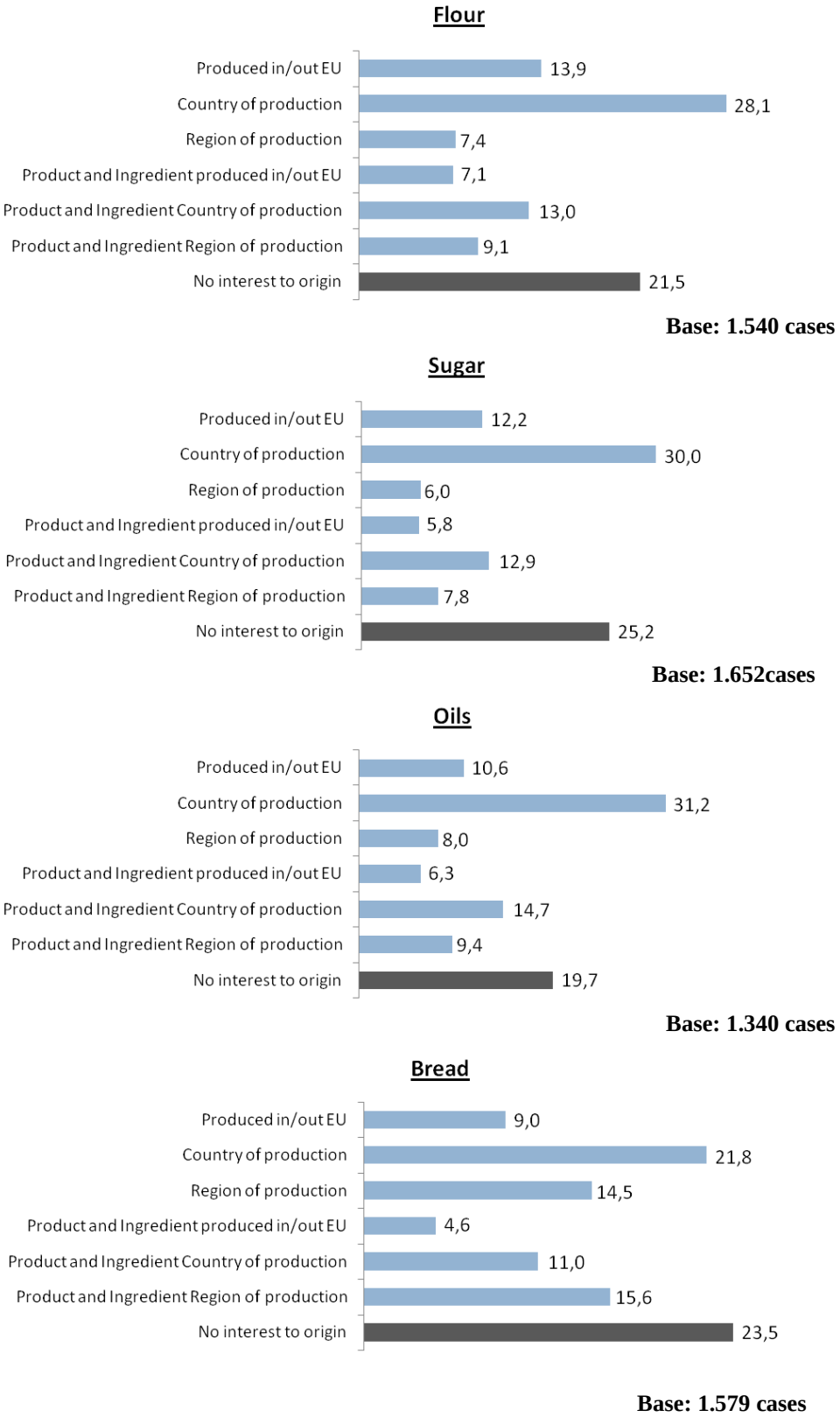
At MS level, results mainly confirm what has been outlined above: Italian and Greek remain the most interested to have some origin information on products and ingredients. This is also the case for other countries on a product or ingredient base (Austria, Romania, Poland, etc.). On the other hand, British and Belgian respondents show again a low interest towards any kind of origin information on the list of products and ingredients.

Graph C - Q.5a: When you buy unprocessed product, which of the following information regarding the origin of the product would you be interested in? (% values, respondents who purchase the product and selected it randomly for the WTP session)

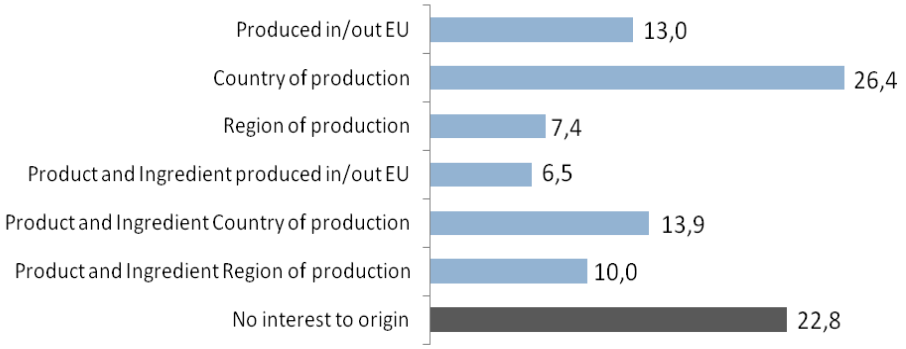
UNPROCESSED PRODUCTS



Graph D - Q.5b: When you buy processed product, which of the following information regarding the origin of the product would you be interested in? (% values, respondents who purchase the product and selected it randomly for the WTP session)
PROCESSED PRODUCTS

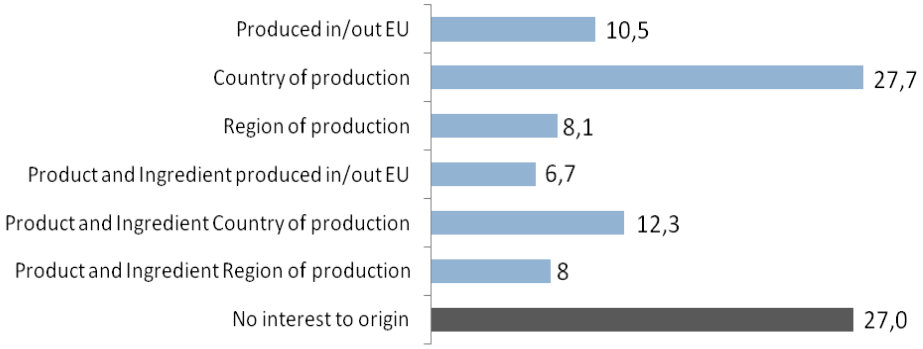


Pasta



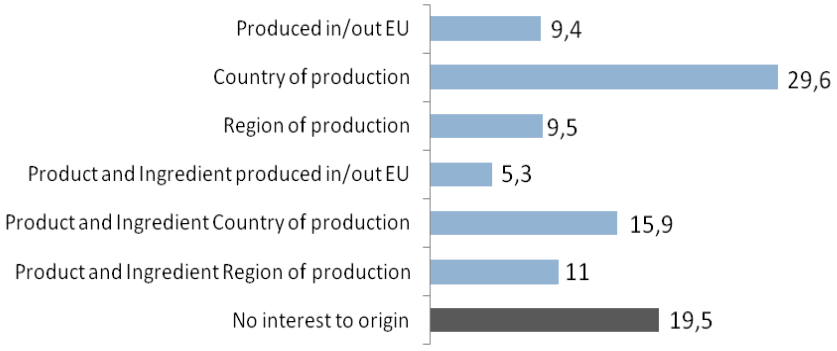
Base: 1.736 cases

Frozen pre-cooked Potetp Fries



Base: 921 cases

Orange Juice



Base: 1.497 cases

ANNEX OF PART I: MAIN RESULTS BY COUNTRY

Table F - Q.1: When you buy food products, how important is...?

Country	Appearance				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	2,9	21,6	38,2	37,3	100
BE	0,8	13,4	38,6	47,2	100
BG	3,3	14,3	52,7	29,7	100
CZ	3,1	10,1	45,0	41,9	100
FR	2,6	15,9	41,5	40,0	100
DE	1,1	19,2	40,7	39,0	100
EL	8,1	30,4	44,4	17,0	100
HU	4,2	22,7	49,6	23,5	100
IT	2,3	13,7	47,1	36,8	100
LT	2,6	10,5	50,0	36,8	100
PL	2,4	9,7	42,7	45,3	100
RO	2,1	6,2	43,6	48,1	100
ES	2,8	15,1	47,2	34,9	100
SE	5,4	18,9	47,7	27,9	100
UK	2,0	10,6	52,2	35,2	100
EU15_w	**2,4**	**14,8**	**45,0**	**37,8**	**100**

Country	Taste				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	1,0	2,0	8,8	88,2	100
BE	0,0	2,3	11,7	85,9	100
BG	1,1	1,1	17,6	80,2	100
CZ	1,6	0,8	11,6	86,0	100
FR	0,3	0,5	17,5	81,7	100
DE	0,3	0,6	10,2	88,9	100
EL	0,7	2,2	15,7	81,3	100
HU	0,0	1,7	21,0	77,3	100
IT	0,5	0,8	16,6	82,0	100
LT	0,0	0,0	16,2	83,8	100
PL	1,1	0,6	13,2	85,1	100
RO	0,0	0,8	9,6	89,6	100
ES	0,9	3,2	20,4	75,5	100
SE	0,0	0,9	13,6	85,5	100
UK	0,8	1,1	11,8	86,3	100
EU15	**0,6**	**1,1**	**14,3**	**84,0**	**100**

Country	Best before / use by dates				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	1,0	15,7	34,3	49,0	100
BE	0,8	5,5	30,5	63,3	100
BG	0,0	2,2	17,6	80,2	100
CZ	1,6	7,8	38,3	52,3	100
FR	0,5	7,9	31,9	59,7	100
DE	1,1	14,0	37,9	47,1	100
EL	1,5	5,2	17,9	75,4	100
HU	0,0	7,6	18,6	73,7	100
IT	0,8	2,3	26,1	70,8	100
LT	0,0	2,8	22,2	75,0	100
PL	1,1	1,1	19,6	78,2	100
RO	0,4	1,2	12,0	86,4	100
ES	0,9	8,2	36,7	54,3	100
SE	1,8	9,1	45,5	43,6	100
UK	1,1	12,6	40,1	46,2	100
EU15	**0,9**	**8,0**	**31,4**	**59,8**	**100**

Table F - Q.1: When you buy food products, how important is..... ? (*continued*)

Country	Price				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	1,0	10,9	36,6	51,5	100
BE	0,8	6,3	39,1	53,9	100
BG	1,1	13,3	44,4	41,1	100
CZ	0,8	5,4	47,7	46,2	100
FR	1,2	3,5	34,7	60,6	100
DE	1,4	9,7	43,2	45,7	100
EL	1,5	2,3	29,3	66,9	100
HU	0,0	9,4	38,5	52,1	100
IT	0,8	4,4	40,8	54,0	100
LT	0,0	7,9	47,4	44,7	100
PL	0,9	8,2	39,8	51,1	100
RO	0,4	9,2	39,6	50,8	100
ES	2,0	3,7	33,6	60,7	100
SE	0,9	10,7	47,3	41,1	100
UK	0,3	2,9	36,4	60,4	100
EU15	**1,0**	**6,1**	**38,9**	**54,0**	**100**

Country	Brand				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	15,7	49,0	25,5	9,8	100
BE	11,1	41,3	36,5	11,1	100
BG	5,4	34,8	42,4	17,4	100
CZ	11,7	43,0	34,4	10,9	100
FR	8,1	36,3	37,7	17,9	100
DE	14,4	48,3	25,4	11,9	100
EL	7,5	36,8	41,4	14,3	100
HU	9,3	46,6	29,7	14,4	100
IT	2,9	24,7	46,7	25,7	100
LT	13,5	45,9	32,4	8,1	100
PL	3,2	34,3	41,0	21,5	100
RO	3,3	27,1	42,9	26,7	100
ES	8,0	37,8	37,4	16,8	100
SE	9,1	44,5	35,5	10,9	100
UK	9,3	36,8	41,7	12,2	100
EU15	**8,4**	**37,6**	**37,2**	**16,8**	**100**

Country	Origin				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	3,0	12,5	33,4	51,1	100
BE	10,8	25,4	33,3	30,6	100
BG	1,9	10,4	42,4	45,3	100
CZ	4,6	13,8	41,5	40,1	100
FR	3,1	12,4	38,1	46,3	100
DE	4,8	20,7	41,0	33,6	100
EL	2,8	12,5	39,2	45,5	100
HU	7,0	18,5	34,7	39,8	100
IT	1,1	2,8	33,5	62,5	100
LT	7,5	22,5	35,7	34,3	100
PL	3,8	9,2	46,5	40,5	100
RO	3,1	12,7	34,8	49,4	100
ES	4,2	17,5	47,6	30,6	100
SE	5,7	12,5	35,8	46,1	100
UK	8,6	27,9	35,0	28,5	100
EU15	**4,8**	**15,4**	**38,2**	**41,6**	**100**

Table F - Q.1: When you buy food products, how important is..... ? (*continued*)

Country	"Healthy eating" (e.g. low fat, low sugar, low salt, etc.)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	4,9	13,7	43,1	38,2	100
BE	3,1	15,6	41,4	39,8	100
BG	4,4	20,0	43,3	32,2	100
CZ	5,5	25,2	44,1	25,2	100
FR	3,8	17,4	40,9	37,9	100
DE	4,2	20,9	41,2	33,6	100
EL	5,2	20,1	41,0	33,6	100
HU	4,3	25,9	37,1	32,8	100
IT	2,6	13,6	41,5	42,3	100
LT	5,3	18,4	44,7	31,6	100
PL	3,7	15,8	44,7	35,8	100
RO	2,1	17,2	38,1	42,7	100
ES	5,5	31,1	42,5	20,9	100
SE	8,2	28,2	40,9	22,7	100
UK	4,9	22,7	42,5	29,9	100
EU15	**4,2**	**20,2**	**41,8**	**33,9**	**100**

Country	Organic				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	7,9	32,7	37,6	21,8	100
BE	16,3	36,6	30,9	16,3	100
BG	9,0	33,7	39,3	18,0	100
CZ	12,6	45,7	32,3	9,4	100
FR	15,2	34,4	32,1	18,3	100
DE	12,7	38,1	35,3	13,8	100
EL	10,4	34,1	37,8	17,8	100
HU	5,5	34,9	41,3	18,3	100
IT	10,2	29,0	39,0	21,8	100
LT	8,6	28,6	42,9	20,0	100
PL	8,9	28,9	40,9	21,3	100
RO	5,0	27,1	39,2	28,8	100
ES	10,7	34,4	41,3	13,6	100
SE	11,0	30,3	36,7	22,0	100
UK	23,0	41,8	23,7	11,6	100
EU15	**12,9**	**34,8**	**35,2**	**17,1**	**100**

Country	Other quality labels (e.g. traditional products, animal welfare, environmental, etc.)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	4,0	24,8	45,5	25,7	100
BE	8,7	27,0	42,1	22,2	100
BG	9,0	32,6	41,6	16,9	100
CZ	8,0	36,0	40,8	15,2	100
FR	7,3	25,4	43,5	23,7	100
DE	9,1	28,8	42,8	19,3	100
EL	8,3	31,8	40,9	18,9	100
HU	8,5	34,2	35,9	21,4	100
IT	4,4	19,7	46,6	29,2	100
LT	11,1	38,9	33,3	16,7	100
PL	7,4	31,7	40,0	20,9	100
RO	3,7	22,4	44,4	29,5	100
ES	5,8	27,7	45,2	21,3	100
SE	6,5	26,2	43,9	23,4	100
UK	10,9	30,6	38,8	19,7	100
EU15	**7,5**	**27,5**	**42,7**	**22,3**	**100**

Table F - Q.1: When you buy food products, how important is..... ? (*continued*)

Country	"Free from" (e.g. gluten-free, GMO-free, etc.)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	16,8	32,7	34,7	15,8	100
BE	17,6	33,6	29,6	19,2	100
BG	7,8	22,2	37,8	32,2	100
CZ	8,7	33,3	34,1	23,8	100
FR	15,0	30,1	33,1	21,9	100
DE	19,2	33,4	28,3	19,0	100
EL	15,9	37,1	31,1	15,9	100
HU	13,6	31,4	24,6	30,5	100
IT	11,6	29,0	35,0	24,4	100
LT	2,8	13,9	33,3	50,0	100
PL	16,3	25,1	30,5	28,1	100
RO	5,0	22,6	37,2	35,1	100
ES	11,6	37,6	33,9	16,9	100
SE	27,5	35,8	22,9	13,8	100
UK	31,8	39,3	18,0	10,8	100
EU15	**17,0**	**32,1**	**30,0**	**20,9**	**100**

Table G - Q.2: How important would it be for you that the label in each of the following food products indicates the product origin, that is where the food product was produced/processed?

Country	Flour				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	5,0	25,0	31,0	39,0	100
BE	13,0	30,9	33,3	22,8	100
BG	3,3	10,9	45,7	40,2	100
CZ	4,7	23,6	39,4	32,3	100
FR	7,0	23,5	36,9	32,6	100
DE	8,8	36,0	32,7	22,4	100
EL	3,0	12,7	34,3	50,0	100
HU	6,0	18,8	35,9	39,3	100
IT	1,5	10,4	36,8	51,2	100
LT	5,4	21,6	43,2	29,7	100
PL	5,0	18,5	41,6	34,9	100
RO	2,1	11,3	37,9	48,8	100
ES	8,1	24,9	46,5	20,5	100
SE	9,3	24,1	35,2	31,5	100
UK	18,0	31,2	33,3	17,4	100
EU15_W	**7,7**	**23,9**	**37,0**	**31,4**	**100**

Country	Sugar				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	6,9	28,7	31,7	32,7	100
BE	12,8	34,4	33,6	19,2	100
BG	5,6	17,8	44,4	32,2	100
CZ	5,5	28,3	37,8	28,3	100
FR	7,1	28,8	38,3	25,8	100
DE	11,7	37,6	31,3	19,4	100
EL	5,2	17,9	31,3	45,5	100
HU	7,7	22,2	38,5	31,6	100
IT	2,6	14,1	40,8	42,5	100
LT	10,8	29,7	37,8	21,6	100
PL	7,2	23,0	38,8	31,0	100
RO	2,1	14,8	36,7	46,4	100
ES	8,3	30,1	41,6	20,0	100
SE	11,0	27,5	33,0	28,4	100
UK	19,0	31,9	32,2	16,9	100
EU15_W	**9,0**	**27,4**	**36,4**	**27,3**	**100**

Table G - Q.2: How important would it be for you that the label in each of the following food products indicates the product origin, that is where the food product was produced/processed? (*continued*)

Country	Vegetable oil, other than olive oil (e.g. sunflower oil)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	4,0	22,8	32,7	40,6	100
BE	11,2	27,2	36,8	24,8	100
BG	3,3	11,1	44,4	41,1	100
CZ	4,7	22,8	37,0	35,4	100
FR	4,7	22,4	36,5	36,5	100
DE	7,4	27,1	36,2	29,3	100
EL	2,3	9,8	29,5	58,3	100
HU	6,9	19,0	37,9	36,2	100
IT	1,8	9,8	36,1	52,3	100
LT	5,4	18,9	48,6	27,0	100
PL	5,2	17,1	40,2	37,6	100
RO	1,3	13,4	33,5	51,9	100
ES	6,8	18,1	44,3	30,8	100
SE	7,4	24,1	34,3	34,3	100
UK	15,7	33,0	33,0	18,4	100
EU15_W	**6,6**	**21,2**	**36,9**	**35,3**	**100**

Country	Rice (standard e.g. long grain)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	5,9	33,7	28,7	31,7	100
BE	12,7	30,2	34,9	22,2	100
BG	3,3	15,6	48,9	32,2	100
CZ	5,4	28,7	37,2	28,7	100
FR	6,6	25,0	37,9	30,5	100
DE	9,4	37,7	32,3	20,6	100
EL	3,0	15,7	29,9	51,5	100
HU	6,0	29,9	36,8	27,4	100
IT	1,8	6,8	36,8	54,6	100
LT	7,9	28,9	42,1	21,1	100
PL	5,8	22,9	42,5	28,7	100
RO	3,3	16,7	36,4	43,5	100
ES	6,7	22,9	46,8	23,6	100
SE	10,0	26,4	33,6	30,0	100
UK	16,8	33,5	32,4	17,4	100
EU15_W	**7,7**	**25,4**	**36,8**	**30,1**	**100**

Country	Bread (packed)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	4,0	13,9	30,7	51,5	100
BE	10,0	20,0	35,0	35,0	100
BG	2,2	6,6	38,5	52,7	100
CZ	3,2	14,4	41,6	40,8	100
FR	5,5	19,3	36,8	38,4	100
DE	5,8	16,8	39,9	37,6	100
EL	2,3	7,6	27,3	62,9	100
HU	6,0	14,5	30,8	48,7	100
IT	1,5	7,3	31,5	59,8	100
LT	5,4	13,5	37,8	43,2	100
PL	3,0	8,0	32,2	56,8	100
RO	0,8	5,4	29,3	64,4	100
ES	7,8	22,6	43,5	26,1	100
SE	7,4	17,6	34,3	40,7	100
UK	15,3	23,2	34,4	27,1	100
EU15_W	**6,1**	**15,5**	**35,8**	**42,6**	**100**

Table G - Q.2: How important would it be for you that the label in each of the following food products indicates the product origin, that is where the food product was produced/processed? (*continued*)

Country	Pasta (dry pasta)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	4,9	28,4	34,3	32,4	100
BE	14,3	33,3	33,3	19,0	100
BG	3,3	20,0	44,4	32,2	100
CZ	4,7	25,8	41,4	28,1	100
FR	7,3	28,1	37,4	27,3	100
DE	9,3	33,0	33,8	23,9	100
EL	3,0	13,5	39,1	44,4	100
HU	5,2	19,0	41,4	34,5	100
IT	1,1	8,0	34,6	56,3	100
LT	8,1	27,0	43,2	21,6	100
PL	6,9	16,9	45,0	31,2	100
RO	3,3	17,2	34,3	45,2	100
ES	8,7	25,9	45,4	20,1	100
SE	11,1	26,9	34,3	27,8	100
UK	18,4	32,5	31,7	17,3	100
EU15_W	**8,2**	**24,5**	**37,1**	**30,3**	**100**

Country	Pulses (e.g. dry beans, dry peas, lentils etc.)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	5,1	31,3	30,3	33,3	100
BE	12,3	27,9	34,4	25,4	100
BG	2,2	14,4	46,7	36,7	100
CZ	4,8	28,6	41,3	25,4	100
FR	4,6	21,6	34,7	39,1	100
DE	8,2	35,9	32,3	23,6	100
EL	2,3	12,0	31,6	54,1	100
HU	6,0	25,9	35,3	32,8	100
IT	1,5	9,4	40,2	48,8	100
LT	11,1	27,8	41,7	19,4	100
PL	6,7	17,8	40,1	35,4	100
RO	2,5	13,4	36,6	47,5	100
ES	6,6	21,3	47,7	24,4	100
SE	8,4	22,4	39,3	29,9	100
UK	18,6	34,2	31,0	16,2	100
EU15_W	**7,3**	**23,8**	**36,8**	**32,1**	**100**

Country	Fresh salads, of fruit or vegetables				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	2,0	11,0	26,0	61,0	100
BE	8,9	16,1	35,5	39,5	100
BG	1,1	5,6	37,8	55,6	100
CZ	4,0	13,7	35,5	46,8	100
FR	4,4	13,8	34,7	47,1	100
DE	4,6	12,2	31,5	51,7	100
EL	2,3	5,3	24,1	68,4	100
HU	4,3	14,5	32,5	48,7	100
IT	0,8	5,8	28,3	65,1	100
LT	5,4	16,2	37,8	40,5	100
PL	4,4	8,3	34,9	52,4	100
RO	2,1	9,7	30,1	58,1	100
ES	6,3	16,3	44,7	32,7	100
SE	5,5	11,0	33,9	49,5	100
UK	11,4	20,6	32,8	35,2	100
EU15_W	**5,0**	**12,6**	**33,4**	**49,1**	**100**

Table G - Q.2: How important would it be for you that the label in each of the following food products indicates the product origin, that is where the food product was produced/processed? (*continued*)

Country	Frozen vegetables (e.g. beans, peas, carrots etc.)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	4,0	17,8	34,7	43,6	100
BE	10,7	28,7	34,4	26,2	100
BG	3,4	14,9	42,5	39,1	100
CZ	4,8	23,0	41,3	31,0	100
FR	5,6	18,2	37,1	39,1	100
DE	6,9	24,1	36,3	32,7	100
EL	4,5	6,8	31,6	57,1	100
HU	6,1	19,3	36,0	38,6	100
IT	1,5	8,9	34,7	54,9	100
LT	8,3	27,8	38,9	25,0	100
PL	5,0	13,2	42,7	39,0	100
RO	2,6	11,5	34,2	51,7	100
ES	9,1	24,5	42,6	23,8	100
SE	8,2	19,1	34,5	38,2	100
UK	15,3	26,6	36,9	21,2	100
EU15_W	**6,9**	**19,2**	**37,4**	**36,5**	**100**

Country	Frozen pre-cooked potato fries				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	8,3	27,1	30,2	34,4	100
BE	14,4	30,5	34,7	20,3	100
BG	8,5	19,5	42,7	29,3	100
CZ	9,9	26,4	36,4	27,3	100
FR	6,3	26,0	38,3	29,4	100
DE	8,8	33,6	34,5	23,1	100
EL	7,2	15,2	29,6	48,0	100
HU	10,0	26,4	34,5	29,1	100
IT	3,2	15,0	37,8	44,0	100
LT	17,6	26,5	38,2	17,6	100
PL	10,9	22,5	38,4	28,1	100
RO	9,1	18,7	28,7	43,5	100
ES	14,1	32,0	35,5	18,4	100
SE	14,0	27,0	31,0	28,0	100
UK	21,2	32,0	29,2	17,6	100
EU15_W	**10,4**	**26,6**	**34,9**	**28,1**	**100**

Country	Fruit juices (e.g. orange juice)				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	4,0	23,0	33,0	40,0	100
BE	11,3	25,8	38,7	24,2	100
BG	3,4	9,0	44,9	42,7	100
CZ	5,7	18,7	39,8	35,8	100
FR	4,1	19,0	38,5	38,5	100
DE	7,7	24,2	39,0	29,1	100
EL	3,0	7,5	29,3	60,2	100
HU	6,0	17,2	35,3	41,4	100
IT	1,8	6,9	38,0	53,4	100
LT	5,4	21,6	43,2	29,7	100
PL	4,8	10,2	33,5	51,5	100
RO	2,1	10,2	30,9	56,8	100
ES	6,7	19,5	47,8	26,0	100
SE	8,3	19,4	38,0	34,3	100
UK	13,8	28,0	35,1	23,1	100
EU15_W	**6,3**	**18,2**	**38,0**	**37,5**	**100**

Table H - Q.2a: And how important would it be for you that the label in each of the following food products indicates the origin of the following ingredients, that is where the ingredients come from (place of farming)?

