

European Commission  
Directorate General for Health and Consumers

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

**Final Report - Assessment B:**

**Study on the application of rules on mandatory indication of  
country of origin or place of provenance of meat used as an  
ingredient (MCOOL)**

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

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Prepared by the Food Chain Evaluation Consortium (FCEC)  
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**Acronyms**

|              |  |
|--------------|--|
| AAF:         | European Starch Industry Association (Association des Amidonniers et Féculiers)  |
| AIBI:        | International Association of Plant Bakers (Association Internationale de la Boulangerie Industrielle)                              |
| AIDEPI:      | Associazione delle Industrie del Dolce e della Pasta Italiane  |
| AICV:        | European Cider and Fruit Wine Association  |
| ASSICA:      | Associazione Industriali delle Carni e dei Salumi  |
| AU:          | Austria  |
| AVEC:        | Association of Poultry Processors and Poultry Trade in the EU countries  |
| BMPA:        | British Meat Processor Association   |
| BAU:         | Business-As-Usual ( <i>costs</i> )   |
| BE:          | Belgium  |
| BEUC:        | The European Consumer Organisation   |
| BG           | Bulgaria   |
| BVDF:        | Bundesverband der Deutschen Fleischwarenindustrie  |
| CAs:         | Competent Authorities  |
| CAOBISCO:    | Association of chocolate, biscuit and confectionery industries of Europe   |
| CATI:        | Computer Assisted Telephone Interviewing   |
| CAWI:        | Computer Assisted Web Interviewing   |
| CEEREAL :    | European Breakfast Cereal Association  |
| CEEV:        | Comité Européen des Entreprises Vins   |
| CEFS:        | European Sugar Manufacturers (Comité Européen des Fabricants de Sucre)   |
| CEPS:        | European Spirits Organisation  |
| CIBC:        | International Butchers' Confederation  |
| CLCV         | <i>Consommation, logement et cadre de vie</i>  |
| CLITRAVI:    | Liaison Centre for the Meat Processing Industry in the European Union  |
| CMPA:        | Czech Meat Processors Association  |
| COM:         | European Commission  |
| COPA-COGECA: | Committee of Professional Agricultural Organisations and General Confederation of Agricultural Co-operatives in the European Union |
| CULINARIA:   | Federation of Associations and Enterprises of Industrial Culinary Products Producers within Europe                                 |
| CZ:          | Czech Republic   |
| CWE          | Carcass weight equivalent  |
| DE:          | Germany  |
| DEFRA:       | Department for Environment, Food and Rural Affairs   |
| DK:          | Denmark  |
| DG AGRI:     | Directorate General for Agriculture and Rural Development  |
| DG ENTER:    | Directorate General for Enterprise and Industry  |
| DG SANCO:    | Directorate General for Health and Consumers   |
| DG TRADE:    | Directorate General for Trade  |
| EC:          | European Community   |
| ECA          | European Cocoa Association   |



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|               |  |
|---------------|--|
| ECF           | European Coffee Federation   |
| ECFF:         | European Chilled Food Federation                                   |
| EDA:          | European Dairy Association   |
| EE            | Estonia  |
| EEN:          | Enterprise Europe Network  |
| EFM:          | European Flour Millers   |
| EHIA:         | European Herbal Infusions Association                              |
| EL:           | Greece   |
| ERRT:         | European Retail Round Table  |
| ES:           | Spain  |
| ESA:          | European Snacks Association  |
| ETC:          | European Tea Committee   |
| EU:           | European Union   |
| EUCOLAIT:     | European Association of Dairy Trade                                |
| EUROCOMMERCE: | Retail, Wholesale and International Trade Representation to the EU |
| EUROCOOP:     | EU Community of Consumer Cooperatives                              |
| EUVEPRO:      | European Vegetable Protein Federation                              |
| FAO:          | Food and Agriculture Organisation                                  |
| FBO/s:        | Food Business Operator/s   |
| FCEC:         | Food Chain Evaluation Consortium                                   |
| FDE:          | Food Drink Europe Association                                      |
| FDF:          | Food and Drink Federation  |
| FEDIOL:       | EU Vegetable Oil and Proteinmeal Industry                          |
| FIC:          | Food Information to Consumers (Regulation (EEC)1169/2011)          |
| FICT:         | Fédération Française des Industriels Charcutiers Traiteurs         |
| FIAC:         | Fédération Française des Aliments Conservés                        |
| FL            | Finland  |
| FR:           | France   |
| FRESHFEL:     | European Fresh Produce Association                                 |
| FSA           | Food Standard Agency   |
| GI/s          | Geographical Indication  |
| HS            | Harmonised System  |
| IE            | Ireland  |
| IOs:          | Information Obligations  |
| IT:           | Italy  |
| JRC:          | Joint Research Centre-European Commission                          |
| LT            | Lithuania  |
| LU            | Luxembourg   |
| LV            | Latvia   |
| MCOOL         | Mandatory Origin labelling   |
| MS:           | Member State   |
| MSM           | Mechanically separated meat  |
| MT            | Malta  |
| NL:           | Netherlands  |
| OEIT:         | European Organisation of Tomato Industries                         |
| PDO           | Protected Designation of Origin                                    |
| PGI           | Protected Geographical Indication                                  |
| PFP:          | Primary Food Processors  |

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|         |   |
|---------|---|
| PI:     | Primary Ingredient/s  |
| PL:     | Poland  |
| PO/s:   | Private Operator/s  |
| PROFEL: | European Association of Fruit and Vegetable Processing Industries                         |
| PT:     | Portugal  |
| RO:     | Romania   |
| SE:     | Sweden  |
| SCM:    | Standard Cost Model   |
| SG:     | Steering Group (for this study)   |
| SK      | Slovakia  |
| SME:    | Small and medium enterprise   |
| SV      | Slovenia  |
| TBT     | Technical Barriers to Trade   |
| TCs:    | Third Countries   |
| ToR:    | Terms of Reference  |
| UECBV:  | European Livestock and Meat Trading Union   |
| UEAPME: | European Association of Craft, Small and Medium-Sized Enterprises                         |
| UK:     | United Kingdom  |
| UNAFPA: | Union of Organisations of Manufacturers of Pasta Products of the EU                       |
| VNV:    | Vereniging voor de Nederlandse Vleeswarenindustrie (Dutch Meat Manufacturers Association) |
| WG:     | Working Group   |
| WTP     | Willingness to Pay  |
| WTO:    | World Trade Organisation  |

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## Executive Summary

### S.1 Background and scope of the study

This study for DG SANCO aims to provide input for the Commission to draft a report on the mandatory indication of country of origin, or place of provenance, of meat as an ingredient, which the Commission must submit to the European Parliament and the Council in autumn 2013<sup>1</sup>. According to the Terms of Reference (ToR), the purpose of the study is to investigate:

- a. The need for the consumer to be informed on the origin of meat ingredients; 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 implications for trade in the internal market and for international trade..

In terms of the first point, the aim of any proposals for regulatory measures would be to address any potential market failures that may currently be in place due, for example, to a disparity of information between the producer and consumer which works to the detriment of the consumer, hence the need to investigate consumer attitudes towards origin labelling.

In terms of the second point, 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 meat used as an ingredient.

The scope of the study covers meat ingredients of all species, and extends over a large and diverse range of products in which meat is used as an ingredient; for the purposes of the analysis a broad classification of three categories of meat-based food has been followed<sup>2</sup>.

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, MS Competent Authorities (CAs) and relevant professional stakeholders (i.e. EU food industry representatives including processors, farmers and retailers), a consumer survey<sup>3</sup>, and evidence on specific impacts for SMEs from the EEN SME panel hosted by DG Enterprise and Industry. The results and main findings of the study per theme were discussed and endorsed by the Focus Group on Assessment B, and comments have been incorporated throughout the Report, as applicable.

<sup>1</sup> 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 produce reports to assess the feasibility of mandatory origin labelling for several categories of foods.

<sup>2</sup> The study differentiates - to the extent this is relevant and possible - between species, as follows: beef, pig meat, sheep/goat meat, poultry meat, rabbit meat, game and other. **There is a large range of products where meat is used as an ingredient.** For the purposes of this study, the analysis has covered 3 broad categories of products in which meat is used as an ingredient (including muscle meat, minced meat, mechanically separated meat (MSM), blood and offal). The categories were based on several criteria, such as level of processing involved and existing EU legislation (both on the provision of food information to consumers and on hygiene rules); each category includes a diverse range of products, as follows: **cat I: meat preparations** (e.g. uncooked sausages, burgers, skewers, fresh meat with spices); **cat II: multi-ingredient foods** (e.g. pizza, lasagne), whether meat is used as the 'primary ingredient' or used as an ingredient other than 'primary ingredient'. **cat III: meat products** (e.g. cooked/cured/dried/dehydrated ham (pig meat), cooked/cured/ dried/dehydrated salami (e.g. 80% pig meat and 20% beef), cooked/cured/dried/ dehydrated sausages, cooked burgers, cooked skewers).

<sup>3</sup> The FCEC consumer survey was carried out for the purposes of this study in February 2013 and involved 3,000 consumer interviews in 15 MS (the selected MS account for 89% of the total EU population).

The key findings and conclusions are presented for each of the three themes of the study, as follows.

## S.2 Key findings of the study per Theme

### **Theme 1 :Consumers' attitudes towards geographical origin labelling**

This Theme focuses on consumer interest, understanding and preferences in relation to information on origin of meat ingredients (and food more generally). The second part of this Theme covers consumer willingness to pay (WTP) for additional origin information.

In common with other studies, the results of the FCEC consumer survey indicate that, at EU level, the **origin of food products comes fifth in terms of influencing consumers' purchase decisions** (behind taste, best-before/use-by dates, appearance, and price). At the same time, the results of the FCEC consumer survey<sup>3</sup> are consistent with a wealth of literature<sup>4</sup> which demonstrates that consumer interest in the geographical origin labelling of fresh meat and meat products is strong. That said, the available evidence indicates that **consumers' strong interest in the origin of meat used as an ingredient is, however, not necessarily reflected in their willingness to pay for this information.** This point is further discussed below.

**Interest in origin labelling for meat-based food in particular scored highest amongst various food groups** covered by the FCEC survey, with more than 90% of consumer respondents finding it important that origin is labelled on these products. Broadly speaking this strong level of consumer interest is sustained across all the three meat-based food groups covered by the study, although it is the highest in the case of meat preparations, followed closely by meat products<sup>5</sup>.

In terms of the level of detail sought in respect of the origin information, nearly half of the consumers surveyed (EU average) in all cases expressed the highest interest to be informed of the '*country where meat was produced*'. Only approximately one third of consumers sought any other level of detail, either more general such as '*produced in the EU or outside the EU*', or more specific such as '*the country where the animal was born/raised/slaughtered*'.

Overall, the FCEC survey results indicate **consumer preferences are not uniform across the EU**. Significant differences prevail between MS in terms of the level of consumer interest on origin information (with consumers in some MS consistently indicating more (or less) interest than in others), as well as in terms of understanding and preferences on the level of detail required in origin information.

The analysis of existing studies on consumer attitudes towards meat (and/or food) origin labelling highlights that consumers may be disadvantaged in the market because when an origin indication is provided, it is not necessarily what the consumer thinks it is. This would suggest that there is potential 'market failure' to the detriment of the consumer. At the same time, there appear to be **strong differences between consumers both within MS and across the EU, including in the**

<sup>4</sup> This comprises consumer research and studies carried out by/on behalf of consumer organisations (including BEUC and national associations representing consumer interests), national governments and other bodies. A full reference list is included in the Report.

<sup>5</sup> Examples for each group: *uncooked sausages or burgers* (cat I); *cooked ham* (cat III); and, *frozen pizza with salami* (cat II). It needs to be borne in mind, however, that the range of products covered by the three meat-based food categories used in this study is inevitably large and diverse; hence, care should be taken in extending the findings over the whole range of products falling within each category.

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**perception of what ‘origin’ means** to different consumers and in terms of the levels of motivation/reasons for requesting such information.

As outlined in our literature review, in existing consumer research conducted at both EU and MS-level there is a lack of evidence on consumer WTP. The FCEC consumer survey has therefore specifically addressed this issue by including a question on WTP for each of the three product groups covered by the survey<sup>5</sup>. The results obtained indicate that at the base price (i.e. without any price increase), the majority of consumers opt for the highest possible level of detail on origin. However, the **proportion of consumers willing to pay more than the base price for origin information falls very significantly** (by 60-80%, depending on the labelling option and the product) **at the first price increase over and above the base price** (this would be in a range from +5% to +9%, depending on the level of information required<sup>6</sup>). These results suggest that consumers are largely unwilling to pay more than the current base price for origin labelling information, but would be interested in receiving the information (at the highest level of detail possible) if this was to be offered without any increase in price.

Thus, the results of the FCEC consumer survey confirm certain aspects of a **‘paradox’ or discrepancy in consumer attitudes to origin labelling**, which has been highlighted in earlier studies and consumer research. In particular, it confirms that **consumers’ strong interest in the origin of meat used as an ingredient is not necessarily reflected in their willingness to pay for this information**. Furthermore, earlier studies have identified the overriding importance of price and quality in determining purchasing decisions (confirmed by the results of the FCEC survey), as well as a gap between consumer intentions and actual purchasing behaviour which is mainly explained by price considerations. Although WTP as such is not explored in existing studies on consumer preferences these studies indicate that price is a more important consideration for the consumer when buying meat products (and food more generally) than geographical origin as such (with price, appearance, quality, use by date, brand, generally indicated by consumers as being the most relevant aspects affecting their purchasing decisions).

These issues were also extensively raised in our consultation with both the MS CAs and food business operators (FBOs). In order to complete the evidence base, MS CAs were also consulted on consumer attitudes towards origin labelling; indeed, in a few MS, authorities have been studying consumers’ concerns and perceptions on these issues. Based on the available evidence and their own experience, all the 19 MS CAs that responded to the FCEC consultation confirmed that there is consumer interest in origin labelling of meat ingredients in their country, although in most cases this was to a lesser extent than for fresh meat (several MS CAs also indicated that consumer interest is strongest for meat preparations and products of relatively simple processing). In particular, 15 MS CAs consider consumer interest to be at least moderate and in most cases strong. However, several MS CAs also questioned the reliability or completeness of existing consumer surveys demonstrating strong consumer interest in origin labelling, due to the absence of willingness to pay (WTP) questions and the lack of analysis on consumer behaviour. Indeed, 12 MS CAs consider consumer WTP for origin information to be weak and in some cases moderate, while no MS CA considers it to be strong.

Furthermore, both MS CAs and FBOs have raised questions as to why the consumer wants to know the geographical origin, what consumers understand by ‘origin’ and what this information means to consumers. In this context, it was also noted that consumers’ interest can be prompted by the desire to buy national or even ‘local’ (not only due to perceived higher quality and safety or

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<sup>6</sup> This level of price increase represents what would be considered a relatively modest increase on the base price.

animal welfare standards, but also to support the economy, minimise food miles etc.). According to the recent DG SANCO consumer market study on the functioning of the meat market for consumers in the EU, consumers' preference for national or local meat is also considered to be an underlying reason for consumers' interest in origin labelling (particularly for fresh meat/meat products for which 'local' is associated with freshness).

For both MS CAs and FBOs, in particular, clear supporting evidence that consumer WTP for additional origin information on meat ingredients is relatively weak is provided by the fact that voluntary schemes providing such information remain confined to particular MS and product groups. 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; this is also a key finding of the DG SANCO consumer market study cited above.

According to both MS CAs and the EU meat processing industry, the use of **voluntary schemes approved at national or concerted industry level** concerning the origin of meat ingredients in meat and meat-based products is **generally limited**<sup>7</sup>. The existence of schemes covering the geographical origin of meat (or more generally of food) was indicated by 11 (out of 19) MS CAs. Where such schemes exist they tend to be mostly private and are not related only to geographical origin labelling but form part of a wider quality initiative. Only in a few MS, are such schemes considered to cover a significant part of the market and these tend to be for the specific species and meat products covered by the scheme (e.g. *Viande Porcine Française (VPF)* in France and the 2010 UK voluntary Principles on country of origin labelling).

## **Theme 2: Characteristics of the supply and processing chain in the EU meat sector (for meat used as ingredient)**

Under this Theme, the FCEC has developed a thorough overview of the structure and characteristics of the food supply and processing chain in relation to the three meat categories covered by the study<sup>8</sup>.

Even though precise aggregate data on the volume and value of production of the 3 meat categories covered by the study are not available, the industry stakeholders indicated that as a general rule between 30 – 50% (depending on the MS) of the total slaughtered meat volume is processed into minced meat/meat preparations/meat products. At EU level, **pigmeat** has by far the **largest share of all processed meat**: in total, an estimated 70% of the EU processed meat production volume is made of pigmeat, followed by poultrymeat (18%) and beef (10%). For meat of other species, including sheep and goat meat, game, rabbit meat and horse meat, these represent less than 2% of the EU processed meat market.

<sup>7</sup> Excluding the EU quality schemes (PDO/PGI, Council Regulation (EC) No 510/2006), which account for an estimated maximum 10% of the total sales value of the meat/meat products sector. According to DG AGRI data, in 2010 some 98 meat products were registered as GIs, with a sales value of €3.16 billion. These products are mainly registered in Italy (accounting for nearly 60% of the total EU sales value of meat product GIs), Germany, France and Spain. To date, over 130 meat products are registered as GIs under the EU quality schemes.

<sup>8</sup> In line with the ToR, this study has focused on the supply chain for meat used as ingredient, i.e. from meat cutting to final processing and retail distribution of meat containing products to the final consumer. The earlier stages of the supply chain of live animals and fresh/frozen meat (i.e. slaughtering and meat cutting) have been covered by the parallel study of DG AGRI (LEI, 2013).

The EU meat processing sector is characterised by a **low degree of concentration**, with the vast majority (90%) of companies being SMEs which independently operate at different stages of the supply chain. There is **limited vertical integration** (i.e. forward integration from slaughter/meat cutting to meat processing). These structures and techno-economic linkages are common for all species, but particularly prevail in the case of the processed pigmeat and beef sectors (while larger vertically integrated companies tend to be more prevalent in the poultry meat sector).