Country	Cereal to produce flour				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	5,9	20,6	31,4	42,2	100
BE	10,7	28,1	37,2	24,0	100
BG	5,6	17,8	45,6	31,1	100
CZ	7,1	28,3	40,2	24,4	100
FR	5,9	24,0	38,1	32,0	100
DE	8,4	33,0	34,4	24,3	100
EL	3,1	16,2	33,8	46,9	100
HU	5,2	23,3	36,2	35,3	100
IT	1,1	7,5	38,9	52,5	100
LT	5,4	24,3	40,5	29,7	100
PL	6,4	20,6	41,4	31,6	100
RO	2,5	16,4	39,9	41,2	100
ES	7,8	22,6	44,4	25,2	100
SE	6,6	23,6	35,8	34,0	100
UK	16,6	30,2	33,1	20,1	100
EU15_W	**7,3**	**23,3**	**37,7**	**31,7**	**100**

Country	Sugar beet or cane to produce sugar				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	6,0	29,0	30,0	35,0	100
BE	10,7	30,3	36,1	23,0	100
BG	6,7	26,7	42,2	24,4	100
CZ	7,1	31,5	39,4	22,0	100
FR	5,6	28,7	40,0	25,7	100
DE	9,5	36,1	35,0	19,4	100
EL	6,8	20,3	33,1	39,8	100
HU	7,7	32,5	33,3	26,5	100
IT	1,1	14,4	42,4	42,1	100
LT	10,8	29,7	37,8	21,6	100
PL	8,1	27,0	39,3	25,7	100
RO	4,2	19,8	38,4	37,6	100
ES	8,2	30,5	38,1	23,2	100
SE	8,6	28,6	32,4	30,5	100
UK	17,5	34,5	28,0	19,9	100
EU15_W	**8,1**	**28,5**	**36,7**	**26,7**	**100**

Country	Seeds to produce oils				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	5,9	22,8	30,7	40,6	100
BE	10,8	29,2	37,5	22,5	100
BG	5,7	21,8	43,7	28,7	100
CZ	7,9	29,1	39,4	23,6	100
FR	5,6	27,0	38,3	29,1	100
DE	8,1	32,7	35,6	23,7	100
EL	3,8	18,2	31,8	46,2	100
HU	5,1	27,1	38,1	29,7	100
IT	1,8	9,5	39,7	49,0	100
LT	7,9	26,3	39,5	26,3	100
PL	6,8	21,0	43,5	28,7	100
RO	3,4	18,6	38,8	39,2	100
ES	8,7	25,9	37,6	27,8	100
SE	6,7	27,6	37,1	28,6	100
UK	16,0	33,0	31,9	19,1	100
EU15_W	**7,5**	**25,2**	**37,3**	**30,1**	**100**

Country	Cereal to produce flour for bread				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	5,0	19,8	31,7	43,6	100
BE	9,8	27,6	36,6	26,0	100
BG	4,5	16,9	43,8	34,8	100
CZ	6,3	27,3	41,4	25,0	100
FR	5,3	23,3	39,7	31,7	100
DE	9,1	28,4	37,4	25,0	100
EL	3,7	12,7	35,1	48,5	100
HU	5,1	21,4	35,9	37,6	100
IT	1,1	6,8	35,3	56,8	100
LT	5,4	21,6	43,2	29,7	100
PL	6,8	17,3	42,5	33,3	100
RO	2,5	15,1	37,4	45,0	100
ES	8,1	26,5	39,9	25,5	100
SE	6,5	25,0	35,2	33,3	100
UK	15,8	28,7	34,1	21,5	100
EU15_W	**7,3**	**21,9**	**37,7**	**33,2**	**100**

Table H - Q.2a: And how important would it be for you that the label in each of the following food products indicates the origin of the following ingredients, that is where the ingredients come from (place of farming)? (*continued*)

Country	Durum wheat to produce dry pasta				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	5,9	26,7	30,7	36,6	100
BE	10,9	31,9	35,3	21,8	100
BG	6,7	28,1	40,4	24,7	100
CZ	6,3	31,7	40,5	21,4	100
FR	6,2	26,2	36,4	31,2	100
DE	10,1	30,5	37,5	21,9	100
EL	3,8	21,1	32,3	42,9	100
HU	6,9	25,9	36,2	31,0	100
IT	1,1	7,2	33,8	57,9	100
LT	5,6	30,6	41,7	22,2	100
PL	7,0	25,1	41,4	26,4	100
RO	4,6	19,7	37,7	38,1	100
ES	7,2	30,2	37,8	24,8	100
SE	7,7	27,9	35,6	28,8	100
UK	17,0	33,1	32,0	17,9	100
EU15_W	**7,9**	**25,6**	**36,2**	**30,3**	**100**

Country	Potatoes to produce frozen pre-cooked potato fries				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	8,0	24,0	30,0	38,0	100
BE	9,5	28,4	36,2	25,9	100
BG	8,2	18,8	47,1	25,9	100
CZ	8,3	28,1	38,0	25,6	100
FR	5,1	24,2	40,4	30,4	100
DE	8,9	28,6	38,1	24,5	100
EL	4,7	15,5	35,7	44,2	100
HU	8,8	30,1	36,3	24,8	100
IT	2,4	10,8	40,6	46,2	100
LT	11,4	31,4	37,1	20,0	100
PL	7,3	21,2	42,9	28,5	100
RO	7,1	20,5	33,9	38,4	100
ES	10,0	30,2	36,9	22,8	100
SE	8,7	27,9	35,6	27,9	100
UK	16,0	31,9	33,0	19,1	100
EU15_W	**8,2**	**24,6**	**38,0**	**29,3**	**100**

Country	Oranges to produce orange juice				Total
	Not at all important	Not very important	Fairly important	Very important	
AT	5,9	22,8	33,7	37,6	100
BE	9,0	25,4	38,5	27,0	100
BG	6,7	19,1	43,8	30,3	100
CZ	6,4	22,4	43,2	28,0	100
FR	4,4	21,1	41,3	33,2	100
DE	8,4	21,9	42,8	26,9	100
EL	3,0	9,0	29,1	59,0	100
HU	7,8	22,6	36,5	33,0	100
IT	0,3	6,0	36,3	57,5	100
LT	8,1	24,3	43,2	24,3	100
PL	6,2	16,5	42,1	35,2	100
RO	3,4	16,8	36,1	43,7	100
ES	6,3	15,9	41,8	36,0	100
SE	6,5	21,5	33,6	38,3	100
UK	14,7	28,4	33,4	23,4	100
EU15_W	**6,6**	**18,9**	**39,0**	**35,5**	**100**

Table J - Q.3: Which are the three main reasons why you consider it important that the origin is indicated on the label? Most Important

Reasons	AT	BE	BG	CZ	FR	DE	EL	HU	IT	LT	PL	RO	ES	SE	UK	EU15_W
I can choose local food, I trust more local food products	16,8	12,4	5,6	12,5	12,9	18,2	10,0	10,0	10,8	17,1	7,8	9,5	12,5	10,6	17,2	13,2
I can choose food products produced in my country, I trust more food products in my country	20,0	12,4	23,6	25,8	15,2	13,7	20,0	18,2	21,3	31,4	14,9	22,4	19,9	14,9	11,1	16,9
I need to know where the food products I buy come from	14,7	8,6	10,1	10,8	10,3	17,9	16,2	17,3	11,9	11,4	17,2	12,9	6,4	8,5	7,6	12,4
It reassures me on the quality of the food products I buy	12,6	14,3	16,9	13,3	14,9	11,5	16,2	9,1	14,0	17,1	14,0	10,8	13,3	13,8	10,0	12,9
It reassures me on the safety of the food products I buy	5,3	12,4	13,5	10,0	14,9	5,7	8,5	12,7	16,9	5,7	9,4	11,6	11,7	4,3	8,5	10,8
It reassures me that food products have been produced in an environment-friendly way	4,2	7,6	5,6	0,0	4,0	5,5	6,9	1,8	4,7	0,0	8,3	9,1	5,8	7,4	10,3	6,0
It allows me to know whether food products have travelled a long distance	6,3	11,4	1,1	4,2	6,9	8,6	3,8	6,4	5,0	2,9	7,6	1,3	5,8	13,8	9,2	6,8
It allows me to support producers in my region/country	10,5	10,5	10,1	13,3	11,5	11,5	14,6	19,1	7,4	5,7	13,1	12,9	17,7	13,8	18,1	12,7
It helps me to choose between different products	8,4	7,6	11,2	7,5	8,6	7,0	2,3	4,5	5,8	5,7	6,7	7,8	4,2	8,5	4,5	6,4
Other	1,1	2,9	2,2	2,5	0,9	0,3	1,5	0,9	2,1	2,9	1,1	1,7	2,6	4,3	3,4	1,7
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Table K - Q.3: Which are the three main reasons why you consider it important that the origin is indicated on the label? All Responses

Reasons	AT	BE	BG	CZ	FR	DE	EL	HU	IT	LT	PL	RO	ES	SE	UK	EU15_W
I can choose local food, I trust more local food products	13,3	10,9	8,7	14,6	12,5	13,0	10,4	12,7	11,6	14,7	9,0	10,9	12,7	10,8	11,8	11,9
I can choose food products produced in my country, I trust more food products in my country	15,8	9,6	16,3	18,3	13,7	12,1	15,5	14,2	15,5	19,6	13,7	16,5	14,5	10,4	10,6	13,7
I need to know where the food products I buy come from	15,1	10,6	10,6	8,6	8,0	15,7	16,8	14,9	10,8	11,8	17,5	11,6	8,0	10,0	6,7	11,5
It reassures me on the quality of the food products I buy	11,5	14,2	15,9	13,4	14,9	12,4	12,2	9,6	14,2	15,7	13,5	12,0	13,4	11,1	11,7	13,2
It reassures me on the safety of the food products I buy	7,2	12,3	13,3	10,6	13,2	9,5	9,1	11,8	14,4	8,8	10,4	11,6	11,9	7,2	12,3	11,6
It reassures me that food products have been produced in an environment-friendly way	6,1	7,6	6,8	1,7	4,2	6,8	7,3	3,7	5,0	2,9	7,5	8,1	8,6	9,0	9,3	6,6
It allows me to know whether food products have travelled a long distance	9,4	10,9	3,4	6,6	9,3	9,0	6,0	6,5	7,1	6,9	7,6	4,1	7,1	14,3	12,3	8,4
It allows me to support producers in my region/country	11,9	13,9	12,1	15,1	13,9	12,3	15,3	17,0	12,6	10,8	12,5	14,6	17,0	15,8	16,0	14,0
It helps me to choose between different products	9,4	8,9	12,1	9,7	10,0	8,9	6,5	9,0	7,4	7,8	7,6	9,7	5,7	9,0	7,8	8,3
Other	0,4	1,0	0,8	1,4	0,5	0,2	1,0	0,6	1,4	1,0	0,6	1,0	1,2	2,5	1,4	0,9
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Table L - Q.5a: When you buy Unprocessed Product, which of the following information regarding the origin would you be interested in?

RICE																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	10,0	7,5	20,8	9,8	12,4	13,4	13,6	17,5	12,3	15,4	13,2	15,3	19,6	6,9	4,8	12,4
Country of production	60,0	42,5	54,2	46,3	49,6	55,1	56,8	45,0	45,0	53,8	41,0	44,4	31,3	55,2	40,6	45,7
Region of production	10,0	10,0	8,3	17,1	12,4	10,2	22,7	15,0	32,3	7,7	11,8	15,3	28,5	10,3	4,8	15,8
No interest to origin	20,0	40,0	16,7	26,8	25,6	21,3	6,8	22,5	10,5	23,1	34,0	25,0	20,7	27,6	49,8	26,0
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

DRY PULSES																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	15,8	16,0	16,1	12,1	17,8	13,0	15,0	6,9	11,6	0,0	14,0	12,3	17,0	11,8	11,0	13,8
Country of production	57,9	44,0	48,4	48,5	41,7	61,1	47,5	44,8	44,2	57,1	63,6	46,2	35,3	64,7	34,0	46,5
Region of production	15,8	20,0	25,8	15,2	16,7	15,3	32,5	34,5	36,9	14,3	13,1	33,8	30,1	11,8	21,0	24,4
No interest to origin	10,5	20,0	9,7	24,2	23,9	10,7	5,0	13,8	7,3	28,6	9,3	7,7	17,6	11,8	34,0	15,2
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

FRESH SALADS																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	6,7	14,3	6,5	3,4	7,3	18,6	6,7	6,9	14,4	11,1	10,6	8,6	18,1	2,7	9,1	12,2
Country of production	60,0	48,6	51,6	48,3	37,4	43,3	36,7	44,8	27,6	55,6	34,6	38,6	35,0	62,2	47,6	41,0
Region of production	26,7	14,3	35,5	34,5	32,4	22,9	50,0	37,9	48,3	22,2	45,2	38,6	33,1	18,9	9,8	29,3
No interest to origin	6,7	22,9	6,5	13,8	22,9	15,2	6,7	10,3	9,8	11,1	9,6	14,3	13,8	16,2	33,5	17,5
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

FROZEN VEGETABLES																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	17,9	13,3	10,5	12,5	11,0	15,8	21,9	10,0	12,1	12,5	14,4	5,5	17,0	11,8	12,0	13,4
Country of production	57,1	33,3	57,9	57,5	42,9	47,4	50,0	46,7	50,6	50,0	56,0	50,9	28,4	52,9	36,4	45,0
Region of production	17,9	13,3	15,8	17,5	20,4	18,0	28,1	26,7	27,6	12,5	17,6	25,5	22,7	14,7	9,1	19,1
No interest to origin	7,1	40,0	15,8	12,5	25,7	18,8	0,0	16,7	9,8	25,0	12,0	18,2	31,9	20,6	42,6	22,5
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Table M - Q.5a: When you buy Processed Product, which of the following information regarding the origin would you be interested in?

FLOUR																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	11,1	18,4	12,0	7,1	18,8	13,6	13,2	10,3	16,1	8,3	7,9	6,7	19,3	3,4	11,1	13,8
Country of production	33,3	18,4	24,0	26,2	26,6	26,2	26,3	33,3	31,8	41,7	39,3	37,3	23,8	34,5	17,0	28,1
Region of production	11,1	2,6	12,0	9,5	2,8	3,5	5,3	12,8	13,0	8,3	12,9	8,0	4,4	6,9	11,1	7,4
Product and Ingredient produced	3,7	7,9	12,0	4,8	9,6	10,7	7,9	2,6	3,6	0,0	5,7	6,7	7,2	3,4	4,4	7,1
Product and Ingredient Country	22,2	5,3	16,0	16,7	8,7	14,5	21,1	12,8	13,0	16,7	14,3	13,3	8,8	20,7	14,1	12,9
Product and Ingredient Region	7,4	5,3	16,0	14,3	6,0	9,1	15,8	17,9	12,1	8,3	6,4	14,7	9,9	6,9	3,0	9,2
No interest to origin	11,1	42,1	8,0	21,4	27,5	22,4	10,5	10,3	10,3	16,7	13,6	13,3	26,5	24,1	39,3	21,5
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

SUGAR																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	14,3	23,1	16,7	12,5	11,0	12,1	15,7	14,7	10,9	15,4	14,0	14,7	15,9	5,9	4,4	12,1
Country of production	32,1	15,4	36,7	32,5	25,2	33,0	33,3	35,3	31,8	38,5	31,5	30,7	29,6	35,3	25,7	30,0
Region of production	3,6	7,7	3,3	5,0	4,3	2,7	3,9	8,8	10,0	0,0	15,4	5,3	10,1	0,0	1,1	6,0
Product and Ingredient produced	10,7	2,6	6,7	2,5	4,3	10,3	11,8	2,9	5,2	7,7	5,6	2,7	5,8	5,9	2,2	5,9
Product and Ingredient Country	21,4	10,3	13,3	20,0	10,2	14,8	13,7	11,8	10,9	7,7	16,8	18,7	8,5	14,7	12,6	12,9
Product and Ingredient Region	3,6	2,6	6,7	7,5	5,9	7,9	5,9	8,8	16,1	7,7	2,8	12,0	10,1	5,9	3,3	7,8
No interest to origin	14,3	38,5	16,7	20,0	39,0	19,1	15,7	17,6	15,2	23,1	14,0	16,0	20,1	32,4	50,8	25,2
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

OILS																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	12,0	12,1	11,5	7,7	14,1	19,6	14,3	13,5	5,2	6,7	6,5	6,7	11,3	7,4	4,0	10,6
Country of production	36,0	27,3	34,6	41,0	30,3	32,0	28,6	29,7	24,8	33,3	43,5	29,3	33,0	40,7	24,6	31,3
Region of production	8,0	9,1	11,5	5,1	9,2	1,2	9,5	5,4	16,3	6,7	3,6	12,0	15,7	11,1	6,5	8,1
Product and Ingredient produced	4,0	9,1	7,7	2,6	7,0	9,2	9,5	2,7	11,1	6,7	4,3	4,0	5,2	0,0	2,0	6,2
Product and Ingredient Country	16,0	15,2	15,4	12,8	14,1	9,2	19,0	16,2	17,6	13,3	18,8	18,7	7,0	22,2	18,1	14,6
Product and Ingredient Region	12,0	3,0	11,5	10,3	8,1	10,4	9,5	16,2	12,4	13,3	9,4	16,0	11,3	7,4	3,0	9,5
No interest to origin	12,0	24,2	7,7	20,5	17,3	18,4	9,5	16,2	12,4	20,0	13,8	13,3	16,5	11,1	41,7	19,7
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

BREAD																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	6,7	10,0	3,2	5,3	12,6	11,7	7,9	6,3	10,1	7,1	5,5	4,5	12,2	2,6	6,5	8,9
Country of production	30,0	16,7	16,1	23,7	15,6	20,6	36,8	15,6	22,2	28,6	32,2	15,7	16,0	31,6	23,2	21,7
Region of production	13,3	13,3	29,0	21,1	9,0	10,0	18,4	34,4	22,2	14,3	21,2	21,3	17,7	10,5	4,9	14,6
Product and Ingredient produced	3,3	0,0	3,2	0,0	5,4	4,8	5,3	6,3	3,2	7,1	3,4	3,4	6,1	2,6	5,7	4,5
Product and Ingredient Country	16,7	6,7	9,7	7,9	10,2	17,5	13,2	9,4	11,1	14,3	11,6	13,5	5,5	18,4	6,5	11,1
Product and Ingredient Region	16,7	10,0	29,0	23,7	18,0	18,6	13,2	12,5	20,1	14,3	12,3	25,8	14,9	7,9	6,5	15,7
No interest to origin	13,3	43,3	9,7	18,4	29,3	16,8	5,3	15,6	11,1	14,3	13,7	15,7	27,6	26,3	46,8	23,6
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Table M - Q.5a: When you buy Processed Product, which of the following information regarding the origin would you be interested in? (*continued*)

PASTA																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	9,1	15,6	10,3	8,1	15,1	15,0	14,0	6,5	9,2	9,1	9,5	8,2	20,5	10,0	11,8	12,9
Country of production	45,5	17,8	37,9	43,2	22,4	21,8	41,9	32,3	25,9	36,4	35,1	34,4	17,5	30,0	26,9	26,4
Region of production	6,1	4,4	3,4	5,4	5,0	4,1	4,7	9,7	16,7	9,1	6,1	11,5	9,4	5,0	5,5	7,4
Product and Ingredient produced	3,0	6,7	6,9	2,7	5,8	8,6	9,3	3,2	4,4	0,0	6,8	9,8	12,3	2,5	3,4	6,5
Product and Ingredient Country	18,2	8,9	20,7	10,8	14,3	17,7	14,0	12,9	14,3	9,1	11,5	13,1	12,3	17,5	10,5	13,9
Product and Ingredient Region	6,1	6,7	10,3	5,4	4,2	11,8	7,0	16,1	21,9	9,1	11,5	13,1	4,7	5,0	6,3	10,1
No interest to origin	12,1	40,0	10,3	24,3	33,2	20,9	9,3	19,4	7,6	27,3	19,6	9,8	23,4	30,0	35,7	22,8
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

FROZEN PRE-COOKED POTETO FRIES																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	15,8	14,8	10,0	15,8	8,8	9,3	25,0	15,4	15,0	0,0	0,0	6,7	15,1	9,5	9,9	10,6
Country of production	31,6	25,9	30,0	26,3	30,6	23,8	37,5	23,1	27,1	33,3	45,2	33,3	21,9	42,9	22,4	27,5
Region of production	10,5	3,7	10,0	5,3	6,1	6,5	12,5	15,4	13,6	0,0	8,1	6,7	17,8	4,8	2,6	8,0
Product and Ingredient produced	10,5	3,7	10,0	5,3	8,8	4,2	12,5	0,0	12,1	0,0	1,6	13,3	11,0	0,0	3,9	6,7
Product and Ingredient Country	15,8	11,1	10,0	10,5	10,2	15,9	12,5	15,4	12,1	33,3	16,1	6,7	6,8	14,3	11,2	12,5
Product and Ingredient Region	5,3	3,7	0,0	10,5	6,1	12,1	0,0	7,7	10,7	0,0	6,5	6,7	8,2	4,8	2,6	7,7
No interest to origin	10,5	37,0	30,0	26,3	29,3	28,0	0,0	23,1	9,3	33,3	22,6	26,7	19,2	23,8	47,4	27,0
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

FRUIT JUICE																
Responses	**AT**	**BE**	**BG**	**CZ**	**FR**	**DE**	**EL**	**HU**	**IT**	**LT**	**PL**	**RO**	**ES**	**SE**	**UK**	**EU15_W**
Produced in/out EU	6,5	12,8	12,5	9,4	8,6	8,6	11,1	9,1	8,8	8,3	7,6	13,1	15,2	3,8	8,3	9,4
Country of production	29,0	25,6	33,3	28,1	27,3	33,1	35,6	36,4	25,3	41,7	35,1	27,9	24,0	30,8	29,6	29,6
Region of production	9,7	10,3	8,3	9,4	8,6	10,8	8,9	12,1	14,7	8,3	7,6	9,8	10,4	11,5	4,8	9,6
Product and Ingredient produced	12,9	5,1	0,0	3,1	4,1	7,4	6,7	6,1	3,7	0,0	6,1	4,9	4,8	3,8	4,8	5,2
Product and Ingredient Country	22,6	10,3	20,8	18,8	13,6	13,8	13,3	9,1	20,3	16,7	22,1	23,0	12,8	15,4	13,9	16,0
Product and Ingredient Region	9,7	2,6	12,5	9,4	9,5	11,5	17,8	12,1	21,2	8,3	11,5	9,8	8,8	3,8	2,6	10,7
No interest to origin	9,7	33,3	12,5	21,9	28,2	14,9	6,7	15,2	6,0	16,7	9,9	11,5	24,0	30,8	36,1	19,5
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

PART II: WILLINGNESS TO PAY

2.1 Outcome of the WTP modeling

Two different choice experiments have been performed according to the type of product considered (processed and unprocessed). In particular, for unprocessed products, we considered a label indicating information on the product origin while, for processed products, the label also included information on the origin of ingredients (see 2.2 for details).

In both cases, **the objective is to quantify the monetary value for consumers of increasing the level of information (on the product and/or ingredient origin)**, calculating WTP measures for moving from the base case (no information) to the different possible label configurations (see Tables A and C). In other words, the WTP point estimate of a specific label configuration indicates the exact price increase which renders the same level of utility as the base case for consumers, thus implying an equal probability to be chosen[233].

It is worth noting two methodological issues that need to be taken into consideration when reading the WTP outcome. The first one relates to the price used in the base case, which refers to the price usually paid by respondents for each target product (see 2.2), adding realism to the choice experiments. The second issue concerns the wide range of current situations in terms of origin labeling per country and product, which means that in some cases respondents might be asked their WTP for having origin information they are already used to get. In these cases, the WTP measure quantifies the level of compensation respondents would require to go back to a no information situation (Willingness to Accept).

Table A shows the three configurations that were used in the model for unprocessed products, together with the base case (no information on product origin).

Table A - Configurations for UNPROCESSED PRODUCTS

Base case	**Configuration 1** Label indicates:	**Configuration 2** Label indicates:	**Configuration 3** Label indicates:
No information	food product produced **in the EU or outside the EU**	**the country** where the food product was produced	the **precise region/area** where the food product was produced

Table B shows the average WTP point estimates according to the different label configurations for each unprocessed product.

[233] This survey sheds lights on the overall value European consumers render to a certain quantity of origin information labels; further research activities to adequate country samples would be required to provide policy makers with useful country insights.

Table B - WTP for UNPROCESSED PRODUCTS

Products	**Price increase from *Base case* to *Configuration 1***	**Price increase from *Base case* to *Configuration 2***	**Price increase from *Base case* to *Configuration 3***
RICE	+19%	+41%	+39%
DRY PULSE	+32%	+66%	+65%
FRESH SALADS (of fruit and vegetables)	+26%	+56%	+56%
FROZEN VEGETABLES	+26%	+49%	+43%

High WTP measures mean that no information on product origin implies a large disutility to consumers, while they seem very interested in obtaining information about the country where the food product was produced (Configuration 2).

Instead, information on the precise region/area where the product was produced (Configuration 3) does not yield additional utility with respect to the Configuration 2, since it gets more or less the same level of WTP. Finally, labels indicating whether the food product was produced in/outside the EU (Configuration 1) are valued about half, in terms of increasing percentage change in price, than those presented in Configuration 2.

This outcome confirms what we described previously (see par.1.3.3).

In particular, dry pulses and fresh salad are the products for which people are more willing to pay in order to have information on product origin (WTP measures for Configuration 1, 2 and 3 are +32%, +66%, +65% for dry pulses and +26%, +56%, +56% for fresh salads).

As an example, suppose a pack of dry pulses has no information on the label and is priced X; then, data tell us that consumers considered this product equivalent in terms of utility to the same product with Configuration 1 and sold at X + 32%. Vice versa, WTP measures decrease in the case of frozen vegetables and show the lowest level for rice.

PROCESSED PRODUCTS

Table C - Configurations for PROCESSED PRODUCTS

Base case	**Conf. 1** Label indicates:	**Conf. 2** Label indicates:	**Conf. 3** Label indicates:	**Conf. 4** Label indicates:	**Conf. 5** Label indicates:	**Conf. 6** Label indicates:
No information	food product produced **in the EU or outside the EU**	food product produced **in the EU or outside the EU**	**the country** where the food product was produced	**the country** where the food product was produced	the **precise region/area** where the food product was produced	the **precise region/area** where the food product was produced
	ingredient produced **in the EU or outside the EU**	**the country** where the ingredient was produced	ingredient produced **in the EU or outside the EU**	**the country** where the ingredient was produced	ingredient produced **in the EU or outside the EU**	**the country** where the ingredient was produced

Table D reports the average WTP measures according to the different label configurations for each processed product.

Table D - WTP for PROCESSED PRODUCTS

Products	**From *Base case* to Conf. 1**	**From *Base case* to Conf. 2**	**From *Base case* to Conf. 3**	**From *Base case* to Conf. 4**	**From *Base case* to Conf. 5**	**From *Base case* to Conf. 6**
FLOUR	+39%	+38%	+44%	+57%	+46%	+51%
SUGAR	+30%	+25%	+35%	+42%	+28%	+36%
OILS	+31%	+35%	+39%	+52%	+40%	+44%
BREAD	+24%	+25%	+29%	+44%	+33%	+36%
PASTA	+28%	+31%	+33%	+49%	+37%	+42%
FROZEN FRIES	+18%	+23%	+28%	+34%	+22%	+26%
ORANGE JUICE	+34%	+38%	+42%	+60%	+48%	+52%

Overall, the same considerations as for the unprocessed products apply here:

Beside the overall WTP for getting information on origin, WTP measures look quite heterogeneous in terms of products. Considering Configuration 4, consumers appear to be more interested in getting information on the origin (of both product and ingredient) when buying orange juice, flour and oils (+60%, +57% and +52%), followed by pasta, bread and sugar (+49% and +44% and +42%) while the WTP measures show the lowest level for frozen pre-cooked potato fries (34%).

2.2 Simulations

Model results were also used for **simulation purposes**[234]. The aim of the simulations is to provide some indication of the probability that each option will be selected. For a given option one obtains the probability that this option is chosen with respect to the base case alternative: for example, considering rice, configuration 1 coupled with +5% has 61% probability to be chosen against the base case (no information and base price).

Rice

Price increase	Configuration 1		Configuration 2		Configuration 3	
	Yes	No	Yes	No	Yes	No
+5%	61%	39%	76%	24%	74%	26%
+10%	57%	43%	73%	27%	71%	29%
+20%	49%	51%	66%	34%	65%	35%
+40%	34%	66%	51%	49%	49%	51%

Dry Pulses

Price increase	Configuration 1		Configuration 2		Configuration 3	
	Yes	No	Yes	No	Yes	No
+5%	66%	34%	81%	19%	81%	19%
+10%	63%	37%	79%	21%	79%	21%
+20%	57%	43%	75%	25%	74%	26%
+40%	45%	55%	65%	35%	64%	36%

Fresh salads

Price increase	Configuration 1		Configuration 2		Configuration 3	
	Yes	No	Yes	No	Yes	No
+5%	62%	38%	77%	23%	77%	23%
+10%	59%	41%	75%	25%	75%	25%
+20%	53%	47%	70%	30%	70%	30%
+40%	42%	58%	59%	41%	59%	41%

Frozen vegetables

Price increase	Configuration 1		Configuration 2		Configuration 3	
	Yes	No	Yes	No	Yes	No
+5%	64%	36%	76%	24%	73%	27%
+10%	61%	39%	74%	26%	70%	30%
+20%	54%	46%	68%	32%	65%	35%
+40%	41%	59%	56%	44%	52%	48%

[234] Simulations are computed by varying each attribute level shifting from the base case to all the levels used in the choice experiment and produce overall choice probabilities through the calculation of the deterministic portion of the utility function (see statistical note).

PROCESSED

Flour

Price increase	Configuration 1		Configuration 2		Configuration 3		Configuration 4		Configuration 5		Configuration 6	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
+5%	67%	33%	66%	34%	69%	31%	75%	25%	70%	30%	72%	28%
+10%	65%	35%	64%	36%	67%	33%	73%	27%	68%	32%	70%	30%
+20%	60%	40%	59%	41%	62%	38%	68%	32%	63%	37%	66%	34%
+40%	49%	51%	49%	51%	52%	48%	59%	41%	53%	47%	56%	44%

Sugar

Price increase	Configuration 1		Configuration 2		Configuration 3		Configuration 4		Configuration 5		Configuration 6	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
+5%	66%	34%	63%	37%	70%	30%	73%	27%	65%	35%	70%	30%
+10%	63%	37%	60%	40%	67%	33%	70%	30%	62%	38%	67%	33%
+20%	57%	43%	53%	47%	60%	40%	64%	36%	56%	44%	61%	39%
+40%	**43%**	**57%**	**40%**	**60%**	**47%**	**53%**	**51%**	**49%**	**42%**	**58%**	**47%**	**53%**

Oils

Price increase	Configuration 1		Configuration 2		Configuration 3		Configuration 4		Configuration 5		Configuration 6	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
+5%	72%	28%	74%	26%	77%	23%	84%	16%	78%	22%	80%	20%
+10%	68%	32%	71%	29%	74%	26%	81%	19%	74%	26%	77%	23%
+20%	60%	40%	63%	37%	66%	34%	75%	25%	67%	33%	70%	30%
+40%	42%	58%	46%	54%	49%	51%	60%	40%	50%	50%	53%	47%

Bread

Price increase	Configuration 1		Configuration 2		Configuration 3		Configuration 4		Configuration 5		Configuration 6	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
+5%	61%	39%	62%	38%	64%	36%	72%	28%	66%	34%	68%	32%
+10%	58%	42%	59%	41%	61%	39%	70%	30%	63%	37%	65%	35%
+20%	52%	48%	53%	47%	55%	45%	64%	36%	58%	42%	59%	41%
+40%	40%	60%	41%	59%	43%	57%	53%	47%	46%	54%	47%	53%

Pasta

Price increase	Configuration 1		Configuration 2		Configuration 3		Configuration 4		Configuration 5		Configuration 6	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
+5%	64%	36%	65%	35%	67%	33%	74%	26%	69%	31%	71%	29%
+10%	61%	39%	63%	37%	64%	36%	72%	28%	66%	34%	69%	31%
+20%	55%	45%	57%	43%	58%	42%	67%	33%	60%	40%	63%	37%
+40%	43%	57%	45%	55%	46%	54%	55%	45%	48%	52%	51%	49%

Frozen pre-cooked potato fries

Price increase	Configuration 1		Configuration 2		Configuration 3		Configuration 4		Configuration 5		Configuration 6	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
+5%	59%	41%	62%	38%	65%	35%	69%	31%	61%	39%	64%	36%
+10%	56%	44%	59%	41%	62%	38%	66%	34%	58%	42%	60%	40%
+20%	49%	51%	52%	48%	55%	45%	59%	41%	51%	49%	54%	46%
+40%	36%	64%	39%	61%	42%	58%	46%	54%	38%	62%	40%	60%

Orange juice

Price increase	Configuration 1		Configuration 2		Configuration 3		Configuration 4		Configuration 5		Configuration 6	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
+5%	65%	35%	67%	33%	69%	31%	77%	23%	72%	28%	73%	27%
+10%	63%	37%	65%	35%	67%	33%	75%	25%	69%	31%	71%	29%
+20%	57%	43%	60%	40%	62%	38%	70%	30%	65%	35%	67%	33%
+40%	47%	53%	49%	51%	51%	49%	61%	39%	54%	46%	56%	44%

Statistical Note on WTP

2.3.1 The modeling

Stated choice experiments are used to measure consumers' trade-offs. In stated choice experiments, respondents are asked to compare a set of alternatives and select the one providing the highest utility. The theoretical basis is represented by the micro-economic theory of choice and by the random utility theory. Consumers' preferences elicitation is done given their choices between a set of alternatives that are pre-specified in terms of levels of different attributes through a formal experimental design.

Utility (U) is modelled as a random variable and is composed of a deterministic (V) and a stochastic term (ε). The former is assumed to be a linear (in the parameters) function of attributes.

The utility that individual (i) associates with alternative (j) is given by:

$$U_{ji} = V_{ji} + \varepsilon_{ji} = \mathbf{X}_{ji}\boldsymbol{\beta}' + \varepsilon_{ji}$$

where $\mathbf{x}$ is the vector of attributes and $\boldsymbol{\beta}$ is the vector of parameters to be estimated.

Utility maximization in a probabilistic model implies:

$$P_i(j \mid C) = P\left[(\varepsilon_{hi} - \varepsilon_{ji}) < (V_{ji} - V_{hi})\right], \ \forall h \neq j$$

The most popular model is the Multinominal Logit which is expressed as:

$$P_i(j \mid C) = \int [\prod_{h \neq j} \exp(-e^{-(\varepsilon_{ji} + V_{ji} - V_{hi})})] e^{-\varepsilon_{ji}} \exp(-e^{-\varepsilon_{ji}}) d\varepsilon_{ji} = \frac{e^{\mathbf{X}_{ji}\boldsymbol{\beta}'}}{\sum_{h=1}^{H} e^{\mathbf{X}_{hi}\boldsymbol{\beta}'}}$$

The standard estimation technique for this kind of problem (Maximum Likelihood) estimates that set of coefficients which, when inserted into the deterministic part of the utility function, maximizes the joint probability across all the observations of the choices actually made.

In a choice modeling framework, the willingness to pay (WTP) point estimate for a given attribute can be obtained dividing its marginal coefficient by that of cost:

$$WTP_X = \frac{\beta_X}{\beta_{\text{cost}}}$$

When effects coded variables are involved, as in the present case, the WTP to move from a level of an attribute to a different one is calculated as the difference in the corresponding valuations. In other words, one has to first calculate the marginal effect on utility of the attribute level variations and then compute the ratio. In this case, the reference (omitted) category is coded as a sequence of minus 1's. The coefficient for the reference category can be easily recovered by multiplying the other effects coded coefficients by -1 and summing. Suppose the attribute X has L levels, then: $\beta_1 = \sum_{l=2}^{L} \beta_l (-1)$, where l = 1,..,L is the number of levels, and l = 1 is the reference category.

The marginal utility from moving from one attribute level to another is then simply the difference between the two relevant coefficients.

$$WTP_{1\to l} = \frac{\beta_l - \beta_1}{\beta_{\text{cost}}}$$

2.3.2 The choice experiment used in the survey

Two stated choice experiments were performed: one for 'unprocessed' products (four items) and the other for 'processed' products (seven items).

Unprocessed products attribute levels

Attribute 1: LABEL INFORMATION

1. No information on the origin of the product
2. Label indicates whether the food product was produced in the EU or outside the EU
3. Label indicates the country where the food product was produced
4. Label indicates the precise region/area where the food product was produced

Attribute 2: PRICE

1. Reference price
2. + 5% of reference price
3. + 10% of reference price
4. + 20% of reference price
5. + 40% of reference price

Processed products attribute levels

Attribute 1: LABEL INFORMATION

1. No information on the origin of the product
2. Label indicates whether the food product was produced in the EU or outside the EU and whether the ingredient was produced in the EU or outside the EU
3. Label indicates whether the food product was produced in the EU or outside the EU and the country where the ingredient was produced
4. Label indicates the country where the food product was produced and whether the ingredient was produced in the EU or outside the EU
5. Label indicates the country where the food product was produced and the country where the ingredient was produced
6. Label indicates the precise region/area where the food product was produced and whether the ingredient was produced in the EU or outside the EU
7. Label indicates the precise region/area where the food product was produced and the country where the ingredient was produced

Attribute 2: PRICE

1. Reference price
2. + 5% of reference price
3. + 10% of reference price
4. + 20% of reference price
5. + 40% of reference price

A specific factorial design was implemented in order to build the scenarios to be presented to respondents. In total 12 alternatives were built (to be tested along with the base case) and each respondent tested a total of 9 scenarios, 3 per product.

The table below shows, for a single product, all the scenarios (6) used in the model:

				All products	Processed only
Version	**Scenario**	**Alternative**	**Price**	**Info product origin**	**Info ingredient origin**
1	1	1	+5%	EU/nonEU	EU/nonEU
1	1	2	+10%	Country	Country
1	1	3	reference price	no info	no info
1	2	1	+5%	Country	EU/nonEU
1	2	2	+20%	Region	Country
1	2	3	reference price	no info	no info
1	3	1	+20%	EU/nonEU	Country
1	3	2	+40%	Region	EU/nonEU
1	3	3	reference price	no info	no info
2	1	1	+10%	EU/nonEU	EU/nonEU
2	1	2	+40%	Country	Country
2	1	3	reference price	no info	no info
2	2	1	+20%	Country	EU/nonEU
2	2	2	+40%	Region	Country
2	2	3	reference price	no info	no info
2	3	1	+5%	EU/nonEU	Country
2	3	2	+10%	Region	EU/nonEU
2	3	3	reference price	no info	no info

An example of a choice task is given below:

Q.6: Imagine to be at the point of sale, in front of the shelf and to have to choose a pack of *RICE*. You have three alternatives that are exactly the same, apart from the quantity of information on the origin of the product, and their price. After careful examination, please indicate which alternative you would choose. *Please select ONLY ONE product/price combination.*

	Alternative 1	*Alternative 2*	*Alternative 3*
Label information	Label indicates whether the food product RICE was	Label indicates the country where the food product RICE	No information on the product origin

	produced in the EU or outside the EU	was produced	
Price	+10%	+40%	Price Reference

Each alternative price is calculated from the reference price declared by respondents (price reference). Price levels are showed in absolute values rather than in percentage terms for two reasons: one is to put respondent in a situation as close to reality as possible and the other one is to facilitate interviewees avoiding a cognitive burden.

Q.4: Which is the average price you generally pay for a pack of <<food product >>? Please think about the pack size you usually buy. If you don't remember, please indicate a price that seems reasonable to you.

|__|__| euro /local currency

2.3.3 The modeling outcome

	RICE	DRY PULSE	SALADS	VEGETABLES
Attribute	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**
Price	-.03134159	-.02382927	-.02362353	-.02635363
Label: level 2	-.18348408	-.20166449	-.20976459	-.08471741
Label: level 3	.51816893	.60559318	.51238664	.51026535
Label: level 4	.44484377	.56710864	.51245981	.35092919

	FLOUR	**SUGAR**	**OILS**	**BREAD**	**PASTA**	**FRIES**	**JUICE**
Attribute	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**
Price	-.02075546	-.02744725	-.03550911	-.02404516	-.02449872	-.02712601	-.02153767
Label: level 2	-.00960234	.04643809	-.11738140	-.08612112	-.08724366	-.07883637	-.11292904
Label: level 3	-.03231786	-.09056600	.02498097	-.05877231	-.00642612	.03867833	-.02542733
Label: level 4	.10357483	.19512585	.16173736	.04663410	.04595707	.17011229	.06101379
Label: level 5	.36685429	.37395632	.61557753	.41190448	.42393167	.33539355	.45422806
Label: level 6	.13376910	.01136932	.19816186	.13102977	.13666768	.00269501	.19297301
Label: level 7	.25263116	.22992181	.33350558	.20770705	.25670192	.11251232	.27508051

PART III: METHODOLOGICAL NOTE

The survey adopted a CAWI approach. Mother tongue professionals translated the questionnaires in local languages. Pragma prepared the scripting in all languages (using ID Web software) and hosted the survey on its online platform. Respondents were selected by a sample provider according to a sampling plan provided by Pragma. Interviews were carried out between April 9th and May 15th 2014.

We remind that survey results are estimations whose accuracy, *ceteris paribus*, rests upon the sample size and the observed percentage. The statistical error for an observed percentage of 50% associated with the national samples (~350 responses) equals +/-5.2% and that of the total sample (5,370 responses) equals +/-1.3%.

Annex 6: Focus group notes

DG SANCO Study on the mandatory indication of country of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

Focus Group meeting

26 June, 2014

SANCO opened the meeting and reminded participants that they are invited to contribute to this focus group on their individual capacity, on the basis of their expertise, and not as representatives of the various stakeholder groups.

FCEC presented the study and its main conclusions. The following key points summarise the discussion of the Focus Group[235]:

Consumer interest and motivations

- The participants confirmed that there is a strong consumer interest for origin labelling (Theme 1/consumer interest[236]). It was understood by some participants that EU consumer interest in this type of information is motivated by the expressed preference for national/local products. Most participants indicated that consumers relate COOL to safety and quality attributes (including e.g. animal welfare); it is not really related to origin[237]. The trust[238] issue (i.e. consumers trust more domestic products) is also likely to be linked to a perceived higher food safety in local food chains. Also, consumers may want to support the national/local economy. On the perception of environmental impact by consumers, there is an assumption that local products are better for the environment, but this may not be the case and the whole life cycle of the products needs to be borne in mind.

[235] More specific and detailed comments raised on some figures/wording in the text have been noted and are incorporated in the draft Final Report.
[236] The Eurobarometer and BEUC surveys on this were conducted before the horsemeat scandal and the findings are similar to the FCEC survey.
[237] One participant noted that quality can be related to origin in consumers' mind, for instance as some EU MS apply welfare standards than go beyond the EU legislation.
[238] One participant noted that the trust issue was also mentioned in the context of the 2013 food fraud. For consumers, knowing where their food comes from can be a trust element *per se*.

- The group overall agreed that consumers want COOL to address safety concerns but that this is a misperception of what COOL can/is meant to provide. It was also pointed out that attributes are based on consumer perceptions, in practice there may not necessarily be an actual quality/safety difference. The perception that there is a quality difference between Member States undermines the strong safety/quality framework in EU law.
- The group indicated it is unclear – or it is not always clear - what consumers understand by origin (harvest or processing).
- There are differences in consumer interest and approaches to origin labelling by Member State. Given this, care is needed in presenting results at the EU level. A harmonised horizontal approach may not be appropriate. Member States where there is greater interest in COOL might want to come forward with specific vertical suggestions as they do now.

Willingness To Pay (WTP)

- It was agreed that the differential interest of consumers for the different categories of food versus WTP is due to a possible inconsistency of consumer response. It may also be the case that - for certain products - consumers may value differently an information which they think would be easy to label (e.g. for fresh cut salads because mandatory origin labelling already exists for fresh F&V; for vegetable oils because it already exists for olive oil, for rice because voluntary indications exist for some types of rice etc.) than for which there is no origin indication.

Voluntary origin labelling

- It was reminded that this study looks at VCOOL vs. MCOOL. If consumers want to help the local economy this could be facilitated through VCOOL. However, the resulting price premium of VCOOL products holds back consumers' purchases. This is because there is a wide gap between expressed and actual consumer interest (nice to know vs. need to know). The supply chain characteristics also prevent VCOOL for practical/technical reasons (i.e. it is not technically or economically feasible). Nonetheless, it was also pointed out that VCOOL products may currently attract a price premium due to the fact that they offer something different than other products, and this may not be the case for mandatory origin labelling as it will apply to all products, i.e. there will be no product differentiation on the basis of the origin information as such.
- The SANCO study on voluntary labelling looked at the certification of these schemes, with 80% of the origin labelling schemes found to be certified (although this included PDO/PGI products). It was clarified that the present study only looked at established VCOOL schemes, while it was not the purpose of the VCOOL section to draw up an exhaustive list of ad hoc, sometimes uncertified or with no further information provided, examples of VCOOL products. This issue is also closely related to the difficulty of ascertaining what is a voluntary indication/claim as such, for which the implementing rules of Article 26(3) would provide further guidance.

- Among existing practices, 'origin' is sometimes indicated as the place of processing, sometimes as the place of growing; it is very much product-specific.
- Participants agreed that PDO/PGIs are not origin schemes. EU quality schemes focus on quality/know-how but do not necessarily provide an indication of the origin (e.g. PGI has no bearing on the origin of the raw material). However they are recognised as such by consumers, as they do have a local/regional reference. The low consumer awareness of these schemes was noted, as evidenced by a number of studies.

Options and impacts

- Overall, most participants agreed that having horizontal rules for such a large range of products is problematic.
- Regarding Option 2, some participants indicated that the only valid option from a consumer perspective would be origin indication at a single Member State level. The alternative option of labelling a group of MS was discussed and the potential for misleading information embedded with this (and consequent consumer mistrust) was highlighted.
- The various risks associated with extrapolation of data/findings from one product to a sector, and then on a category basis more generally, were discussed as set out in the report.
- Participants agreed with the general observation of the study that - for the most part - no further specific conclusions can be drawn for each of the 3 category of products, i.e. the conclusions apply across the categories. Each category includes a 'mixed bag' of products and there is no definition of 'single' products, while the definition of ingredients that represent >50% of a product is too general and raises issues vis a vis the same/similar products with the same ingredients present just <50% in a product. Nonetheless, the FCEC clarified that - where appropriate and relevant - conclusions that can be drawn per category will be noted and that conclusions/findings will also be provided separately by product for each of the 9 case study products belonging to the 3 different categories of the study.
- Similarly, although examples are important in illustrating the range of impacts, it was also agreed that providing 1 or 2 examples can be partial or misleading as these may not necessarily be applicable across the range of products covered by the study. A balance therefore needs to be found between providing conclusive findings/examples, and avoiding lengthy reporting and repetition in the text.
- The validation process of industry data was also discussed, and will be included in the final report.

Enforcement

- The difficulties in enforcement were highlighted by the group. In Third Countries, this would be very hard to enforce. Within the EU, budgets allocated to controls cannot be increased, therefore enforcement authorities foresee that they would need to prioritise controls (e.g. food safety is a more critical issue). It was reminded that for meat, the costs

of compliance would be passed to the FBOs (under Regulation 882/2004) and a similar approach could be taken here. However, the lack of controls would create a risk for potential fraud. Also, enforcement would be paper/documentation checks as there are no other methods to control origin on food products. Similar issues are raised at the level of FBO internal administration and controls.

- The complexity of supply chains, especially for commodity products involving trade on the spot market, makes origin labelling very difficult and costly. Sometimes the buyer has no idea where exactly the product they buy has come from. The question of liability along the supply chain was discussed.
- For the 3rd category of products, wherever technically possible, FBOs will have every incentive to shift under the min 50% percentage ingredient content to escape the origin labelling requirement.
- The group agreed that in the case of mislabelling for origin, probably no recall will take place as food are fast moving consumer goods and that it does not concern food safety. Also, it would create food waste. However, there would be fines to FBOs.

Final comments

Participants to the focus group indicated that the summary of the results of the study successfully provide comprehensive results on this difficult topic, while tackling the complexities of dealing with a very wide range of products and an extensive consultation process. They are also provided within the time frame required by the FIC Regulation.

Annex 7: Industry stakeholders' position papers on mandatory origin labelling

In separate documents

Positions papers, statement, contributions or letters have been submitted by the following associations:

- PROFEL, the European Association of Fruit and Vegetable Processors
- Regulatory Council of the Galician Mussel PDO (ES)
- The Federation of Bakers UK
- SFIR, Società Fondiaria Industriale Romagnola (IT)
- FRUCOM, the European traders in dried fruit, edible nuts, processed fruit & vegetables, processed fishery products and honey.
- FDE, FoodDrink Europe
- EUPPA, the European Potato Processors' Association
- ESRA, the European Sugar Refineries Association
- The Scotch Whiskey Association
- COPA-COGECA, the association of EU farmers and EU agri-cooperatives
- AIPCE-CEP, the European Fish Processors Association and the European Federation of National Organisations of Importers and Exporters of Fish
- ACP subcommittee on sugar (African, Caribbean and Pacific countries)
- ETC-EHIA, European Tea Committee and the European Herbal Infusions Association
- FEDIOL, the EU Vegetable Oil and Proteinmeal Industry
- OEIT, the European Organisation of Tomato Industries

PROFEL

EUROPEAN ASSOCIATION OF
FRUIT AND VEGETABLE PROCESSORS

ORGANISATION EUROPÉENNE DES INDUSTRIES
TRANSFORMATRICES DE FRUITS ET LÉGUMES

Brussels, 10th of April 2014
PROFEL2014.003

PROFEL Note on Mandatory Country of Origin Labelling (COOL) rules for "other foods"

PROFEL is the European Association of fruit and vegetable processing industries, representing over 500 companies in 12 EU countries, affiliated via PROFEL's national associations, producing frozen vegetables, canned vegetables, dehydrated vegetables, deciduous fruit and jams.

Regulation (EU) No 1169/2011 of the European Parliament and of the Council on the provisions of Food Information to Consumers lays down – amongst others - provisions on the indication of the country of origin of raw material or place of provenance of food products. The Regulation foresees that the European Commission shall prepare a report to be presented to the European Parliament and Council regarding origin labeling for:

1. single ingredient products;
2. unprocessed products
3. ingredients that represent more than 50 % of a food

An online consultation has been launched on this topic and PROFEL submitted a contribution on the 3rd of April. With this paper we aim at giving a general contribution of the sector, with more concrete examples and expected consequences for our products.

Fruit and vegetables are by their very nature products that are subject to fluctuations, and their supply depends on climate, geography, quality and prices. If due to climatic circumstances the supply of raw materials in one country/region is low this will automatically lead to a higher demand for raw materials in other countries, and necessitates flexible alternative sourcing from other countries. The reasons why the raw material cannot be delivered as planned and sourcing changes at the last minute are varied and not only linked to climatic conditions: there could be crop failure due to pests or poor orchard management, or fruit doesn't get picked because the price is too low, or another destination is more attractive (i.e. fruit for spirits) – to name but a few.

Any obligation to label the origin would be very complicated in practice (i.e. to stock different labels with different percentages and different origins for each ingredient), and in the case of some products even impossible. Processed fruit products such as jams and fruit spreads – i.e. strawberry jam – are made from a blend of fruit origins and packing, usually at least 3 origins, but very often 5 and more. Blending is used to guarantee a continuity of tastes over the seasons but also during the season or crop year. The exact blending is subject to change for every production run. While already in this case – i.e. a product made of one fruit – it would be nearly impossible to adjust the labels accordingly, this would be far more complex for products with two or more fruit (i.e. fruits of the forest jam).

A change to the labels whenever the raw material supply sources changes causes considerable extra costs to our sector's companies – many of them SMEs. In addition there are practical barriers such as limited availability of space on the back-of-pack label for some products (i.e. on a jar of jam).

While we understand the call to distinguish high-quality European products from third-country imports, we believe that this **has to be decided on a product by product basis and should in no case be mandatory for all processed agricultural products across the board.**

We therefore reiterate our strong objections to any compulsory labelling of origins for all processed fruit and vegetable products.

Please find in the annex below a random selection of typical products from our sector to illustrate the practical problems that mandatory labelling of origin would pose.

Annex:Product examples

Annex

Typical products produced in NL, Germany, Austria, Spain, Italy and Belgium:

- **Product**: ***Summer fruit fillings and fruits of the forest in light syrup*** (Both products contain 5 types of fruit with 2 - 5 origins):

  Black currants: Poland and Bulgaria. Blackberries: Poland and Serbia.
  Wild blueberries: Canada, Sweden, USA, Russia and Serbia. Red cherries: Poland and Bulgaria.
  Strawberries: Poland, China and Egypt

  64 different labels for every product would be needed to cover all combinations of varieties and origins of the fruits.

- **Product: *Combinations of pulses***

  Combinations of pulses (originating from USA, Canada, China); Pulses with soup green (origins: Poland, China); Pulses with tomato paste (originating from Greece, Italy, China).

  At least 8 labels per product needed to cover all combinations.

- **Product: *Fruit compotes and canned fruit*:** here raw material supply in some parts of the compotes industry can change weekly (occasionally daily). Labels will be printed at least six weeks before canning.

  Typical origins:
  Cherries: Hungary, Germany
  Plums: Hungary, Germany
  Blueberries: Baltic States, Sweden, Finland, Russia, Canada
  Apples (particularly difficult regarding organic supply): Germany, Italy, France, Poland

- **Product: *Vegetable mix – Frozen*** (Ingredients: Vegetables in varying proportions (carrots, sweet corn, peas, cut beans, red peppers)

  Possible origin of ingredients:
  Carrots: Belgium/France/The Netherlands; Sweetcorn: France/Spain/Hungary/U.S.A.Israel;
  Peas: Belgium/Spain/France/The Netherlands/UK; Cut beans: France/Belgium/The Netherlands;
  Red peppers: Spain/Turkey/Bulgaria;

  In the above example of a standard mix containing five ingredients the ingredients may be supplied from as many as 19 different countries.

- **Product: *Single fruit jams & preserves***

  Background:
  - All jams made from a blend of fruit origin & packings. Usually at least 3 origins, very often 5 and more.
  - Blending is used to guarantee a continuity of tastes over the seasons but also DURING the season or crop year.
  - The production area of most fruit are quite limited in each country. (IE Strawberies in Spain : Huelva province – Strawberries in Morocco : Larache area. Williamette Raspberries : a limited part of Serbia ….

- Crop yields are extremely dependent on weather conditions. If 100 is the 10 years average production, variations of 50 to 130 from one season to the other are very common. A single example: apples crop in Poland in 2007 was less than 20% of an average crop.
- One region = One single crop a year.
- The fruit packaging also differs, from canned pulp to aseptic pulp, from IQFrozen to Block frozen. These packaging also have a huge influence on the fruit conservation. It is very usual for a jam producer to start the season with a high level of aseptic fruits, while at the end of the season, it will use predominantly frozen fruits. This for the simple reason that the aseptic fruit quality will decrease more quickly with storage – or – in other words - the producer will use more frozen at the beginning for cost reasons (Frozen storage more expensive than ambient).
- Fruit is a living thing, each lot has specific characteristics. The producer adapts the blending according to the quality parameters of each lot.
- THE EXACT BLENDING IS THUS SUBJECT TO CHANGE EVERY PRODUCTION RUN!
- A single fruit jam is always made with a blend of origins AND these origins as well as their relative level in the jam will change not only from crop to crop but also during the intercrop period.

Example strawberries :

Main Origins: Poland, Spain, Portugal, Morrocco, Egypt, China, Mexico, Chile but also France, Belgium, USA, UK, Italy …..

For jams of « mixed fruits », i.e. fruit of the forest jam, four fruit jam, the arguments are identical, just made more complex and the problem multiplied because it is very usual to have a 4 or 5 fruit jam.

***

Ref. Ares(2014)1658037 - 21/05/2014

MEXILLÓN DE GALICIA
Consello Regulador

28.04.2014 **2014/D02CR40**

Contribution to the report to be submitted by the Commission to the European Parliament and the Council regarding the mandatory indication of the country of origin or of the place of provenance for ingredients that represent more than 50% of a food under article 26.5.f) of Regulation (EU) 1169/2011 on the provision of food information to consumers.

Index

Consello Regulador Mexillón de Galicia
Av. da Mariña, nº 25 - 36600 Vilagarcía de Arousa
T +34 986 507416 -- info@mexillondegalicia.org

Introduction

The Regulation (EU) 1169/2011[1], on the provision of food information to consumers, requires (article 26.5) than by 13 December 2013, the Commission shall submit reports to the European Parliament and the Council regarding the mandatory indication of the country of origin or place of provenance for ingredients that represent more than 50 % of a food (article 26.5.f).

Such reports, under article 26.7, shall take into account the need for the consumer to be informed, the feasibility of providing the mandatory indication of the origin country or place of provenance and an analysis of the costs and benefits of the introduction of such measure, including the legal impact on the internal market and the impact on international trade.

The Commission may also accompany those reports with proposals to modify the relevant Union provisions.

Therefore, since the mussels, representing more than 50% of the final food content in products falling under heading 1605 of the Combined Nomenclature, specifically processed and canned elaborated with mussel, it is justified its mention in the report that the European Commission shall submit to the European Parliament and the Council regarding the mandatory indication of the country of origin or place of provenance.

The inclusion of prepared and preserved mussel in the report comes recommended by the legislative treatment given so far to such products, by the need of the consumer to make informed choices that promote a sustainable consumption to achieve sustainable production, and the factual situation of mussel products in the European market. Position advocated by the European Commission in the Proposal for a Regulation of the European Parliament and of the Council on the common organisation of the markets in fishery and aquaculture products - COM (2011) 416 final, contained in Article 42.2 in relation to mandatory information provided to consumers about the products of tariff headings 1604 and 1605.

[1] Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004.

Legislation on the mussel products and the information provided to consumers

A) The Regulation (EC) 1224/2009[2], establishing a control system of the Common Fisheries Policy, stipulates (article 58.6) that Member States shall ensure that traceability information is available to the consumer at retail sale stage. This duty of consumer information is reflected in paragraph 5 of this Article, in the letters:

h) whether the fisheries products have been previously frozen;

g) the commercial designation,the scientific name, the relevant geographical area and the production method.

[As provided for in Article 8 of Regulation (EC) 2065/2001, valid until 12.13.2014. In this date on it will be repealed by Regulation (EU) 1420/2013 and it shall apply the article 35 (referring to Article 45.2) of Regulation (EU) 1379/2013 of the CMO applicable, (according to the art. 49) since 12/13/2014].

B) Subsequently, the Article 67.12 of the Implementing Regulation (EU) 404/2011[3] laying down detailed rules for the implementation of Regulation (EC) No 1224/2009, provides that this duty of consumer information shall not apply to fisheries and aquaculture products falling under Tariff headings 1604 and 1605 of the Combined Nomenclature (including processed and canned of mussel).

Also Article 68 on information to the consumer, in paragraph 5, exempts the application of this article to fisheries and aquaculture products falling under Tariff headings 1604 and 1605 of the Combined Nomenclature. That is, the Implementing Regulation (EU) 404/2011, (in the context described) exempts preparations and preserves of fish and seafood (including processed and canned of mussel) from the duty to inform the consumer of the specie, its origin and its commercial designation.

C) The recent Regulation (EU) 1379/2013[4], on the common organisation of the markets in fishery and aquaculture products, indicates in the Article 1.2

[2] Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006.

[3] Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy.

[4] Regulation (EU) No 1379/2013 of the European Parliament and of the Council of 11 December 2013 on the common organisation of the markets in fishery and aquaculture products, amending Council Regulations (EC) No 1184/2006 and (EC) No 1224/2009 and repealing Council Regulation (EC) No 104/2000.

that the CMO, among other things, will comprise (c) consumer information, specific aspect detailing in Chapter IV.

Thus, article 35 stipulates that, without prejudice the provisions of Regulation (EU) 1169/2011, the fishery and aquaculture products, may only be offered for sale to the final consumer when indicates on marking or labelling –among other information– (a) the commercial designation of the species and its scientific name (specified in more detail in Article 37) and (c) the area where the product was caught or farmed (specified in more detail in Article 38), indicating that the aquaculture products obligatorily specify the third country or Member State.

Now this duty relates to fishery and aquaculture products in general live, fresh, chilled or frozen. Therefore, with the exception of fishery and aquaculture products falling under Tariff headings 1604 and 1605 of the Combined Nomenclature. This is, the canned and processed fish and seafood (including processed and canned products of mussel) again are exempt from the duty of bearing information to consumers.

Thus, there is a clear trend in recent EU provisions for facilitate the omission of consumer information in the case of prepared and preserved products of fisheries and aquaculture (tariff headings 1604 and 1605 of the Combined Nomenclature), which suggests an unequal treatment.

Excluding in those processing and canning companies which accredit the content and origin of their products with certification –for example by Mussel from Galicia PDO [DOP Mejillón de Galicia]–, it is perceived that the opacity in the consumer information seems to be a target in the dynamics of institutional governance.

Legislation on information provided to consumers applicable to mussel products

A) The Directive 2000/13/EC[5], on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs, provides in Article 3.1.(8) mandatory reporting of the country of origin, where failure to give such particulars might mislead the consumer.

The transposition into legal systems of the Member State is performed, in Spain, by Royal Decree 1334/1999[6] and subsequent amendments, which

[5] Directive 2000/13/EC of the European Parliament and of the Council of 20 March 2000 on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs.

[6] Real Decreto 1334/1999, de 31 de julio, por el que se aprueba la Norma general de etiquetado, presentación y publicidad de los productos alimenticios.

establishes and regulates the mandatory particulars on the labelling of foodstuffs.

This national provision for the transposition (Articles 5.1.k and 13) considers the obligation to inform consumers about the origin in the case of products originating in the Member States when its omission would mislead the consumer. But for products from third countries it always requires specifying their origin, except as provided for in international treaties or conventions applicable.

This comprehensive requirement of the Member State to third-country products suggests the preference of the consumer's right to information over other criteria that motivate the recent trend noted in the previous section.

In any case, Directive 2000/13/EC remains in force until 12.13.2014, the date from which the obligations for the EU Member States will be regulated and will be applied directly to citizens by Regulation (EU) 1169/2012 (that repeals this Directive).

This direct application to citizens, questions the relevance and permanence of the Royal Decree 1334/1999 for transposition, and the derived and specific rules of lower rank.

B) The Regulation (EU) 1169/2011, on the provision of food information to consumers, is horizontal and general in nature and applicable to all foodstuffs, without the specificity that some cases require, as in the case of fishery and aquaculture products. Products that in their live, fresh, chilled or frozen presentation are detailed in Regulation (EU) 1379/2013, but that excludes the consumer's right to information when it comes to presentations included in the tariff headings 1604 and 1605 of the Nomenclature Combined (canned and processed fish and seafood, among which are the processed and canned products of mussel) as mentioned above.

Article 9 provides a list of mandatory particulars detailing in later articles. For the case that interests us, the obligations are:

(a) the commercial name of the food (Article 17) is set by the legal, customary or descriptive name.

(b) the list of ingredients (Article 18.2) shall be designated by their legal, customary or descriptive specific name, in accordance with the rules laid down in Article 17.

Both sections elude the obligation to indicate the scientific name of the species, very relevant information for the case of canned mussel.

(c) Article 26 does not oblige to indicate the provenance or origin of the product, but this obligation is conditional on "the failure to indicate this might mislead the consumer" (Article 26.2.a).

Condition that in direct practice makes difficult to apply the provision, because to determine when the labelling of a product "might mislead the consumer", it will require:

(a) given the discrepancies between the arguments of the owner of labelling (in this case, the canning company) against the arguments of who is aggrieved with such labelling (consumer or affected third parties), it will be necessary the intervention of a third umpire (judge) and the necessary financial resources to deal with such judicial intervention.

(b) demonstrate that the omission of information confuses the consumer who takes a wrong buying decision compared to the choice that he would make if he had the missing information.