Slaughterhouses and meat cutting plants are key actors with respect to passing meat origin information on to their clients (i.e. traders; retailers; and, operators in further processing stages down the supply chain). The **relatively fragmented and disjointed structure of the meat processing industry beyond the slaughter stage makes it more difficult for operators to have access to origin information** at the different levels of the supply chain. The industry noted that in the EU meat sector, except in the more limited cases of vertically integrated companies, there is almost no relation between slaughterhouses and companies processing meat into meat products, as slaughtered meat and unprocessed meat are generally sold on spot markets; this is particularly the case for standard quality meat ingredients, such as pigmeat which provides by far the largest volume of meat used in processed products.

At the same time, our findings indicate that there is **limited demand from processors for origin information or origin-specified/certified meat ingredients**. According to the industry, as a general rule, the indication of origin adds value to products only in the case of some meat preparations and meat products coming from a ‘**single meat piece**’ (e.g. **dried ham**) as this is commonly perceived by consumers as being close to fresh meat. It is not relevant for the majority of **meat preparations** (e.g. burgers and sausages), which arrive at the processing stage **already mixed and/or trimmed**; this is because of the **significant logistical constraints** to separate the (continuous) flow of trimmings into batches by origin, making it difficult for them to identify the origin of meat ingredients. The available evidence shows that, except in certain cases which generally account for a relatively limited share of the total processed meat production volume, **meat origin is not a specific condition imposed on or requested from suppliers** at the different stages of the supply chain.

Thus, due to the currently prevailing structure of the supply chain in this sector and the absence of any significant (B2B) interest in origin information, **the transmission of origin information generally tends to stop at the earlier stages of the supply chain (slaughterhouses and meat cutting plants)**.

In terms of **sourcing practices**, several factors influence the production strategies and thus the sourcing practices of meat processors. In particular, both for small and large companies, the main important parameters for meat processors’ sourcing decisions are the availability of suitable raw material in sufficient volumes, standard quality specifications (which are determined by the quality specification of the final products i.e. premium or lower value) and competitive prices. Our collection of data and evidence reveals that at EU level as a whole, meat processors tend to procure unprocessed meat and meat products from **multiple sources**, whether EU only or EU/non-EU. Beyond this general pattern, multiple sourcing practices tend to differ between species, depending on the type of meat raw material as well as on the final products. While **multiple sourcing within the EU** is a practice prevailing for pig-meat based products, **multiple sourcing from EU and non-EU countries** is observed mainly in the beef- and poultry based product sectors.

The frequency of changes in the mix of suppliers is affected by the same factors as sourcing patterns. Moreover, differentiating sources serves as a business strategy to **reduce the risk** of



delivery failure **driven by external factors** (e.g. animal diseases or food safety crisis, strikes etc.). It was noted that FBOs, particularly SMEs, tend to change their suppliers 3 or more times per year in order to guarantee an adequate level of raw material.

**Traceability** is currently ensured by compliance with **existing EU legislation for food safety purposes**, whereby although the systems currently set up ensure traceability across the entire value chain, at every stage (with the exception of retailers selling to ultimate consumers) only **‘one step down and one step up’** the supply chain is known; this system does not gather all the information that has been accumulated through the chain (cumulative traceability). In analysing the access to origin information through the traceability system, as a general principle **the higher the complexity of the cutting and processing stages, the more difficult it becomes to trace the origin of meat ingredients, especially in the case of trimmings**. Furthermore, **traceability requirements vary between the different animal species**, thus making accessibility to origin information also dependant on this factor. While the current traceability system of beef is most complete for origin purposes, the traceability systems for pigs, poultry and sheep and goats are not set up for recording the movement of individual animals throughout the supply chain: this makes origin information of meat of those animal species from existing traceability systems less available.

In terms of the technologies used for the implementation of traceability along the supply chain, information exchange still mostly occurs via paper documentation (e.g. supplier invoice), but some sophisticated IT traceability systems have been applied in a few MS, and could be used for (geographical) origin related issues. However, both the industry and MS CAs have at the moment relatively limited understanding of whether IT systems would be capable of capturing and processing more detailed origin information and transferring it to labels at an affordable cost.

**The relatively low concentration level of the industry in the meat processing sector, the high presence of small-medium scale operators, the low degree of vertical integration, the complexity of sourcing practices, and the current traceability set up per species, all have strong implications in determining the extent of potential impacts for individual FBOs** (Theme 3). Our findings highlight the important link between the degree of vertical integration, company size and traceability capacity. These factors enable larger scale integrated supply chains to put traceability and origin information systems in place along the whole supply chain more readily and at a lower cost (per unit of output), to the extent they can benefit from scale economies. For some of the smaller operators, however, 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.

### **Theme 3: Impact of the potential options of origin labelling for meat used as ingredient**

A range of options and modalities for mandatory origin labelling were assessed, including the *‘no policy change’* option.

For those against the introduction of origin rules for meat used as an ingredient on a mandatory basis there are questions of relevance, effectiveness and efficiency. In particular, the key concerns identified are as follows: 1) whether mandatory rules are a relevant or effective tool to meet the objective of improving consumer information; 2) to ensure effective implementation will involve complex and costly control for both MS CAs and FBOs, while the effectiveness of controls based on documentary checks is questioned, as it is seen as potentially creating room for more fraud; and, 3) the introduction of such rules is expected to lead to significant cost increases, hence to

increased consumer prices, while consumer willingness to pay (WTP) for the additional costs is generally considered (as also backed up by evidence presented in Theme 1) to be low.

Article 26(3) is therefore considered as a partially or entirely sufficient solution by those against the introduction of rules on a mandatory basis, as expressed by the majority of stakeholders and 11 MS CAs (out of the 19 that responded to the consultation). The provision is made that the implementing rules for voluntary origin labelling must be clear and meaningful to consumers, and that the costs of implementation need to be taken into consideration in all cases.

On the other hand, in the view of some of the MS CAs, the key reasons why voluntary origin labelling under Article 26(3) might not be sufficient/ satisfactory are that it only covers meat as a primary ingredient and could be difficult to establish this for certain categories of products, while there could still be a significant gap in origin labelling where voluntary schemes are not widespread or do not exist. Consequently, 8-10 MS CAs (out of the 19 that responded to the consultation) were in favour of the introduction of some mandatory uniform rules, at least for meat as primary ingredient (i.e. not for minor ingredients), while 5 MS CAs were against the introduction of rules on a mandatory basis.

Both MS CAs and FBOs indicated that the higher the level of processing and perceived sector complexity, the less the level of detail that is considered possible to provide on the origin of meat as ingredient. All stakeholders noted the need for a full scale impact assessment in the event it is considered necessary to proceed to the proposal of detailed rules on origin labelling of meat ingredients on a mandatory basis.

In the case of **MS CAs**, even though it is difficult to identify clear trends in view of the relatively limited number of responses at this stage<sup>9</sup>, the **preferred policy options by MS CAs and the related modalities** per category of products<sup>10</sup> are shaping as follows: for **cat I** products (meat preparations), towards **option 2** (labelling indicating the MS or TC) and **modality a.1** (origin split in three stages: “*born, raised and slaughtered*” following the beef origin labelling, or any different combinations); for **cat II** products (meat ingredients in multi-ingredient foods) towards **option 1** (labelling indicating EU/non-EU origin or EU/third country) – although marginally preferred over option 2 – but no clear trends emerge on modalities; and, for **cat III** (meat products) **option 1 and modality b.1** (origin as determined in accordance with the EU Customs Code - mainly corresponding to the country of the last substantial transformation). MS CAs highlighted the need to **ensure consistency with implementing rules for mandatory origin labelling of fresh meat**, i.e. that rules for meat ingredients cannot go further in scope or be stricter in their modalities than rules of fresh meat for the relevant species.

In the case of **FBOs**, the technical feasibility of the various options and modalities was a key issue. **Option 1** (origin labelling based on a) EU/non-EU origin or b) EU/third country) is **considered more feasible** (or at least less challenging) than the other options. Generally, **only modality b.1** (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 feasible** by FBOs; this is particularly the case of cat II products (use of meat ingredients for the production of multi-ingredient foods). Other options/modalities are considered **not feasible** for the following reasons:

<sup>9</sup> It should be borne in mind that the MS CAs are still forming their position on the issues under study and this explains the relatively limited number of preferences expressed.

<sup>10</sup> It is noted that each of the three product categories examined by the study comprises a diverse range of products of various levels of processing and complexity.

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- a. *Incompatible sourcing patterns and practices for live animals and fresh/unprocessed meat.* As described in Theme 2, the current sourcing practices are often very complex and involve multiple EU and also non-EU origins (the latter are especially important for beef and poultry); 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 meat at the plants where it is used as an ingredient.
  - b. *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 actually generate serious inefficiencies.
  - c. *Systematic adaptation of labelling/packaging to changes in the origin(s) of meat used as ingredient:* in view of the frequent change of origins (see point a. above), this can require extremely frequent changes of packaging and labels and additional investment in printing equipment, and can result in underutilization of packaging lines and in an increase in waste packaging material.

**For both MS CAs and FBOs, 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 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. However, the combinations of some of the other options with modality a.2 and modalities b also address the place of provenance.

In terms of the costs of implementation **for those options considered technically feasible, the costs (and feasibility) of traceability are a key concern.** The existing EU traceability requirements (in the context of food safety, Regulation (EC) No 178/2002) would in principle be a useful baseline for providing origin labelling information for meat ingredients; however, as they are designed to serve a different purpose, they only provide at present *“one step forward/one step back”* traceability, rather than cumulative traceability throughout the supply chain which would be the requirement for establishing origin traceability.

All of the reviewed modalities (with the exception of modality b.1) require the implementation of a traceability system that **goes beyond the systems of mandatory traceability currently in place**<sup>11</sup> and **significant adjustments** would therefore be needed **to achieve full (cumulative) traceability along the supply chain** for origin labelling purposes. Even though there is limited and very heterogeneous evidence on potential additional costs associated to full traceability, sectors for which an indicative quantification was provided (meat preparations / meat products; prepared meals) **additional traceability costs in the range of +3% to +10% of the total production cost of these products were identified**<sup>12</sup>.

As for the fuller **operational feasibility and costs** deriving from the implementation of the relevant policy options, the following key conclusions can be drawn:

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<sup>11</sup> This point was also highlighted by the DG AGRI study on mandatory origin labelling for fresh meat (LEI, 2013), which analyses traceability up to the level of meat cutting plants. The costs associated to the upstream stages of the supply chain have already been reported in that study, and these will apply in addition to the costs identified here, to the extent that these are relevant to the case of the processed meat operations.

<sup>12</sup> These costs will be specific to the production of final products. They are – at least partly - in addition to the costs likely to be incurred at the earlier stages of the supply chain up to slaughterhouse/meat cutting plant (where the latter were not the place of the last processing of the final product); the latter costs are covered by the DG AGRI study on the impact of mandatory labelling of fresh meat under various options.

1. **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 additional costs stemming from option 2 (*labelling indicating the MS or TC*). With all due caveats relating to limited comparability of data as these refer to specific cases, additional costs - expressed as % increase of total production cost - **for Option 1 range from negligible up to +25%**, whereas additional costs **for Option 2 range from +15-20% to + 50%**.
2. The four most impacted cost items, as identified by industry stakeholders, are as follows:
  - a. adaptation of sourcing practices and possible changes in the mix of suppliers;
  - b. adaptation of production process of the final product;
  - c. adaptation of packaging and labels/labelling process;
  - d. implementation/adaptation of traceability (taking into account the features of existing systems).
3. In case trimmings/fat are covered by mandatory rules, the industry would not be able to implement traceability, therefore it would not make use of these co-products. This would result in additional losses in terms of foregone revenue generally estimated at 10% of the turnover of slaughterhouses/meat cutting plants, as well as to additional costs for its disposal as waste. These costs could to some extent be mitigated if this material is destined to other non-food uses.
4. FBOs have also noted that the more detailed the requirements the higher the risk of errors and need for recalls. For bigger companies recall costs have been estimated at >€50,000 - €100,000 per recall.

In terms of additional administrative costs and burden, it has not been possible 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 the costs of traceability and control costs more generally. The general observation is that an increase in control costs (and traceability costs) is expected in all cases; the greater the level of detail to be provided the higher the cost. For MS CAs, the increase in control costs is in terms of the number of staff needed: **most MS CAs that have provided some quantitative estimate of the scale of the anticipated additional costs, have indicated they expect a 10-30 % increase in control costs (in terms of verification checks at FBO point), including administrative burden.** Additional costs, beyond 'business-as usual' (BAU as such, are also expected in the case of FBOs: in the two examples provided at EU level (pigmear sector: sausages and cooked ham) the **total control costs** are negligible in the case of Option 1, but become more substantial in the case of **Option 2 (increase of up to 8-12% of the total production costs).**

The impacts described here are set out at aggregate level. There are **differences between FBOs and between MS in terms of the scale of these impacts, and associated costs.** For each individual operator, the extent of the additional costs will depend on several factors including: ***product range; animal species concerned; current extent of voluntary origin labelling; sourcing practices***; degree of ***vertical integration***; the ***current status of traceability systems and practices*** (this factor is also linked to the animal species); and, the ***competitive structure and resulting bargaining power*** in the meat supply chain, which will determine which elements of the chain will eventually bear the adjustment costs. These factors, which can vary significantly between operators and there are also differences between species (as outlined in Theme 2)<sup>13</sup>, will determine

<sup>13</sup> This makes it difficult to carry out a systematic analysis of costs for the industry as a whole and not possible to compare quantitative estimates when these refer to specific situations and assumptions.

the ability of individual operators to take advantage of existing systems and economies of scale in setting up the required traceability and operational structures for the implementation of the rules.

It is **not considered possible**, at least in the short to medium term, **to mitigate these costs through** improved traceability and advances in **technology** (e.g. RFID, isotope analysis), as the technology uptake at the moment in the processed meat, and more generally food industry, is virtually non-existent. The industry indicated that RFID tools have been tested by a number of meat processing companies in a range of different meat products and have proven not cost-effective. MS CAs by and large (with the exception of only one MS) remain unconvinced that isotope analysis can provide a cost-effective solution for wider implementation of origin verification controls, as both the costs of this testing are high and the available test methods are not widely tested yet.

The additional traceability and other 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) cannot be estimated as such. This will depend on a range of factors, including the competitive structure of the industry, 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 likely to be incurred. This point is of particular importance given consumers' reluctance to pay more for such labelling as is indicated under Theme 1.

In terms of potential impacts on **competitiveness in the internal market**, available evidence suggests that Options 2 and 3 would affect the competitive position of: FBOs producing meat preparations/meat products particularly in MS that are not self sufficient in raw material; FBOs using meat as ingredient (compared to those that do not); and, FBOs sourcing from third countries (e.g. for poultry and beef ingredients). In addition, potential changes in intra-EU trade flows and the risk that patterns of "food chauvinism" may emerge have been identified by stakeholders as potential impacts.

In terms of potential impacts on **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 potentially 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.

Although views on potential **environmental impacts** tend to be less unanimous amongst stakeholders, the following points were identified as those considered the most important: mandatory origin labelling could provide an incentive to consume products produced in proximity (in general, this impact is mainly expected in the case of option 3); and, it carries the risk of increasing the size of labels / packaging. Other potential environmental impacts include the increase in waste ingredients (e.g. in the event that the use of trimmings would no longer be feasible this would result in an increase in their disposal as waste, unless they could be exported or used as animal by-products), the increase in waste of packaging material.

All stakeholders noted the need for a full scale **impact assessment** in the event that it is considered necessary to proceed to the proposal of detailed rules on mandatory origin labelling of meat ingredients.

## **1 Introduction and methodology**

### **1.1 Objectives, time plan and structure of this Report**

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 mostly 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 25 October 2011 on the provision of food information to consumers (the ‘FIC Regulation’) 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;
- Requiring the Commission to produce reports to assess the feasibility of mandatory origin labelling for other categories of foods.

This study for DG SANCO aims to provide input for the Commission to assess the impact of different options for implementing voluntary origin labelling rules and to draft a report on the mandatory indication of country of origin, or place of provenance, of meat as an ingredient. According to the Terms of Reference (ToR), the purpose of the study is two-fold:

- To study the impact of different options for the modalities of application of the provision governing the use of voluntary origin labelling laid down in Article 26(3) of Regulation (EU) N° 1169/2011 (Assessment A)<sup>14</sup>; and,

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<sup>14</sup> As clarified with the SG from the start of the project, in Assessment A the impact is assessed in terms of the relative advantages and disadvantages between the various modalities proposed, and resulting costs. The benefits of voluntary origin labelling as such are not addressed here as this issue was extensively analysed during the impact assessment for the adoption of the FIC Regulation (SEC(2008)92); however, the analysis addresses the relative benefits of following one option over another.

- To study the need for the consumer to be informed regarding the origin of meat ingredient(s) and the operational feasibility of providing the mandatory indication of the country of origin or place of provenance of meat ingredients (Assessment B).

The purpose of Assessment B is to gather evidence for the Report that the Commission must submit to the European Parliament and the Council in autumn 2013 regarding the mandatory indication of the country of origin or place of provenance for meat used as an ingredient. The report should take into account in particular:

- a) The need for the consumer to be informed, and
- b) The 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 implications for trade in the internal market and for international trade.

In terms of the first point, the aim of any proposals for regulatory measures in this direction would be to address any potential market failures that may currently be in place due, for example, to a disparity of information between the producer and consumer which works to the detriment of the consumer, hence the need to investigate consumer attitudes towards origin labelling.

In terms of the second point, 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 meat used as an ingredient.

The present Final Report on Assessment B is structured as follows:

1. Introduction presenting the objectives, the organisation of the work and the methodology and collection tools used in the study (full methodology is provided in Annex B, following the ToR in Annex A), as well as main challenges and issues that emerged while carrying out the study.
2. The main findings and conclusions of each Theme covered by assessment B of this study, in particular :

**Theme 1** (Chapter 2) covers consumer interest in origin labelling, willingness to pay (WTP) and extent of voluntary origin labelling schemes in the meat/meat products sector;

**Theme 2** (Chapter 3) identifies the characteristics of the supply and processing chain in the EU meat sector (for meat used as ingredient);

**Theme 3** (Chapter 4) identifies, describes and analyses the advantages and disadvantages of the various possible options of origin labelling for meat used as ingredient, and their potential costs and other impacts.

3. Annexes including ToR of the study, detailed methodology for assessment B of the study, key factors and figures of the sectors covered by the analysis, and the full FCEC consumer survey results.

**The main conclusions of the study are presented at the end of each Chapter (Theme), with overall conclusions drawn in Chapter 5. The analysis presented incorporates the review and comments of the focus group on Assessment B which met on 4 June 2013.**

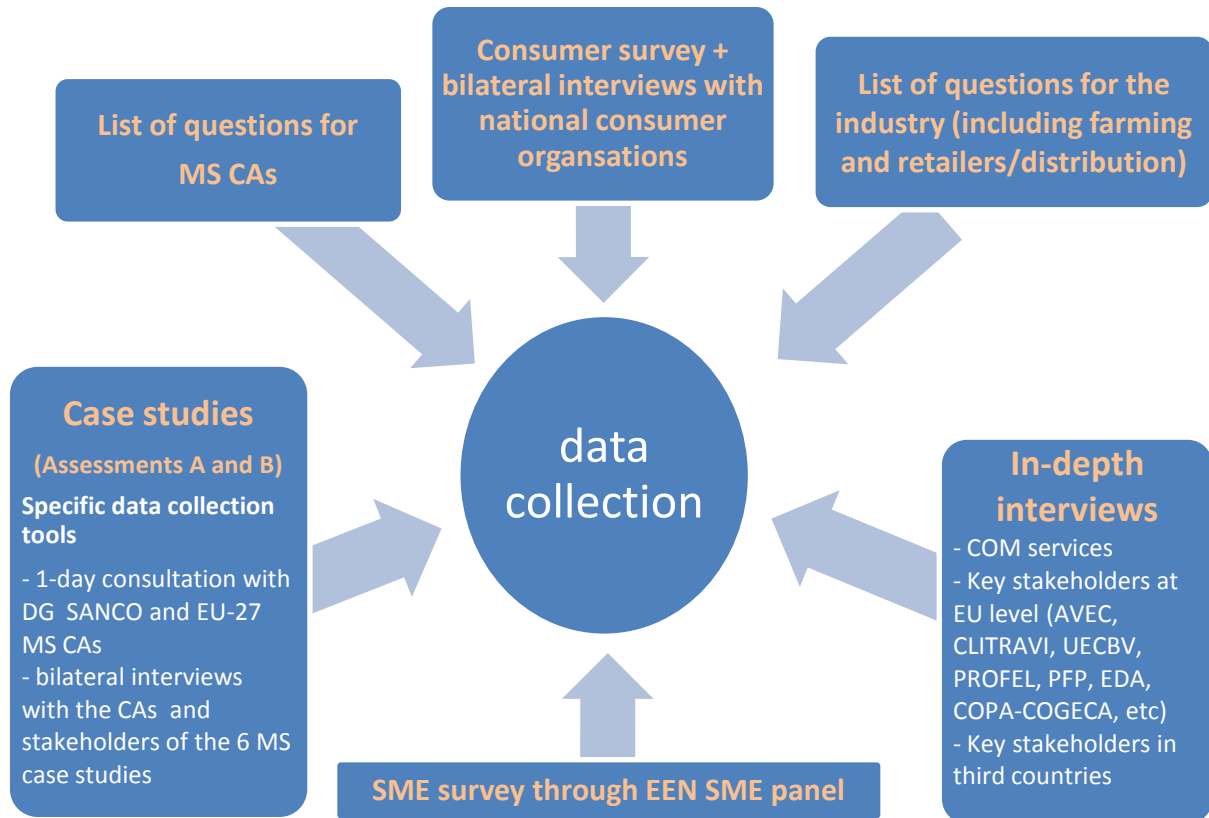
## **1.2 Organisation of the work and overall approach to the study**

Direct sourcing of relevant data and information from stakeholders (mainly via structured interviews) has played a key role in our data collection strategy (



**Figure 1).** Both EU-level and Member State level stakeholders were involved in this process, the latter mostly in the framework of the case studies. Maximising efficiency of the data collection process has been crucial in this project in view of the wide range of sectors potentially affected, and the extensive number of organisations representing these sectors; ensuring wide coverage of all potentially affected sectors while maintaining sufficient depth in the analysis has been identified as a key challenge from the outset of this study, as demonstrated by the overwhelming interest of stakeholders to our consultation. In refining our data collection strategy following exploratory interviews with the key stakeholders, as also highlighted in the Inception Report and agreed with the SG, a centralized organisation process has been followed as the most effective and efficient way to source relevant data and information from all the relevant stakeholders.

**Figure 1: Data collection strategy for the study**



### 1.3 Scope of the study

Assessment B refers to meat used as ingredient which may include unprocessed meat, minced meat, mechanically separated meat, meat preparations, meat products and other meat-containing processed food<sup>15</sup>.

The study differentiates - to the extent this is relevant and possible - between species, as follows: beef, pig meat, sheep/goat meat, poultry meat, rabbit meat, game and other.

**There is a large range of products where meat is used as an ingredient.** For the purposes of this study, the analysis has covered 3 broad categories of products in which meat is used as an ingredient (including muscle meat, minced meat, mechanically separated meat (MSM),

<sup>15</sup> The definitions to be used for ‘meat’, ‘mechanically separated meat’, ‘meat preparations’ and ‘meat products’, should be the ones referred to in Article 1(f) which refers to points 1.1, 1.14, 1.15 and 7.1 of Annex I to Regulation (EC) No 853/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific hygiene rules for food of animal origin.

blood and offal). The categories were based on several criteria, such as level of processing involved and existing EU legislation (both on the provision of food information to consumers and on food safety/hygiene rules); each category includes a diverse range of products, as follows:

**Cat I: Meat preparations**, including minced meat / MSM (e.g. seasoned minced meat uncooked sausages, burgers, skewers, fresh meat with spices);

**Cat II: Multi-ingredient foods** (e.g. pizza with salami, lasagne), whether meat is used as the 'primary ingredient' or used as an ingredient other than 'primary ingredient'.

**Cat III: Meat products** (e.g. cooked/cured/dried/dehydrated ham (pig meat), cooked/cured/ dried/dehydrated salami (e.g. 80% pig meat and 20% beef), cooked/cured/dried/ dehydrated sausages, cooked burgers, cooked skewers);

The analysis has focussed, but has not been limited only, on the following key MS processors for the various meat sectors:

**UK:** poultry, sheep and goats, beef;

**FR:** pig meat, sheep and goats, rabbit meat and game;

**DE:** pig meat;

**CZ:** pig meat and poultry;

**NL:** poultry and pig meat;

**IT:** beef

In line with the ToR, this study has focused on the supply chain for meat used as ingredient, therefore encompassing those stages of the chain that supply meat for use as ingredient and final meat-based products (for the 3 categories of products covered by the study), i.e. from meat cutting to final processing and retail distribution of meat containing products to the final consumer. The earlier stages of the supply chain of live animals and fresh/frozen meat (i.e. slaughtering and meat cutting) have been covered by a parallel study for DG AGRI (LEI, 2013).

#### **1.4 Main challenges and issues addressed**

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

1. Due to the **diversity of the range of products covered by the study**, a **growing number and range of organisations** were identified as affected by the issues examined by this study, including some that have requested specific meetings and consultations with the FCEC to submit their views and data for the study. This has included national associations, companies and organisations from other sectors than

those initially selected. The purpose of these meetings was to allow them to provide their inputs, so that the FCEC develops a complete understanding of the potential impact of the modalities to be introduced by Regulation (EU) No 1169/2011. This has made the process of data collection and consultation more complex and extensive than initially planned, but was agreed with the SG as a necessary step to ensure that all points of view are expressed and all relevant data are taken into account.

2. Due to the **complexity of the issues and lack of clarity on some provisions** of the legislation, we have had to hold repeated consultations to improve and validate the data and evidence provided. Moreover, in the case of Assessment B in particular, as legislation is not yet in place, it was difficult for stakeholders to consider possible ‘*what if*’ scenarios in the event that origin labelling of meat ingredients would become mandatory especially concerning the feasibility of specific modalities.
3. 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**. This has resulted in delays in the data and evidence gathering process as well as a significant increase in the consultation effort.
4. Despite efforts to collect as detailed and structured as possible quantitative data and estimates, **in several cases it was not possible to carry out quantitative analysis** due to the lack of suitable and reliable information. Moreover in many cases the data available were referring to very specific situations (individual company/plant level), hence the analysis could not be generalised at sector level. In all these cases only a more qualitative assessment was feasible, and this has been provided.
5. Some stakeholder organisations have requested **the translation of the list of questions** for the industry in several languages as well as the presence of interpreters during the consultation with them. In addition, in some cases written replies and documentations have been provided by some stakeholders and the CAs in other languages than English, French or German. This has involved an additional amount of work for our team.
6. Several EU stakeholder organisations in the meat/meat products sector have noted that **the launch of the parallel study for DG AGRI**, in the same timeframe to the assessment B for DG SANCO, has created confusion due to the scope of the two studies, and this has complicated the process for the identification and collection of relevant data as in practice the structure of the sector does not necessarily follow the same categorisation as the categories of products covered by the two studies. These issues have been compounded by the emergence of the ‘horse meat’ scandal affecting several of the product sectors covered by this study, which has caused further delays and complexity during the main consultation phase.

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 repeated meetings and the provision of FCEC guidance to support, advise and encourage stakeholders in their data collection as well as to cross check and validate the data collected; and,
- In some cases, where genuine difficulties have been encountered and delays requested, the extension of the initially foreseen deadlines to allow a longer period for the consultation process.

Finally, when reading the results of the FCEC consumer survey as well as of the consumer surveys carried out by the consumer organisations, it is important to bear in mind that the European legislation takes as a benchmark **the “average consumer”**, who is reasonably well-informed and reasonably observant and circumspect, taking into account social, cultural and linguistic factors (see, for example, premise (18) of the Unfair Commercial Practices Directive 2005/29/EC). It is noted that the available behavioural evidence casts doubts on the realism of the “average consumer” archetype. It is also noted that existing consumer surveys carried out by consumer organisations do not contain any willingness to pay questions; this issue has been addressed by the FCEC consumer survey, but only for the part relating to Assessment B (mandatory labelling of meat as an ingredient).

## **2 Theme 1: Consumers’ attitudes towards geographical origin labelling**

*The methodology of the present study has included a dedicated consumer survey for the purposes of the analysis, designed in line with the ToR for the study (FCEC 2013, Annex D).*

*Care should be taken when using or interpreting individual results of the FCEC survey without relating them to the overall results of the survey. It is also important to note that the results of the various consumer studies quoted in the sections that follow are not always directly comparable with the results of the FCEC survey, due to the different methodologies and scope of these surveys/studies (in particular the range/definitions of products covered with regards to fresh/unprocessed and processed meat): the comparative analysis provided below was carried out only where feasible. Furthermore, care should be taken when extending the findings of the analysis of Theme 1 outside the overall context of the study.*

*It is finally noted that the FCEC survey took place in the midst of the horse meat scandal affecting consumer trust in the meat product / meat-containing product sector, and this might have influenced the outcomes of the survey. Nonetheless, some of the key findings of earlier research carried out on consumers’ attitudes towards origin labelling have been confirmed by the results of the FCEC survey, as outlined in the following sections.*

### **2.1 Consumers’ interest in the geographical origin of meat ingredients**

#### **2.1.1 Evidence from the FCEC consumer survey and other consumer research and studies**

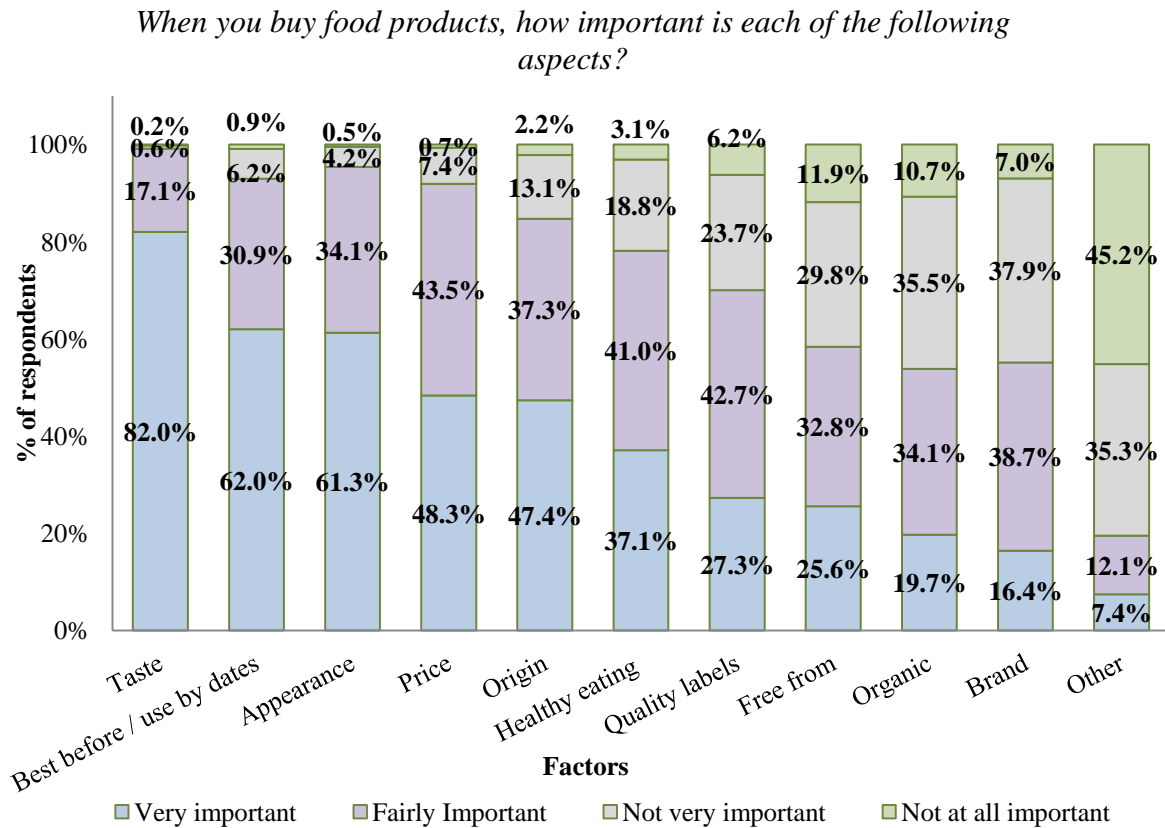
##### **FCEC consumer survey (2013)<sup>16</sup>**

The results of the FCEC consumer survey (**Figure 2**) 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 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*’).

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<sup>16</sup> The FCEC survey was carried out in February 2013 and covered 3000 consumers in 15 MS (the selected MS account for 89% of the total EU population).

**Figure 2: Importance attached to different aspects influencing food product purchases (average data for 15 EU countries)**



*Note: percentages may not add up to 100% due to rounding*

Source: FCEC consumer survey, 2013

**Amongst the various food groups covered by the survey (8 in total), interest in origin labelling for meat-based food has scored the highest (Figure 3).** With a more targeted examination on different types of processed meat-based products, the survey results indicate that more than 90% of consumer respondents find it important that origin is labelled, as follows:

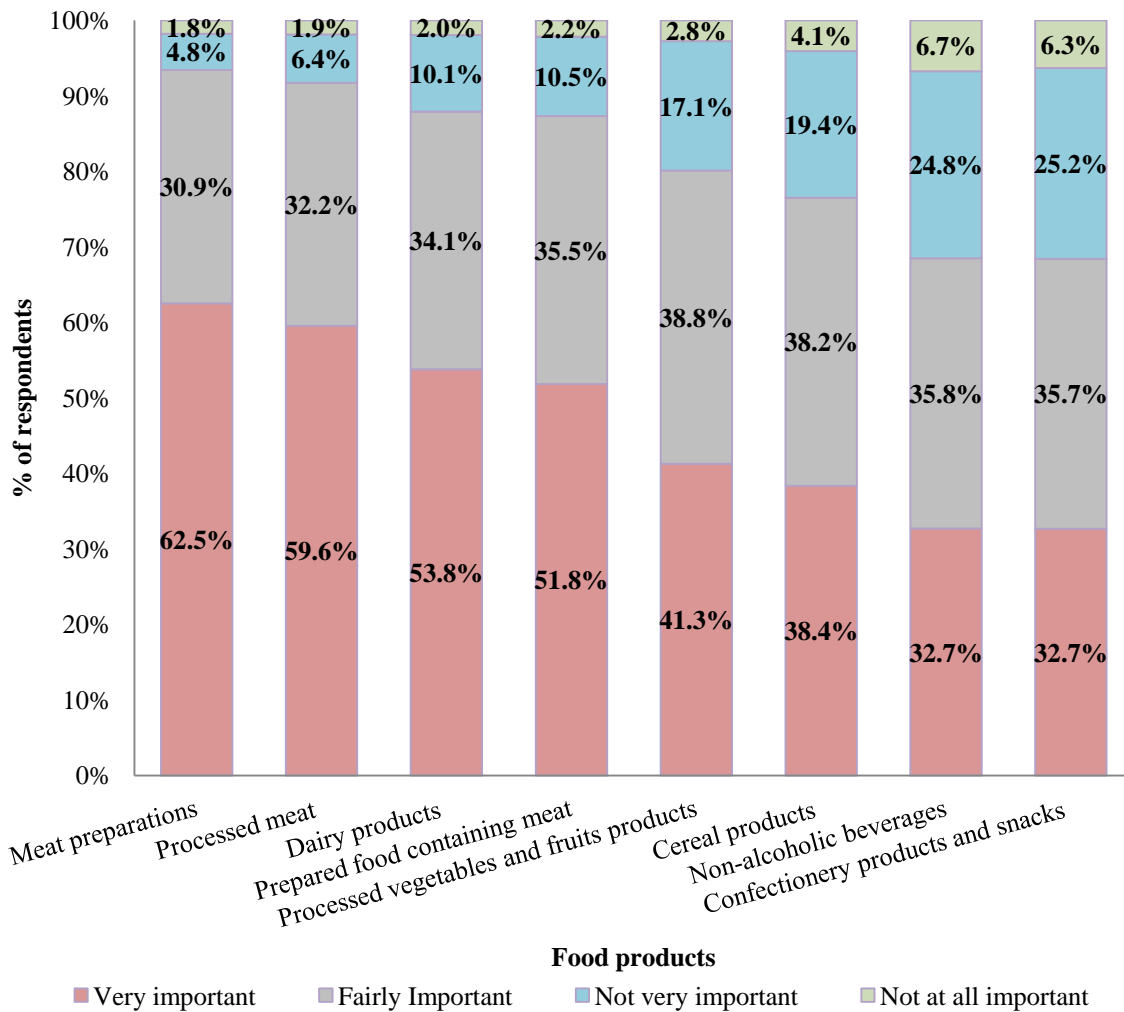
- On meat preparations, 63% find it ‘*very important*’ and 31% ‘*fairly important*’;
- On processed meat, 60% find it ‘*very important*’ and 32% ‘*fairly important*’; and,
- On prepared food containing meat, 52% find it ‘*very important*’ and 35% ‘*fairly important*’.