(c) contrast all the assumptions that appear in the market, about which could be formulated doubts whether mislead the consumer (the situation will be complicated if we consider the innovative packaging that some companies could develop and that would force us to be constantly before the judge).

So Regulation (EU) 1169/2011 creates a legal framework that promotes a hardly feasible operational and economic situation, and a legal uncertainty for the consumer protection or the affected third parties, who are harmed.

Conclusion on applicable legislation

We can highlight of the specific regulations of the fishery and aquaculture products, clear statements in favor of consumer's right to be well informed:

• *In order to enable consumers to make informed choices, it is necessary for them to be provided with clear and comprehensive information on, inter alia, the origin and the method of production of the products.* [Recital 21 of Regulation (EU) 1379/2013 on the common organisation of the markets].

• *It should also protect the interests of consumers by providing the information concerning the commercial designation, the production method and the catch area* [Recital 28 of Regulation (EC) 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy.

These statements do not materialise in any legal text in regard to the prepared and preserved sea products. The obligation to inform the consumer about the specie contained in each container of preserved, is only legislated in the specific texts, as the regulations on the common marketing standards for preserved sardines and for preserved tuna-bonito.

In processed and canned products of mussel, information on the species and their origin is omitted, and the right to information and consumer interest are relegated.

In the other legislative acts of the European Union we do not find provisions setting up the obligation to indicate species and origin of the processed and preserved sea products (headings of the Combined Nomenclature 1604 and 1605), and specifically in the case of the mussel, which is the primary ingredient that consumers associate with the name of the foodstuff and accounts more than 50 % of the food (article 2.2.q of Regulation (EU) 1169/2011).

This situation, de facto, is an inconsistency regarding legislation on the fundamental right of consumers to accurate, clear, adequate and certain information.

The situation of omission of consumer information, infringes the rules of competition because it benefits foreign products which hiding information, clearly take benefit from the prestige of the Galician mussel and its processed and canned products in the European market.

Current market situation. Products elaborated from mussel

Member States producers and consumers

In countries where the maritime culture is part of the collective imagination and they maintain a historical link with the sea, there are certain tradition in the processing and conservation of fishery and aquaculture products (canned, frozen, prepared) and in the consumption habit of fresh and preserved products.

In the territory of the EU, the main canned-producing states are Spain, Italy, France, Latvia, Denmark, Poland and Portugal.

According to the latest data available in the Database Fishstat Plus-FAO, the major producing of canned, frozen and prepared of mussel in the EU are Spain (mainly Galicia), Denmark and the Netherlands (Table 1).

Table 1. Processed mussel producing Member States (tonnes).

	2002	2003	2004	2005	2006	2007	2008	2009
Spain	50.200	49.300	41.500	35.600	22.900	24.300	20.300	20.700
Denmark	10.191	8.115	8.616	8.596	7.271	5.441	4.399	3.950
Netherlands	2.921	4.894	6.712	6.367	6.808	3.978	3.222	2.994

Source: Compiled by authors based on the Database Fishstat Plus-FAO.

In addition to the mentioned producing countries, other countries are large consumers of preserved mussel: France, Italy, Portugal, Belgium and Germany (Table 2).

Table 2. Major States Members consumers of processed of mussel (apparent consumption in tonnes).

	2002	2003	2004	2005	2006	2007	2008	2009
Spain	46.365	47.344	43.456	38.853	25.970	28.163	26.899	24.853
France	10.796	11.469	13.574	14.286	13.934	17.374	17.647	15.295
Italy	8.160	8.199	8.616	8.734	10.598	10.658	11.838	9.859
Netherlands	1.889	3.228	2.891	2.511	3.103	4.159	5.859	2.799
Portugal	1.620	1.370	1.862	1.986	1.635	1.639	1.863	1.909
Belgium	1.497	1.900	1.642	1.464	1.565	1.824	1.972	1.681
Germany	1.202	485	449	-46	564	980	1422	1.385

Source: Compiled by authors based on the Database Fishstat Plus-FAO.

Although other databases may show some quantitative differences with the data presented here, our data are consistent and are reliable in terms of the information they yield, and they are fully valid in undertaking an assessment of the status and evolution. In any case, the production of canned mussel is a highly localized activity, between 85-90% of the EU production was being done

in Galicia, with a raw material from local aquaculture. Besides, Spain is also the first consumer market for canned mussel[7].

Case Study: Spain

From the information above, Spain is revealed as example case, because it is the largest producer of processed and canned products of mussel, and also the largest consumer.

Until 2003, Spain, as a producer, was able to meet the demand for domestic consumption and also was able to export part of its production. In this period, and also before the integration of Spain into the EEC (1986) the specific legislation on canned of mussel obliged to report on the country of origin. This obligation remained, and is currently in force, for products originating in or consigned from third countries by virtue of Royal Decree 1334/1999, transposing Directive 2000/13/EC (see previous section on legislation).

The legislation reconciles the interests of food operators (which give value and differentiate their product with the indication of origin) with the interests and rights of consumers (which possess such information to decide).

From 2004, both, the production and the apparent consumption, decrease. But consumption is greater than domestic production, so it is used imports, which increased by 41% over the previous year (Table 3).

Table 3. Major Member States importers of processed of mussel (tonnes).

	2002	2003	2004	2005	2006	2007	2008	2009
Francia	11.618	12.236	14.136	14.791	14.539	18.180	18.633	15.865
España	5.353	5.567	7.836	9.559	11.994	12.396	13.501	11.826
Italia	8.587	8.539	8.973	9.087	11.056	11.075	12.461	10.603

Source: Compiled by authors based on the Database Fishstat Plus-FAO.

The day 01.01.2003 entered into force the Free Trade Agreement EU-Chile[8], with progressive reduction of tariffs until 01.01.2007, the date on which is set the tariff 0 (zero).

[7] Analyse de l'approvisionnement et de la commercialisation des produits de la pêche et de l'aquaculture dans l'Union Européenne. Tome 2 - Rapport descriptif détaillé. Commission Européenne Direction Générale des Affaires Maritimes et de la Pêche. Ernst & Young – AND International, Cogea, Eurofish – Mai 2009.

[8] Council Decision of 18 November 2002 on the signature and provisional application of certain provisions of an Agreement establishing an association between the European Community and its Member States, of the one part, and the Republic of Chile, of the other part (2002/979/EC).

The leading exporter of processed mussel products to the European Union is Chile. In this country, the main operators of processed products and canned of "chorito" (Chilean mussel) are processors and canners from Galicia[7].

This part of the Galician industry of canning and processing focuses its interests in the "chorito" from Chile and it is no longer interested to differentiate between the mussel grown, processed and prepared in Galicia and the product made in Chile and marketed in Europe, including Spain.

Using frozen "chorito" as feedstock in the canned products and indicate Galician origin of the product; mixing "chorito" and Galician mussel and indicate Galicia as its origin; or indicating in labelling the Galician origin of the imported product, demonstrates that the consumer has high esteem of cultivated mussels in Galicia. In addition, these practices have been very valid to mislead consumers and illegally appropriating the prestige of mussels cultivated, processed and prepared in Galicia. Omit its origin also is another practice to take advantage of consumers, because they do not distrust this omission and they still consider the prestige of Galician Mussel. All these practices also generate great damage to the processor industry and indigenous grower sector.

This causes the consumer's right to information is relegated to being a lesser right.

The consumer is being a victim of deception or of omission of information, the consumer does not decide in accordance with his rights and interests. Interests of companies operating in the market honestly also are harmed by an unfair competition from.

And in this chain, the primary sector endures the final consequence, and it suffers the reduction of the demand for its product. Thus, the volume of mussels grown in Galicia and sold at first sale for use in the manufacturing industry fell sharply from 2003 to 2012 (Table 4).

Table 4. Production of Galician mussel which is sold to the processing and canning industry (in tonnes live weight)

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
140.920	177.165	121.165	180.885	103.320	68.175	86.228	74.443	83.817	79.420

Source: Compiled by authors based on Yearbooks of Fishery and Aquaculture Statistics of Xunta de Galicia

It should be mentioned that another important part of the Galician processing and canning industry focuses its interest in the Galician Mussel, maintains its strategy for differentiated quality linked to origin, supports and participates in PDO Mussel from Galicia. But this does not prevent having to bear the negative consequences of illegal practices.

Fraud and misbranded products: consumer deception

Relegate the consumer's right to information, when the law has established exhaustively this obligation, leads to illegal conduct.

Thus, according to the current legislation of the state, there are notorious documented cases of fraud and bad labelling of fishery and aquaculture products placed on the market in the various presentations, including processed and preserved. This situation extends to the entire European internal market.

From the time of registration the *Mexillón de Galicia* (Mussel from Galicia) in the register of protected designations of origin[9], and with more intensity in recent years, the *Consello Regulador do Mexillón de Galicia* which depends on the *Consellería do Medio Rural e do Mar* (of the Regional Government of Galicia), collaborates with this department in the official control of the food chain, performing review of products of mussel in the market, with analytical identification of species in its own laboratory of Molecular Biology, and in independent external laboratories. In this control are detected frauds, in which the species and origin of the packaged product does not match what is on the label. Have also been detected on the market multiple illegalities of the labelling of the products of mussel, using commercial designations that do not correspond to the packaged specie, referencing Galician origin of the product, omitting the country of origin, omitting the packaged specie, etc.

Certainly, they are frauds that do not necessarily affect the health, but they are a deception of the consumer, and when a cheap specie is sold as though it were a more expensive specie, necessarily we should think that this deception reflects an objective of illegitimate profit by the economic operator.

In this sense, the exhortation directed in recital (23) of Regulation (EU) 1379/2013 to the competent national authorities so that "*should make full use of available technology, including DNA-testing, in order to deter operators from falsely labelling catches*", evidences the consumer's lack of protection.

In this context, it is appropriate and necessary that in the labelling of the processed fishery and aquaculture products, including canned products, it should be mentioned the scientific name, the corresponding commercial designation and the origin of the primary ingredient and of the food, in the context of market unit which postulates the European Union.

This obligation, and its compliance, would facilitate the control and the detection of fraud.

[9] Commission Regulation (EC) No 1050/2007 of 12 September 2007 registering certain names in the Register of protected designations of origin and protected geographical indications [Mejillón de Galicia or Mexillón de Galicia (PDO)].

Case Study: Denmark and EU-Chile FTA

Denmark is also one of the leading producers of prepared and preserved of mussels.

The study of evaluation of the impact of the Free Trade Agreement EU-Chile[10] states that given the difference in size across contracting parties, social impacts are bound to remain very limited in the EU. However, "*One exception is in the area of mollusc exports which have grown rapidly during the recent years. In 2002 the EU imported 2,800 tonnes of prepared mussels (HS code 15059019). These imports had multiplied by nine by 2009.*" That is, 25,200 tons, almost the sum of all EU production: 27,644 tons (Table 1).

The study also notes that "*In some areas where local production or harvest of mussels is mostly directed to the canned market, several processing plants have closed. This is especially the case in Denmark, where four out of five plants have closed and where production had decreased by 70% in ten years*".

Significant reduction in the volume of Danish production of processed and canned of mussel between the years 2002-2009, as reflected below.

Derived from Table 1. Processed mussel Producing Member States (tonnes).

	2002	2003	2004	2005	2006	2007	2008	2009
Denmark	10.191	8.115	8.616	8.596	7.271	5.441	4.399	3.950

As mentioned above, the main Chilean operators of processed and canned products of "chorito" (Chilean mussel) in Chile are Galician processors and canners[7], and their commercial performance lines were detailed above.

Several **conclusions** can be drawn from both cases (Spain, Denmark):

a) the design and enforcement of true structural policies for the defence of local sectors and local primary products will help reduce, in the balance of payments of the EU, the trade deficit generated by the import of fishery and aquaculture products.

b) strong local primary sectors will allow maintain the secondary industrial fabric linked to seafood, otherwise, as in Galicia and Denmark, industrialists shall cease to be transformers and become importers - marketers of products of third countries, until that their customers –previous intermediaries to consumers (supply chains)– know the supply source and consider most appropriate to operate directly on third. Time when the EU will lose business, employment and food independence.

[10] Evaluation of the economic impact of the trade pillar of the EU-Chile Association Agreement. Final report. ITAQA Sarl. Contract SI2.575484. For the European Commission, Directorate General for Trade. 23 March 2012.

European Commission

The European Commission considers necessary that the products processed and preserved of fish and seafood (tariff headings 1604 and 1605 of the Combined Nomenclature) mandatorily indicate the commercial and scientific name of the species, the production method and the area where the product was caught or farmed (country of origin). This is stated in the Proposal for a Regulation on the common organisation of the markets in fishery and aquaculture products, COM(2011) 416 final, as is indicated in Article 42.2, in respect of the points h) and i) of Annex I, (tariff items 1604 and 1605), as discussed above.

Faced with this proposal, a part of the canning sector proposed eliminating the obligation to inform the consumer, and in the dynamics of institutional governance, were presented the parliamentary amendments 386, 387 and 388 to the draft report 2011/0194 (COD) for the elimination of such information.

It is therefore an object of this part of the processing and canning industry of Galicia which focuses its interest in the Chilean "chorito", and this leaves precariously the defence of the interests of European society in general, as consumers.

Market Situation after 13/12/2014: The right to information on products made with mussels

After the 13.12.2014, the state legislation mandating reporting of the country of origin, shall be subordinate to the highest rank of Regulation (EU) 1169/2011, which does not require such obligation if it is not determined that its omission would mislead the consumer.

Contents fraud or omit in the labelling the name of specie or the origin, today they are classified as punishable infringements. After 12/13/2014, will be legal acts.

Europe 2020 Strategy

The Europe 2020 Strategy[11] proposes to achieve an economy: smart (based on knowledge and innovation), sustainable (with a more efficient use of resources, greener and more competitive) and inclusive (with high employment and delivering social and territorial cohesion).

[11] COM(2010) 2020 final. Communcation from the Commission: EUROPE 2020 A strategy for smart, sustainable and inclusive growth.

To promote these priorities, the European Commission proposes seven flagship initiatives, among which we emphasize the entitled «A resource-efficient Europe»[12]. This initiative aims to create a framework for policies to support "*the shift towards a resource-efficient and low-carbon economy which will help us to ensure security of supply of essential resources; and fight against climate change and limit the environmental impacts of resource use*". But it is estimated that three conditions must be met. Of these, we stress: "*we have to empower consumers to move to resource-efficient consumption, to drive continuous innovation and ensure that efficiency gains are not lost*". It seeks the consumption of local products, prioritizing to markets (local, national); by placing the production, distribution and consumption in the base of the conservation of biodiversity and the economic and social sustainability. There should be no doubt that transportation of imports increases the carbon footprint of the products that are consumed. In addition to the environmental effect, if we promote a food-producing primary sector, we will obtain an improvement of security of supply, and at the same time we will promote the processing secondary sector. Employment is generated and the trade deficit of the balance of payments is reduced. And economic efficiency is maintained, because the obligation of information to the consumer is already currently set, and therefore, this obligation does not increase the cost of food operators.

In addition, for change to occur, the flagship initiative also proclaims the need to *convince consumers*.

In this sense, the World Economic Forum[13] also believes that to generate a transformational change which creates a more sustainable global economy, it is necessary to engage consumers, and "nudge" their choices towards sustainable consumption.

The environmental and social awareness of the average citizen as a consumer will allow (with the necessary impetus) a substantial change in global sustainability. And yet, some issues may be representing a severe burden, "*The Consumption Dilemma*" is emerging: the social distribution of income prevents an important part of society from consuming under these socio-environmental values, and it has to consume what allows its economic capacity. In addition, to realize the change to a more sustainable economy through consumption, it is necessary sufficient information of the products, to make a choice according to these values.

[12] COM(2011) 21 final. Communcation from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A resource-efficient Europe – Flagship initiative under the Europe 2020 Strategy.

[13] The Consumption Dilemma. Leverage Points for Accelerating Sustainable Growth. World Economic Forum. Report prepared in collaboration with Deloitte Touche Tohmatsu and the World Economic Forum. Updated April 2011.

Therefore there is the possibility of developing a legislation consistent with the strategy, forcing to inform on processed and canned products of mussel, providing an opportunity for companies to engage more honestly with consumers.

Information needs *versus* consumer deception

The European consumer of canned products has deposited his trust in the preserved and canned products of European local fishery and aquaculture. This occurs specifically in Galicia –area especially dependent on green and traditional fisheries and aquaculture– because of the prestige and notoriety of the Galician sea products.

Due to the socio-economic importance of the production areas, the quality of the marine environment and environmentally-friendly practices of the mussel culture (which determine specific characteristics to the products); and due also to coexisting a consumption and a consumer culture strongly committed to the "local" nature of production; the origin of prepared or preserved products of mussel has the recognition of consumers, and provide a positive image to the product, contributing to the overall credibility of the consumer in system security.

In the commercial context, the emergence of products that hide the information about the specie and origin country is not going to encourage consumers to distrust of product content and of its origin, since by default the consumer will continue to consider these products as European.

Moreover, in this framework of trust, the presence of preserved and prepared products which incorporate voluntary information indicating the specie and the European origin of the products (even through a PDO as "Mexillón de Galicia") is not sufficient for the consumer to consider that preserved and prepared products not having that information are foreign or contain non-European species.

For these reasons, in a situation of information omission, the consumer will purchase foreign products considered as Europeans, because they have other variables that determine the purchase (packaging, formats, advertising, price, etc.). Therefore, it would be misleading consumers by unfair omission, as if the consumer had all the information (also of the specie and origin), he could take a different decision, or at least more informed, as rightfully belongs.

Thus, preserved products without information about their origin (and containing specie) exploit the reputation and prestige of European local products which have proved quality and food guarantees.

The consumer will be deprived of information necessary to act according to their socio-environmental values and to make a rational buying decision, since it was deleted the information about the origin (and the containing specie) of the conserved products.

The potential elimination of this information obligation from 13/12/2014, is an infringement of the fundamental right of consumers, and also it leaves a defenceless consumer from possible fraud that may involve buying without information about the origin and the containing specie, if the consumer is buying a foreign product believing it to be anEuropean product. Therefore also will be harmed their interests.

Competition in the market: unequal conditions

It is evident that, from 12.13.2014, the elimination of the information obligation of fishery and aquaculture products (classified in headings 1604 and 1605 of the Combined Nomenclature) will benefit those who conceal information, thereby distorting the market and it may constitute a breach of the competition rules because it clearly benefits (for concealment) to foreign products that take advantage of the prestige and the reputation of European products.

Viability of the information obligation

In prepared and canned products of mussel, the information that is required to transfer to the consumer (i.e. the indication of the origin country) is an input that is available to the companies, since lot of raw material requires traceability information, as required by Regulation (EC) 1224/2009 in the Article 58. Therefore, it would be a cost not attributable to the obligation to inform the consumer, but it would be attributable to the obligations of food safety and control of the Common Fisheries Policy.

But besides, the pelagic species, tuna, sardine, anchovy, mackerel and herring represent the greatest volume and value of Galician and European production of preserved products. Canned tuna dominates this production, representing for 60-70 % of the total production volume of preserved products. For its part, the production of canned products of mussel is 5% of the volume and about 8% of the value of the canneries production. Therefore for companies, the relative cost of provinding information to the consumer in labelling of prepared and canned products of mussel (indication of origin country) will be negligible. Except for those companies specialized in mussel, which are traditional and are oriented to differentiated quality linked to origin, so this cost will not affect these companies because they are already applying it.

Furthermore, the information which is required to be transferred to the consumer in the labelling of canned and processed products of mussels, this is, the indication of the origin country, is a currently established obligation that not force companies to incur new costs.

Therefore, and in conclusion, the information obligation will not increase the costs, and it would not require increased monitoring by public authorities to avoid possible frauds.

2020 Social and Territorial Cohesion

Galicia, in the outline of the EU, is an area particularly dependent on the sea. The mussel farming, a green aquaculture, shapes a strategic sector in the local economy of Galicia. "Xunta de Galicia" (Regional governement) says that the mussel sector in Galicia generates more than 30,000 jobs, including those that are induced in several areas: in the companies to which the mussel is intended (processing companies, cooking companies of shellfish, canning companies, shellfish purification companies, centres of freezing and pasteurization of shellfish...) as well as companies supplying industry (shipyards, ropeyards, boilermakers, machinery manufacturers...) as well as companies supplying industry (shipyards, ropeyards, boilermakers, machinery manufacturers...) and supporting and auxiliary activities such as transport, research, training and monitoring of the marine environment , etcetera.

In Galicia it joins to the economic importance of the mussel industry, its social value, since in many coastal municipalities this industry has the capacity to expand its socio-economic benefits among broad parts of the population, becoming a mechanism of distribution and sharing of wealth in the local level.

However, mussel cultivated in the EU, mainly the Galician Mussel, which is intended for processing and preserved, will be defenceless against the prepared or preserved products which omit their origin and which will take advantage of the prestige of EU products. And these products will flood the markets, as is happening.

A consumer without information and an unfair market will have as first consequence the deterioration of the processing and canning local industry which processes local products (Denmark case), with impact on employment. And this in turn will impact negatively on the producing and catching primary sector. It will jeopardize the future of thousands of families and businesses that elaborate fishery and aquaculture products, and which generate local employment. This will lead to the impoverishment of large European coastal areas.

It would be a measure with contrary consequences to social and territorial cohesion and for employment. Issues that are part of the inclusive economy that posits the Europe 2020 Strategy.

CONCLUSIONS

The cases of fraud and mis-labelling of fishery and aquaculture products placed on the European market in the various presentations, including processed and preserved products, are evident in the EU legislation, which urges for the application of techniques "*in order to deter operators from falsely labelling catches*".

The EU legislation does not contain the obligation to inform consumers of the specie and the origin of the processed or canned products of mussel.

From 13.12.2014, consumers of mussel products will be legally deceived, because, they will buy and consume processed and canned products that hide their origin, trusting in the prestige of European raw materials and of the European canned products.

The Article 1 of the Regulation (EU) 1169/2011 sets out the following objectives:

* the assurance of a high level of consumer protection in relation to food information.
* ensuring the smooth functioning of the internal market.
* guarantee the right of consumers to information.

Objectives that will not be achieved in the case of processed and canned products of mussel, unless the EU legislation will be amended.

Proposed amendment of legal provisions.

The European Commission has the power to propose amendments for the modification of the relevant provisions of the Union, within the reports established by Regulation (EU) 1169/2011.

Therefore, we propose and submit for consideration:

A) Amendment of the Commission Implementing Regulation (EU) 404/2011:

1) paragraph 12 of Article 67 is replaced by the following:

> 12. The information listed in points (a) to (h) of Article 58(5) of the Control Regulation shall not apply to fisheries and aquaculture

products falling under Tariff headings 1604 and 1605 of the Combined Nomenclature, excluding the products of subheading 160553 [mussels (*Mytilus* spp., *Perna* spp.)] and 16055900 [other]." [14]

2) paragraph 5 of Article 68 is replaced by the following:

"5. This Article shall not apply to fisheries and aquaculture products falling under Tariff headings 1604 and 1605 of the Combined Nomenclature, excluding the products of subheading 160553 [mussels (*Mytilus* spp., *Perna* spp.)] and 16055900 [other]." [14]

B) Amendment of the Paragraph 1 of the Article 35 of the Regulation (EU) 1379/2013:

"1. Without prejudice to Regulation (EU) No 1169/2011, fishery and aquaculture products referred to in points (a), (b), (c) and (e) of Annex I to this Regulation and excluding the products of subheading 160553 [mussels (*Mytilus* spp., *Perna* spp.)] and 16055900 [other], which are marketed within the Union, irrespective of their origin or of their marketing method, may be offered for sale to the final consumer or to a mass caterer only if appropriate marking or labelling indicates:" [14]

Galicia, April 28, 2014.

[14] Heading 1605 includes also frozen mussels which have undergone heat treatment that is sufficient to bring about the coagulation of their proteins, excluded from Chapter 3. [Explanatory notes to the Combined Nomenclature of the European Union (2011/C 137/01); DOUE 6.5.2011].

Within subheading 16055900 [other], they are included other species of the taxonomic family Mytilidae not belonging to the genera: *Mytilus* or *Perna* [Note of the subheading 2, of the Chaper 16, Commission Implementing Regulation (EU) No 1001/2013, of 4 October 2013, amending Annex I to Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff].

THE FEDERATION OF BAKERS

6 Catherine Street London WC2B 5JW
Telephone: 020 7420 7190 Fax: 020 7379 0542
info@bakersfederation.org.uk www.bakersfederation.org.uk

Director: Gordon Polson

Country of Origin Labelling (COOL)

The Issue: The country of origin (COOL) for ingredients that are more than 50% may need to be declared. This proposal is being researched by consultants for the European Commission with a view being taken by the Commission and proposals put forward before the end of 2014. (It is one of several proposals regarding COOL being considered by the Commission.)

For bakeries this means that the COOL of flour would have to be declared.

UK Perspective: Flour used in the UK is milled in the UK, with a few minor exceptions. So the last place of substantial transformation is the UK. The wheat, or other cereals, used to mill the flour would typically be from the UK, a number of European countries and Canada. However it is assumed that to label flour milled in the UK as UK flour would not meet the expectations of COOL so the origin of the wheat would have to be established and labelled.

Consumer Perspective:

- What is the value to the consumer? Bread is a staple commodity and COOL for flour would not enhance its value.
- Voluntary schemes exist at a national level (Red Tractor) and individual company/retailer level, although this had to be withdrawn when there was a poor harvest.
- Labelling could create an issue in that if it drove a requirement for UK wheat we are not sure if there would always be sufficient availability for all manufacturers to source this.

Complexity at Mills:

- Wheat is blended, processed and sold on the basis of its inherent quality specifications. Blending different qualities is essential to the flour milling process: the miller buys, store, blends and mills different types of traced wheat of different qualities. Harvest conditions (climate, diseases, etc.) are likely to have an impact on quality and lead to changes in the origin of sourcing.
- Milling is a continuous process and it would add complexity if flours had to be separated out based on their country of origin make up.
- Extra storage capacity required to store flours based on country of origin as well as performance/grist requirements.
- If labelling increased demand for UK/EU wheats, this could lead to price impacts in the market.
- Wheat grist is changed, often at quite short notice due to wheat quality delivered to mill and availability. A practical example is one baker having moved from 2 to 4 to 3 wheat grists within the last year, most recently at a weeks notice.

- Different flour suppliers use different grists to meet the same flour specification which may be used to make the same bread product at the bakery.

Complexity at Bakeries:

- Flour is delivered in bulk and stored in silos and there is insufficient capacity to allow a silo to empty if the next delivery has a different country of origin blend; if added on top it would not be possible to track the position of the new grist within the manufacturing process.
- Packaging changes take time and cost money; COOL would substantially increase the number of changes required and increase our packaging waste and write offs.
- We do not have the storage capacity to hold packaging with different COOL options so this could also lead to product waste if the flour country of origin changes and correct packaging is not available.
- Number of product specifications is huge due to own and customer formats and slicing variances of the same loaf. A change becomes a huge administrative task.
- Customers often resist specification updates. They don't have the time to deal with the administration implications, packaging changes and specification updates. Also each of these steps has to be trialled and signed off which can take months.

What could we do?

To avoid cost and complexity the only practical outcome would be to label 'Flour sourced from a blend of EU and non-EU wheats' which is not informative for the consumer and underplays the potential UK content of the wheat grist. A lot of time money and effort would have been spent to give a labelling outcome which does not help the consumer.

Conclusion

It is suggested that COOL for wheat flour in bread does not add usefully to the information available to consumers.

S F I R
SOCIETA'
FONDIARIA
INDUSTRIALE
ROMAGNOLA

SFIR S.p.A.
Capitale Sociale
€ 7.090.257,96

Sede Sociale
47521 Cesena (FC)
Via Benedetto Croce, 7
Tel. 0547/360411
Telefax 0547/25962

Cod. Fisc. 00304660376
Part. IVA 01672790407

Reg. Imp. Forlì - Cesena
n° 00304660376

R.E.A. n° 73708

www.sfir.it
www.notadolce.it

Cesena, 13th May 2014

Dear Sirs,

We're writing you on behalf of SFIR GROUP, a group company with headquarters in Cesena which has been working in the sugar sector for over 50 years. After the 2007 CMO reform, the group ceased the production of sugar from beet in the EU and invested in the sector of raw cane sugar refining, setting up a new production site in Brindisi (South of Italy) with a capacity of more than 300,000 tons per year.

More than 130 Mio Euros have been invested in the creation of the Brindisi Refinery, a plant which now covers nearly 40% of the entire Italian production (approx. 800.000 Tons of white sugar with a total national consumption of more than 1,6 Million Tons).

We are aware that the Commission is collecting information to submit a report to the European Parliament and the Council on the feasibility of extending the mandatory country of origin labelling (COOL) to certain food products. In this regard, we kindly ask you to arrange a meeting with us in order to take part in the interviews you are carrying out and have the opportunity to explain our position on the matter. Indeed, we firmly believe that, should any form of mandatory COOL for sugar be implemented, this would entail a serious loss in the cane refining sector competitiveness while greatly damaging its contribution to a balanced EU sugar market, food security and economic growth in the EU.

We look forward to hearing from you on the possibility to take part in the survey, meanwhile please find attached the relevant remarks made by ESRA, the European Sugar Refineries Association, which mirror the position of SFIR RAFFINERIA DI BRINDISI.

Best regards,

S.F.I.R. S.P.A.
Società Fondiaria Industriale Romagnola
Via B.Croce, 7 - 47521 CESENA (Fc)
Tel. 0547 360411 - Fax 0547 25962
Cod.Fisc. 00304660376
P.Iva 01672790407

EUROPEAN FEDERATION OF THE TRADE IN DRIED FRUIT & EDIBLE NUTS • PROCESSED FRUIT & VEGETABLES • PROCESSED FISHERY PRODUCTS • SPICES • HONEY

Agra CEAS Consulting Ltd
Bureau Européen de Recherches
20-22 rue du Commerce
1000, Brussels
Belgium

30 May 2014

FRUCOM contribution to the study on the mandatory indication of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food

Dear Dr Maria Christodoulou,

FRUCOM is a European Federation representing the interests of European traders of a wide range of foodstuffs amongst others dried fruit, edible nuts, canned and frozen fishery products processed in third countries (not in the EU), and canned fruit & vegetables processed in third countries (not in the EU). EU production levels of dried fruit, processed edible nuts, processed fishery products, and canned fruit and vegetables are not sufficient to meet consumer demand. Member States rely on the import of such products from third countries.