Nonetheless, the survey results reveal that there are significant differences at MS level on this specific aspect. While between 65% and 85% of respondents in Bulgaria, Greece, Italy and Romania consider ‘*very important*’ that origin is labelled on all the three meat-related

products considered, only around 50% of respondents in Germany, Spain and Lithuania deem it ‘very important’.

**Figure 3: Importance attached to the indication of origin on the food label (average data for 15 EU countries)**

*How important is it for you that the origin is indicated on the label for each of the following food products / beverages?*



*Note: percentages may not add up to 100% due to rounding*

Source: FCEC consumer survey, 2013



Consumers were asked more specifically the level of detail that they find necessary to know on the origin of the meat ingredients for each of the three meat-based product groups (examples for each group: *uncooked sausages or burgers*; *cooked ham*; and, *frozen pizza with salami*). The following findings emerge from their answers (**Figures 1, 3 and 5, Annex D**):

- Consumers are by and large interested to know more on the origin of meat for all the three meat-based product groups;
- Consumers indicated in all cases the **highest interest to know the ‘country where meat was produced’**: nearly half of consumers (EU average) require this level of detail on the origin, while roughly only a third of consumers require any other level of detail (whether more general such as ‘*produced in the EU or outside the EU*’, or more specific such as ‘*the country where the animal was born/raised/slaughtered*’);
- **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:
  - In terms of the most preferred type of information at EU level (the ‘*country where meat was produced*’), 51%-69% of consumers, depending on the MS, want to know this in the case of *uncooked sausages or burgers*, while in the case of *cooked ham* this ranges from 33% to 67%. In the case of *frozen pizza with salami* 37%-64% of consumers, depending on the MS, want to know the ‘*country where salami was produced*’.
  - In terms of ‘*the country where the animal was born/raised/slaughtered*’, in the case of *uncooked sausages or burgers* 20%-55% of consumers, depending on the MS, want to know this, while in the case of *cooked ham* this ranges from 17% to 49% of consumers, and in the case of *frozen pizza with salami* from 12% to 41% of consumers;
- Interest to know more on the origin is the highest, irrespective of the level of detail, in the case of *uncooked sausages or burgers* (example of a meat preparation), which can be considered as the closest to fresh meat of all the 3 categories covered by the survey, followed (closely) by *cooked ham* (example of meat product). Only 6% of consumers (EU average; at MS level, 2%-11% and 2%-13% of consumers respectively for each of these two products, depending on the MS) indicated they are not interested at all in origin information, while roughly a third of consumers indicated they need to know at least whether the meat is of EU or non-EU origin;
- In the case of *frozen pizza with salami*, although interest to know more on the origin of the meat ingredients is lower than for the other two products, it is still significant. Only 11% of consumers (EU average; 4%-24% of consumers depending on the MS) indicated they are not interested at all in origin information; while again roughly a third of consumers indicated they need to know at least whether the meat if EU or non-EU origin.

MS differences for the case study MS are further depicted in **Figures 7, 8 and 9** of **Annex D**. the following conclusions can be drawn:

- In the case of *uncooked sausages or burgers* (**Figure 7, Annex D**), consumers' interest to know the origin with preference to the '*country where meat was produced*' is the highest in the Czech Republic and the UK, followed by Germany and France. In Germany and France there is also significant interest to know the '*country where the animal was born/raised/slaughtered*' or even the '*country and the precise region/area where the animal was born/raised/slaughtered*' although this ranks second in consumer preference behind the '*country where meat was produced*'. In Italy, consumer preference is clearly for more detailed information on the '*country where the animal was born/raised/slaughtered*' or even the '*country and the precise region/area where the animal was born/raised/ slaughtered*';
- In the case of *cooked ham* (**Figure 8, Annex D**), consumers' interest to know the origin with preference to the '*country where meat was produced*' is the highest in the Czech Republic followed by the UK, and France. In Italy, again, consumer preference is clearly for more detailed information on the '*country where the animal was born/raised/slaughtered*' or even the '*country and the precise region/area where the animal was born/raised/ slaughtered*'. In France and Germany consumers are more equally divided in preference between the various levels of information on the origin of the meat;
- In the case of *frozen pizza with salami* (**Figure 9, Annex D**), consumers' interest to know the origin with preference to the '*country where salami was produced*' is again the highest in the Czech Republic followed by the UK. On the other hand, consumers in Italy, France and Germany are more equally divided in preference between the various levels of information on the origin of the meat ingredients.

### **Other consumer research and studies**

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<sup>17</sup>. The key findings of this earlier literature are highlighted below; many of these findings are consistent with those of the 2013 FCEC consumer survey.

BEUC's most recent (January 2013)<sup>18</sup> consumer research in 4 MS (Austria, France, Poland and Sweden) reveals that, overall, **food origin ranks fifth or sixth most important factor**

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<sup>17</sup> A rather limited number of studies have distinctively examined the extent of consumer interest on meat origin as primary ingredients 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, including meat-based products.

<sup>18</sup> BEUC (2013). Where does my food come from? BEUC consumer survey on origin labelling on food, released January 2013. BEUC's survey covers the following categories of food products: fresh and processed **meat**, fresh and processed fruit and vegetables, fish, dairy products, and staple foodstuffs.

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(from 61% in Sweden to 77% in Austria)<sup>19</sup> (out of eleven factors) for purchase decisions behind taste (between 95% and 97% of respondents in those 4 MS find it important), price (between 93% and 89%), best before/use by dates (between 94% and 81%). Results of a similar scale have come from 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 as the BEUC survey<sup>20</sup>. These results are consistent with those of the 2013 FCEC consumer survey as presented above (**Figure 2**).

Categories of food products<sup>21</sup> for which consumers find it important that the origin is labelled were examined by BEUC's survey. In all 4 MS surveyed, **meat**<sup>22</sup> is the product that comes first in consumers' replies (from 83% of consumers in Sweden to 93% of consumers in Austria) find it important that the origin is labelled on meat) among the different foods considered.

Consumers' understanding on the notion of origin for processed meat, i.e. whether this refers to the place of provenance of raw materials or place of processing, have been tested in BEUC's consumer research (2013) and the surveys carried out independently by the other MS consumer organisations (in BE, CZ, DK, ES, GR, IT and PT).

BEUC's research found that in terms of consumers' preferences for origin labelling on processed meat, the majority of respondents in the 4 MS (between 53% and 69% depending on the MS) deemed it **equally important to know the country where the animal was farmed and where the meat was processed**. Similarly, the vast majority of respondents in Denmark (60%), Czech Republic (83%) and Greece (82%) have indicated that both pieces of information are equally important.

Both the BEUC consumer survey and the independent consumer surveys carried out by consumer organisations in Denmark, the Czech Republic and Greece reveal that **consumers' understanding of origin labelling on processed meat varies between MS:**

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<sup>19</sup> 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.

<sup>20</sup> 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): Origin of Food, Final Version September 2012). Data were simultaneously collected in these MS through self-administered online questionnaires from 4<sup>th</sup> of September till 19<sup>th</sup> of September 2012.

<sup>21</sup> The food categories covered by BEUC survey are the following: coffee and tea, staple foodstuffs, processed and unprocessed vegetables, dairy products, milk, fish and meat products.

<sup>22</sup> **This specific question of the BEUC survey refers to meat without specifying whether unprocessed or processed.**

- In **Austria**, 28.8% of consumers interpret origin labelling on processed meat as referring to the country where the processing phase took place, while 23.7% of respondents indicated that this corresponds to the place where the animal was born, reared and slaughtered, and the meat was transformed into the final products.
- In **France**, 43.3% of French consumers understand origin labelling on processed meat as referring to the country where the animal was born, reared and slaughtered and the meat was transformed into the final food. Less than a fifth (17.1%) understand that origin labelling only indicates the country where the final processing step took place.
- In **Poland**, more than a third 36.3% of consumers understand that origin labelling indicates the country where the animal was born, reared and slaughtered and the final processing took place, while 16.2% of respondents understand that the animal was reared, slaughtered, but not born, and the meat was further processed in the country.
- In **Sweden**, 37.7% of consumers interpreted the origin on the label of processed meat as referring to the country where the animal was born, reared and slaughtered and the meat was further transformed into the final food. For 16.7% of respondents, it only relates to the country where the manufacturing step took place.
- In **Denmark**, the national survey indicates that 69% of respondents understand origin labelling on processed meat as referring to the country where the meat was processed into the final product; at the same time, 44% also replied that they understood it to mean that the animal was born in the country, 51% that it was raised there, and 35% that it was slaughtered there.
- In **Greece**, 92% of consumers interpret the origin labelling of processed meat as referring to the place of manufacture; at the same time, 25% also replied that they understood it to mean that the animal was born in the country, 41% that it was raised there, and 48% that it was slaughtered there.
- In the **Czech Republic**, 89% of consumers interpret the origin labelling of processed meat as referring to the place of manufacture; at the same time, 21% also replied that they understood it to mean that the animal was born in the country, 36% that it was raised there, and 39% that it was slaughtered there.

The results of the consumer surveys carried out in **Belgium, Portugal and Spain and Italy**, reveal that the indication of the country of origin specified on the label/poster of some processed food products, including some meat based products such as sausages and chicken nuggets 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”. In **Italy** 50% of consumers believe that origin labelling indicates that the main ingredient(s) are originating from that country (Test aankoop, test achats, Altroconsumo, Ocu and Deco proteste, 2012).

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 omnibus survey carried out for the UK FSA (NatCen, 2010)<sup>23</sup> concluded that half of UK respondents (52%) reported looking for country of origin labelling. Of these respondents, the food products they most commonly used origin labelling for were fruit and vegetables (69%), fresh meat (57%) and meat products (30%). Of those who looked for country of origin labelling (i.e. 45% of respondents, independent of the food category), the most commonly cited reason for doing so 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).

However, only 12% of the omnibus survey sample (NatCen, 2010) had an accurate understanding of what country of origin labelling actually signifies (i.e. where the last substantial change to the food took place). In the case of processed meat, just over half of the consumers believed that it meant where the animal was farmed (54%), and slightly fewer thought it was where the meat was processed (42%). The remaining responses included where the animal was slaughtered (26%), or where it was born (23%). Over three quarters (76%) of the omnibus survey felt that the label should include '*where the animal was farmed*'; a smaller percentage believed it should include '*where the food was processed*' and '*where the animal was born*' (40%), and '*where the animal was slaughtered*' (35%) (FSA, 2010).

Further consumer research carried out in the UK 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, at the same roughly position as brand names and quality assurance scheme logos (such as the *Red Tractor*). A clear majority of UK primary shoppers understood *Red Tractor*<sup>24</sup> '*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 to the logo; 64% of consumers supported *Red Tractor* but only 25% were proactive shoppers of products carrying this logo.

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<sup>23</sup> The UK FSA commissioned research to investigate 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 1601 adults aged 16 or over in the UK, living in private households, was interviewed.

<sup>24</sup> Red tractor assurance schemes cover six sectors as follows: beef/lamb, pig meat, horticulture, dairy, cereals and poultry.

In **France**, the national consumer's organisation (CLCV) carried out recently an on-line survey<sup>25</sup>. Results show that 99% of respondents consider it important to have information on the origin and see this primarily as a means to contribute to the economic development of a region or country (cited by 71% of respondents), followed by reasons related to the environment (66%), social (63%) and product safety (62%). In terms of the level of detail required on the origin of meat in particular, 79% of respondents request information on place of birth, farming and slaughter, whereas only 8% would be satisfied with limited information on the place of farming and slaughter and only 3% would be satisfied with information on the location of farming only. For food products containing multiple ingredients, 81% of respondents require information on the origin of the main ingredients (i.e. those representing half the weight of the product), whereas only 15% would be content with information relating only to the most abundant ingredient.

In **Germany**, consumer understanding of the origin of product with geographical indications, primarily indicated in the product name, was examined for four types of products: cheese, meat (sausages), a multi-ingredient product (apple pie) and milk. For the first two types of product (cheese and sausage), PDO/PGI and non-PDO/PGI example products were examined separately; non PDO/PGI products were used for the last two types of product (apple pie and milk)<sup>26</sup>. Consumers were asked to agree or disagree with different statements about the labelling. As a result of this questionnaire method, it was possible for respondents to believe that the indication of origin referred to more than one aspect (e.g. the origin indicated both origin of the ingredient and the place of processing). In the case of all three processed non-PDO/PGI sausage products, the great majority of respondents (73%) believed the indication of origin referred to a region specific recipe. Generally speaking, minorities of respondents believed that the ingredient came from the region, or that processing took place in the region. More specifically:

- In the case of non PDO/PGI sausages, 16% believed that the animal was raised in the region; 15% believed it was slaughtered in the region, and 20% believed that the sausage was produced in the region;
- In the case of all products, a significant minority, around 30% of respondents, believed that the product had nothing to do with the region indicated.

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<sup>25</sup> This survey was posted on line between 13 December 2012 and January 28, 2013, and covered a total 1040 consumers.

<sup>26</sup> Two types of non-PDO/PGI cheese were used; Sylter cheese, named after an island off the north coast of Germany (the name has no relation to the cheese); and Harzer cheese, named after Germany's highest mountain range, which has a connection to the origin of the cheese. Where figures for cheese are quoted, those for Sylter cheese are quoted first, and those for Harzer cheese second. The non-PDO/PGI sausage example was Wiener sausage. The multi-ingredient example was apple pie with a declaration "from our region". The milk example was Alpine milk (German: Alpenmilch). There were also PDO/PGI examples for cheese (Allgaeuer) and sausages (Nuernberger), the results of which are not presented here.

In the **Netherlands**, recent research by LEI /Wageningen University in 2012<sup>27</sup> indicates that consumers regard origin information with a positive but not essential attitude (*'nice to know rather than need to have'*) and that it is not a decisive element at the moment of purchase.

In **Austria**, several surveys (carried out by AMA or by the Austrian consumer organisation) indicate origin is one of the top 3 items of interest when it comes to food in general. According to a survey conducted by AMA in 2008<sup>28</sup> "Austrian Origin" is most important for dairy products, followed by poultry meat, cereals and beef.

In **Denmark**, consumer research provided by the DK 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 3 factors), followed closely by freshness (55%); origin related considerations are only taken into consideration as one of the top 3 factors by 30% of respondents.

Finally, in **Finland**, consumers' interest in origin labelling has mainly been studied by several studies on food more generally<sup>29</sup>:

- Omnibus surveys made in 2009 (n=1027) and 2010 (n=1028) indicate that more than 70% of the consumers said that the origin labelling was important in making purchase decisions.
- "Suomi Syö 2011" survey (n~2000): country of origin information was the third most-read labelling for making purchasing decision, in particular regarding meat and fish. About 40 % of the consumers checked the Good from Finland -labelling.
- "RISK 2012, Discover Food 2012 - Attitudes, Trends, Events" survey (n=7062): more than one third of Finnish consumers think that origin of food is important information. Factors most affecting the consumption of meat are 1. price, 2. country of origin and 3. quality.

The consumer survey conducted in the context of the recent **DG SANCO consumer market study on the functioning of the meat market in the EU**<sup>30</sup> has some further findings of relevance to the present study, as follows:

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<sup>27</sup> <http://www.lei.dlo.nl/publicaties/PDF/2012/2011-044.pdf>

<sup>28</sup> Buxel, H./Schulz, S. (2010): Akzeptanz und Nutzung von Güte- und Qualitätssiegeln auf Lebensmitteln. Ergebnisse einer empirischen Untersuchung. Münster 2010.

<sup>29</sup> The first three surveys (2009, 2010 and 2011) were conducted by Taloustutkimus market research; the third survey (2012) was conducted by TNS Gallup

<sup>30</sup> Consumer Market Study on the Functioning of the meat market for consumers in the European Union, SANCO/2009/B1/010; prepared by: GfK EU3C (EU Custom Research and Coordination Centre), December 2012. The study includes a consumer survey, conducted in September 2011 among 13477 consumers in the 27 EU MS. [http://ec.europa.eu/consumers/consumer\\_research/market\\_studies/meat\\_market\\_study\\_en.htm](http://ec.europa.eu/consumers/consumer_research/market_studies/meat_market_study_en.htm)

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- **Key aspects that EU consumers look at when purchasing meat:** more than half of consumers look at two key aspects when purchasing meat: **the use by/best before dates** (68%), and the **price** (67%). Almost half of consumers look for the country of origin (48%) and the producer (44%). Consumers are more likely to look at country of origin when buying fresh meat [meat preparations included] (45% of consumers) than meat products (38%). Origin (*‘the meat is produced in my country’*) scores 6 of a total 17 consumer priorities examined by the study, after sensory cues (*‘the meat looks fresh’*; *‘the meat looks tasty’*; and, *‘the meat is displayed hygienically’*), price (*‘the price is reasonable’*; and *‘the price is affordable’*);
  - **Awareness and purchase of meat for which the country of origin is specified.** Around three in four consumers (76%) are aware of meat for which the country of origin is specified, while 60% of all consumers say they have purchased such a product in the past month. Awareness and purchase figures for meat for which the country of origin is specified are higher in the EU15 MS (respectively 80% and 63%) than in the EU12 MS (64% and 50%)<sup>31</sup>. Over half of consumers (55%) are aware of origin-certified meat (e.g. PDO), while around a third (32%) has purchased this product in the past month;
  - **Reasons why consumers are interested in the origin of meat:** The study notes that this is *“indicative of a preference for national or local meat amongst many consumers in the EU”*. Indeed the factor *‘the meat is produced in my country’* receives a high score. As outlined in the study, origin is associated with a range of positive attributes by many consumers, including overall quality and safety, which can explain the high score for this item. Some of the national stakeholders also mentioned that consumers in their respective countries express a preference for *national* meat. This was particularly mentioned for Greece, France, Poland, Austria and Sweden. Only a handful of stakeholders thought consumers in their countries preferred foreign meat; this was mentioned for Portugal and Slovakia. The study notes that *“This national preference can be emotional, in terms of national identity or pride, but also rational, as consumers may have a better knowledge of national products and processes. For instance, consumers may be more familiar with quality controls, certifications and other country-specific aspects”*;
  - **Consumer intentions to change the type of meat they purchase:** 39% of consumers would like to buy origin certified meat (meat with quality certifications referring to its origin) more often; and 38% of consumers would like to buy meat they would chose because of the country of origin more often. Consumers in some of our case study MS

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<sup>31</sup> Estonian (34%) and Portuguese (45%) consumers are the least likely to be aware of meat for which the country of origin is specified. Swedish (92%) and Luxembourgish (90%) consumers are at the other end of the spectrum. These results partially match the purchase pattern by country. Swedish (84%) and Irish (78%) consumers are the most likely to have purchased this product in the past month. In contrast, Estonian (21%), Portuguese (37%) and Dutch (37%) consumers are the least likely to say they have purchased meat for which the country of origin is specified in the past month.



(DE, CZ, FR, UK) are at the top of the ranking, with the exception of consumers in IT and NL. **The most frequently mentioned reason why consumers do not do so is because of high prices (lack of choice and lack of information are the second reason indicated).** Indeed, in mystery shopping conducted under this study, origin certified meat was found to be more expensive than regular meat by 19%<sup>32</sup>.

The preceding analysis of existing studies highlights that consumers may be disadvantaged in the market because when an origin indication is provided, it is not necessarily what the consumer thinks it is. This would suggest that there is potential ‘market failure’ to the detriment of the consumer. At the same time, there appear to be strong differences between consumers both within MS and across the EU, including in the perception of what ‘origin’ means to different consumers and levels of motivation/reasons for requesting such information.

### 2.1.2 Evidence from MS CAs and industry

In order to complete and cross-check the evidence base, MS Competent Authorities (‘CAs’) were also consulted on consumer attitudes towards origin labelling; indeed, in a few MS, authorities have been studying consumers’ interest and perceptions on these issues. Member States Competent Authorities (CAs) were asked to provide their views on consumer interest in geographical origin labelling of meat ingredients in their country, backed up by evidence including any available studies on this.

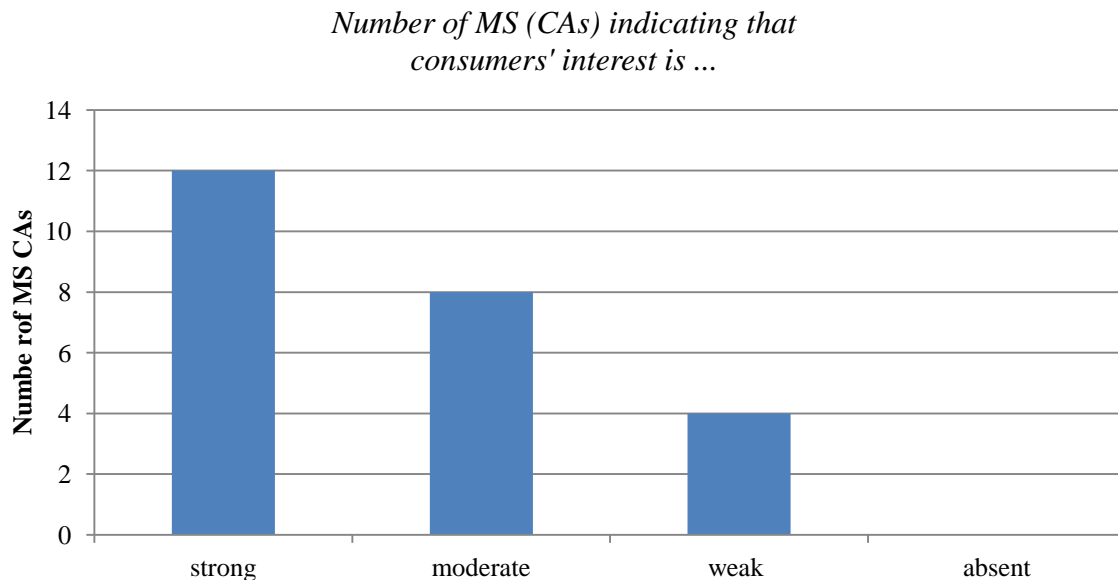
All of 19 MS CAs that responded to the FCEC consultation, indicated that there is consumer interest in origin labelling of meat ingredients in their country, although in most cases to a lesser extent than for fresh meat. The majority of MS (15 MS CAs) consider consumer interest to be at least moderate and in most cases strong (**Figure 4**); only 1 MS CA indicated that consumer interest is weak, while 2 MS CAs indicated that interest is weak in the case of cat III products, or at least for non-primary ingredients in category II products (for meat of any species).

Some MS (7 MS CAs) indicated that consumer interest in origin labelling varies by type of product (and/or by species), indicating that – generally - for cat I products interest would be stronger, followed by cat III and cat II products for which interest would be moderate to weak. Some MS CAs have also commented that, from a consumer’s perspective, meat refers only to skeletal muscle, therefore the definition followed for the purposes of hygiene

<sup>32</sup> EU average over four products covered by the study: minced beef; pork cutlets; pork sausages; and whole chickens. ‘Origin certified meat’ was defined in the study as meat with specific geographic certifications, including quality schemes such as PDO products or national equivalents (such as: Certified Irish Aberdeen Angus Beef, Liptovský salám, Agneau du Périgord). The higher average price therefore is most likely to be also attributable to other quality aspects of these schemes and not to be only origin-related.

legislation (including offal, fat, blood, bones) is irrelevant (this point was also widely made by FBOs).

**Figure 4: Consumers’ interest in geographical origin labelling of meat ingredients, in your country (responses from MS CAs, n=19)**



*Note: the individual bars cannot be added, as in some cases MS CAs responded that interest varies by product (and/or by meat species). 2 MS provided no answer.*

Source: FCEC, based on consultation with MS CAs

Only 6 MS CAs<sup>33</sup> provided evidence from existing specific studies (more generally on food, including meat) to back up their views. For those MS CAs that did not, their views are based on experience, consumer enquiries and/or complaints with their services, reports by consumer organisations and media reports, and also the more general evidence coming, for example, from Eurobarometer statistics (particularly Eurobarometer 389) on consumer attitudes in their country. In some cases, the experience of MS CAs was also drawn from the implementation of mandatory origin labelling for fresh beef which, in their view, demonstrates that only a relatively small part of consumers are actually interested and aware of beef origin labelling.

It is important to note that MS CA contributions to our study coincided with the period when the EU horse meat scandal was being unveiled and, in some cases, MS CAs referred to their perception that consumers are now more than ever sensitive to any labelling initiatives in this sector<sup>34</sup>.

<sup>33</sup> One of these MS is currently looking into costs and benefits of MCOOL including consumer interest and WTP but their study is expected in late 2013/early 2014.

<sup>34</sup> It was noted that the fall in consumer confidence was mostly targeted at the businesses immediately affected, rather than more generally across the industry; evidence in some MS indeed has been that independent butchers

Several MS CAS questioned the reliability or completeness of existing consumer surveys demonstrating strong consumer interest in origin labelling, in view of the absence of willingness to pay (WTP) questions and the lack of analysis on consumer behaviour. FBOs have expressed similar concerns on the findings of consumer surveys. The discrepancy between consumers' strong interest and low WTP for such information is confirmed by the findings of the FCEC consumer survey (see section 2.2.1).

Furthermore, both MS CAs and FBOs have expressed concerns on why the consumer wants to know the geographical origin, and also what consumers understand by '*origin*' and what this information means to consumers. Emphasising that consumer perceptions differ significantly between MS, depending also on socio-economic status, gender and age, it was noted that consumers tend to associate origin mainly with quality and safety (and also animal welfare). Indeed, safety considerations - as the potential hazards are perceived to be more dangerous to human health than with other foods - and the scale of past food safety incidents in this sector (followed in many cases by 'over-blown' media exposure) are the reasons why consumers request geographical labelling in meat more than in any other sector<sup>35</sup>. This is a perception which can lead consumers to erroneous conclusions, as simply providing the origin does not actually provide any guarantee of quality or safety as such. It was stressed that food safety and hygiene (as well as animal welfare) is addressed by specific legislation which aims to achieve uniform rules across the EU, while the quality depends more on animal breed and feeding systems (which are not origin specific). Therefore, overemphasising the origin can actually be misleading on the issues of real concern to consumers, in particular quality and safety (and animal welfare).

Consumers' interest can finally be prompted by the desire to buy national or even '*local*' (not only due to perceived higher quality and safety standards, but also to support the economy, minimise food miles etc.). For instance, in some cases, MS CAs and FBOs noted that consumers are more interested to know whether meat/meat products come from their *own* country (rather than more generally the origin), particularly in MS that have a strong tradition in some product sectors or livestock species; while these might be legitimate objectives, they are considered to be best addressed by other initiatives such as the EU quality schemes (PDO/PGI/TSG) or actions to promote local products and short supply chains. Consumers' preference for national or local meat is also considered to be an underlying reason for consumers' interest in origin labelling (particularly for fresh meat/meat products for which '*local*' is associated to freshness), according to the recent DG SANCO consumer market study on the functioning of the meat market for consumers in the EU (see section 2.1.1).

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reported significant gains in the aftermath of the scandal. During the time when data was being collected from MS CAs, there was a lot of debate around the horsemeat scandal.

<sup>35</sup> See for example, findings of Citizens' Forums on Food: Country of Origin Labelling, Full Report prepared for the UK Food Standards Agency, British Market Research Bureau (BMRB), January 2010.

## 2.2 Willingness to pay for origin labelling

### 2.2.1 Evidence from the FCEC consumer survey and other consumer research and studies

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. Indeed, this has been a common criticism put forward by critics of these studies.

The FCEC consumer survey has included a question on WTP for each of three product groups covered by the survey (examples for each group: *uncooked sausages or burgers*; *cooked ham*; and, *frozen pizza with salami*). It is noted that WTP is a very difficult and complex issue to address, particularly in a consumer survey of this scale, therefore the effort here has been to follow as simple an approach as possible. Respondents were asked to highlight their preference amongst the various labelling formulations and indicate what price level (i.e. base price and increase on the base price) they are willing to pay for this preference. The following conclusions can be drawn from the results:

- **At the base price, the majority of consumers opt for the highest possible level of detail on origin information (Figure 11, Annex D; depicted more analytically also in Figures 2, 4 and 6 (for each of the 3 product categories), Annex D);**
- **The proportion of consumers willing to pay more than the base price for origin information falls very significantly (by 60-80%, depending on the labelling option and the product) at the first price increase over and above the base price (+5% to +9%, depending on the level of information required<sup>36</sup>), and continues falling with every further price increase (but less dramatically, as it has reached already fairly low levels). Overall, for every option on the level of detail on origin information, there is a 60-80% fall (depending on the labelling option and the product) in the percentage of consumers willing to pay the first price increase from the base price (Figure 10, Annex D);**
- **There are no significant differences between the three product groups, i.e. the above general findings apply in all three product cases covered by the survey. Only for the labelling options ‘country where meat was produced’, ‘country where the animal was born/raised/slaughtered’ and ‘country and the precise region/area where meat was produced’ WTP falls more dramatically in the case of frozen pizza with salami followed by cooked ham and uncooked sausages or burgers (Figure 10, Annex D).**

More generally, it is noted that both the FCEC survey results and existing studies, including those reviewed in the previous section, indicate price and quality/sensory aspects to be the

<sup>36</sup> This level of price increase represents what would be considered a relatively modest increase on the base price.

most important factors affecting consumer choice, well ahead of the origin of the meat. The consumer survey conducted in the context of the recent DG SANCO consumer market study on the functioning of the meat market in the EU<sup>37</sup> indicates that just over a third (38%) of EU consumers look at origin information when buying meat products (while over two thirds look at the use by/best before dates and the price). Moreover, amongst one third of consumers who would like to buy more often origin certified meat (meat with quality certifications referring to its origin) and meat they would choose because of the country of origin (39% and 38% of consumers, respectively), a common reason why they do not do so is the higher price (and mystery shopping conducted under this study, found origin certified meat to be more expensive than regular meat by 19%<sup>38</sup>). The BEUC survey, the surveys of MS consumer organisations and the FCEC consumer survey have all found price ranking as the first factor consumers look at when making food purchases with origin ranking fifth.

These results of the FCEC consumer survey confirm those of earlier studies to highlight a **‘paradox’ or discrepancy between consumers’ interest in origin labelling and willingness to pay for that information (Box 1)**; as concluded by a number of previous studies, this is **also manifested in a gap between intentions and actual purchasing behaviour**, with price an important factor behind this gap.

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<sup>37</sup> Consumer Market Study on the Functioning of the meat market for consumers in the European Union, SANCO/2009/B1/010; prepared by: GfK EU3C (EU Custom Research and Coordination Centre), December 2012. The study includes a consumer survey, conducted in September 2011 among 13477 consumers in the 27 EU Member States.

<sup>38</sup> EU average over four products: minced beef; pork cutlets; pork sausages; and whole chickens. ‘*Origin certified meat*’ was defined in the study as meat with specific geographic certifications, including quality schemes such as PDO products or national equivalents (such as: Certified Irish Aberdeen Angus Beef, Liptovský salám, Agneau du Périgord). The higher average price therefore is most likely to be also attributable to other quality aspects of these schemes and not to be only origin-related.

**Box 1: Evidence of a ‘paradox’ in consumer attitudes to origin labelling**

1. All of the existing studies on consumer’s 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 as such. 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 meat products. This order of importance was also confirmed by the results of the FCEC consumer survey (**Figure 2**), which 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.
2. Consumers’ replies to surveys do not often correspond to their real purchasing behavior; as shown by existing research there is a **gap between consumer intentions and behavior**. Prices, but also information, are key factors that explain this gap. For example, many consumers declare an interest in ethical products but only smaller proportions 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: 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 consumer survey results on willingness to pay (WTP) show that consumers are largely unwilling to pay more for origin information although declaring a strong interest in this information.

**2.2.2 Evidence from MS CAs and industry**

Member States Competent Authorities (CAs) and FBOs were asked to provide their views on consumer WTP for geographical origin labelling of meat ingredients in their country, backed up by evidence including any available studies on this.

As already noted, several MS CAs as well as FBOs have questioned the reliability of existing consumer surveys and studies on consumer interest in origin labelling, arguing that their findings are incomplete in the absence of any evidence on consumer WTP for the additional origin information, moreover at the level of detail required to be indicated on the label. Some of the critics referred to the conclusions of the recent Dutch study on the cost analysis for producers and consumers of country of origin labelling (LEI, 2012), according to which consumers are generally not aware of the additional costs related to origin labelling and believe these are just confined to ‘*the cost of some extra ink for printing*’.

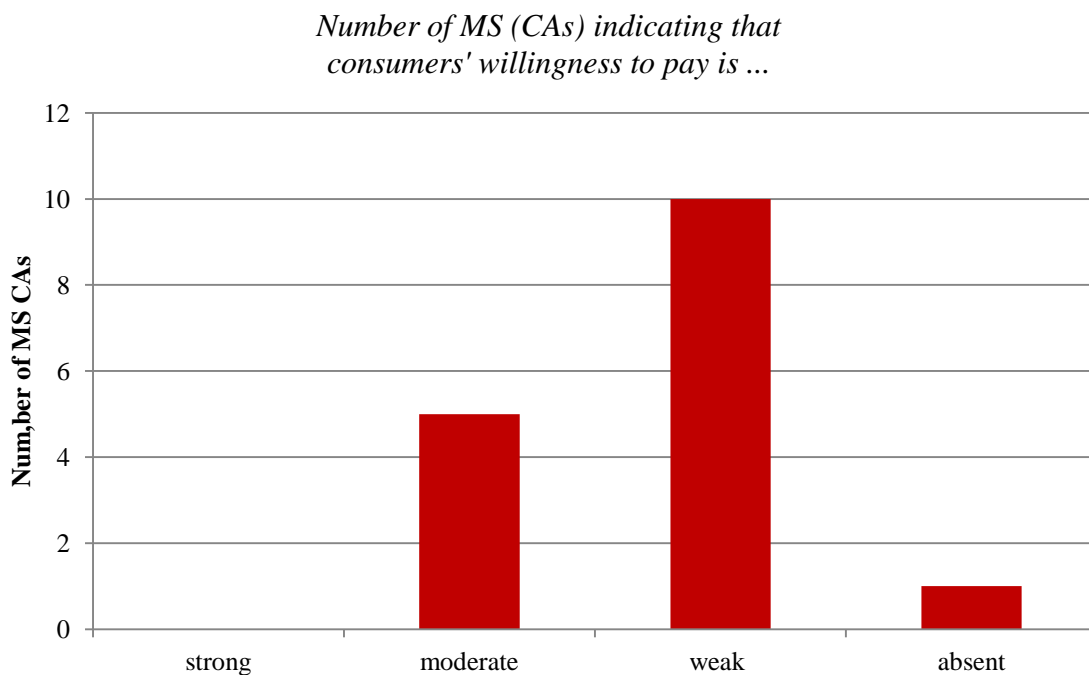
The majority of MS (12 of the 19 MS CAs that responded to the FCEC consultation) consider consumer willingness to pay for such information to be weak and in some cases moderate,

while 1 MS CA consider this to be absent and no MS CA consider it to be strong (**Figure 5**). These results are in marked contrast to those on consumer interest in origin information (**Figure 4**). It is noted that 6 MS CAs provided no answer to this question, due to lack of specific evidence on consumer WTP in their countries.