FRUCOM members would support the introduction of rules for origin indication only if they remain voluntary, and are not made mandatory. Our members strongly believe that a mandatory system would result in an unjustifiable burden on the food supply chain, and would require additional costly administrative and logistical resources. Whilst storing products, food business operators would have to make sure that the same products with different origins would not be mixed to ensure their traceability. Eventually, these increased costs would result in a price increase for the final product bought by consumers. It should be up to a food business operator to decide whether or not to highlight the origin of its products if he assesses that it is feasible and that the consumer would be ready to pay the additional costs.

Our members believe that there are no real benefits for consumers to know the exact origin of FRUCOM products. All the imported foods are subject to strict controls (at different levels of the food chain) and must comply with EU standards. The origin of a product does not guarantee a higher quality in terms of food safety nor in terms of marketing standards. Origin indication is an easy tool to support protectionist reactions which might confuse EU consumers on the quality of the product they buy.

Specific remarks about Dried fruit and processed nuts:

1. It is a regular practice that imported dried fruit and nuts are mixed and packaged and sometimes further altered (roasting, salting, blanching, sliced or cut) in the EU. For some categories of products, importers switch supplying country during the year, from one season to another in relation to market and seasonal availability of products. A mandatory origin indication would no longer give them such flexibility.
2. In most cases, all the labelling information is pre-printed directly on the packaging. Printing new packaging material can take up to two month. A mandatory origin indication would not allow importers to pre-order packaging material in big quantities in advance to keep the costs down of the final product.

FRUCOM AISBL • RUE DE TRÈVES 49-51, BOX 14 • B - 1040 BRUSSELS • BELGIUM
EU REGISTER OF INTEREST REPRESENTATIVES (ETI): 40306802522-39
T: +32 2 231 06 38 • F: +32 2 732 67 66 • EMAIL: INFO@FRUCOM.EU • WWW.FRUCOM.EU

Product origins vary during the year, which would require constant modifications of the labelling and this could cause supply delays to their customers.

3. For mixes, we would like to point out the difficulties of indicating the country of origin of all components:

- Packages of tree nut mixes intended to be sold to the consumer often have a smaller size than the ones used for fresh fruit and vegetable mixes and hardly exceed 500 grams. Consequently, the space available on labels to indicate the origin of the various products is very limited compared to the one available for standard fresh fruit and vegetable.
- Tree nut mixes are often sold in several Member States and in multilingual packages, sometimes reaching up to 15 languages. As a result, in the case of tree nut mixes composed of 5 types of tree nuts sold in a package labelled in 15 languages, 75 additional items should be added on the label to conform to the rules, which proves impossible to do in practice especially if the name of the country has to be indicated in full.
- For some specific mixes of tree nuts, the country of origin of one or more types of tree nuts composing the mix might differ. This would lead to the necessity of regularly re-labelling mixes, which will create substantial additional costs for operators.

Specific remarks about canned fruit and vegetables:

Canned fruit and vegetables imported by our members are processed in third countries. All the ingredients used do not always originate from the processing countries. Indication of origin on the labelling will put additional pressure on importer to check the traceability of each ingredients used in the processed product. In certain circumstances this is very difficult to achieve.

Specific remarks about Fishery products (CN CODE 16):

1. **There are already many rules in place for fishery products on different kinds of origin indication. Additional requirements on origin labelling would further confuse consumers.**
   - Under Regulation 1169/2011 it is indicated that the basis for the rules of origin will be the Customs Code and its articles on the non-preferential rules. However under this legislation the origin can change with any significant change of state.
   - Furthermore, Council Regulation (EEC) No 2913/92 contains different categories of fish products:
     - Chapter 03 “Fish (fresh and refrigerated fish, fillets, frozen fish, surimi paste), molluscs and other aquatic invertebrates.
     - Chapter 16 “Preparations of meat, of fish or of crustaceans, molluscs or other other aquatic invertebrates” which includes for example fillets in breadcrumbs, surimi sticks, canned fish etc.
   - Nowadays labels contain among other elements a reference to whether it is “caught” or “farmed”, the FAO fishing area for wild products or the country where it was farmed. Nevertheless, there is a difference between the origin of the fish depending on the fisheries control Regulation (the catch area), the indication of the last country of manipulation with the health mark, the origin established based on the Customs code, and the country of processing.

     E.g. : Mackerel can be caught in NE Atlantic, but then it will be filleted and cooked in China, its origin then becomes Chinese for customs but remains NE Atlantic for fish labelling and traceability.

2. There is no simple and standard rule of origin for identifying the “nationality” of a product under the Customs rules for origin labelling. Regarding non-preferential rules of origin, there are two basic concepts to determine the origin of goods namely “wholly obtained” products and products having undergone a "last substantial transformation".

We thank you for giving to our contribution the appropriate consideration.

Sincerely,

Cristina Moser
FRUCOM Secretary General
cmoser@frucom.eu
Tel direct: +32 (0)2 230 03 33

FRUCOM officially represents European traders, importers, agents, brokers and industrial operators in a wide range of products including dried fruits and edible nuts. Founded in 1960, FRUCOM represents the common interests of more than 300 companies across the EU. Further information about the association can be found in our website www.frucom.eu.

FoodDrinkEurope statement on country of origin labelling

1. **The European food and drink industry has been applying country of origin labelling on products for many years as a voluntary practice, where feasible from an operational point of view and where there is a clear market demand/response.**
    - Voluntary quality schemes (e.g. PDO, PGI and TSG) are adding value to the processing and promoting the high quality of European food and drink products on a world-wide scale. In addition, voluntary initiatives have also been undertaken in order to meet particular consumer demand and indicate the country of production when such information would prove practical and useful to the market and to consumers.

2. **However, for most foods, it is neither practical nor desirable to apply origin labelling on a mandatory basis.** This is particularly the case for labelling the origin of ingredients of foods and single ingredient products from multiple sources.

   Indeed, the introduction of mandatory origin labelling requirements (additional to those already in place in the EU) will:
    a) **directly impact the packaging of many foods**, in many cases requiring constant adaptation of labels and underlying systems;
    b) **impact production processes,** including batch sizes, production line schedules and warehouses facilities;
    c) **reduce the current flexibility of food processors to differentiate sourcing**, negatively affecting availability, amongst others;
    d) **impact the access to the market of small and medium-sized producers**;
    e) **lead to additional administrative burden**;
    f) **create market shortages due to specific origin requirements from buyers**, leading to a direct increase in the price of raw materials;
    g) **lead to nationalisation/segregation of sourcing**, thereby creating new barriers to the EU Internal Market and global trade, potentially driving up raw material prices;
    h) **constitute a barrier to innovation**.

3. Depending on the nature of the food, **additional costs for producers may range up to 50%**, which would ultimately have an impact on consumer prices. The Commission report on the mandatory origin labelling of meat used as an ingredient in foods showed that **at price increases of less than 10%, consumer "willingness to pay" falls significantly, by 60-80%**. Origin only comes fifth in terms of consumers' purchasing priorities (price first, followed by taste/quality).

4. Unfortunately, all too often, consumers confuse origin labelling with quality or safety. **Suggesting to consumers that the origin of a foodstuff would imply a different – or even higher – level of food safety or quality would be both misleading to the consumer and undermine consumers' confidence in EU foodstuffs as well as in EU legislation**.

5. It is self-evident that consumers should not be misled about the nature and origin of the products they consume. The current legislative framework foresees that **origin labelling is mandatory where failure to indicate this might mislead the consumer as to the true country of origin or place of provenance of the food**. The new Regulation (EU) 1169/2011 emphasizes that this particularly applies *"if the information accompanying the food or the label as a whole would otherwise imply that the food has a different country of origin or place of provenance."*

6. The European food and drink industry is working hard every day to provide over 500 million consumers with safe, tasty, affordable food through its supply chains, turning raw materials into value-added, high-quality products sold across the EU and beyond. For the above reasons, **an extension of *mandatory* origin labelling would significantly disrupt economic activity along these supply chains**, to the detriment of producers, citizens and governments alike.

***

April 2013

Country of Origin Labelling (COOL)

EUPPA position statement

The European Potato Processors' Association (EUPPA), believes that labelling of the country of origin for the main ingredient potato (>50%) in our processed potato products, sold in the European Union should be kept voluntary. EUPPA is against a mandatory labelling of country of origin for processed potato products.
In any case, labelling of food products, voluntary or mandatory should be 100% reliable and accurate and not misleading to consumers.

Current reality – characteristics of EU potato processing industry

Most (>90%) potatoes used for processing in Europe are grown in the North-West corner of Europe. This area is in fact one main production area for potatoes grown for processing, e.g. to produce French fries and multiple potato specialties. This area is named HAFPAL to the main cities, limiting the area by drawing a line between them (Hamburg-Frankfurt-Paris-London). HAFPAL is often also named EU5, as it includes five European countries: The Netherlands, Belgium, France (north), Germany (north-west) and Great Britain (south-east).

Figure 1. HAFPAL: the main potato basin for processed potato products in Europe

Key characteristic of the HAFPAL area is numerous potato transport movements crossing the borders of the 5 European countries in this area, to supply the potato processing factories in the most efficient way. The numerous border crossing are due to the fact that the potato processing plants are often located relatively close to the country borders, while companies are contracting the majority of their potatoes with individual growers in a radius of on average 100 – 150 km from their factory. This rather limited transport radius is important to control costs and product quality, as potatoes can get bruised due to prolonged handling which increases defects in finished quality and wastage of valuable raw material.

EU consumption and processing potatoes

The total potato production in the 5 main potato producing countries (excluding seed and starch potatoes), over the last 7 years has been as follows:

Production	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Total (1000 ton)	**22.082**	**24.162**	**23.999**	**24.813**	**24.211**	**26.774**	**22.309**
Belgium	2.529	3.126	2.874	3.269	3.602	4.340	3.366
Germany	6.918	8.024	7.535	7.636	7.125	7.881	7.072
France	4.372	4.598	4.600	4.755	4.681	5.481	4.688
Netherlands	3.105	3.609	3.631	3.653	3.605	3.877	3.220
Great Britain	5.157	4.805	5.359	5.501	5.199	5.195	3.963

Table 1 - Source: *Agrimarkets, World Potato Markets*

Volumes for potato processing per country

The volumes of potatoes used for processing (excluding starch and crisp production, including flakes and granules) in the different countries have been approximately as follows over the last 2 years:

Belgium	3.450.000 tons
Germany	2.850.000 tons
France	1.150.000 tons
Great Britain	1.300.000 tons
The Netherlands	3.700.000 tons
Total	**12.100.000 tons**

Table 2 - Source: *EUPPA*

In order to process the above volumes into processed potato products in the most efficient way (in terms of time and costs) the overview below shows the numerous transport movements of potatoes between these countries. The numbers also clearly show that these 5 countries basically form one basin of potatoes for all European processors (creating level playing field).

	Potato transport into country vs. out of country (in 2011)					
Country (row is <u>in</u>, column is <u>out</u>)	**Belgium**	**France**	**Germany**	**Netherlands**	**United Kingdom**	**Grand Total IN**
Belgium		237.254	16.4170	213.827	7.225	**622.476**
France	177.656		2.780	8.893	5.082	**194.411**
Germany	35.833	108.340		125.425	2.650	**272.248**
Netherlands	515.710	111.580	816.134		41.049	**1.484.473**
United Kingdom	8.373	65.062	11.115	28.355		**112.905**
Grand Total OUT	**737.572**	**522.236**	**994.199**	**376.500**	**56.006**	**2.686.513**

Table 3 - Source: *GTIS (Global Trade Information Services)*

EU5 Potatoes moved around in this area

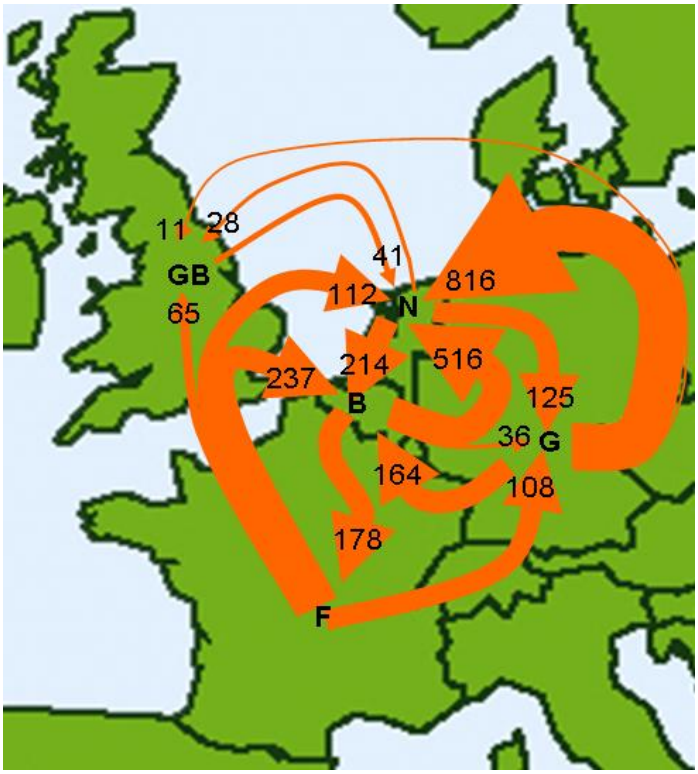


Figure 2 - Source: *GTIS (Global Trade Information Services)*

Arguments against mandatory labelling of country of origin

⇨ Reduced resource efficiency, increased energy use, more packaging, storage and wastage
⇨ Resulting in higher costs, increased consumer prices and reduced competitiveness internationally

Raw material sourcing

By their very nature, potatoes are a crop subject to fluctuations, and their supply highly depends on climate, geography, quality and prices. If due to climatic circumstances the supply of potatoes in one country/ region is low this will automatically lead to a higher demand for potatoes in other countries, and necessitates flexible alternative sourcing from other countries. Furthermore, potatoes are supplied year round to the processors, and early potatoes generally come from other growing regions than ware potatoes. Next to this specific labels (quality specifications) may require specific potato varieties, which are grown best in certain regions because of preferred soil types. These varieties might therefore be optimally grown in regions in different countries to spread risks and ensure sufficient supply.

Transport of raw materials

Mandatory food labelling would strongly increase the transport involved because factories cannot take the most sustainable solution and have to accept less sustainable routes to get the potatoes with the needed quality to their factories. This will not lead to a reduction of km's but even to an increase depending the exact location of the factory and thus lead to increased transport costs.

Factories close to country borders will maybe use potatoes from the other side of the country to be able to label their own country as origin, while the potatoes from just across the border are closer but may result in consumers thinking they are less sustainable, while in fact this is not the case.

Planning, Processing and Packaging

In case of mandatory country of origin labelling, we add another degree of complexity in the optimal planning of raw materials for processing into our factories, which will reduce our resource efficiency. This either means accepting significant loss of efficiency in our factories by reducing run length per label, as potato lots need to be processed per country of origin to guarantee a reliable and accurate labelling. Most simple solution would be to allowed max. one country of origin on our packaging but this might not deliver the optimum blend to make the quality specification set for this specific label.

When having potatoes from two or more countries available, these can be packed in pre-printed packaging, this increases packaging materials and costs due to smaller volumes ordered per Stock Keeping Unit (SKU) and will reduce run length by needing multiple switch-overs of different foils on packaging machines.

Another option is to label the country of origin by printing this on pack during production, right after packing. This means we need to program multiple printer settings per label, which doubles or triples # of SKU, adds complexity, reduces line rates and increases the chance on mistakes. This will again lead to reduced resource efficiency, higher energy use, more wastage and require more space for storing the increased # of SKUs. As a result this will add production costs for equal product quality without adding any real value.

For specific potato specialties and formed products, made from small potatoes and/or potatoes graded out of the fry lines, and for potato flakes this will likely result in labelling of all 5 EU countries, adding more confusion to consumers than adding clarity in labelling. Also for these product groups the different lots of potatoes, coming from multiple farmers in multiple countries can be traced back in case needed.
Some factories are dedicated to specific types of products, and only use graded potatoes coming from fries factories. Graded potatoes should be processed quite very shortly after sorting for quality reasons. Mandatory country of origin labeling will create very small batches and waste.

Storage & Distribution of finished products
Being bound to a mandatory country of origin labelling would mean that potato processors will have to produce and store the same type of product in the same packing with different countries of origin labelling as we expect customers to require only one country of origin. In other cases, we need more storage capacity as a result of increased SKUs, requiring separate storage places in our cold store. This will increase not only the costs of production and packaging, but also the energy consumption during processing, storage and distribution of the final products. We strongly believe that mandatory labelling would bring only negative environmental effects to our industry and society as a whole.

Consumer perspective and impact on food safety

The introduction of a mandatory country of origin labelling serves no food safety or public health purpose: the introduction of the General Food Law and several European Regulations guarantee food safety for the European consumer. The existing labelling requirements on packed processed potato products already provide the necessary information relevant to food safety and public health. Full traceability of products is part of the quality systems in place in the companies. A country of origin labelling is not the same as traceability and has nothing to do with food safety or public health.

- Consumers generally may perceive local food as more trusted, meaning that it is processed in their own country made from locally grown raw materials, but this food is not necessarily more safe to eat. Food safety requirements are equal throughout Europe, where potato processors in all countries need to comply with the General Food Law (GFL) and work according mandatory HACPP principles.

- Traceability of food is a key requirement within the GFL, mandatory labelling of country of origin does not improve the accuracy nor the speed of traceability. Most potato processors have highly sophisticated automated systems in place, which enable them to trace one step back and one step forward in their supply chain, based on the lot code of production printed on each packaging unit. The country of origin of a specific lot of potatoes can easily be identified in case of an incident, as even the specific farmer(s), delivering the lot(s) of potatoes are identified during tracing this lot code.

- For processed potato products, in many cases multiple country of origin will need to be labelled on pack, as often a few lots of potatoes are blended into a specific production run for one SKU. Different countries of origin labelled on a bag of product might just add confusion for consumers.

- Consumers will be confronted with strong price increases, while consumer choice should include the right not to have extra costs imposed on them relating to other consumer's preferences. Mandatory country of origin labelling would impose an extra cost on all consumers, increasing the costs of food.

- Mandatory country of origin labelling may also have a negative impact on imports, reducing the range in product selection available for the consumer's choice.

- Today's consumer want to live in a sustainable world under sustainable conditions with care of the food manufacturers for their environment. Mandatory country of origin policy has a negative impact on the environment as this will increase packaging material and lead to more wastage of food.

Competitiveness of the sector

The level playing field between producers could be influenced negatively, because producers located in a country which is bigger in surface have an advantage above producers in a country with a smaller surface. Producers with factories located close to country borders, which historically are using supply from farmers from both side of the border (two different countries) will face strong negative effects due to mandatory country of origin labelling.

Country of origin labelling is used as a simple way to discriminate against certain imports. Introducing such a policy by the EU would be completely against the basic rules of the European Union," free movement of people and goods within the EU".

Countries that have a mandatory country of origin labelling for packaged and multi – ingredient foods impose a commercial imperative on manufactures and retailers to use domestic suppliers to reduce the costs of label changes, This reduces competition and a level playing field.

Cost perspective of mandatory COOL

Based on our current reality, summarized in the above tables and maps, it becomes clear that mandatory labelling of the country of origin for the potatoes in the finished product, will lead to major cost increase for producers. As a result, cost increase for consumers will also be inevitable. All possible transport movements of potatoes, resulting in different stock keeping units (SKU's), with possibly different packaging labels, to show the correct country of origin, have to be foreseen by the producer.

Apart from the additional costs for producers and the negative environmental effects, mandatory country of origin labelling for single food components will bring additional costs of verification and auditing. In multi- component potato products this will mean verification and auditing of the source of each ingredient in the food product. To maintain economic viability, manufacturers and retailers will pass

these additional costs to consumers. Voluntary provision of country of origin labelling does not attract these additional costs.

The cost increase, which mandatory country of origin labelling would bring consumers, industry and government far outweighs the benefits this measure would bring. Although no detailed study has been done on the cost increase for processed potato products, surveys on other food products indicate that this could mean an increase of cost prices with 10-15 eurocents per kg product. Depending on the type of product, this means an increase of 10-15% of the retail price. Voluntary use of the country of origin labelling, based on specific consumer interest, delivers the same benefits without imposing additional costs for all consumers.

European Sugar Refineries Association
A Rue Defacqz 52, 1050 Brussels, Belgium
T +32 (0)2 53686 62
E secretariat@sugarrefineries.eu
W sugarrefineries.eu

Brussels, April 2014

ESRA position on
Mandatory Country of Origin Labelling (COOL)

Background

The Commission is in the process of collecting information to submit a report to the European Parliament and the Council on the feasibility of extending the mandatory country of origin labelling (COOL) to certain food products. Based on the conclusions of the report, the Commission may submit proposals to modify the relevant provisions or may take new initiatives, where appropriate, on a sectorial basis. Single ingredient products and ingredients representing over 50% of a food also fall within the scope of the assessment and, as such, any possible extension of a mandatory COOL to these will also affect sugar.

However, ESRA – The European Sugar Refineries Association – firmly considers that should any form of mandatory COOL for sugar be implemented, this would entail a serious loss in the cane refining sector competitiveness and greatly damage its contribution towards achieving a balanced EU sugar market, food security and economic growth in the EU.

Impact on the sugar refining industry

Refiners are against the implementation of any form of mandatory COOL for sugar, since this would entail adverse implications along the entire supply and value chain as well as negatively impact suppliers, refiners, sugar users and consumers.

- **Supply base and sourcing:** EU cane sugar refiners solely process cane sugar imported from third non-EU countries that have preferential access to the EU market, currently accounting for approximately 15% to 20% of the sugar sold in the EU market. Origins of EU raw cane sugar imports are numerous and vary by company and year to year according to world market conditions, crop yields, prices, logistic constrains and seasonal availability. With the introduction of a mandatory COOL, EU refiners would no longer have the flexibility to source from different origins according to availability, price and quality.
- **Storage and refining process:** All raw sugar imported from non-EU countries is stockpiled together in the same silos or warehouses and refineries refine it simultaneously in a continuous process that cannot be interrupted to separate sugar batches. In addition, once refined no segregation of white sugar occurs, nor is it technically possible to chemically differentiate it according to origin. As a consequence, a mandatory COOL for sugar would require entirely new storage facilities, silos, bulk handling processes and transport methods differentiating sugar origins. Processes would have to be re-organized and multiplied according to the number of origins treated, thus undermining efficiency and productivity.
- **Packaging and environment:** Compulsory COOL would directly affect packaging, which would need constant adaptation of labels and related systems according to sugar origin. Moreover, a mandatory COOL would make any type of product recall considerably difficult and increase the environmental footprint of cane sugar refiners in Europe, as a consequence of the additional waste and emissions produced for the segregated storage, production lines, packaging and transport required.
- **Compliance and supervision:** Like all food processors, sugar refiners in the EU comply with food safety provisions and traceability standard procedures that are subject to controls of external auditors. Nevertheless, such procedures do not require the same conditions as a hypothetical compulsory COOL. In particular, traceability does not require segregation of raw material according to origin along the supply or processing chain whatsoever. As a consequence, should any form of compulsory COOL be

implemented, supplementary supervision and reporting activities should be put in place to prove compliance. This could only be done through paperwork as it is not possible to chemically distinguish white sugar according to origin, and would therefore cause an increase in red tape, administrative costs and thus a loss in competitiveness of the sugar refining sector.

- **Marketing of the final product:** Sugar being legally a harmonised and standardised product for which origin is of no consequence, mandatory COOL would be in any case of little informative value for consumers. Even worse, compulsory indication of origin could prove itself misleading considering that consumers may attribute features of higher or lower quality to the product according to its source, a situation that does not reflect the reality of a standardised product like white sugar. Additionally, given the Customs Code regulations currently in force, all the sugar refined by EU companies is qualified as a non-EU originating product despite being transformed within the Union by local refiners. As refining does not confer origin, the introduction of a compulsory COOL could then be misinterpreted by consumers and cause economic, price and marketing discrimination of the entire refining sector.
- **EU trade:** A mandatory indication of origin would act as a non-tariff barrier and alter or reduce significantly EU trade flows. This would happen because EU refiners would most likely focus on decreasing the number of origins of their raw material to compensate the increase of costs directly linked to the implementation of a compulsory COOL. In turn, this would also have consequential adverse economic and social impacts on cane sugar farmers in developing or least-developed countries.

Conclusion

Considering all the above, ESRA strongly believes that a mandatory COOL for sugar is not technically feasible or economically viable. Notably, due to the specificities of sugar as a staple food, the implementation of any type of mandatory COOL will:

1. Significantly reduce flexibility for sourcing raw cane sugar,
2. Multiply transport, storage facilities, processing and packaging lines,
3. Increase the industry environmental footprint,
4. Extend the need for supervision and reporting activities.

This will be the case irrespective of the application modalities of the compulsory COOL, whether it is based on EU/non-EU origins, EU/third country origins, labelling indicating the Member State or third country and labelling indicating other geographical entities as place of provenance.

In addition, when concerning a standardised product like white sugar for which origin has no qualitative impact whatsoever, a mandatory indication of origin will not provide any specific added-value information to consumers. In the worst case scenario it could even proof itself misleading if considered erroneously as an indication of product quality, which is not the case for white sugar.

Not only consumers would not benefit from a compulsory indication of origin for sugar but will certainly bear a share of the increased refiners' costs, making sugar prices raise accordingly. This will produce a negative economic impact on the purchase power and consumption level, particularly in low income countries already affected by a severe economic crisis.

For all the reasons listed above, ESRA requests that COOL rules remain totally voluntary for sugar, as it is currently the case. Compulsory indication of origin for sugar would fail to provide any added value information about the product and would cause a substantial increase of costs as well as a loss of competitiveness, not only for the cane refining sector but for the EU market as a whole.

11 April 2014

Ms Maria Christodoulou
Agra CEAS Consulting Ltd
20 - 22 Rue du Commerce
1000 Brussels
BELGIUM

Email: Maria.Christodoulou@ceasc.com

ref: NJS/EL/EC20ORIGIN

Dear Ms Christodoulou,

ORIGIN LABELLING: PROBLEMS THAT ARE UNIQUE TO THE WHISKY SECTOR

Executive Summary

- There have long been difficulties in the whisky sector through some operators failing to disclose country of origin of the final product.
- Consumer surveys reveal that omission of an origin declaration in the whisky sector misleads consumers and results in unfair competition.
- The problems do not affect any other spirit in the EU. We strongly support the spiritsEUROPE position that additional origin information for other spirits is inappropriate
- EU law has proved to be insufficient to address the concerns in the whisky sector.
- The current focus on origin labelling provides an opportunity to highlight whisky's difficulties so a solution can be found.

As you may recall, the Scotch Whisky Association was in contact with your colleagues last year in the context of your report on article 26.3 of Regulation 1169/2011. Your current work, in relation to the application of article 26.5 of 1169 provides a more specific opportunity to highlight the concerns regarding origin labelling for whiskies sold in the EU. We very much hope your report will reflect the difficulties in our sector, albeit that we recognise the route to resolving the difficulties remains to be determined. (That said, as you may be aware, article 28.2 of the Spirit Drinks Regulation (110/2008) specifically permits the Commission to resolve practical difficulties, such as arise from the omission of a country of origin in particular cases.)

Our colleagues in spiritsEUROPE have returned your questionnaire and are encouraging individual companies and other trade associations that have an interest also to do so directly. We strongly support the spiritsEUROPE position that mandatory disclosure of the origin of ingredients is inappropriate for all the reasons set out in their response to the questionnaire.

In the whisky case, however, and as is set out in the spiritsEUROPE response, we have a complementary position. While the spirits sector in general is not seeking additional rules on

origin, since there are no practical difficulties that need to be resolved, and no fraud regarding the origin of ingredients, in the whisky sector alone we have long sought a regulatory solution to a difficulty with the absence of a country of origin statement on certain whiskies.

The whisky sector is specific in that nearly all whiskies sold on the market in Europe are protected by GIs, whether from the EU, i.e. Scotch Whisky, Irish Whiskey, Spanish Whisky, Whisky Breton, or 3rd countries, i.e such as Canadian Whisky, Bourbon Whisky or Tennessee Whisky. In addition, the Japanese whisky industry does not have a GI but still proudly communicates the origin of the product to consumers. Thus, in contrast to all other sectors of the spirits industry, indication of the final product's origin is very widespread on the market. Those that do not disclose the origin of whisky invariably seek to take advantage of the reputation established by the above GIs. Hence our request that a declaration of origin of the final product should be made mandatory, in the name of consumer protection and fair competition.

Indeed, from our perspective, what makes sense for our industry is the protection of Geographical Indications (GIs). To the extent that our GIs are not determined by the origin of their ingredients but rather the place of manufacture, we believe the only relevant origin in our industry is that of the final product. It is vital for us that our GIs are protected; this is not achieved by mandatory disclosure of ingredients' origin, not least since this could undermine GIs.

I hope the following background information will provide you with sufficient detail to appreciate the extent of the problem and the need for a solution. Regrettably, while the Scotch Whisky Association can and does take legal action to remove problems where they arise, we can only address one issue at a time, new cases arise regularly and we are often advised by regulatory authorities in EU Member States that the reason they cannot take action is because there is no requirement for a mandatory country of origin declaration on whisky.

1. General Background

Most whisky in the EU (and worldwide) is sold under a geographical origin, i.e. Scotch Whisky, Irish Whiskey, Bourbon, etc. There are also lesser known whiskies that are also sold stressing their origin, i.e. whiskies from Spain, France (notably Brittany) and Sweden: in the UK, whisky is now also made in both Wales and England. All these products declare origin as part of their selling point. As they all already do so they would not be affected by a new requirement for all whisky to declare origin on the label.

However, there are also whiskies on sale in the EU that do not declare their origin. The country of origin of such whiskies is diverse but we have found them to be from places such as Brazil, Moldova, India and Mexico, i.e. countries that have no international reputation for the production of whisky. These brands of whisky do, however, invariably label their products in English (the language of the biggest whisky producing countries) and they will often use trade names, pictures or images which are consistent with coming from one of the traditional producing countries. In many countries where these spirits are sold the leading whiskies will be Scotch, Irish and American, which will often comprise over 80% of the market. The clear intention of producers that do not declare origin is to mislead consumers. On one occasion, when the producer was asked why he did not declare the true origin (he was selling Brazilian 'whisky'), he replied that if he did so, no-one would buy the product.

The SWA has taken legal action against such whiskies on the grounds that they are being 'passed off' as Scotch. However, such action is not always straightforward when no labelling blatantly suggesting Scottish origin is being used. A couple of case studies are set out below.

There is a further problem with many of these "whiskies" in that they come from third countries where locally produced whisky does not comply with the EU Spirit Drinks Regulation.