The BE CA quoted the results of the recent survey of Test – Achats (January 2013), which indicated that only one third of the consumers agree to pay until 5% more to know the country of origin of food, adding their view that for meat and meat products this is likely to be the same.

The AT CA quoted the results of the 2010 survey of GFK Custom Research on WTP for regional food in Austria<sup>39</sup>, which showed approximately one third would pay  $\geq 15\%$ , another third would pay up to 10% more and approximately one third is more or less not willing to pay more.

**Figure 5: Consumers’ willingness to pay for additional origin information on meat ingredients, in your country (responses from MS CAs, n=19)**



*Note: the individual bars cannot be added, as in some cases MS CAs responded that WTP varies by product (and/or by meat species). 6 MS provided no answer.*

Source: FCEC, based on consultation with MS CAs

For both MS CAs and FBOs, in particular, a clear evidence that consumer WTP for additional origin information on meat ingredients is relatively weak is the fact that voluntary

<sup>39</sup> GFK Custom Research: Bereitschaft für regionale Lebensmittel mehr auszugeben, 2010

schemes as such 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 but this is not 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; as noted in **section 2.3**, this is also a key finding of the recent DG SANCO consumer market study on the functioning of the meat market for consumers in the EU.

The extent to which origin labelling schemes currently exist for meat-based products is explored in the following section.

## **2.3 Voluntary schemes approved at national or concerted industry level concerning the origin of meat ingredients**

### **2.3.1 Overview**

According to both the MS CAs and the EU meat processing industry (CLITRAVI, UECEBV), the use in meat and meat-based products of voluntary schemes **approved at national or concerted industry level** concerning the origin of meat ingredients (beyond the EU quality schemes PDO/PGI, which account for an estimated maximum 10% of the total sales value of the EU meat/meat product sector<sup>40</sup>) is *generally limited*.

The existence currently of some scheme covering the geographical origin of meat (or more generally of food) was indicated by 11 MS CAs (out of the 19 MS CAs that responded to the consultation). Where such schemes exist they tend to be mostly private and are not related only to geographical origin labelling but form part of a wider quality initiative. Only Austria indicated it had a national scheme, while some MS have in place private schemes which in some cases are supported by the public sector or may be implemented in the framework of national legislation.

It is noted that CAs and FBOs in several MS that responded to our consultation (e.g. DK, SK, EL, ES, LT, PT) indicated that there are no national schemes that include origin labelling information and that they are not aware of any such private schemes in their countries.

The existing (mostly private) labelling schemes which include country of origin labelling in several MS are set out with various terms and conditions in each case, as follows (each

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<sup>40</sup> Council Regulation (EC) No 510/2006 of 20 March 2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs. According to DG AGRI data, in 2010 some 98 meat products were registered as GIs, with a sales value of €3.16 billion. These products are mainly registered in Italy (accounting for nearly 60% of the total EU sales value of meat product GIs), Germany, France and Spain. According to the DG AGRI GI database, to date over 130 meat products are registered as GIs under the EU scheme.



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section starts first with the case study MS)<sup>41</sup>. An overview of MS voluntary labelling schemes **approved at national or concerted industry level** is provided in **Table 1**. It is important to note that this table includes only voluntary origin schemes developed and approved at national or concerted industry level, as provided to the FCEC in our consultation with the MS CAs and industry stakeholders. It intends to provide an overview of the current voluntary origin labelling practices and schemes, and is not a systematic or exhaustive list of existing initiatives of individual actors operating in the meat processing sectors and across the EU27. In accordance with the ToR of this study, the table excludes origin labelling in the context of EU quality schemes (PDO/PGI) and mandatory labelling schemes (i.e. for beef/beef products, and imported poultry). A fuller presentation of origin labelling, including PDO/PGI and other schemes, can be found in **Box 2**.

### 2.3.2 Meat-specific schemes

In the case study countries the following schemes apply specifically to meat products:

In the **Czech Republic**, the CA indicated that there are no national voluntary schemes relating to the labelling of country of origin for meat as an ingredient. The only known scheme is a wider private voluntary scheme covering also meat products which has been developed by the national Federation of Food and Drink Industries. According to the Czech meat processing industry, meat products covered by this scheme represent an estimated 1–2 % of the total production (by volume and value); the low uptake of this scheme is due mainly to the short supply of domestic raw materials (meat) for processing which is a condition for participating in the scheme (see below).

In **Germany**, the CA indicated that there are no national voluntary schemes relating to labelling of country of origin for meat as an ingredient, but the *france* was provided as an example of a private traceability initiative that provides inter alia origin information on a wider range of products (see below).

In **France**, both the CA and the French meat processing industry have indicated that the private labelling scheme *Viande Porcine Française (VPF)* was introduced in 2005, when the price of pigmeat was low in France, as there was an increase in imports of low-priced pigmeat from Spain. VPF brand products now account for 25% of the total French pigmeat production and in particular 40% of French cooked ham production. In France nearly 100% of processed meat products fall within the so-called *Code des usages de la charcuterie de la salaison et des conserves de viande*, which exists since 1968 and includes 400-500 meat products. The code provides the description of the product, the proportion of meat content and chemical criteria (e.g. % water or fat content) and the list of both mandatory and optional ingredients. The products listed in the *Code* represent a production value of €6 billion and a

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<sup>41</sup> This presentation excludes any existing voluntary schemes of individual private food business operators which may have different scope, approaches and conditions concerning origin labelling.

production volume of 1 million tonnes per year. Even though the aim of the *Code* is to guarantee the quality of products and to maintain the French tradition, these products do not have to be manufactured in France or to use French ingredients.

In **Italy** there appear to be some private voluntary schemes including the country of origin on meat as ingredient, but these are considered to be limited. It is noted that Italy is the leading producer in the EU of meat products registered under PDO/PGI/TSG schemes: to date, there are 37 meat products bearing an official EU GI of which 21 PDO and 16 PGI, accounting for a sales value in excess of €1.9 billion (source: DG AGRI, GI database).

In the **Netherlands**, the CA indicated that there are no national voluntary schemes relating to labelling of country of origin for meat as an ingredient, but there is a government supported certification scheme covering mostly local/regional products produced on a small scale; examples include ham and sausages made from Livar pork and lamb from Texel. Livar pork products as well as Texel lamb are certificated as ‘*recognised local products*’, with a certification scheme supported by the Ministry of Economic Affairs. About 400 mostly small-scale local producers have so far been awarded this label. No further schemes were identified in the Netherlands by the meat industry as such.

In the **UK** meat processing industry, country of origin labelling on a voluntary basis appears to be quite significant. The voluntary Principles (2010) apply to three categories of meat products: (1) unprocessed meat; 2) “lightly” processed meat products (such as bacon, ham, gammon, sausages and burgers); and 3) composite meat products (such as pies and casseroles)), where a voluntary origin declaration is made and where the meat is considered of primary interest to the consumer or a predominant component of the product. The Principles state that “lightly” processed meat products should be labelled with the origin of the meat ingredient. In addition the following conditions apply under the Principles:

- Single country of origin labelling should be limited to processed products containing meat from animals born and reared in the specified country (or, in the case of poultry, reared in the specified country);
- The use of ‘British’ should be limited to processed products containing meat from animals born and reared in the UK (or, in the case of poultry, reared in the UK);
- Where the animal has been born and reared in different countries additional information will be provided to make this clear.

The UK Principles also establish that for other composite meat products where a voluntary origin declaration is made for the product, the country of origin of the meat ingredient should be labelled if the meat is considered of primary interest to the consumer or a predominant component of the product. The results of the 2012 UK survey on the scheme indicate that 71% of total lightly processed meat product samples gave a basic origin statement in the form advised in the Principles, while composite products following the basic origin statements part

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of the Principles include those where origin statements are absent, and altogether 77% of total composite product samples followed this part of the Principles (Campden BRI, 2012).

In addition to the Principles, in the UK there are the following schemes:

- *Red Tractor* scheme (covers a range of food products – see below): as reported by the UK meat processors association, although the scheme does not restrict raw material sourcing to UK meat, in practice it encourages operators to source domestically.
- In the UK processed pork sector, there is also a private scheme sponsored by BPEX<sup>42</sup>, the code of practice for retail labelling and foodservice. This sets down the minimum standards which supporting businesses use when labelling pork and pork products. It is largely based on advice of best practice from the UK Food Standards Agency and LACORS<sup>43</sup>.

In the other MS, the following schemes apply specifically to meat products:

In **Austria**, the CA reported that the “*AMA Gütesiegel*” can be considered as the primary national voluntary scheme. The label is mainly (but not purely) an origin label. It aims to cover all stages in the supply chain and defines different sets of rules for each sector and industry. As such, there is also a directive for meat products. According to the managing institution (Agrarmarkt Austria Marketing GmbH), the label is considered “fully satisfactory” by consumers. But according to a survey of Fessel GfK (2005) 4 out of 10 consumers wrongly believe the AMA-label to be an organic label. Animal welfare organisations and environmental NGOs sometimes criticize that animal welfare standards within the AMA-scheme are just the minimum-standards laid down by law and that genetically modified feed is used. According to estimates of the Agrarmarkt Austria Marketing GmbH, about 15% of meat preparations and meat products carry the “*AMA Gütesiegel*” scheme label<sup>44</sup>. Austria has always strongly supported the mandatory labelling of origin for unprocessed food, single ingredient food and meat as a primary ingredient in low processed foods such as ham, responding also to strong consumer demand in this country for more origin information on the main food groups.

In **Belgium**, the CA indicated that some quality labels make a reference to the origin of the meat, but the main idea is to promote the quality of the product by underlining the quality of

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<sup>42</sup> <http://www.bpex.org.uk/downloads/299949/296067/Labelling%20Code%20of%20Practice.pdf>

<sup>43</sup> <http://www.lacors.gov.uk/lacors/home.aspx>

<sup>44</sup> Beyond the AMA Gütesiegel there are other different forms of voluntary origin labelling for the main food groups without a system behind. There is however no data available on the extent of this sort of voluntary 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 system behind (some of which cover meat products). [www.arbeiterkammer.at/bilder/d138/Produktkennzeichnung\\_2012.pdf](http://www.arbeiterkammer.at/bilder/d138/Produktkennzeichnung_2012.pdf)

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the meat and the strict circumstances under which it is produced. Some of these labels are public – private initiatives. e.g. “Certus” (pork).

In **Finland**, the CA indicated that there are no national voluntary schemes concerning the origin of meat ingredients. At the moment the Finnish Food Safety Authority recommends, that the origin of other fresh meat than beef should also be indicated. This is applied also to marinated and seasoned meat. This recommendation does not apply to the meat as an ingredient. There is also a significant private scheme ‘*Good from Finland*’ (Hyvää Suomesta -joutsenlippu) which covers a wider range of foods, although meat products are one of the main target groups (see below).

In **Hungary**, the CA has reported evidence on voluntary labelling in the poultry sector. The “*Hungarian poultry*” trademark has been developed by the Poultry Product Council. This labelling scheme applies to chicks incubated in Hungary (except chicks for propagation flock), raised with feed mixed in Hungary, bred in Hungary, and processed in Hungary (slaughtered, cut, packaged), and covers meat and products made exclusively thereof (sliced, prepared or minced, cooked, dried, matured, smoked, roasted and bread crumbed). The scheme covers some 169,244 tons of poultry products and is being applied by 83% of the members of the Hungarian Poultry Product Council.

In **Poland**, the CA indicated the Quality Assurance for Food Products (QAFP) “Cold Meats” scheme, developed by the Union of Producers and Employers of the Meat Industry. The scheme includes strictly defined cold meats according to the degree of fineness and type of meat, detailed characteristics of the raw material and the course of the production process and the physical-chemical parameters of the finished product<sup>45</sup>. The scheme is open to all stakeholders, while control of compliance with the detailed rules and conditions is carried out by accredited certifying authorities. The scheme is reported to be transparent, and to guarantee complete traceability of products at all stages of the production process.

In **Sweden**, the CA reported that in the meat sector (including poultry products) voluntary origin labelling is widespread. There are various private schemes, such as:

- “*Swedish Meat*” was launched in 2011/2012; to date, 145 companies have joined the scheme. The brand “*Swedish meat*” refers to meat products that have 100% of meat raw materials coming from pigs, beef, sheep or lambs born, raised, slaughtered, cut, processed and packed in Sweden. The brand is owned by the company Swedish Meat and is a registered trademark supplied to manufacturers of meat and meat products that meet the brand's criteria<sup>46</sup>. The scheme is well known amongst Swedish consumers:

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<sup>45</sup> It is not clear whether, to what extent and at what level of detail the scheme requires geographical origin information to be provided on the meat ingredients.

<sup>46</sup> Affiliated companies published on the Swedish Meat’s website: <http://www.svensktkott.se/bransch-och-handel/om-marknet/foretag-som-anvander-markning/>

according to the scheme operators, two out of three consumers recognise this label and 7 out of 10 consumers appreciate this label.

- As for poultry meat products, the Swedish poultry meat association, *Svensk Fågel*, introduced a voluntary scheme regarding labelling of poultry in January 2006. *Svensk Fågel* represents 98 % of the Swedish chicken breeders. The label guarantees that the chicken or turkey was hatched, bred, slaughtered and further refined in Sweden and that the product follows the conditions and rules established by *Svensk Fågel*.

**Table 1: Overview of the importance of voluntary origin labelling schemes approved at national or concerted industry level for meat used as an ingredient**

| Sector        | Type of products  | VCOOL practices (schemes)   |
|---------------|---|---|
| Meat products | <ul style="list-style-type: none"> <li>meat preparations;</li> <li>meat products</li> </ul> | <p>VCOOL in the meat processing sector is considered to be not significant at EU level in general, although it is not possible to provide an estimate for the whole range of EU meat preparations and meat products). It is noted that PDO/PGI are very important for some products in this sector; there are currently &gt;130 meat products in the EU market under the EU PDO/PGI scheme; overall, the EU PDO/PGI meat products segment is estimated to be ≤10% of the total EU meat products market). However, in some MS the use of voluntary origin labelling in meat preparations/products is more significant.</p> <p><b>At country level:</b><br/> <b>Czech Republic:</b> No specific schemes. VCOOL covers roughly 1 – 2 % of meat production (volume &amp; value).<br/> <b>France:</b> The voluntary scheme Viande de Porc Française (VPF) accounts for 25% of total pig meat production and in particular 40% of cooked ham. A leading company in the meat products sector indicated that there are 177 stock keeping units (SKUs) with VCOOL; their total volume of VCOOL products is 59,000 tonnes, accounting for 95% of total company volume production, of which 4,700 tonnes carry origin labelling indicating MS and 54,300 tonnes carry origin labelling indicating EU.<br/> <b>Italy:</b> No national or wide scale private schemes identified. PDO/PGI schemes play a major role in Italian processed meat sector. A company processing poultry meat indicated that about 400 items of traditional products (1st and 2nd stage processing) carry VCOOL and account for approximately 25% (€225 million) of the total production value and 16% of volume (57,000 tonnes).<br/> <b>UK:</b> VCOOL in meat products is more significant. The results of the 2012 survey indicate that 71% of “lightly processed meat products”<sup>47</sup> labelled the origin of meat as set out in the UK Principles and 77% of composite products labelled the origin of meat where the meat was considered to be of primary interest to the consumer or a predominant component of the product (an increase from 73% in 2011).<br/> <b>Austria:</b> According to the Austrian CA, 15% of total meat preparations and meat products carry the AMA “Gütesiegel” label.<br/> <b>Hungary:</b> The Poultry Product Council reported that in 2011 the share of production volume of poultry meat products labelled as ‘Hungarian Poultry’ was between 67 and 99%, depending of the type of poultry meat products.<br/> <b>Ireland:</b> Mainly pig meat and poultry meat used as ingredients (up to 90% of poultry meat used in processing is imported) use voluntary origin labelling.<br/> <b>Sweden:</b> A total of 145 companies processing meat of pigs, beef, sheep and lamb are affiliated to the label ‘Swedish Meat’. As for poultry-meat products, the Svensk Fågel origin label represents 98 % of the Swedish chicken breeders. A study by the Federation of Swedish Farmers indicates that, in some 65 larger retailers in Sweden, 100% of meat products, such as mixed minced meat, chicken, lamb, marinated beef and pork are labelled with origin indication, and 80% -99% of barbecue sausages, hamburgers and bacon carry origin labels.</p> |

<sup>47</sup> The UK Principles on Country of Origin Information differentiate between ‘lightly processed’ meat products, including bacon, ham, gammon, sausages and burgers, and ‘composite’ meat products, such as pies, casseroles, ready meals, and canned and jarred products.

| Sector          | Type of products   | VCOOL practices (schemes)  |
|-----------------|--|--|
| Prepared dishes | <ul style="list-style-type: none"> <li>chilled prepared foods;</li> <li>canned and semi-preserved food;</li> <li>compotes, jams;</li> <li>frozen fruit and vegetables;</li> <li>culinary products, e.g. soups and broths, salads, condiments.</li> </ul> | <p>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 &lt;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.</p> <p><b>At country level:</b><br/> <b>France:</b> 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”.<br/> <b>Finland:</b> 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).</p> |
| Pasta           | <ul style="list-style-type: none"> <li>dry/fresh pasta;</li> <li>filled pasta;</li> <li>precooked pasta;</li> <li>ready to eat pasta.</li> </ul>   | <p>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).</p>   |

*Note: This table includes only voluntary origin schemes developed and approved at national or concerted industry level, as provided to the FCEC in our consultation with the MS CAs and industry stakeholders. 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 meat processing and distribution sectors across the EU27. In accordance with the ToR of this study, the table excludes origin labelling in the context of EU quality schemes (PDO/PGI) and existing EU mandatory origin labelling schemes (i.e. for beef/beef products, and imported poultry). A fuller presentation of origin labelling, including PDO/PGI and other schemes, can be found in **Box 2**.*

Source: FCEC based on consultation with industry stakeholders and MS CAs

The DG SANCO study on the functioning of the meat markets (2013 also covered the issue of voluntary origin labelling; the scope of that study included PDO/PGI. Results indicate that voluntary origin labelling, including PDO/PGI, is quite prevalent for the four types of meat and meat preparations covered by that study, although there are significant differences between MS, products and points of sales, as indicated in the findings presented in **Box 2**.