The absence of any indication of origin on the label makes it more difficult to ensure that whiskies sold in the EU meet the legal standards.

2. Existing Provisions of EU Law

The only requirement under EU law for the country of origin to be stated on the labelling of spirit drinks is found in Article 3.1 of the Food Labelling Directive 2000/13:

> "In accordance with Articles 4 to 17 and subject to the exceptions contained therein, indications of the following particulars alone shall be compulsory on the labelling of foodstuffs:
>
> (8) particulars of the place of origin or provenance where failure to give such particulars might mislead the consumer to a material degree as to the true origin or provenance of the foodstuff."

I am afraid that this subjective provision has proved to be of no value when it comes to persuading enforcement officials in the EU to take action. In the new food labelling Regulation, 1169/2011, article 26.2(a) provides a similar obligation:

> "2. Indication of the country of origin or place of provenance shall be mandatory:
>
> (a) where failure to indicate this might mislead the consumer as to the true country of origin or place of provenance of the food, in particular if the information accompanying the food or the label as a whole would otherwise imply that the food has a different country of origin or place of provenance".

While the intention is clear, we fear that, in the whisky sector, it will be no more compelling than the 2000/13 wording.

Separately, the preamble to the previous Spirit Drinks Regulation (1576/89) stated:

> "Whereas, although Directive 79/112/EC requires the printing of certain particulars on the labelling, it is somewhat lacking in clarity as regards the place of manufacture; whereas this concept is of particular importance in the sector of the drinks concerned owing to the fact that the consumer often makes an association between the drinks in question and the place of their manufacture; whereas the absence of such an indication may give the consumer the impression of a false origin; whereas this danger should be avoided by making it obligatory, in certain cases, to state the place of manufacture on the labelling."

Article 7.8 of Regulation 1576/89 provided that:

> "In accordance with the procedure laid down in Article 15, the Commission may determine the cases and/or the spirit drinks for which a reference to the place of manufacture and/or the origin and/or the source shall be compulsory, as well as the attendant rules."

No rules were introduced under Article 7.8, despite our attempts to have it made compulsory that the labels of all whiskies should indicate the origin. What was frustrating, when the Commission and the UK Government put forward this proposal on our behalf, was that the countries which opposed this measure at the time, mainly France and Italy, stated that the (subjective) provision found in the Labelling Directive was a sufficient protection for consumers. However, as you will see below, it was those same countries which refused to act when provided with evidence that the absence of indications of origin on certain whiskies was misleading consumers!

The new Spirit Drinks Regulation (110/2008) does not repeat the passages above from Regulation 1576/89, but it does include at Article 28.2 the following:

> "In accordance with the regulatory procedure referred to in Article 25 (2), measures shall be adopted, where appropriate, to resolve specific problems, such as by making it obligatory, in certain cases, to state the place of manufacture on the labelling to avoid misleading the consumer…"

While a requirement for country of origin labelling for whisky would appear capable of being introduced under this procedure, debate at EU level regarding origin labelling has concentrated recently almost uniquely on the new Regulation (1169/2011), in particular article 26. Given this focus, we believe it would be extremely useful if the problems in the whisky sector were recognised formally in your report.

3. Examples of Problems

Over the last 20 years or so we have found hundreds of small brands of whisky on sale in the EU, or imported into the EU, which do not state the country of origin on their labels. The problem has been particularly serious in France, Italy and Spain, although there have also been difficulties with Dutch and Belgian companies. I will give you two examples.

a. France – JOHN WOOD Blended Whisky

I attach a photograph of JOHN WOOD Blended Whisky, which was sold in France. We requested the enforcement authorities in France, namely the DGCCRF, to take action under French laws implementing Article 3.1 of the Labelling Directive referred to above, on the basis that consumers would be deceived as a result of a lack of any indication of origin. However, the DGCCRF declined to take action.

We therefore arranged for market research by Taylor Nelson Sofres to establish whether there was consumer deception. Sofres interviewed 1000 individuals over 18 years old and questioned the 823 who had consumed or bought alcoholic beverages during the previous year. Each interviewee was shown a life size colour photograph of JOHN WOOD Blended Whisky and was asked in what country or region the brand had been produced. 46% said Scotland, 13% said England, 8% said Ireland, 7% said the United States, 3% said France, 2% mentioned other countries and 21% said they did not know. Less than 1% of the interviewees answered Canada, which was the country of origin of JOHN WOOD Blended Whisky.

The interviewees were then asked how often they drank or bought whisky. From the answers to this question, Sofres calculated those who drank or bought whisky regularly were more likely to believe that JOHN WOOD was Scotch Whisky than occasional purchasers or drinkers. Of regular whisky drinkers 56% answered Scotland when questioned about the origin of JOHN WOOD Blended Whisky.

As the DGCCRF were still unwilling to take action about the labelling of this product, despite the evidence of deception, we were obliged to take legal proceedings, and eventually obtained an agreement with the producer under which it undertook to state the country of origin on its whisky labels in future.

b. Italy – GOLD CROWN Blended Whisky

I attach a photograph of GOLD CROWN Blended Whisky, which was sold in Italy. Similar research was carried out in Italy by DOXA, which interviewed 200 spirits consumers in Milan and Rome. The interviewees were handed a bottle of GOLD CROWN to study and were then asked in which country the brand had been produced. 54% answered Scotland,

21% answered England, 9% answered Ireland, and only 6% answered the USA, which was the true origin of the whisky in question.

Again, the Italian authorities declined to take action and we had to take legal proceedings to restrain the sale of this brand.

I can provide you with numerous other examples similar to the two mentioned above. In more recent years most of these products are blends of whiskies from a variety of countries. For example, one apparently contained a blend of American, European and Indian whiskies. As you may know most Indian 'whisky' is made from molasses, not cereals, and is not matured, i.e. it does not comply with the EU definition.

4. The EU Approach

Whereas the EU had previously taken the view that the Community is a single market and that compulsory country of origin indications are undesirable as they might lead consumers to purchase goods produced in their own countries, the climate has changed. Regulation 1576/89 recognised that, particularly with spirit drinks, where consumers associate certain products with certain countries, the absence of an indication of origin may result in consumer deception. Also, more and more sectors are introducing rules requiring country of origin labelling because that information is of particular interest to consumers in those sectors. Specific rules already apply in sectors such as meat, olive oil, wine and honey.

In the current discussions, article 26.5 requires the Commission to produce a report on possible origin labelling for a number of sectors and, to our minds anyway, there is sufficient scope to review the situation for whisky as being included in article 26.5(e), i.e. a “single ingredient product”.

While “single ingredient product” is not formally defined, in your report you are looking at a number of sectors which might be categorised as such. In the terms of reference (ToR) for the report these included, among others: peeled tomatoes; seed oils, popcorn and snack nuts, potato crisps; and tea. The report you are preparing will focus on sugar, vegetable oils and frozen potato fries. A brief review of ingredient lists for products in these various categories revealed that they often contain more than one ingredient, with the other ingredients having a discernible impact on taste. In the whisky sector, we would argue that we are at least as much a single ingredient product as most of these other sectors.

As you may be aware, the production of whisky involves, essentially, the distillation of a mash made from cereals and yeast, and the maturation of the resultant liquid for a period of at least 3 years. The distillate which emerges from the casks at the end of the maturation is whisky. Some of this is bottled as it is found in the cask, while more is diluted with water to bring it to its minimum alcoholic strength of 40% vol. In many cases, a tiny quantity (less than 0.1%) of plain caramel (E150a) is added to standardise the colour between the batches from differing casks. (Plain caramel has no flavouring properties.) Given that the water added is only for the purpose of bringing the product to its legal minimum alcoholic strength, and also given the difficulties in explaining this in a meaningful and simple way for consumers, we have always taken the view that a list of ingredients for whisky would be “whisky”, with, where appropriate, caramel for colour standardisation.

We hope therefore you will agree that whisky should be included within the scope of your study, at least insofar as referring in the final report to the fact that there are specific difficulties, as set out above, in our sector. (You will doubtless recall that, when the ToR for the report were first drafted, whisky was specifically mentioned as a single ingredient product. Sector-specific examples were, however, removed when the ToR were finalised.)

As we have previously mentioned, the problems in the whisky sector are unique. No other sector of the spirit drink market is so dominated by products with geographical indications (Scotch Whisky, Irish Whiskey, etc.). In addition, whisky is by far the EU's most dominant spirit: it is sold in all of the 28 Member States and is often the leading spirit (sometimes by a long way) in those countries. It is also exported around the world. In 2013, exports of Scotch Whisky amounted to more than €5 billion. In volume terms, Scotch Whisky sells over 100 million cases (each of 12 bottles) around the world each year.

Scotch Whisky is therefore a very significant presence on the market and, regrettably, there are many, less scrupulous, traders who seek to take advantage of the reputation which Scotch and other whiskies have developed. Given these circumstances, and the consumer protection difficulties which have arisen from the absence of a requirement to declare origin, we believe that, eventually, such a provision should be included in EU law. It is, however, unique to the whisky sector and, as the following section shows, is not necessary in any other area of the EU spirits industry.

5. The Situation for Other Spirits

We have held regular discussions with other associations in spiritsEUROPE on this issue. While the other major whisk(e)y producing Member States support our proposed country of origin requirement, concern has been expressed elsewhere due to a mistaken belief that a country of origin requirement for whisky could somehow either extend to other spirits or bring a requirement for raw material origin to be declared on all spirits. As is set out above, we strongly support the spiritsEUROPE position that disclosure of ingredients' origin is inappropriate, whether for whisky or any other spirit. Any such obligation to disclose this information would, as a consequence of the sourcing processes, cause serious difficulties for the EU spirits industry.

Furthermore we entirely understand that other spirits categories do not want or need compulsory product origin labelling on their products. We have always made it clear that our request relates only to whisky because there is a real problem with the labelling of whiskies. As there is no similar problem affecting other spirits categories, there is no need for any changes in their current labelling requirements.

However, we do not believe that such concerns should stand in the way of the provision we are seeking since it would help prevent (a) deception of consumers, and (b) considerable damage being done to the legitimate whisky industry. We are therefore extremely grateful that spiritsEUROPE, while rightly seeking to ensure no new origin labelling requirement (for ingredients or final product) is introduced for spirits generally, also recognises that there are unique circumstances which mean a separate set of considerations apply for whisky.

CONCLUSION

We very much hope that you and the Commission will agree there is a problem with whiskies on sale in the EU that do not declare their country of origin and that, ultimately, this could be resolved through the introduction of a requirement for origin to be declared. Such a declaration would ideally be as prominent and conspicuous as other mandatory labelling information.

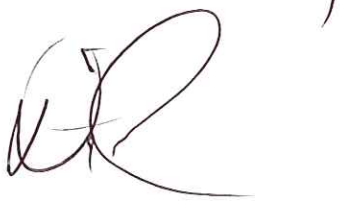
As indicated at the outset, such a requirement will only affect those producers that mislead consumers, often intentionally, through their failure to declare origin. It will have no impact on the large majority of whisky producers since they already declare origin. It will have no impact on other sectors of the spirits industry since they do not face problems in this area and consequently do not want or need mandatory country of origin information. The EU's major

trading partners in the whisky sector invariably label their whisky with their origins, and indeed countries like the USA already have compulsory origin labelling.

We therefore very much hope you will feel able to recognise the concerns / difficulties in our sector when you prepare your report, even it if is also clear that you are not proposing a change to 1169/2011 to try to resolve the problem. Your recognition that there is a consumer deception issue in our sector would be extremely helpful and allow us thereafter, along with the Commission, to establish how best to introduce a country of origin labelling requirement in our sector.

We shall look forward to hearing from you and would, of course be ready to provide any additional information you might find useful and / or to meet to discuss our concerns further.

Yours Sincerely



Nick Soper
Director of European Affairs

Enclosures.

CC: Mr Jesus Zorrilla, DG Agri
Ms Ersilia Moliterno, DG Agri
Mr Basil Mathioudakis, DG Sanco
Ms Alexandra Nikolakopoulou, DG Sanco
Ms Magdalena Haponiuk, DG Sanco
Mr Christophe Didion, DG Sanco
Mr Michael Erhart, DG Agri
Mr Georges Vassilakis, DG Agri
Mr Steve Pugh, DEFRA
Mr Brian Bibby, DEFRA
Mr Michael Talbot, DEFRA
Ms Anne Maréchal, AGRA CEAS

DA(14)3253:4 – JV/al

Brussels, 1st July 2014

COPA-COGECA'S CONTRIBUTION TO THE DG SANCO STUDY ON THE MANDATORY INDICATION OF THE COUNTRY OF ORIGIN OR PLACE OF PROVENANCE OF UNPROCESSED FOODS, SINGLE INGREDIENT PRODUCTS AND INGREDIENTS THAT REPRESENT MORE THAN 50% OF A FOOD

→ HORIZONTAL APPROACH

I. Introduction

On 25th October 2011, the European Parliament and Council adopted Regulation (EU) No 1169/2011 on the provision of food information to consumers.

Copa-Cogeca considers that the measures included in this new legislation represent a significant step towards more transparent and consistent information for consumers. We believe that the primary goal of food labelling is to provide consumers with coherent and transparent information in order to enable them to make informed choices.

We acknowledge that the origin of a product is becoming increasingly important to consumers and that this is a significant area where consumers can be misled.

We would like to stress that the origin of an agricultural product refers to the place where the product was harvested or the animal was reared, i.e. the **"place of farming"**. For the sake of transparency towards consumers, it is also of paramount importance that a clear distinction is drawn between indicating the place of farming and the definition of "country of origin", which refers to the place where the product underwent its last substantial modification. Of course, in some sectors, the latter term is also relevant and therefore information must also be provided. It is essential to carefully consider the particularities of different products if sector-specific legislation applies.

We acknowledge that Regulation 1169/2011 stipulates that the Commission shall submit a report to the European Parliament and Council regarding the mandatory indication of the country of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food. Nevertheless, Copa-Cogeca considers that the scope of these categories is very broad and covers very different agricultural products and foodstuffs.

Although the objective of the study is to target some specific products and reach general conclusions for each category, the broad scope of the categories implies that all agricultural and food products must be covered, in one way or another by the report. Therefore, Copa-Cogeca calls for the utmost caution if new origin labelling rules are defined for the horizontal categories analysed in the study. Exhaustive sectoral analyses are essential to consider the specific challenges posed by these rules for all product sectors.

If new horizontal labelling rules are defined for these categories without sectoral criteria in place, operators will face several problems and overlaps. On one hand, some sectors already covered by

Copa - Cogeca | European Farmers European Agri-Cooperatives
61, Rue de Trèves | B - 1040 Bruxelles | www.copa-cogeca.eu
EU Transparency Register Number | Copa 44856881231-49 | Cogeca 09586631237-74

vertical legislation will, due to the horizontal rules, be subject to overlaps if the legal framework is not harmonised on the basis of the sectoral provisions to ensure policy consistency. On the other hand, products without this vertical legislation will be subject to new origin labelling rules that, if defined, should consider the specificities from all sectors.

Following the previous arguments, **we believe that instead of horizontal categories, such as unprocessed foods or single ingredient products, origin labelling rules should be justified on a case per case basis, following a sectoral approach. As previously mentioned, different sectors have different specificities that must be taken into account**.

We acknowledge that the aim of this study is not to provide definitions for these categories. Nevertheless, Copa-Cogeca considers that this would be the first step towards reaching a clear conclusion.

The same article of the Regulation (26.5) also stipulates that the Commission shall submit a report regarding the mandatory indication of the country of origin or place of provenance of other products such as milk, milk used as ingredient and other kinds of meat. This means that there are already other sectoral studies ongoing, which take the particular nature of the sectors into account.

We would like to stress the importance of current vertical legislation on marketing and the quality of some EU commodities. Indeed, honey, fresh fruit and vegetables, unprocessed fish, olive oil, wine, eggs, beef and beef products and the unprocessed meat of pigs, sheep and poultry are already covered by specific vertical legislation. It is important to analyse whether the nature of certain products lends to mandatory origin labelling and what level of information should be provided. Certain elements, such as fluctuations on the market, availability, storage facilities or supply sources can vary and would therefore force operators to re-label and frequently change labels, depending on the type of product.

II. Consumer interest

Consumer demand for information on the provenance of the food they purchase is growing. Some countries provide voluntary information on the product's origin through farm assurance schemes where a national flag is used as a designation of origin.

As for general preferences for origin labelling, consumers consider that there is a gap between what they would like to see on the label and their understanding of current food labels, where the origin may be provided on a voluntary basis.

Concerning processed products, in order to render markets more transparent and to enable consumers to make informed choices, Copa-Cogeca requests that a clear distinction be drawn between the "place of farming", , and the country of origin, which refers to the last place where the product underwent substantial modification. For instance, in the case of a processed product such as orange juice (case study), origin labelling rules, if defined, should consider origin information relating to the provenance of the raw material (in this case the oranges).

It seems that there is less consumer interest in the categories referred to in the objectives of the study than for other commodities, such as meat and dairy. This interest in the origin of different products probably varies depending on the country. Nevertheless, Copa-Cogeca welcomes the discussion on origin labelling as a way to evaluate and potentially set legislative measures to render markets more transparent and enable consumers to make informed choices. Before considering any new legislative measures, a balance must be struck between the need to reliably inform consumers on the one hand and the financial repercussions of changing the labelling system and its possible benefits on the other.

III. Competitiveness, supply chain characteristics and the impact on the internal market of the different scenarios proposed

Generally speaking, and taking into account that conclusions can vary depending on the sector, it is also vital to pay close attention to the different situations that exist across the EU. Indeed, certain factors, such as production systems, competitiveness, supply chain characteristics or technological developments can differ from one country to the next.

The different structure of supply chains across the EU must also be taken into account, with more vertically integrated or shorter supply chains where origin labelling at Member State level is more workable and longer supply chains where adaptations will be needed.

Copa-Cogeca advocates conducting a cost-benefit impact assessment before considering any new legislative measures, which should include assessing the possible impact of mandatory origin labelling provisions on the voluntary schemes already in place.

Copa-Cogeca considers that under scenario 1, i.e. maintaining the status quo and not introducing mandatory origin labelling rules origin information would not be systematically provided to consumers. Nevertheless, consumers who are willing to pay for this type of indication can do so where voluntary origin labelling schemes already exist.

As for the level of detail, mandatory origin labelling at EU/non-EU level would promote EU production standards. Furthermore, for sectors where raw materials are transported across borders and have different sources of origin, it would not be necessary to segregate production or change the labels in the case of a combination of suppliers. This would also have a positive impact on competition on the internal market.

On the other hand, this level of origin information is less meaningful for consumers compared to more detailed information provided by Member State origin labelling. This would also lead to reduced costs for operators and have a lower impact on consumer prices.

The third scenario at Member State level would guarantee that consumers could always make an informed choice. Such a system would lead to greater transparency for consumers and all along the supply chain. It would also contribute to avoid incorrect assumptions about origin due to identification marks, brands or packaging.

For sectors where the food supply chain is more integrated and therefore shorter, it may be easier to implement the MS approach. Nevertheless, depending on the country and sector, new traceability systems, additional storage facilities or increased transport costs may push up production costs, thus also causing an increase in consumer costs. Therefore, we welcome, as part of the Study, an evaluation of the consumer willingness to pay for additional origin information.

Regarding the cost of adapting sourcing practices, some countries and sectors depend on imports because of the seasonality/availability of products, and continually adapting labels would be challenging and costly for them.

*IV. Implementing provisions**

European products are characterised by their broad diversity and quality combined with tradition, know-how and high production standards that are unrivalled across the globe. In an increasingly competitive world, their competitive position has deteriorated compared to non-EU products, which do not have to meet these standards.

Copa-Cogeca considers that any new origin labelling rules should be justified on a case per case basis, following a sectoral approach. Different sectors have different specificities that must be taken into account. Copa-Cogeca supports a default mandatory EU/non-EU system that could promote the aforementioned quality,

tradition, know-how and high standards of European products. For sectors where it would be possible to have a greater level of detail or where this is technically feasible, we would support more detailed origin information on the label.

→ SECTOR-SPECIFIC CONCERNS

I. Rice

The sector is currently facing increasing competition from third countries and downward pressure on prices. This is putting the rice sector in the EU at risk. Indeed, the European production standards in terms of safety, the environment and health to which European producers adhere are stricter than those applied in countries which export to the EU. These production standards generate far higher production costs than those in third countries, which places European producers at a significant competitive disadvantage compared to imported produce.

Copa-Cogeca considers that it is important to guarantee clear information to consumers and to communicate on why the EU rice sector has considerably higher production costs than rice from third countries.

In addition, farmers and agri-cooperatives believe that consumers should be provided with information on the variety and properties of that variety, indicated on the label, so that they can make an informed choice.

In order to draw a clear distinction between European and imported products and to increase the value of local produce, Copa-Cogeca therefore believes that information on the place of farming (place of provenance), i.e. where the rice was harvested, at Member State level should become mandatory.

*II. Cereals/flour**

The cereals sector creates a certain degree of fluidity between the different markets in the food, feed and non-food sectors. Cereals production in Europe is considered as a bulk commodity and totals some 300 million tonnes, 66 million of which is for food purposes. The cost of origin labelling should only apply to produce for food production.

Stringent rules on contaminants, such as mycotoxins, amplify the seasonal variations of cereal production for food purposes. Enforcing mandatory origin labelling provisions may cause severe difficulties for manufacturers if they purchase ingredients from multiple sources, depending on factors such as availability or seasonal variations.

Mandatory origin labelling at Member State level could have an impact should the label have to differ depending on the market from which operators potentially source their goods. This may possibly add more financial or logistical difficulties. Origin labelling for food cereals would necessitate further investments into storage capacity in order to ensure that the products are well separated at the collection stage. This cost would not be levied on third countries such as the USA and Canada, as they are Federal States.

We also recognise that food manufacturers will switch and change their raw material supplier to satisfy production demand and quality standards for processed products.

National certification schemes that include the origin of raw materials already exist in the cereals sector. These specific schemes are rewarded by the market. Mandatory origin labelling would jeopardise the sustainability of this type of economic initiative.

For these reasons, Copa-Cogeca is in favour of EU/non-EU origin labelling only.

III. Fruit and vegetables

In the case of the fruit and vegetables sector, it is important to stress that Regulation (EU) No 1308/2013 establishing a common organisation of the markets in agricultural products, establishes requirements for marketing these products. It is stipulated that products that are intended to be sold fresh to the consumer may only be marketed if they are sound, fair and of marketable quality and if the Member State or third country where they come from is indicated.

Copa-Cogeca considers that mandatory origin labelling for all fruit and vegetables that are "processed" and fall under one of the categories of the study (unprocessed food, single ingredient products or ingredients that represent more than 50% of a food) becomes more complicated. In fact, a distinction should be drawn between the different product categories in order to assess the feasibility. For example in the case of salads, the following are possible:

- Single cut leaf salads (1 type of lettuce)
- Mixtures (mix of different types of salad: lettuce, rocket, iceberg lettuce, lollo rosso, lollo blond, oak leaf, romana, Batavia, frisé, radicchio, watercress, beetroot leaves, etc.)
- Meal salads – one or more types of lettuce with other vegetables and/or fruit, chicken, cheese, herbs, nuts, etc.

Copa-Cogeca acknowledges that due to the climate and extreme weather changes or seasonal conditions, the availability and supply of fruit and vegetables can vary significantly for fresh and perishable goods. This could possibly lead to frequent changes in suppliers.

For example, large volumes of fresh salads are available all year round in supermarkets and sourcing will change with the growing season, since leafy vegetables can only be stored for short periods of time.

This does not necessarily mean that origin labelling is not possible, yet it will require significant investment in the facilities. Operators are always informed of the origin of fruit and vegetables that will be processed, due to the current requirements set by marketing standards. Copa-Cogeca would therefore rather see a continuation of mandatory labelling for unprocessed fruit and vegetables that could be included with processed goods whenever possible.

Other aspects to bear in mind refer to the production line and the diversity of the fresh produce processing industry. Technical adaptations, adapting labels and packaging and planning procedure need to be adjusted and incorporated in order to adapt the system if information on the origin at Member State level is to be provided.

Copa-Cogeca considers that in order to pursue efforts vis-à-vis service quality for consumers, work must continue on introducing origin labelling for products derived from fresh and processed fruit and vegetables, i.e. an obligatory mention of the Member State and a voluntary mention of the EU[1].

*IV. Vegetable oils**

EU oilseed production totals around 31 million tonnes. The outlets for this production sector are diverse: food, feed and non-food. Around 60% of rapeseed oil goes to the biofuels industry, where the interest in origin labelling does not exist and would not represent any added value.

The EU also imports soybean, averaging some 11-12 million tonnes per year. This product is crushed in the EU but the oil may be re-exported to third countries or used by the biofuels

[1] FL(09)7493 (rev.7)

industry. The same trade flow may apply to rapeseed imports (around 2 million tonnes per year, mainly coming from Ukraine).

In order to rationalise crushing costs, not all Member States have a crushing capacity that stands in relation to their level of production. This is why there may be a flow of commodities within the single market.

Some traceability, producer to retailer schemes on contractual basis do exist for some highly valued rapeseed or sunflower oil, marketed under a brand and a label. Consumers have demonstrated their acceptance to pay for this specific demand.

For these reasons, Copa-Cogeca is favour of EU/non-EU origin labelling only.

V. Fish

Fish is a clear example of existing sectoral legislation. Fish labelling rules are intended to strengthen the ability to trace fishery and aquaculture products and allow consumers to make informed choices according to specific criteria that might be of their concern..

Regulation (EU) No 1379/2013 on the common organisation of the markets in fishery and aquaculture products establishes labelling rules to apply from 13 December 2014. Several elements such as the commercial and scientific name of the species, the production method ("…caught…" or "…caught in freshwater…" or "…farmed…"), the area where the product was caught or farmed[2] among other elements shall be indicated on the label.

Using this example of sectoral legislation, Copa-Cogeca would like to stress the importance of considering the specific challenges of each sector on a case per case basis.

Following this example, fish can be included in all the categories objective of the Study. Therefore, Copa-Cogeca considers it is essential to provide a harmonised legal framework to ensure policy consistency. Before considering any new horizontal origin labelling requirements the existing rules should be explored due to their close link between the origin and the specific characteristics of the food in question. Additional rules on origin for fish products may cause more confusion to consumers.

When considering the definition of origin, Regulation No 1169/2011 indicates that the determination of the country of origin of foods will be based on the Customs Code (i.e. the country where the product was wholly obtained or the country of the last substantial transformation) because they are well known to food business operators and should ease implementation. Nevertheless, Copa-Cogeca favors sectoral legislation and therefore origin information relating to the provenance of the raw material. In this case, existing fish labelling rules should also be analysed if new origin labelling rules are defined.

---

* Reserve from COLDIRETTI

[2] Regarding the indication of the catch or production area. Article 35 of Regulation (EU) No 1379/2013 provides further details. In the case of wild products, the label shall indicate the FAO fishing area. For aquaculture products, labels shall indicate the Member State or third country following the criteria defining the rearing period (Member State or third country in which the product reached more than half of its final weight or stayed for more than half of the rearing period)

EU Fish Processors and Traders Association

AIPCE.9 3rd April 2014

AIPCE-CEP[i] POSITION PAPER

on the COOL Labelling for Fisheries and aquaculture Products in FIR (Regulation 1169/2011)

The Regulation (EU) nº 1169/2011 on Food Information to Consumers (hereinafter called FIR) provides new provisions for the labelling of the "**country of origin or place of provenance**" (COOL) of food and of its main / primary ingredient. As regards the provision under Article 26, FIR explicitly recognises the **compulsory character of the vertical legislations**.

In the case of fishery products, labelling is covered by specific vertical legislation of which the EU legislator recognizes compulsory character of a vertical rules in whereas 32 of Regulation 1169-2011: *Mandatory origin provisions have been developed on the basis of vertical approaches for instance for honey, fruit and vegetables, **fish**, beef and beef products and olive oil.* AIPCE-CEP would therefore consider the primacy of the "*Lex Specialis".*

Upon its recent adoption by the Council and the Parliament, this now refers to Regulation 1379/2013 on the common organization of the markets in fishery and aquaculture products, which labelling requirements will apply as of 13 December 2014. This Regulation results from a substantial scrutiny and debate in both the Council and the Parliament. To our understanding, it has the full value of a vertical regulation in that it reflects the specific character of fisheries products.

Furthermore fisheries products have **not been subject to an impact assessment** study precisely because they are covered by obligatory vertical rules. **Consequently, the relevance and feasibility for fishery and aquaculture products needs to be fully analysed and shared with the relevant stakeholders in the EU food fupply chain of fisheries and aquaculture products.**

BACKGROUND

Under article 26.5 of the FIR, by 13 December 2014, the Commission shall submit reports to the European Parliament and the Council regarding **the mandatory indication of the country of origin or place of provenance** for various categories of foods including **unprocessed foods; single ingredient products; ingredients that represent more than 50% of a food**.

A survey for FBOs has been launched in this respect . The present position paper aims at giving a general contribution of the EU Fish processors and traders in the framework of this survey.

AIPCE-CEP already provided a contribution to the Commission on 29 October 2013 (available in Annex), with regard to provisions under article 26.3 of the same regulation : **where the country of origin or the place of provenance of a food is given and where it is not the same as that of its**

primary ingredient, the food business operator must indicate **the country of origin or place of provenance of the primary ingredient in question, or state that the country of origin or place of provenance of the primary ingredient is different to that of the food**.

GENERAL OBSERVATIONS

1. Consumer's behaviour in terms of purchase intention is often less influenced by COOL information, than by price and quality. Furthermore, there are significant differences across Members States as to the consumer interest in COOL;

2. FBOs should remain free to use their own judgement to determine whether COOL is a key criterion driving purchase in the sector in which they are marketing their products and label accordingly on a voluntary basis. Consumers should not have to pay for information if it is of secondary importance to them;

3. COOL may undermine consumer's trust in the food category if labelling efforts are targeted at elements that are independent from the general product quality: FBO's efforts in technology and innovation will be hindered if the process is disregarded as main driver of the food quality (since the source of the raw material is privileged);

4. From an economical point of view, against a background of reduced EU consumption of fishery products due to the economic crisis, COOL would undermine the competitiveness of our industry by reduced flexibility in raw material procurement. This will be further exacerbated by increased running costs of multiple batch management within the supply chain: silos, tanks, holds, additional chambers, separated transports and logistics, frequent changes of labels and packaging to guarantee that the packaging and raw material are correctly matched;

5. Higher costs would be reflected in the market affecting the competitiveness of the supply and price levels to final consumers, with the risk of having processed fishery products becoming less attractive towards cheaper animal protein foodstuffs;

6. Mandatory COOL for fishery products will increase administrative burdens for both the industries and the Authorities: it is easy to foresee higher fees for public controls which will affect the competitiveness of the production and marketing chain, thereby entailing increases in prices to consumers;

7. Sourcing decisions depend on the availability of suitable raw material in sufficient volumes, the quality specifications of the raw materials being determined by the quality specifications of the final products at a competitive price as well as the need to quickly adapt to any shortages, market disruptions and/or price fluctuations, by switching supplies including flexibility regarding species. EU fish processors might procure unprocessed fish from multiple sources to guarantee a sustainable supply of raw material at an affordable price given availability of different species at different times;

8. Sustainable procurement strategy relies on sourcing flexibility and the ability of FBOs to highlight a trusted manufacturing provenance is essential.