### Box 2: Extent of voluntary origin labelling including PDO/PGI and mandatory schemes

#### Key findings:

- **Significant differences between MS:** None of the products from those that mystery shoppers assessed in Lithuania or Cyprus, across all four meat categories, displayed an origin/quality certificate. Meat assessed in Ireland, Germany and the United Kingdom consistently displayed higher proportions of origin/quality certifications than the average.
- **Significant differences between products with fresh (unprocessed) meat more origin certified than processed meat.**
  - **Whole chickens** had the highest proportion of origin/quality certification labelling of any of the meat products; products assessed in EU12 were less likely to display this information than EU15 products. Within the EU27, 46% of whole chicken products had an origin certification. This label was displayed on 53% of products in the EU15 and 33% in the EU12. 80% of whole chickens assessed in Ireland had an origin certified label visible, followed by Germany (76%) and the United Kingdom (68%). Lithuania and Cyprus displayed the lowest proportion of origin certified labelling – both with 0%.
  - 41% of **minced beef products** assessed displayed origin certifications; this was the case for 50% of the EU15 minced beef and 16% of the EU12 minced beef. Ireland displayed an origin certification on 82% of products assessed, while Lithuania and Cyprus (0% in each case) Slovenia, Latvia and Bulgaria had the lowest proportion of this type of labelling (3% in each case).
  - 33% of **pork cutlet products** assessed in the survey had a quality certificate relating to origin. This was the case for 42% of products in the EU15 and 16% in the EU12. Lithuania and Cyprus had the lowest proportion of origin certifications – 0% each. Ireland (73%), Germany and the United Kingdom (both 62%) had the highest proportion of products with an origin certified label.
  - **Pork sausages** displayed an origin certification in 40% of cases. This proportion was 46% in the EU15 and 26% in the EU12. 66% of pork sausage products assessed in Denmark and the United Kingdom displayed an origin certification label. In contrast, Lithuania and Cyprus had the lowest proportion of this type of labelling on pork sausage products, with 0% each.
- **Significant differences between points of sales.** Across all meat categories, supermarkets, hypermarkets and discount stores had higher proportions of products with origin/quality certificates. Origin certified labels were found on 43% of minced beef products assessed in hypermarkets, 42% of products in discount stores and 41% of products in supermarkets. Origin certified labelling was less likely to be displayed in butchers (26%) and markets/farms (20%). 43% of pork sausages assessed in hypermarkets were origin certified, followed by 40% in discount stores and 39% in supermarkets.
- **Significant overlap between origin certification and other specifications.** For example, 75% of whole chickens that displayed an environment/climate certificate also had a quality/origin certificate. A quality/origin certificate was also present on 71% of organic chicken and on 58% of animal welfare certified chicken. In general, the most frequent combinations of information items were:
  - Additional quality/origin certificate on products marketed with an environment/climate certificate
  - Additional quality/origin certificate on products marketed as organic
  - Additional quality/origin certificate on products marketed with an animal welfare certificate

*Notes: The data were collected in the context of the specific methodology followed for this study (technical report of the mystery shopping survey) and are not a full inventory of all voluntary origin labelling as such. The origin certified products were in most cases part of quality schemes with a broader scope of requirements (i.e. not origin related only). 'Origin certified meat' was defined in the study as meat with specific geographic certifications, such as in the context of EU quality schemes (PDO/PGI) or national equivalents (country-specific examples were provided in the questionnaire, such as: Certified Irish Aberdeen Angus Beef, Liptovský salám,*



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*Agneau du Périgord*). The following four categories of products were covered by this study: minced beef; pork cutlets; pork sausages; and whole chickens. (GfK EU3C, 2013)

Source: DG SANCO, 2013 (consumer study on the functioning of the meat market)

### 2.3.3 General schemes on origin of certain foods/food categories

In some MS, schemes on origin indication cover a wider range of food categories, as follows (starting first with the case study MS):

- In the **Czech Republic** the Federation of Food and Drink Industries has developed a private scheme called “*Český výrobek – garantováno PK ČR*”, i.e. “*Czech Product – guaranteed by FFDI*” designed for a wide variety of foodstuffs including meat products. There is a condition for minimum content of raw meat materials used to produce the meat products within the scheme – at least 70 % of the raw materials have to be sourced from the Czech slaughterhouses slaughtering animals from the Czech farms. So far the volume of the meat products produced within the scheme has taken up about 1 – 2 % of the total meat product production in the country. So far there has been a clear obstacle to the wider usage of the scheme in the sector producing meat products which is a short supply of domestic raw materials (meat) for processing.
- In **Germany**, fTRACE is an information service platform, set up and managed by a private company with food manufacturers and retailers as partners, that enables the latter to provide further information to consumers on their products; the information is provided by the manufacturers themselves about their own food. The information is destined directly to consumers who by scanning the fTRACE code can retrieve information about – amongst other things - where the product comes from, and when and how it was processed. There is no information on the % share of the meat market potentially covered by this platform, but many well known and widely consumed brands of fresh meat and meat products are listed amongst its partners.
- In the **Netherlands**, the Ministry of Economic Affairs has 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 has 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).
- In the **UK**, the *Red Tractor* scheme is a private voluntary food assurance scheme, launched by UK farmers, food producers and retailers in 2000. The scheme, which had annual sales of £12 billion in 2012, covers farm crops and fresh produce including chicken, pork, beef and lamb with (Red Tractor Annual Report, 2012). According to the industry, the *Red Tractor* scheme was not used to attract a price premium as such, but was rather a retailer argument to attract consumers on reasons of provenance.

In the other MS, schemes applying to food products more generally include:

- In **Hungary**, the Decree 74/2012 of the Ministry for Rural Development D 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**’<sup>48</sup>, 2) ‘**Domestic product**’<sup>49</sup> 3) ‘**Domestically processed products**’<sup>50</sup>. Due to the short time period of implementation of these rules, data on the number, type and value of relevant food products covered by the Decree are not yet available.
- In **Estonia**, the CA reported that there are some important voluntary country of origin schemes covering different food categories; these schemes cover meat and meat products but there is no information on the potential share of meat-based products covered by the scheme. In particular:
  - ‘*Approved Estonian Taste*’ introduced by the Estonian Chamber of Agriculture covers foods containing primary ingredients originating in Estonia. Around 180 food products are covered by this scheme. The range of products includes milk products, bakery and cereal products, meat products, vegetable preserves, fish products non-alcoholic drinks, honey and eggs<sup>51</sup>.
  - ‘*The Best Estonian Food*’ launched by the Estonian food industry association.
  - The ‘*Flag Mark*’ also introduced by the Estonian food industry association. The Estonian flag is displayed on the price label or on the package. The origin refers to the final products and no rules have been established on the origin of its primary ingredient/s.
- In **Finland**, the ‘Good from Finland’ (Hyvää Suomesta -joutsenlippu) label is a voluntary origin label of pre-packaged foodstuffs introduced in 1993. The label is granted upon application by the Suomen Ruokatieto ry (Finnish Food Information). The right to use the label is product-specific. Criteria for the label are that the product has been produced or manufactured in Finland and at least 75% (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 domestic

<sup>48</sup> 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.

<sup>49</sup> 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.

<sup>50</sup> 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.

<sup>51</sup> List of products carrying this label can be found on [www.epkk.ee](http://www.epkk.ee).

content of these products is about 96%. The major food category is meat products, with about 4.000 products (followed by dairy products, with more than 1.000 products). The label motivates to buy the products, especially meat and meat products (TNS Radar survey 2008). The label is very well known and recognised by consumers and is also highly appreciated (Taloustutkimus survey 2010, 2011).

- In **Ireland**, the Bord Bia Quality Assurance scheme, which certifies inter alia that the food was farmed and processed in Ireland. The scheme covers the following products: bacon, beef, chicken, duck, lamb, pork, turkey (and eggs, fruit, and vegetables). A substantial number of farmers/producers and processors are members of the scheme. Bord Bia reports that many companies, certified by the scheme, use quality assured meat as an ingredient in their prepared meals. Where the percentage of meat in the final product is over 90% of the total ingredients ( $\geq 86\%$  in the case of pigmeat products and  $\geq 70\%$  for sausages) and the meat is quality assured then a specific quality mark features on the final product label, while for quality assured meat present in smaller quantities a different quality mark applies.
- In **Sweden**, the national Food Federation (Li) and Swedish Retailers (SDH) have jointly developed guidelines for voluntary origin labelling of food in addition to mandatory requirements, which are in place since 2007<sup>52</sup>. Li and SDH invite companies to apply the voluntary guidelines if a company chooses to label the origin of a product, whether the product is manufactured in Sweden or imported. It also stipulates that companies should be consistent and not label selectively (i.e. depending on whether it can be perceived as good / safe in the eyes of consumers). The extent to which the guidelines are being followed depends on the product.

The presence of origin labelled meat products on the retail market was studied by the Federation of Swedish Farmers in a 2008 project<sup>53</sup>. As a first step 49 shops were studied. The second step was to further look into 15 of those shops. The shops represented the large retailers in Sweden and they were geographically spread over the country. The labels studied did not include products covered by mandatory origin labelling. At a first glance the study indicated that 100 % of products such as mixed minced meat, chicken, lamb, marinated beef and pork were labelled with origin indication. For some products such as barbecue sausages, hamburgers and bacon, origin labelling covered 99%, 98% and 80% of products, respectively. For lamb chops and bacon, it was relatively frequent (almost 20% of the items) that more than one country was recognised as the origin. At closer examination of the text, this was a mixture of country of origin and / or raw material origin and / or country of

<sup>52</sup> "Riktlinjer för frivillig ursprungsmärkning av livsmedel och som får användas utöver obligatoriska krav (Mars 2007)" ("Guidelines for voluntary origin labelling of food that may be used in addition to mandatory requirements (March 2007)").

<sup>53</sup> This fact finding exercise was undertaken in the context of the Swedish guidelines on the voluntary origin labelling of food of March 2007.

manufacture and / or packaging country. In some cases, just a country was indicated, with no further explanation of what this meant (e.g. for lamb chops and fresh chicken it was relatively common (3-4 cases out of 10) to just indicate one country). When comparing between meat products, the origin information provided was most satisfactory for cut steaks. The study also concluded that, in general, in the case of imported products origin labelling either was missing or was less clear.

## 2.4 Conclusions

In the EU there is a wealth of literature on consumer interest in the geographical origin labelling of fresh meat and meat products, which demonstrates that consumer interest is strong. This evidence is generally backed up by the results of the FCEC consumer survey<sup>54</sup>.

The results of the FCEC consumer survey indicate that at EU level 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; this order of ranking of consumer priorities in food purchasing decisions is also evidenced in all of the reviewed existing consumer research.

At the same time, interest in origin labelling for meat-based food has scored the highest amongst the various food groups covered by the FCEC survey, with more than 90% of consumer respondents finding it important that origin is labelled on these products. However, **consumers' strong interest in origin labelling of meat as an ingredient is not necessarily reflected in their willingness to pay (WTP) for this information**, as discussed in the following paragraphs.

Consumer interest largely remains strong across the three product groups covered by Assessment B, although it is the highest in the case of *uncooked sausages or burgers* (example of a meat preparation), which can be generally be considered as the closest to fresh meat of all the three categories covered by the survey, followed (closely) by *cooked ham*<sup>55</sup>. Nonetheless, the survey results reveal that there are **significant differences at MS level** on this specific aspect. While between 65% and 85% of respondents in Bulgaria, Greece, Italy and Romania consider '*very important*' that origin is labelled on all the three meat-related products considered, only around 50% of respondents in Germany, Spain and Lithuania deem it '*very important*'.

<sup>54</sup> The FCEC survey was carried out in February 2013 and covered 3000 consumers in 15 MS (the selected MS account for 89% of the total EU population).

<sup>55</sup> Examples for each group: *uncooked sausages or burgers* (cat I); *cooked ham* (cat III); and, *frozen pizza with salami* (cat II). It needs to be borne in mind, however, that the range of products covered by all three meat-based food categories followed in this study is inevitably large and diverse; hence, care should be taken in extending the findings over the whole range of products falling within each category.

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Consumers indicated in all cases the highest interest to know the ‘*country where meat was produced*’: nearly half of consumers (EU average) require this level of detail on the origin, while roughly only a third of consumers require any other level of detail (whether more general such as ‘*produced in the EU or outside the EU*’, or more specific such as ‘*the country where the animal was born/raised/slaughtered*’). Nonetheless, once more, 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; there are also very significant differences between MS in consumer understanding of origin information. Overall, as also discussed in the report on Assessment A, results of the FCEC survey indicate that the consumer preferences are not uniform across the EU.

The analysis of existing studies on consumer attitudes towards meat (and/or food) origin labelling highlights that consumers may be disadvantaged in the market because when an origin indication is provided, it is not necessarily what the consumer thinks it is. This would suggest that there is potential ‘market failure’ to the detriment of the consumer. At the same time, there appear to be **strong differences between consumers both within MS and across the EU, including in the perception of what ‘origin’ means** to different consumers and levels of motivation/reasons for requesting such information.

As outlined in our literature review, in existing consumer research conducted at both EU and MS-level there is a lack of evidence on consumer WTP. The FCEC consumer survey has therefore specifically addressed this issue by including a question on WTP for each of the three product groups covered by the survey<sup>55</sup>. The results obtained indicate that at the base price (i.e. without any price increase), the majority of consumers opt for the highest possible level of detail on origin. However, the **proportion of consumers willing to pay more than the base price for origin information falls very significantly** (by 60-80%, depending on the labelling option and the product) **at the first price increase over and above the base price** (this would be in a range from +5% to +9%, depending on the level of information required<sup>56</sup>). These results suggest that consumers are largely unwilling to pay more than the current base price for origin labelling information, but would be interested in receiving the information (at the highest level of detail possible) if this was to be offered without any increase in price.

**The results of the FCEC consumer survey confirm certain aspects of a ‘paradox’ in consumer attitudes to origin labelling, in terms of the gap between consumers’ strong interest in the origin of meat used as an ingredient and their low willingness to pay for this information.** Discrepancies in consumer attitudes were already highlighted in previous studies. Although WTP as such is not explored in existing studies on consumer’s preferences these studies indicate that the price is a more important factor for the consumer when buying

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<sup>56</sup> This level of price increase represents what would be considered a relatively modest increase on the base price.

meat products (and food more generally) ranking it at a higher order than geographical origin as such (with price, appearance, quality, use by date, brand, generally indicated by consumers as the most relevant aspects affecting their purchasing decisions). Evidence from earlier research had also highlighted an identified gap between consumers' intention and purchasing behaviour.

Both the MS CAs and FBOs have indeed raised the issue of a discrepancy between consumers' interest and WTP or actual behaviour. In order to complete and cross-check the evidence base, MS Competent Authorities ('CAs') were also consulted on consumer attitudes towards origin labelling; indeed, in a few MS, authorities have been studying consumers' interest and perceptions on these issues. All of the 19 MS CAs that responded to the FCEC consultation, indicated that - based on the available evidence and their own experience - there is consumer interest in origin labelling of meat ingredients in their country, although in most cases to a lesser extent than for fresh meat (several MS CAs also indicated that consumer interest is strongest for meat preparations and products of relatively simple processing). Thus, the majority of MS (15 MS CAs) consider consumer interest to be at least moderate and in most cases strong. However, several MS CAs also questioned the reliability or completeness of existing consumer surveys demonstrating strong consumer interest in origin labelling, due to the absence of willingness to pay (WTP) questions and the lack of analysis on consumer behaviour. Indeed, the majority of MS (12 MS CAs) consider consumer WTP for origin information to be weak and in some cases moderate, while no MS CA considers it to be strong.

Furthermore, both MS CAs and BFOs have expressed concerns on why the consumer wants to know the geographical origin, and also what consumers understand by 'origin' and what this information means to consumers. In the context, it was also noted that consumers' interest can be prompted by the desire to buy national or even 'local' (not only due to perceived higher quality and safety or animal welfare standards, but also to support the economy, minimise food miles etc.). Consumers' preference for national or local meat is also considered to be an underlying reason for consumers' interest in origin labelling (particularly for fresh meat/meat products for which 'local' is associated to freshness), according to the recent DG SANCO consumer market study on the functioning of the meat market for consumers in the EU.

For both MS CAs and FBOs, in particular, a clear evidence that consumer WTP for additional origin information on meat ingredients is relatively weak is the fact that voluntary schemes as such remain confined to particular MS and product groups. 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; this is also a key finding of the above DG SANCO consumer market study.

According to both the MS CAs and the EU meat processing industry (CLITRAVI, UECEBV), the use in meat and meat-based products of **voluntary schemes approved at national or concerted industry level** concerning the origin of meat ingredients (beyond PDO/PGI as such, which account for an estimated maximum 10% of the total sales value of the meat/meat products sector<sup>57</sup>) is **generally limited**. The existence currently of some scheme covering the geographical origin of meat (or more generally of food) was indicated by 11 MS CAs (out of the 19 MS CAs that responded to the consultation). Where such schemes exist they tend to be mostly private and are not related only to geographical origin labelling but form part of a wider quality initiative. Only in few MS, such schemes are considered to already account for a significant part of the market and this tends to be for the specific species and meat products covered by the scheme (e.g. *Viande Porcine Française (VPF)* in France: VPF brand products now account for 25% of the total French pigmeat production and 40% of French cooked ham production; UK voluntary Principles: 71% of “lightly processed meat products”<sup>58</sup> labelled the origin of meat as set out in the UK Principles).