SPECIFIC OBSERVATIONS

1. The Food category "FISH"

FIR makes provision for the generic labelling of 'fish' as an ingredient under Annex VII part B. This flexibility is welcome as it allows processors to adopt a flexible sourcing strategy for products where price rather than provenance is a key market driver.

Primary ingredient could be an ingredient including different species of fish. That means that, in food, this ingredient can be indicated as "fish" and, at the same time, this called **"fish" can consist of a number of fish species.**

Allowing the possibility of generic indication "fish", the regulation recognizes that for fish, a number of sources of supply, of species and, therefore, a number of "origins" can exist. This approach is essential for the industry. **The obligation of labelling the origin of each species will lead to unclear and mixed labels**, which do not provide consumers with meaningful information.

Example: "Fish croquettes", where de primary ingredient is "fish". We understand that since this fish can consist of a number of different species, changing the current labelling to include the origin of each species would not be feasible.

2. Traceability requirements

Given the complex logistics of supplies, the EU processing and marketing industry of fishery products have developed assurance systems of internal and external traceability according to the provisions of Regulation (EC) nº 178/2002[1].

However, FIR COOL provisions may lead to a situation where **labelling mentions of internal traceability are required**. Components to adjust the packaging to raw material as well as to new information should be therefore increased due to these provisions. Transferring traceability information to consumers would make a lot of products unviable, particularly in markets where there is a great variety.

3. Sourcing practices

For processed products made of one single fisheries ingredient, the COOL indication of raw material may be extremely complex. The dependence on different sourcing sometimes would entail mentioning more specific area names. This, linked to the diversity of raw material supplies coming from the direct fleet landings, fish transferred by reefers, or even semi-finished product - which are common manufacturing practices - results in many and recurrent changes of the place of provenance indication in the outer packaging.

The raw material supply for the EU fish processing industry is very diverse. The **complexity of fish sourcing does not allow for a limitation of number of origins**.

Example: A company processes in its facilities battered and frozen squid ring from whole product. When the demand and other technical factors have to be addressed urgently, the supply with

1 Regulation (EC) nº 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002).

products from other origins – which have to comply with the needed technical characteristics - is necessary. This implies that the origin variability is extended.

4. Loss of relevance of the country of origin or place of provenance associated with the manufacturing establishment

COOL provisions may have a negative impact on the processing and marketing industry of seafood products located in the EU as claims referring to processing undertaken in the EU will become less relevant. This involves environmental and social commitments worth keeping in mind.

The investment in facilities to guarantee **the quality in** the implementation of these **processing and storage operations**, which is part of the image of the operator responsible for placing the product on the market, **may become underestimated by consumers if the indication of country of origin or place of provenance of the primary ingredient becomes forefront**.

5. Consumer information

At the selling point, consumers would find products showing information such as different geographical names e.g. Chile, Western-Pacific Ocean, Morocco, North-East Atlantic, etc. in products from the same brand or the same changes of origin in the label in products from different brands, depending on the availability of the necessary fish species.

Continuous changes in the information resulting from necessary adaptation to the available supply, may undermine consumer's trust on the food category as they may not be able to understand the multiplicity of reasons behind the changes in sourcing.

Different COOL claims **may cause confusion to** the consumer if the same product is offered with different "countries of origin" or "places of provenance", while this information does not reflect differences in the quality of the final product.

* * *

[i] ***AIPCE-CEP represents the Fish Processing and Trading National Associations from Belgium, Denmark, Finland, France, Germany, Ireland, Italy, NL, Poland, Portugal, Spain, Sweden and UK. This sector accounts for 130.000 employees, 4.000 enterprises and a production value of around €23 billion (http://www.aipce-cep.org/).***

Groupe des Etats d'Afrique
des Caraïbes et du Pacifique
(Groupe ACP)

African, Caribbean and
Pacific Group of States
(ACP Group)

Avenue Georges Henri 451
1200 Bruxelles

Téléphone : +32-2-743 06 00
Fax : +32-2-735 55 73 - +32-2-732 94 70
E-mail : info@acp.int
Website : www.acp.int

Ref:6/3/13(vol.1)13
SEDT/BB/fk

Brussels, 14 March 2013

Ms. P. TESTORI COGGI
Director General
DG SANCO
European Commission
Rue Breydel, 4
B-1049 Brussels

Dear Ms. Testori Coggi,

I write on behalf of the ACP Subcommittee on Sugar as it has been drawn to our attention that the European Commission has proposed significant modifications to its legislation on Country of Origin Labelling (COOL) and that preparatory work, including an impact assessment, has been launched and is much advanced, particularly on voluntary labelling of origin. We also understand that measures to impose mandatory labelling of origin for single ingredient products and products where an ingredient represents more than 50% of the product are being contemplated. The indications are that the revised legalisation for voluntary labelling is to be enacted by December 2013.

It is evident that such legislation could affect ACP and LDC sugar suppliers to the EU and should be subject to prior consultations under rules set forth in the Cotonou Agreement and Economic Partnership Agreements.

As long-standing suppliers of sugar to the EU, we fully support food security and consumer information and expect to participate in efforts to ensure these but we can only do so if properly informed and consulted.

Beyond technical issues related to the implementation of origin labelling for sugar, there are potential consequences for the value of our product in the eyes of our clients. Both could negatively impact the EU's welcome support for trade and economic development embodied in the Cotonou Agreement, Economic Partnership Agreements and the Everything But Arms initiative.

../..

On behalf of the ACP and LDC sugar suppliers to the EU whose sugar industries enjoy preferential access to the EU market, I request that a meeting be convened at the earliest with the competent Commission services so that they inform ACP and LDC sugar suppliers of the current process to reform COOL rules and propose how proper and timely consultations will take place.

Please accept, Director General, the assurances of my highest consideration,

P.I. Gomes
Ambassador of Guyana
Chairman ACP Subcommittee on Sugar

c.c.

Mr. José Manuel Silva Rodríguez, Director General, DG Agriculture and Rural Development
Mr. Jean-Luc Demarty, Director General DG Trade
Mr. Fokion Fotiadis, Director General, DG DEVCO

EUROPEAN TEA COMMITTEE

EUROPEAN HERBAL INFUSIONS ASSOCIATION

Anne Maréchal
Agra CEAS Consulting Ltd
Bureau Européen de Recherches
20-22 rue du Commerce
1000 Brussels
Belgium

Hamburg, 4th April, 2014
MB/MZ

Survey to Food Business Operators on mandatory COOL rules in "other foods"

Dear Ms Maréchal,

The European Tea Committee (ETC) and the European Herbal Infusions Association (EHIA) are the central European federations for national associations involved with tea (Camellia sinensis), respectively involved with herbal and fruit infusions (about 400 parts of 300 plants). Current members are the national tea and/or herbal infusions associations of

- Austria,
- Belgium,
- Denmark,
- France,
- Germany,
- Ireland,
- Italy,
- Netherlands,
- Slovakia,
- Spain,
- Switzerland and
- the United Kingdom.

ETC and EHIA represent the interests of the traders and manufacturers of tea, resp. of herbal and fruit infusions in these countries. All national association members have been consulted and agree with a European submission of the requested surveys on mandatory COOL for tea and for herbal and fruit infusions, resp.

For your information, please find enclosed to this letter two surveys, one completed for “tea (camellia sinensis)” and another for “herbal and fruit infusions” **(enclosure 1, 2)**. These have also been inserted into the online template as requested.

Sonninstrasse 28 • 20097 Hamburg City Sued • Germany
Tel: ++49/40/23 60 16-33/-21 • Fax: ++49/40/23 60 16- 10 • E-Mail: etc@wga-hh.de / ehia@wga-hh.de
http://www.ehia-online.org / http://www.etc-online.org

Although both product categories might seem to be similar, we would like to highlight that there are some essential differences between the two. That is why the survey has been completed separately for both categories.

Furthermore, we would like to emphasise that, while origin labelling has hardly any importance to herbal and fruit infusions, there is a restricted importance for tea (camellia sinensis). Nevertheless, when it comes to consumer satisfaction, the consumer prefers a consistent taste of tea in comparison to the place or provenance of origin. Hence, tea is predominantly sold as blended product. So called “garden teas” originating from one crop in one tea garden are insignificant.

For further information, we also enclose our common position paper on *“Feasibility” of mandatory country of origin labelling “COOL” regarding tea and herbal and fruit infusions* **(enclosure 3)**

With kind regards

EUROPEAN TEA COMMITTEE EUROPEAN HERBAL INFUSIONS ASSOCIATION

William Gorman	Dr Monika Beutgen	Neil Almond
President ETC	*Secretary General ETC & EHIA*	*President EHIA*

Enclosures

EUROPEAN TEA COMMITTEE

EUROPEAN HERBAL INFUSIONS ASSOCIATION

approved – status: 12th December, 2012

"Feasibility" of mandatory country of origin labelling "COOL" regarding tea and herbal and fruit infusions

The European Tea Committee and European Herbal Infusions Association have reviewed the feasibility of mandatory country of origin labelling regarding tea and herbal and fruit infusions. The attached paper assesses the potential impact of mandatory labelling of the country of origin or place of provenance of processed products as required by Regulation (EU) 1169/2011 on the Provision of Food Information to Consumers; (here FIR) in relation to tea and herbal and fruit infusions.

In summary, mandatory labelling of origin would require a substantial increase in the number of labels tea and herbal and fruit infusion companies would need in order to continue to supply the products on the market that EU consumers have grown accustomed to. Label production runs would be much shorter, storage space to ensure segregation and prevention of incorrect use would substantially increase. Consequently costs would increase significantly. The environmental impact of increased numbers of printing plates and dedicated warehouse spaces is significant and yet to be calculated.

Furthermore, stating the origin of teas and herbal and fruit infusion raw materials would not necessarily inform consumers of what they might wish to know. Listing the origin of teas in tea blends beyond the country of blending and packing would not provide consumers with essential information in order to make their purchasing choices. For example, naming a country is not necessarily confirmation of any particular quality. All food products placed on the EU market are safe and comply with the relevant EU legislation. In addition, a declaration of the origins of the materials in the blend would also present competitors with commercially-sensitive information.

For those products where the country of origin determines likely quality and therefore influences consumer choice (single origin blends) manufacturers will already indicate the provenance of the tea. Such examples would include single origin Assam blends (India), Ceylon (Sri Lanka) and Kenyan blends. This system works extremely well.

The European tea and herbal and fruit infusion industry:

- **fully supports the requirements of the Food Information Regulation that consumers shall not be mislead as to the true origin or place of provenance, Art. 26 (1) (a) Regulation (EU) 1169/2911.**
- **agrees that origin labelling requirements have to be decided on a product by product basis.**
- **strongly opposes any extension to the legislation to cover the mandatory COOL for the product groups of teas as well as herbal and fruit infusions.**

Sonninstrasse 28 • 20097 Hamburg City Sued • Germany
Tel: ++49/40/23 60 16-33/-21 • Fax: ++49/40/23 60 16- 10 • E-Mail: etc@wga-hh.de / ehia@wga-hh.de
http://www.ehia-online.org / http://www.etc-online.org

"Feasibility" of mandatory country of origin labelling "COOL" regarding tea and herbal and fruit infusions

The European Tea Committee and European Herbal Infusions Association's review of the feasibility of mandatory country of origin labelling regarding tea and herbal and fruit infusions.

The European Tea Committee (ETC) and European Herbal Infusion Association (EHIA) have been representing the European packers of teas and herbal and fruit infusions since 1960 and 1980 respectively.

Tea is derived solely and exclusively from the tender shoots of varieties of the species Camellia sinensis (L.) O. Kuntze and produced by acceptable processes for making a tea infusion suitable for consumption as a beverage. In contrast, herbal and fruit infusion materials are plants or parts of plants that do not originate from the tea plant and are intended for food use by brewing with freshly boiling water.

This paper assesses in relation to tea and herbal and fruit infusions, the potential impact of mandatory labelling of the country of origin or place of provenance of processed products as required by Regulation (EU) 1169/2011 on the Provision of Food Information to Consumers (here FIR) and in particular Art 26 (2), Art 26 (3) and Art 26.5:

Art. 26 (2) a where failure to indicate this might mislead the consumer as to the true country of origin or place of provenance of the food, in particular if the information accompanying the food or the label as a whole would otherwise imply that the food has a different country of origin or place of provenance;

Further, where the country of origin or the place of provenance of a food is given and where it is not the same as that of its primary ingredient (FIR):

Art. 26 (3) (a) the country of origin or place of provenance of the primary ingredient in question shall also be given; or
Art. 26 (3) (b) the country of origin or place of provenance of the primary ingredient shall be indicated as being different to that of the food.

Specifically, this paper covers the impact of mandatory indication of the country of origin or place of provenance for the following listed in the regulation, namely:

Art 26.5 (e) single ingredient products;(e.g. tea, peppermint infusion)
Art 26.5 (f) ingredients that represent more than 50% of a food. (e.g. flavoured tea, rose hip with hibiscus)

This assessment takes into account:

- the nature of the supply chain in the sector
- the need for the consumer to be informed
- the feasibility of providing the mandatory indication of the country of origin or place of provenance
- an analysis of the costs (impact) and benefits of the introduction of such measures, including the legal impact on the internal market and the impact on international trade.

The European tea and herbal and fruit infusion industry:

- **fully supports the requirements of the Food Information Regulation that consumers shall not be mislead as to the true origin or place of provenance, Art. 26 (1) (a) Regulation (EU) 1169/2911.**
- **agrees that origin labelling requirements have to be decided on a product by product basis.**
- **strongly opposes any extension to the legislation to cover the mandatory COOL for the product groups of teas as well as herbal and fruit infusions.**

Country of Origin and Place of Provenance

Consumers are used to being informed voluntarily by food business operators about the place of origin or provenance regarding tea, e.g. India (origin) or Assam (provenance). The Food Information Regulation differentiates between origin and provenance also but refers to the Community Customs Code. "Place of provenance" is legally defined as any place where a food is indicated to come from which is not the "country of origin" (Art. 2 (2) (g) FIR). In contrast, "country of origin" is legally defined by reference to the Community Customs Code Regulation (Art. 2 (3) FIR). According to that, goods originate in the country where they underwent their last substantial processing (Art. 24 Regulation (EEC) 2913/92).

The Food Information Regulation applies from 13 December 2014, however, the Community Customs Code will be repealed by the Modernised Customs Code on 24 June 2013 (Art. 188 (2) Regulation (EC) 450/2008). The Modernised Customs Code follows the system of origin depending on the last substantial processing but the term "country" is going to be supplemented by "territory" (Art. 36 (2) Regulation (EC) 450/2008). Therefore, due to the future link between Food Information Regulation and Modernised Customs Code Regulation such regions which are seen currently as place of provenance are going to be subsumed as territory of origin.

Factors impacting supply

Tea and herbal and fruit infusion raw materials are by their very nature products that are subject to enormous variations in quality and yield, and their availability and supply depend on various aspects:

- **Climate** and extreme weather changes which effect the increase of crop failures; some raw materials such as tea from some origins, peppermint and camomile are seasonal and severe weather such as unseasonally low temperatures, low or unseasonal patterns of rainfall, hours of sunshine, can have a significant impact on the quantities of raw materials available for blending and packing. Some origins have a very short window of cropping and these raw materials are then blended with non-seasonal origins, generally in the alternate hemisphere to ensure that sufficient supplies of a consistent blend are available.

- **Quality** of the raw materials can be highly variable and depend on such factors as geographical area, season conditions and outbreak of pests and diseases. Sensory character is an essential aspect in order to meet the quality expected by the consumers. This varies depending on growing area as well as weather conditions and point of harvest.

- **Prices** of raw materials can fluctuate due to supply and demand, information exchange, currency volatility, as well as costs of energy, steel and sea freight.

Therefore, in order to maintain product consistency, supply sources and compositions of tea and herbal and fruit infusions, blends are frequently changed. Tea is sourced from over 20

different countries around the world in order to meet the challenges described and herbs and fruits are sourced from all over the world.

At all times the sourcing of the materials is done in a controlled manner, and as per European requirements traceability of the raw materials is maintained. Examples on the following pages demonstrate the difficulty in specifying country of origin or place of provenance for teas and herbal and fruit infusions on a compulsory basis.

In summary, the following examples illustrate how with little or no demonstrable benefit to the consumer who is buying the product, substantially more packaging would need to be purchased, at greater cost due to reduction in efficiency of manufacture, and greater wastage (more written off at changeover, more plates need to be manufactured). There would need to be substantial administration to ensure that the correct label is used with the correct origin combination. Traceability of raw materials used is already in place and this change in practice would not enhance this process.

Examples of raw material sourcing for teas and herbal and fruit infusions

1. Teas (Camellia sinensis)

- Average annual quantity of sales in the EU is 262,000,000.00 kgs. Climatic conditions in the EU means that all this volume must be imported. The three biggest importing countries are UK, Germany and Poland.

- Sensory character is an essential aspect in order to meet the quality expected by the consumers. As discussed earlier, this varies depending on growing area as well as weather conditions and time of plucking.

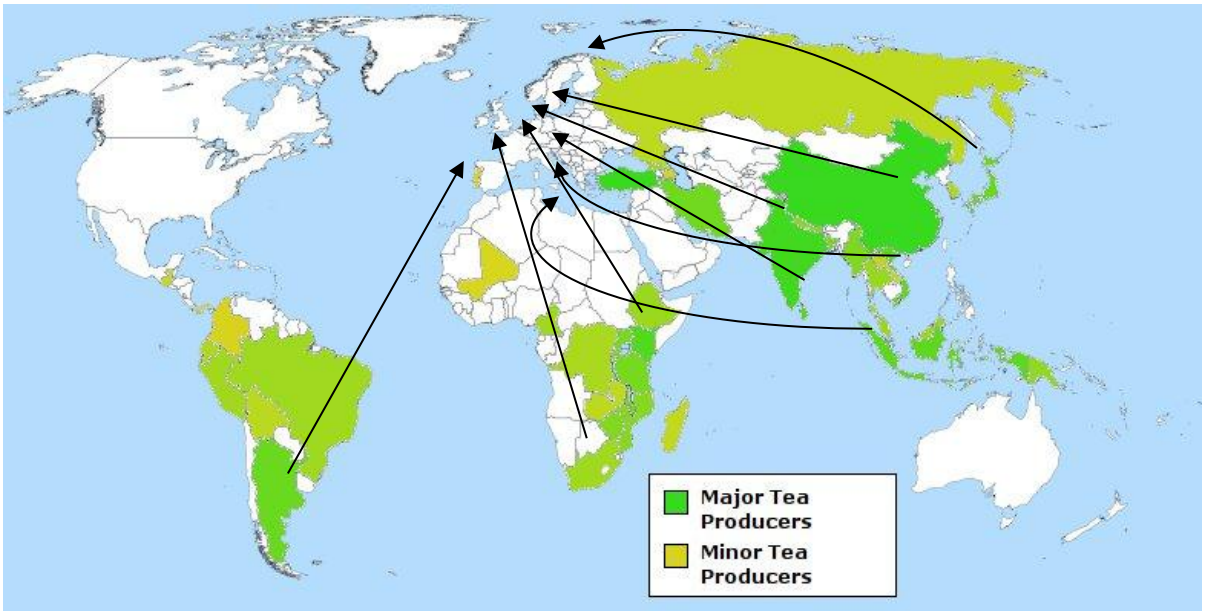


Figure: map of tea producing countries, from which many teas could go in to the same blend

2. Herbal and fruit infusions

- This category is defined by a number of groups of products. Of most relevance, are those mono-products which are formulated in a manner similar to tea and are composed of a single herbal infusion material, e.g. Peppermint, Camomile, Fennel, Rooibos and Linden. Further types include blends of herbs and/or fruits. Many have flavourings or vitamins added.

- Average annual quantity of sales in the EU is in excess of over 50,000,000.00 kgs. Volumes required, climatic conditions and changing land use means that most of this volume must be imported into the EU.

- Sensory character is an essential aspect in order to meet the quality expected by the consumers. As discussed earlier, this varies depending on growing area as well as weather conditions and point of harvest.

Figure: Typical flow of raw materials for a mono-product such as Peppermint

Examples of a typical tea and herbal infusion product on sale in the EU

1. Black tea blend

Typical black tea 'Breakfast' or 'Afternoon' type blend

Origin	Percentage
India	8-14%
China	20-40%
Kenya*	0-28%
Malawi*	0-28%
South Africa*	0-28%
Malawi**	0-20%
Uganda**	0-20%
Tanzania**	0-20%
Total	100%

* Blend of tea from Kenya, Malawi, South Africa
Typically the blend would contain mainly Kenyan tea. Not all production runs would contain tea from Malawi and South Africa, but due to the similar flavour profile of the three origins, Kenyan tea is typically supplemented with either or both these two origins

** Blend of tea from Malawi, Uganda, Tanzania
Typically the blend would contain mainly Malawian tea. Not all production runs would contain tea from Uganda and Tanzania, but due to the similar flavour profile of the three origins tea from Malawi is topped up with either or both these two origins

During the course of a year's manufacturing, specific production batches could contain in its most complex case tea from India, China, Kenya, Malawi, South Africa, Uganda and Tanzania. In its least complex case, it would contain tea from India, China, Kenya, Malawi, but with a possible eight different pieces of packaging artwork needed to ensure accurate reflection of the origins included.

2. Herbal Infusion

Typical mono infusion such a Peppermint

Origin	Percentage
USA*	10-15%
Poland*	10-15%
France*	15-25%
Morocco*	15-25%
Turkey**	5-10%
Serbia**	5-10%
Germany**	5-10%
Total	100%

Typically the blend could contain peppermint from all seven origins. However, sourcing involves blending two sets of origin groups (* and **). However, more likely the blend will contain a permutation of sources of 3 or 4 countries with occasional 'top ups' where the usual volume is in short supply or to ensure a balanced flavour profile

Therefore, during the course of a year's manufacturing specific production batches could contain in its most complex case raw materials from USA, Poland, France, Morocco, Turkey, Serbia, and Germany. However in its typically less complex form, 20 or more different pieces of packaging artwork could be needed to ensure accurate reflection of t

Brussels, 6 February 2014
Ref. 14NUT011

FEDIOL assessment of the practical implications of mandatory country of origin labelling options on the vegetable oils sector[1]

Introduction
Article 26 of Regulation (EU) No 1169/2011 on the provision of Food Information to Consumers (FIC) calls on the Commission to consider the extension of mandatory origin or provenance labelling to a number of food categories, in particular, single-ingredient foods[2] and foods containing an ingredient representing more than 50% of the food content. A report, which may be accompanied by proposals to modify the relevant Union provisions, is due by 13 December 2014.

FEDIOL has assessed the implications of the options that are considered. In general, refined vegetable oils for food amounted in 2012 to 13.176.000 tons or 54% of the total vegetable oil production. Hence, in case measures on mandatory labelling would be set in place, this could affect about 54% of the total vegetable oil production and have an impact on over half of the 25 billion € turnover of the vegetable oil sector.

Structure of the vegetable oil and fat industry
Directly and indirectly, FEDIOL covers about 150 processing sites that crush oilseeds and/or refine crude vegetable oils. These plants belong to around 35 companies. It is estimated that over 80% of the EU crushing and refining activity is covered by the FEDIOL membership structure.

The activity of oilseed processing is spread over 16 Member States with a concentration of plants with crushing and refining activity in countries such as Germany, the Netherlands, France, Spain, UK, Italy, Czech Republic, Poland, Belgium, *etc*.

1. Definitions

Defining the Country of Origin (COO) for the vegetable oil and fat sector
As per Regulation (EU) No 1169/2011 and Regulation (EEC) No 2913/92, the place where the *last substantial economically justified transformation* took place confers the origin. In the case of vegetable oils and fats, one must distinguish 3 situations.

Firstly, for *a single seed/fruit bottled oil*, the country where the full refining occurs confers the origin. This concept is coherent with the **quality** conferred by the oils. In practice, the quality of refined vegetable oil for food application, its taste and characteristics are dependent on the refinery. This is where all safety and quality checks are made[3], regardless of the place of harvest of the oilseed.
Hence a fully refined oil has a German origin when the refining took place in Germany, regardless of the country of production of the crude oil and of the country of origin of the raw materials.

[1] It should be noted that olive oil is subject to a specific EU legislation and is therefore not in the scope of the present analysis.
[2] Following the definition as per article 2 of Regulation (EU) No 1169/20112, an ingredient refers to a single seed/fruit oil. A bottled oil composed of different seed/fruit oil is therefore to be considered as a food composed of several ingredients.
[3] What is determinant for the quality of refined oil are the technology and the know-how on site. Therefore in the case of vegetable oils and fats, the country of origin refers to the country, where the full refining occurred.

Secondly, for *a blend of bottled refined oils from the same seed/fruit*, the COO is given by the place where the blend took place if none of the oils weights more than 50% of the blend. A bottled oil composed in equal parts of oils refined in Germany, France and The Netherlands will have a Belgian COO if the blending took place in Belgium.

Thirdly, in the case of a *blend of bottled refined oils from the same seed/fruit where one oil weights more than 50% of the blend,* the COO is deemed to be given by this oil, regardless of the origin of the other oils. In the case of a bottled oil, where 50% of refined oil originates from France, the blend will have a French COO.

3 cases applicable to the vegetable oil and fat sector
According to the terms of reference of the Commission study[4], 3 cases can be identified, for which mandatory labelling has serious impacts.

A. A single seed bottled oil[5] – e.g. a bottle of sunflower oil
B. A blending of different seeds oils where one oil represents more than 50% of the content – e.g. a blended bottled oil composed of more than 50% of sunflower oil
C. A sauce or margarine where an oil represents more than 50% of the food content

Options for indicating the origin of the product or of the ingredient
In the Commission terms of reference, 3 options are envisaged for mandatory labelling:
1. origin labelling indicating the Member State or third country;
2. origin labelling based on a) EU/non EU origin or b) EU/third country;
3. other geographical entities as place of provenance.

2. Practical impacts of mandatory labelling on the refining and bottling process

For the purpose of identifying the practical implications of mandatory labelling, this paper will focus on 2 activities: refining and bottling.

As regards the **refining**, the **primary raw ingredients –i.e. seeds or fruits – come from multiple sources**, whether from different non-EU and/or from EU countries. Sourcing nationally or locally only is not a common or frequent practice. Changes in the mix of suppliers are frequent, can occur five or more times a year and can affect a small or high number of suppliers. This can be due among other factors to seasonal availability, weather/climate variation, product quality and price. The refining implies a **continuous production process.** This means in practice that the refining is done without any interruption with a continuous supply of seeds/fruits coming from different countries. This practice is common to the primary food processing sector[6].

When it comes to the **bottling**, the **key criterion** to take into account is the **distance** between the place of the bottling and the place of the refining. In practice, a bottling company situated in country A will have as a principal refining supplier a refining company situated as close as possible to its location within country A (either in country A or outside). Indeed, transport involves high costs which bottling companies try to minimize as much as possible.

Mandatory COO not only will lead to higher transport costs, but as well to **discrimination between countries and between companies depending on where they are located.** If the bottling is taking place in a big country - i.e. where there is a large local oil seeds production and existing crushing and refining supply – this enables

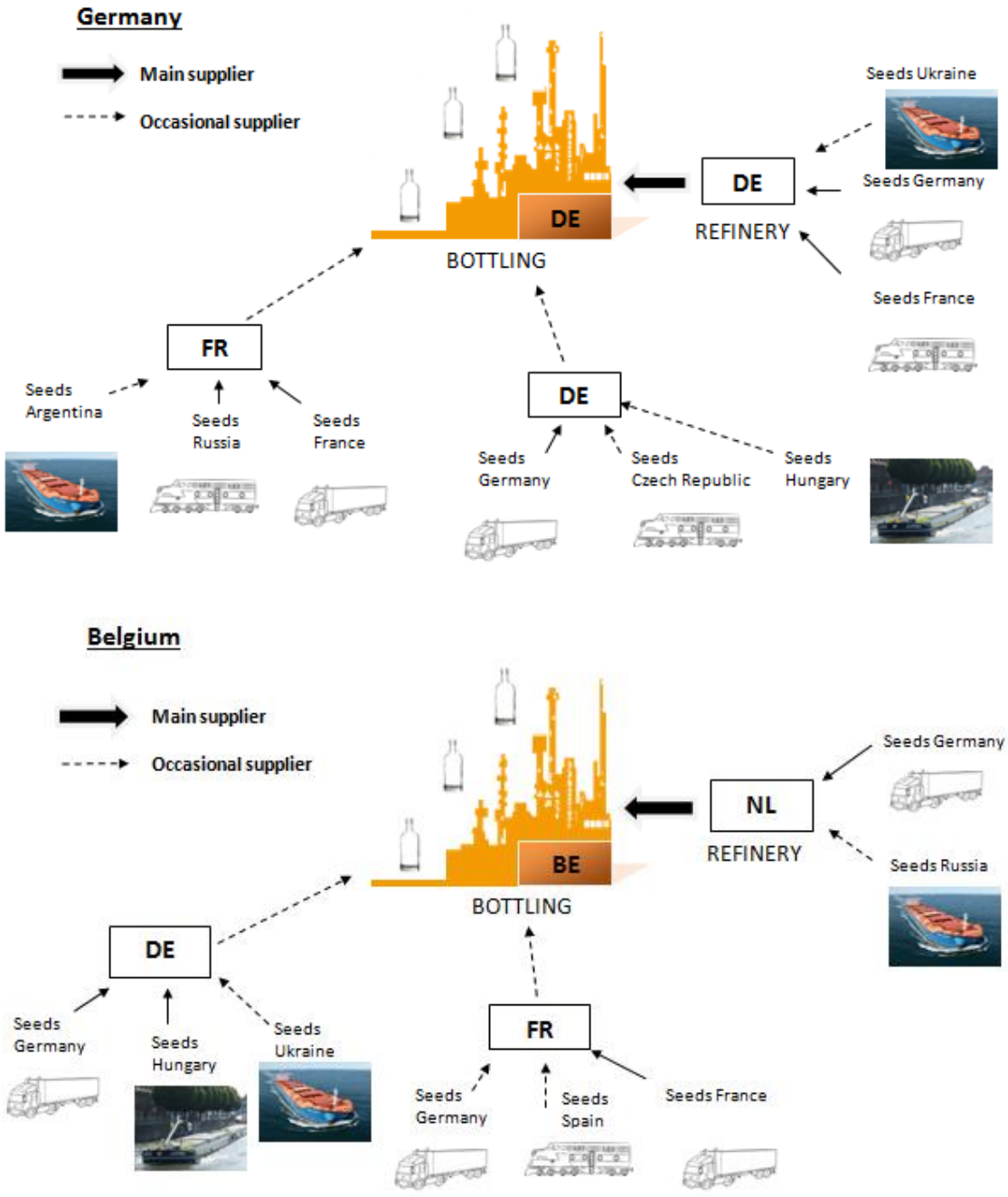
[4] DG SANCO study on the mandatorv indication of origin or place of provenance of unprocessed foods, single ingredient products and ingredients that represent more than 50% of a food.
[5] In view of the definition of "ingredient" in Regulation 1169/2011, one can wonder of the status of an anti-oxygen additive which could be added in an oil.
[6] See PFP position on COOL labelling, September 2013.

the choice of a refinery being also situated in the same country. However, should the bottling takes place in a small country, this will make it difficult or impossible to find an adequate refining company processing the exact required oil and/or in requested volume in that same country, obliging them to find a refinery outside their country. This will ultimately prevent bottling companies situated in those smaller countries to make a COO linked to their country (as COO of refining).

Furthermore, as in the refining, the bottling also entails frequent changes in suppliers. Whilst having a **main supplying refinery** is the rule, circumstances such as availability, quality, price, weather/climate variation, will lead in all cases to resorting to occasional refinery suppliers.

The graphs below illustrate this issue. In this graph, Germany is considered as a "big" country and Belgium as a "small one".

Simplified graph of a single sunflower bottled oil

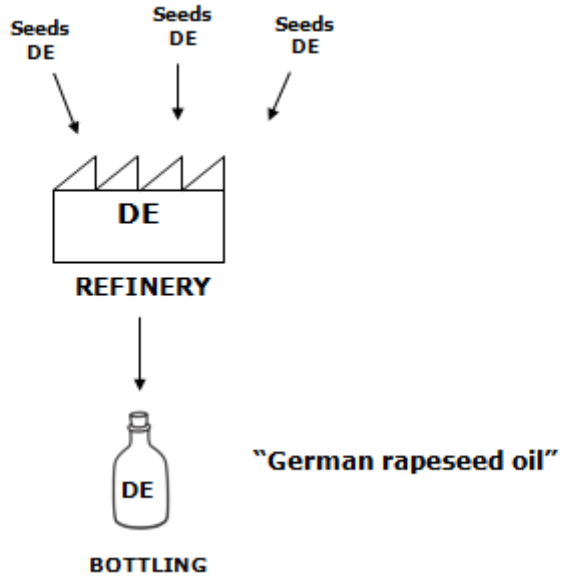


3. *Why imposing a mandatory labelling has limited value for the consumers and for the vegetable oil and fat sector*

The figures are meant to illustrate different cases where a rapeseed oil would be labelled as having a German origin if COOL was made compulsory.

Simplified graph of a single rapeseed bottled oil

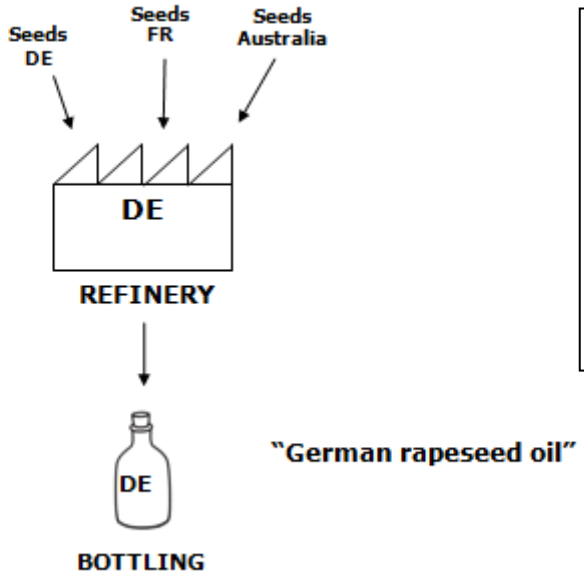
Case 1



The refinery confers the COO.
In this case, the seeds are coming from German, the refinery and bottling occur in Germany.

This represents a very rare situation for the vegetable oil and fat sector that a refiner will permanently source seeds grown in his country.

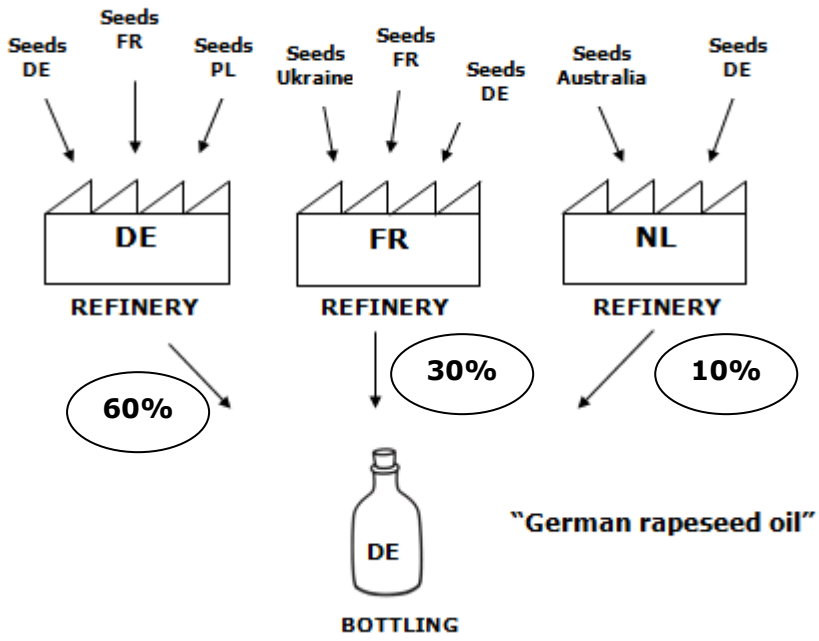
Case 2



Again, the refinery confers the origin. However, the seeds are not necessarily all coming from Germany. Generally refiners have 3 or 4 change-over per year.

For a bottler, he may source his oil from a single refiner during most of the time, but not permanently.

Case 3

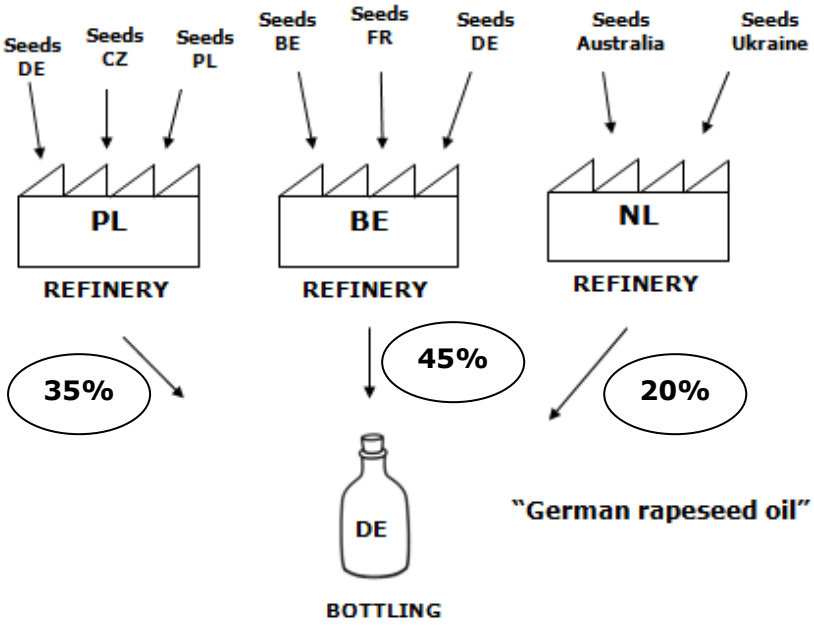


In this case, the COO is still given by the German refinery as the rapeseed oil refined in Germany weights more than 50% of the total of the oils. The information provided has limited value as several refineries are engaged.

An "EU/non EU" or "EU/third country" would not bring more information for the consumer.

This represents a normal situation for the vegetable oil and fat sector. Bottlers frequently face situation, where they must source from different origins.

Case 4



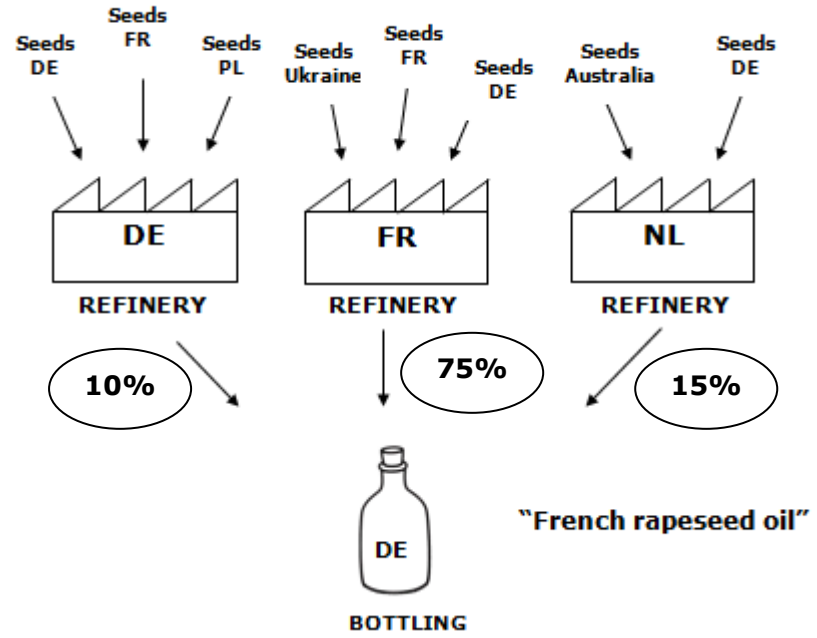
In this case, the COO is given by the bottling as none of the oils present weights more than 50% of the total of the oils. The information provided is meaningless from a consumer point of view.

An "EU/non EU" or "EU/third country" would not bring more information for the consumer.

This represents a normal situation for the vegetable oil and fat sector.

Most of the time, bottlers are operating as described in cases 1 or 2, but will several times in a year have no choice but to fall in cases 3 and 4. **However, in practice, they will also regularly be placed in a fifth case, where there will be an oil origin that will predominate in the blend that will not be their usual origin.**

Case 5



The oil refined in France weights more than 50% and confers the origin.

Summary of the different cases for a "German single rapeseed bottled oil"

Origin Labeling		Seeds	Refining	Bottling	*Frequency*
"German rapeseed oil"	Case 1	DE	DE	DE	*Very rare*
	Case 2	Worldwide	DE	DE	*Normal situation*
	Case 3	Worldwide	> 50% DE + < 50% Worldwide	DE	*Normal situation*
	Case 4	Worldwide	Worldwide (no country > 50%)	DE	*Normal situation*
…becomes a "French rapeseed oil"	Case 5	Worldwide	> 50% FR + < 50% Worldwide	DE	*Normal situation*

In view of the situations described in the figures above, a mandatory labelling applicable to single seed bottled oils and fats with a COO/provenance either as Member State or EU/third country **does not make sense in practice** and **provides meaningless information to the consumer**.

Following the consumer need to know the label in order to *help assess the quality of products*[7], **this need will not be met** by introducing such a mandatory country of origin labelling for the vegetable oil and fat sector, as this would mean in practice knowing the country where refining or the blending took place. This is so because the quality of refined vegetable oil for food application, its taste and characteristics depend on the refinery, regardless of the place of harvest of the oilseed.

[7] See BEUC study January 2014.

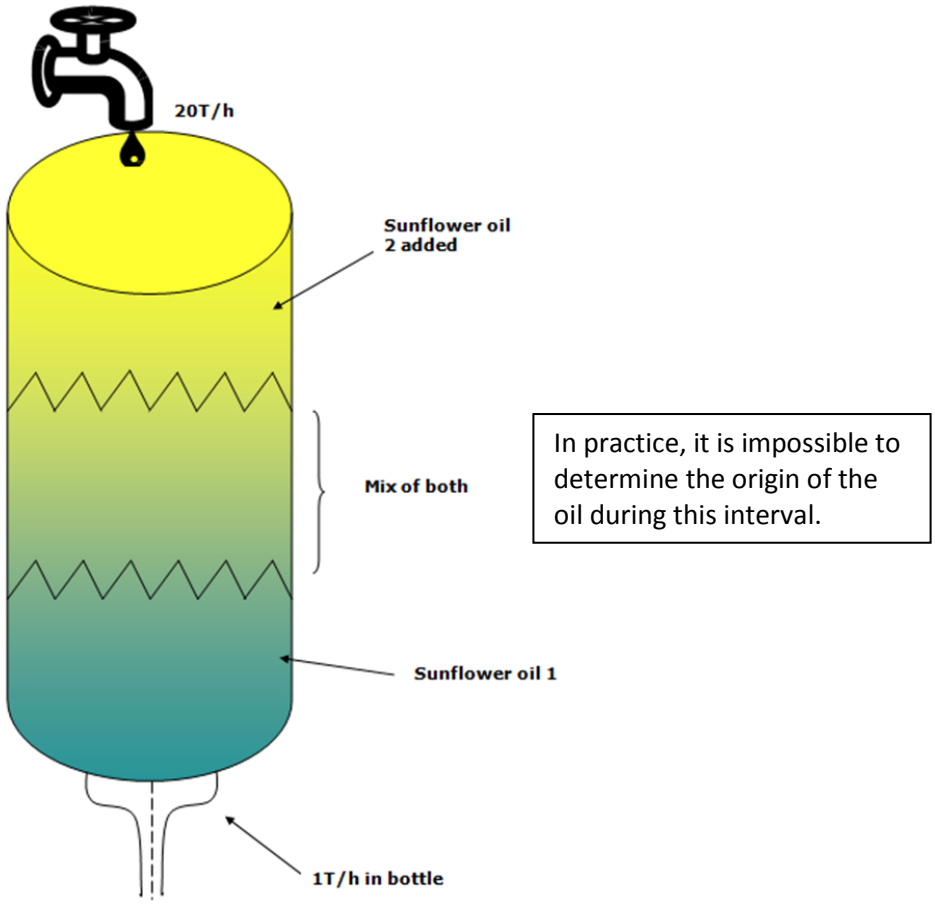
Should **mandatory labelling be required on the place of provenance of the seeds/fruits** (option 3 of the Commission terms of reference), this would **prove impossible to implement in practice** as this would require:
- a continuous change in the labelling
-either/and lay-off of the refinery
-either/and an entire reshaping of the vegetable oil and fat sector, which would have irremediable costs (employment losses, reshaping each refinery and bottling company, huge costs to purchase new equipment needed to segregate seeds *etc*.) and would reduce the production capacity of the sector.

Such costs would be ultimately passed on to the consumer. This would consequently deter consumers from buying such foods, as price appears to be one of the top criteria consumers look at, when buying foods[8].

4. The Problem of change-over for bottlers; undetermined origin

In a continuous production process, supplies have to be regularly complemented and cannot be stored separately. **Mixing** of the same oils from different countries in storage tanks of bottlers is unavoidable.
Typically, filling in the bottler's tank is semi-continuous (e.g. several trucks each day), while bottling will also be semi continuous (during a few hours per day for a particular oil).

As a consequence, at certain points in time, it will be impossible to determine the origin of the oil that is bottled (see figure below).

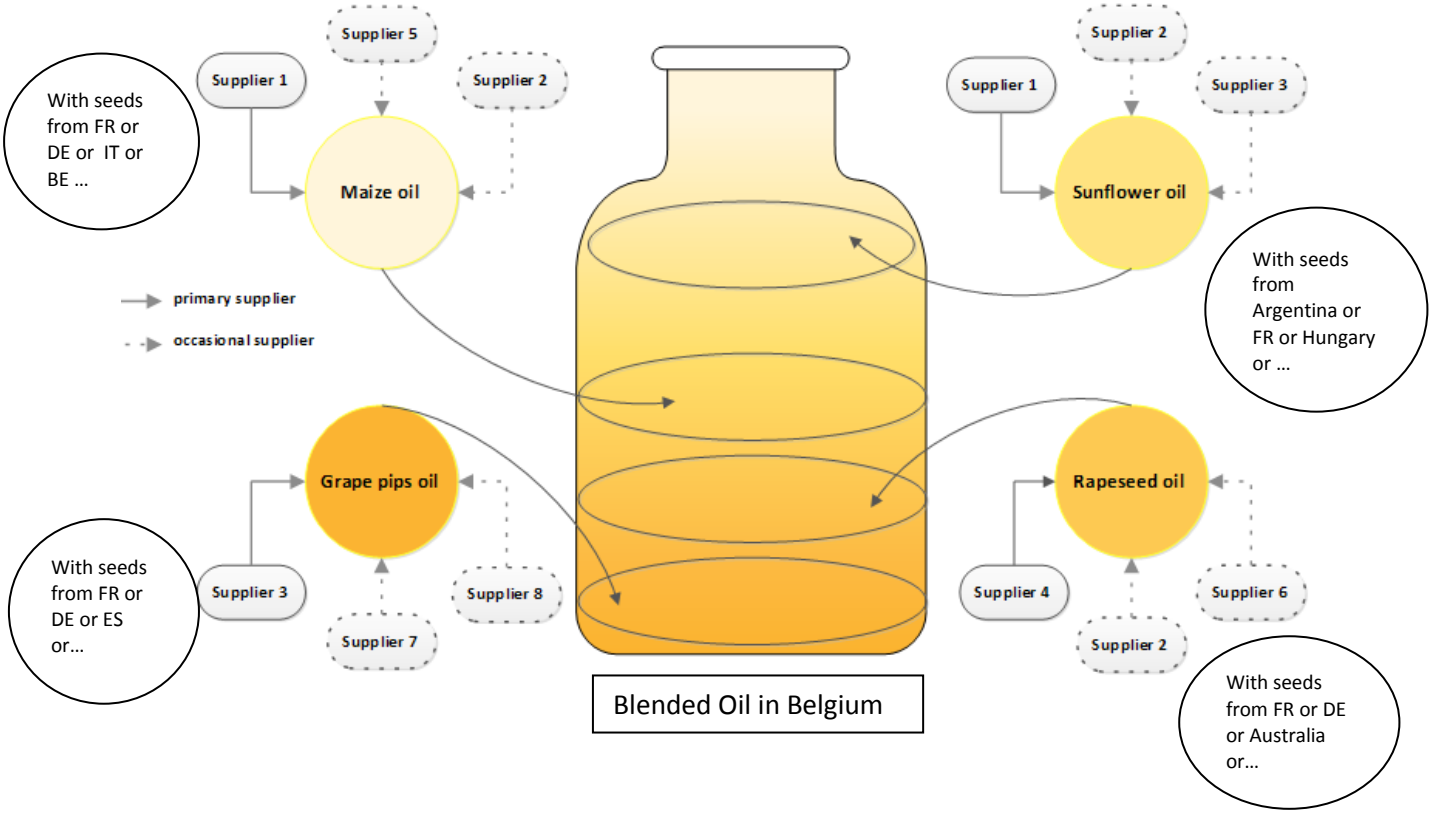


[8] Ibidem.

5. The case of mixed vegetable oils

Vegetable oils and fats are not always sold to the final consumers or to mass caterers as single seed/single fruit oils. Blends with particular features (either a nutritional profile, or an intended use, such as frying) are often blends in which one botanical origin weights more than 50%.

The figure below further exemplifies why mandatory labelling of COO/Provenance does not make sense in the case where different seed oils are blended and where one oil represents more than 50% of the content – e.g. a blended bottled oil composed of more than 50% of sunflower oil.



In this case, the origin will be the place of refining of the sunflower oil, which is neither the place of provenance of any of the seeds, nor the place of refining of the other oils, nor the country of blending and bottling of the final product.

Conclusions:

1. **Mandatory labeling is not possible to implement in practice for the vegetable oil and fat sector.**

2. **Such implementation would lead in practice to breaks and shortages in the supply chain or would need a complete drastic change of the existing practices of the entire sector. This would undoubtedly imply severe costs for the sector and for the consumer.**

3. **Potential distortion could be created among countries, given the size of the country at stake, the local production of oil seeds and the existing supply in a given country.**

4. **Mandatory labelling gives meaningless information to the consumer as regards vegetable oil and fat. Knowing the place where the refining or blending occurred will not help him to assess the quality of a product.**

Organisation Européenne des Industries de la Tomate

European Organisation of Tomato Industries

Bruxelles, 21 mars 2011
TO.2011.12.A.10

Position de l'OEIT sur l'obligation de l'indication du lieu de production de la matière première de la tomate pour les tomates transformées

Dans le contexte des discussions actuelles sur la proposition de la Commission Européenne sur la qualité des produits agricoles et la proposition d'information aux consommateurs, OEIT[1] prend la position suivante sur l'indication d'origine:

L'ensemble des délégations de l'OEIT est en faveur de l'indication obligatoire du lieu de production (EU/pays tiers) de la matière première de la tomate dans les produits transformés, dans lesquels la tomate est l'ingrédient principal. Ceci rendrait obligatoire l'indication du lieu de production de la matière première pour ces produits commercialisés en Europe.

Dans le cas où la matière première de la tomate provient d'un (ou plusieurs pays) de l'Union Européenne l'indication « Tomate d'origine EU » devra figurer. Des indications plus spécifiques sur le pays d'origine pourront être de nature volontaire. Si la tomate provient partiellement ou entièrement de pays tiers, le pays tiers (ou les pays tiers) de la tomate devra être indiqués.

La délégation française a indiqué être défavorable à l'indication du lieu de production pour les sauces tomate et le ketchup (TARIC 2103.20).

[1] OEIT représente plus de 200 entités transformatrices en Italie, Espagne, Portugal, Grèce et la France, transformant annuellement 9.5 millions tonnes de tomates fraiches en tomates transformées; générant emploies directs et indirects pour plus de 40 000 personnes

Boulevard Saint-Michel, 77-79 - B-1040 Bruxelles
Tel. + 32 2 740 29 67 Fax + 32 2 732 51 02
oeit@agep.eu - TVA BE 878.355.784

Annex 8: Results on administrative costs and burden from previous origin labelling studies

Results below are from the 2013 FCEC study on mandatory origin labelling for meat as an ingredient:

Impact in terms of estimated additional control costs (including administrative burden) for MS CAs (n=19 MS)

MS CAs	Estimated additional
AT	10% increase in control costs (verification checks).
BE	The administrative costs for MS enforcement authorities will increase for all three components of the costs (i.e. staff time needed; qualification of staff needed; staff unit costs)
CZ	20-30 % increase is expected in control costs (verification checks at FBO point excl. retail) (source: SVA); no increase according to CAFIA for controls at retail level[239]. The estimated increase is based on the experience of additional time required for current verification controls of origin claims in the context of voluntary labelling schemes and origin declarations (which currently account for ca. 5-10|% of total control costs). If there are budget constraints, the frequency of inspections will have to be reduced. These controls are based on documentary checks. In the bigger establishment documents are reliable as information systems are computerized, while in smaller establishments they are only available in paper form. These documents, however only go one step back. This is not so much of an issue for Cat I products, but as we move to Cat II and III products it becomes very difficult. Hence the selected options: i.e. for Cat II - third countries for the primary material (defined as min. 30% of the final product); for Cat III - EU non EU countries.
DE	Current controls on labelling are part of the Federal Control Plan[240]. An increase in the number of staff is expected in the case of introduction of mandatory origin labelling but no valid estimate can be provided. When the rules on mandatory labelling for fresh beef were introduced (following BSE), the DE CA started implementing separate veterinary controls of the origin of the bovine animals (identification via ear tags), For beef labelling controls, 50 inspectors are currently employed at federal and Länder level. The calculated expenditures for this are approximately €4.2 million per year. Generally, origin verification controls are time-consuming and costly. As an indication, during the horse meat scandal, the leader of the federal inspection services requested an additional 1500/1600 inspectors; but this number cannot be converted as such into the actual number that might be

[239] In the Czech Republic, competence for food safety controls is divided between the State Veterinary Authority (SVA), which is responsible for controls of FBOs at the production stage including butchers, but excluding retailers / distribution of pre-packed food of animal origin for which the responsibility of control lies with the Czech agriculture and food inspection authority (CAFIA).

[240] In Germany the Länder Authorities are in charge of verification controls conducted in the context of food law. Theses controls are carried out in the context of the Federal control plan. The Federal control plan is a coordinated plan of the Länder and the Federal Authority (BMVEL) on the official controls to verify the compliance with the food, tobacco and wine law including the provisions of the Food Information Regulation (Reg. (EU) No 1169/2011). It is set up annually and can consist of both product and establishment controls. The Federal control plan is a risk based control program, i.e. the choice of products and establishments is based on a risk assessment. The analyses carried out under the plan may cover the following aspects: chemical parameters; microbiological parameters; use of specific technologies; and, control of labelling aspects.

MS CAs	Estimated additional
	required in addition to current personnel in the case of mandatory origin labelling, as the horsemeat case was an exceptional situation and does not fall within the regular plan of routine inspections and verification checks.
DK	*No estimates*. Increase is expected as the more detailed the information is required the higher the burden. There are approximately 1400 FBOs in Denmark that will be affected by this new mandatory origin labelling. Both MS CAs and FBOs will be affected. MS authorities will have to dedicate more time to control that the new rules are followed, while FBOs will have additional burden in providing more information on the food products. the burden will vary depending on the degree of detail on the origin of the food. DK experience with the additional administrative burdens on the beef sector caused by the specific labelling requirements for beef meat (Reg. 1760/2000): in 2007 it was measured to an amount of approx. 147 million DKK (€19.7 million), excluding the specific labelling requirements for veal. The food industry informs about the problems with labelling meat in meat products with origin. They say that companies buy raw materials from many different countries where price and quality are good. They frequently change supplier and frequently use several different raw materials (e.g. bow, fat and trimmings), which may have different origins, and it will therefore be practically impossible to indicate the origin at country level.
EE	*No estimates* (increase expected)
EL	10-20 % increase in control costs (verification checks)
ES	*No estimates*. The considerable additional costs that could result from mandatory COOL, a priori seem too high in relation to the objectives pursued.
FI	*No estimates.*
FR	*No estimates.* Increase in costs in expected; the higher the level of detail, the more the control is complicated leading to higher costs. The workload will increase due to increased paperwork and need for coordination between the various departments involved (also with the departments at regional level; despite the fact that the controls policy is centrally administered in France, the regional government departments play a key role in implementation). In a context of stable funding for controls and no increase in resources available, this will most likely be met by an increase in control time (of the inspection visits) compensated by a reduction in control frequency. Currently, such controls are carried out by the DGCCRF[241] within the annual plan of controls of FBOs for food safety and hygiene purposes. The annual cost of controls relating to origin of food products is around €5 million, corresponding to 18 to 20 full-time officers at DGCCRF, which represents approximately 0.5% of its overall budget.
HU	*No estimates* (increase expected)

[241] Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes - Ministère de l'Économie et des Finances. Currently, the authorities perform specific checks on origin claims only where, in the context of regular inspections (usually to verify health and nutritional claims which are a top priority in France), they identify an ambiguity on the label (possibility of confusion for consumer, misleading labelling, or lack of sufficient information, or possibility of fraud). Controls on origin can also be specific, in the context of an enquiry ('*enquête'*) where the authorities identify more systemic issues in a sector: this type of specific enquiry are usually targeted at product sectors or categories of products, e.g. more recently in the case of *foie gras* with the geographic origin of the raw material.

MS CAs	Estimated additional
IT	For MS enforcement authorities: The controls on labelling are made by the CA as part of their ordinary control activities under the National Plan of Integrated Controls; labelling verification as such is not therefore a separate activity that would require significant additional time commitment and additional costs. The staff / time devoted to the verification of labels which present a statement of origin, varies depending on the type of activity concerned: at an establishment approved in accordance with Regulation 853/2004, the CA devotes about 20 minutes to verify the label and traceability, but at an establishment at the level of distribution / sales it takes a few minutes (1 to 2 minutes) to examine the correctness / completeness of the information provided to the consumer. These checks are generally based on audits of paper documents submitted by food business operators, and only in a few cases information may be available in electronic format. Where, as in the case of horse meat scandal, the additional costs of controls to verify the origin of the ingredients not listed on the label, were due to the costs of additional sampling plans and laboratory analysis, as well as costs of the follow-up of positive cases and the identification of irregular products available on the market. All these are extraordinary activities that did not fall into the plan, and therefore resulting costs cannot be assessed to draw conclusions on additional costs related to ordinary programming controls under the National Plan of Integrated Controls.
LT	5-10 % increase in control costs (verification checks)
NL	*Against MCOOL: lowest level of intervention possible. No estimates* (but refer us to LEI study of 2012)
PL	*No estimates* (increase expected)
PT	*No estimates* (increase expected)
SK	No impact for costs of controls, but impact in terms of time needed for inspections, compensated by reduction in the number of inspections performed in a certain period (i.e. in the frequency of inspections). No impact for administrative costs. MS enforcement authorities and private operators are affected by these information obligations.
SE	*Against MCOOL: lowest level of intervention possible.* The former National Board for Industrial and Technical Development (NUTEK) -reported 2007 the results of a study of the administrative costs for Swedish food businesses of fulfilling regulations related to food (Näringslivets administrative kostnader på livsmedelsområdet Report 2007:3, with a short English summary). The NUTEK study reported the total costs for food labelling in Sweden to 885 million SEK annually. For beef labelling the cost was 190 million SEK annually which is around 1/5 of the total costs for labelling.
UK	It depends on baseline (how vigorous are MS controls). It is probably the case that no additional resource would be found for this specifically, so decisions would have to be made on what aspects to disengage from. Analysis of COOL that goes beyond following the paper trail involved expensive and not yet proven analysis – it's a different order of thing than composition analysis.

Source: FCEC study on the introduction of mandatory origin labelling for meat as an ingredient, based on consultation of MS CAs (2013)

EW-02-15-284-EN-N

Publications Office

doi: 10.2875/415662