In view of the diverging schemes and extents to which voluntary origin labelling is currently practiced in the various MS and product sectors, MS CAs are quite divided on whether the current voluntary labelling provisions as provided in Article 26(3) of Regulation (EU) No 1169/2011 would be sufficient/satisfactory for responding to EU consumer calls on geographical origin labelling, and whether mandatory rules need to be introduced. This is explored further in Theme 3.

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<sup>57</sup> Council Regulation (EC) No 510/2006 of 20 March 2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs. According to DG AGRI data, in 2010 some 98 meat products were registered as GIs, with a sales value of €3.16 billion. These products are mainly registered in Italy (accounting for nearly 60% of the total EU sales value of meat product GIs), Germany, France and Spain. According to the DG AGRI GI database, to date over 130 meat products are registered as GIs under the EU scheme.

<sup>58</sup> The UK Principles on Country of Origin Information differentiate between ‘lightly processed’ meat products, including bacon, ham, gammon, sausages and burgers, and ‘composite’ meat products, such as pies, casseroles, ready meals, and canned and jarred products.

### 3 Theme 2: Characteristics of the supply and processing chain in the EU meat sector (for meat used as ingredient)

*In line with the ToR, this section analyses the supply chain for meat used as ingredient, therefore encompassing those stages of the chain that supply meat for use as ingredient in the manufacturing of a diverse range of final meat-based products (for the three categories of products covered by the study), i.e. from meat cutting to final processing and retail distribution of meat containing products to the final consumer.*

*The earlier stages of the supply chain of live animals and fresh/frozen meat (i.e. slaughtering and meat cutting) have been covered by the parallel study of DG AGRI (LEI, 2013). It is noted that, in practice, it is difficult to draw a line between the operations at different stages of the supply chain as for example meat cutting plants supply both meat and meat products for final consumption (B2C) and meat for use as ingredient for further processing downstream the supply chain (B2B). Therefore the scope of the two studies to some extent covers common ground in terms of characteristics of the supply and processing chain<sup>59</sup>.*

#### 3.1 Overview of the structure of the EU supply chain

##### 3.1.1 Production value and volume of meat products in the EU

The data on the EU meat processing industry collected during the course of the study is presented in **Table 2**. The data comes from our consultation with industry stakeholders and are partly based on estimations as no official data are available on the different types of meat categories covered in the study as such; indeed the data collection has involved significant effort due to the lack of readily available data or estimates on the production volume and value at EU level for the meat categories as defined for the purposes of the present study<sup>60</sup>. It is noted that there are different ways of categorising meat products among MS; for example, in **Germany** meat preparations, including seasoned minced meat (e.g. uncooked sausages and burgers), and meat products (e.g. cooked sausages and burgers) fall under the same meat category. Data gaps have been supplemented, where possible, by Eurostat (including COMEXT<sup>61</sup>) and other sources (indicated separately where this is the case).

<sup>59</sup> It is also noted that, as set out in the ToR for the two studies, these have followed a different definition of ‘meat’ in their scope. The DG AGRI study has covered fresh/frozen meat of pigs, sheep and poultry, as defined in CN codes, while the present DG SANCO study has followed the definition of meat in the Hygiene Package and has covered all species (for more on the scope of the study see section 1.3).

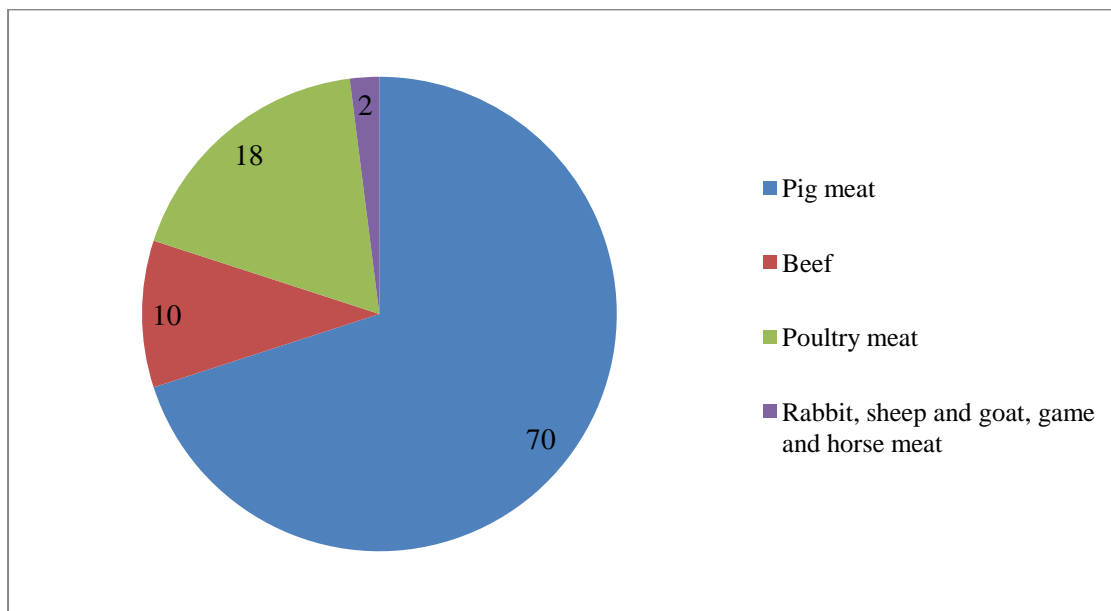
<sup>60</sup> As noted in the scope of the study (section 1.3), there is a large range of products where meat is used as an ingredient. For the purposes of this study, the analysis has covered 3 broad categories of products in which meat is used as an ingredient (including muscle meat, minced meat, mechanically separated meat (MSM), blood and offal). The categories were based on several criteria, such as level of processing involved and existing EU legislation (both on the provision of food information to consumers and on hygiene rules).

<sup>61</sup> 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.



Even though precise aggregate data on the volume and value of production of the 3 meat categories covered by the study are not available, stakeholders indicated that as a general rule between 30 – 50% (depending on the MS) of the total slaughtered meat volume are processed into minced meat/meat preparations/meat products. The key EU meat processing organisations indicated that, at EU level, the pig meat supply chain is significantly more important as well as different that in the beef and sheep meat sectors. The EU **pigmeat sector** has by far the **largest share of all processed meat**: in total, an estimated 70% of the EU processed meat production volume is made of pigmeat, followed by poultrymeat (18%) and beef (10%). For other types of meat, including sheep and goat meat, game, horse meat and rabbit meat, these represent less than 2% of the EU processed meat market (**Figure 6**).

**Figure 6: Share of processed meat sector, by animal species (%)**



Source: FCEC based on consultation with industry stakeholders

Regarding these other meat sectors, France<sup>62</sup> is a major producer of rabbit in Europe. Nonetheless rabbit production accounts only for 2-3% of total French meat production and 1.4% of total French meat consumption. Although precise figures on the volume of processed rabbit meat are not available, our consultation with INRA indicated that less than 10% of total rabbit meat is processed. Rabbit slaughterhouses are located in the west of France, i.e. Pays Loire, Bretagne and Poitou-Charentes, where production is concentrated. As for game meat, our consultation with SNPGC (the *French Syndicat National des Producteurs de Gibier de Chasse*) indicated that, at retail level, the most common processed game meat products are patés and terrines. Such products are principally made from imported fresh or

<sup>62</sup> France was a ‘case study’ MS for meat products from several species, including rabbit and game.

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frozen meat which is then processed in France. Of all processed game meat sold in France, 80% is imported from central and eastern EU MS (Poland, Germany, Hungary)<sup>63</sup>.

More specifically, for the 3 categories of products covered by the study:

- For **minced meat (within cat I of the study)**, data from CLITRAVI show that nearly 2/3 of minced meat produced in the EU comes from bovine animals. In some MS the share of beef minced meat is higher, e.g. in the Netherlands and France, while in other countries CLITRAVI reported that minced meat from beef and from pig have similar production volumes (Denmark and Belgium).
- Unlike the other meat categories covered by the study, in the EU **mechanically separated meat (MSM) (within cat I of the study)** is not a product sold as such to the final consumer but it is used as an ingredient in meat preparations and meat products (i.e. B2B). At EU level, 90% of MSM is poultry meat. The importance of this meat category varies largely by MS. In the Netherlands, MSM is an important meat category, accounting for 20% of total EU MSM production value.

The MSM sector is highly concentrated, with few big companies producing MSM under strict hygiene control. In the Netherlands, the processing meat industry (VNV) indicated that, over the last two decades, the number of slaughterhouses producing MSM has fallen from 400/500 to 60 plants, leaving on the market those that are more/highly specialised, able to meet the (industry) demand for MSM and comply with the existing hygiene and safety requirements. This has been confirmed by the Dutch poultry association Nepluvi. It also added that low pressure MSM called, *3mm meat*, is used in so-called ‘*low value*’ products, such as sausages and chicken nuggets.

In some of the other case study MS, production of MSM is reported to be nonexistent. In Germany, in January 2001 the industry agreed to stop MSM production, following consumers’ concerns regarding food safety; retailers have excluded in supply contracts any meat-based products containing MSM. Similarly, in Italy, MSM production is forbidden by law. In France, even though the *code des usages* does not allow the use of MSM, a limited quantity of MSM is still being used in some meat products e.g. sausages and pâtés.

- As for **meat products (within cat I and Cat III of the study)**, the largest (by volume) category of meat product produced in the EU are cooked sausages (30%), followed by cooked ham (20%) and dried sausages (15%); these 3 products together account for 65% of the total production volume of meat products. As mentioned earlier, pigmeat is

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<sup>63</sup> This includes meat cooked in restaurants which is actually imported unprocessed and served in a meal to clients.

the most processed in meat products. Processed beef meat account for a small percentage of total beef production both at the EU and MS level. In Germany, the use of beef meat in processed products has declined since the BSE crisis (following consumer concerns for this type of meat).

- As for **meat used as ingredient in multi-ingredient foods (cat II of the study)**, due to the **very extensive variety of different products** covered by this category, it was not possible to provide data at aggregate level on the production volume and value of **meat ingredients used in multi-ingredient foods**. Therefore, **Table 2** displays the total production volume and value of the members of three main industry organisations producing ready meals/multi-ingredient foods containing meat as ingredient, i.e. chilled/frozen food, culinary products and pasta products filled with meat.

Table 2: Overview of the EU/MS supply chain for meat and meat-based products (estimates)

| Geographical area  | Type of meat / category | Volume ('000 kg)                                | Value (Mio €)   | Share of type of meat products (% volume) | Share of type of animal species (% volume)  |  |
|--|-------------------------|---|---|---|---|--|
| <i>EU level</i>  |                         |   |   |   |   |  |
| <i>EU meat processors (Clitravi/AVEC)</i>                                  | <i>Category I</i>       | Minced meat <sup>64</sup>                       | 600 000   | 3 200                                     |   | Beef: 62%<br>Pork: 33%<br>Poultry: 2%<br>Sheep and lamb: 2%<br>Horse: 1% |
|  |                         | MSM   | 1 000 000   | 400 - 900                                 | Mainly used in cooked meat products   | Poultry: 90%<br>Pig: 10%   |
|  | <i>Category III</i>     | Meat products                                   | 13 500 000  | 75 000                                    | Cooked sausage: 30%<br>Cooked ham: 20%<br>Dried sausage: 15%<br>Dried ham: 10%<br>Others incl. bacon: 25% | Pigmeat: 70%<br>Poultry: 18%<br>Beef: 10%<br>Others: 2%                  |
| <i>EU butchers (CIBC)</i>  | <i>Category I</i>       | Minced meat                                     |   |   |   | Beef and port: 95% (Beef 2/3 and pork 1/3)<br>Other meat: 5%             |
|  |                         | MSM   |   |   |   | Poultry: 90%<br>Other: 10%   |
| <i>EU multi-ingredient food sector (ECFF, Culinaria Europe, UNFAPASTA)</i> | <i>Category II</i>      | Chilled/frozen food (ECFF)                      |   | 20 000 to 25 000                          |   |  |
|  |                         | Culinary food (CULINARIA EUROPE <sup>65</sup> ) |   | 7 100                                     | soups, bouillons and sauces   |  |
|  |                         | EU pasta filled with meat                       | 20/25% of (processed meat in filled pasta (finished product)) |   | Fresh pasta stuffed with meat-containing fillings <sup>77</sup>   |  |

<sup>64</sup> Figure provided is minced meat falling within the scope of this study.

<sup>65</sup> Accounting for 15% - 25% of all CULINARIA EUROPE products from this category on the market in the EU.

| Geographical area            | Type of meat / category | Volume ('000 kg)          | Value (Mio €)         | Share of type of meat products (% volume) | Share of type of animal species (% volume)  |  |
|------------------------------|-------------------------|---------------------------|-----------------------|---|---|--|
| <i>MS level</i>              |                         |                           |                       |   |   |  |
| <i>France (FICT)</i>         | <i>Category I</i>       | Minced meat               | 100 000 <sup>66</sup> | 936 <sup>66</sup>                         | Most of minced is beef product.   |  |
|                              |                         | Meat preparations         | 185 000 <sup>67</sup> | 1 600 <sup>67</sup>                       |   |  |
|                              |                         | MSM                       | 175 329               | 816                                       | Prepared pork meat meal and meat pastries   |  |
|                              | <i>Category II</i>      | Prepared meat-based meals |                       |   | Pigmeat 80%<br>Poultrymeat 20%  |  |
|                              | <i>Category III</i>     | Meat products             | 1 226 000             | 6 200                                     | Cooked ham: 20.9%<br>Cooked sausage: 15.1%<br>Lardon, bacon: 9%<br>Dried sausage: 8.8%<br>Pâtés/rillettes : 7.8%<br>Dried ham: 3.4%<br>Offal products: 3.3% | 1.1 million tonnes of pigmeat<br>40 000 tonnes beef and veal<br>80 000 tonnes poultry meat<br>8 000 tonnes rabbit<br>6 000 tonnes others |
| <i>United Kingdom (BMPA)</i> | <i>Category III</i>     | Meat products             |                       | (in UK£):                                 |   |  |
|                              |                         |                           | 183 882               | 952 687                                   | Total pork  | <b>Burgers<sup>68</sup>:</b>   |
|                              |                         |                           | 226 983               | 1 375 074                                 | Total bacon   | Beef:63%   |
|                              |                         |                           | 69 459                | 388 437                                   | Total gammon  | Pork: 5%   |
|                              |                         |                           | 194 245               | 712 419                                   | Total sausages  | Chicken: 22%   |
|                              |                         |                           | 189 494               | 1 691 329                                 | Total cooked meat   | Lamb:5%  |
|                              |                         |                           |                       | Turkey: 1%                                |   |  |
|                              |                         |                           |                       | Mixed meat:3.6%                           |   |  |
|                              |                         |                           |                       | Other meat:0.4%                           |   |  |
|                              |                         |                           |                       | <b>Sausages<sup>68</sup></b>              |   |  |
|                              |                         |                           |                       | Mixed meat:5%                             |   |  |
|                              |                         |                           |                       | Beef:2                                    |   |  |
|                              |                         |                           |                       | Pork: 89.7%                               |   |  |
|                              |                         |                           |                       | Chicken: 0.1%                             |   |  |
|                              |                         |                           |                       | Lamb:0.1%                                 |   |  |

<sup>66</sup> These estimates are based on consumption data in 2011 and 9.36 kg/€

<sup>67</sup> These estimates are based on 2011 data consumption :185 000 t (8.6€/kg)

<sup>68</sup> Figures are from retail sales only

| Geographical area                        | Type of meat / category      | Volume ('000 kg)                    | Value (Mio €)         | Share of type of meat products (% volume) | Share of type of animal species (% volume)  |  |
|--|------------------------------|-------------------------------------|-----------------------|---|---|--|
|  |                              |                                     |                       |   | Turkey:0.1<br>Other meat:3.9%   |  |
| <i>Germany (BVDF)</i>                    | <i>Categories II and III</i> | Meat products and meat preparations | 1 503 155             | 6 600                                     | Total sausages of which:<br>Uncooked sausages<br>Cooked sausages<br>Pre-cooked sausages.  | Beef and veal 13%<br>Pork 63%<br>Offal 6%<br>Poultry 16<br>other meat 1% |
|  |                              |                                     | 452 422               | 2 400                                     |   |  |
|  |                              |                                     | 880 700               | 3 500                                     |   |  |
|  |                              |                                     | 170 033               | 786                                       |   |  |
| <i>Italy (ASSICA)</i>                    | <i>Category III</i>          | Meat products                       | 1 211 800             | 8 000                                     | Dried ham: 25,4%<br>Cooked ham: 23,8%<br>Mortadella: 14,6%<br>Salami : 9,1%<br>Others incl. bacon: 27,1%  | Pigmeat 90%<br>Other 10%   |
| <i>Netherlands (VNV)</i>                 | <i>Category III</i>          | Meat products                       | 141 000               | 775                                       | Cooked sausages 16%<br>Cured sausages 14%<br>Liver products 19%<br>Ham 18%<br>Spek ('bacon') 6%<br>Beef/veal products 7%<br>Poultry products 3%<br>Other products 17%<br>Total smoked sausages 14.000 | Pigmeat: 70%<br>Poultry: 21%<br>Beef: 7%<br>Others: 2%                   |
| <i>Czech Republic (CMPA/Sdruzeni dp)</i> | <i>Category I</i>            | Minced meat <sup>69</sup>           | 10 000                | 29  |   | Pigmeat: 65 %<br>Beef: 35 %  |
|  |                              | MSM                                 | 15 000                | 9.5                                       |   | Poultry 100%   |
|  |                              | Meat preparations                   | 30 000                | 85  |   | Pigmeat: 40 %<br>Poultry: 45 %<br>Beef: 15 %                             |
|  | <i>Category III</i>          | Meat products                       | 390 000 <sup>70</sup> | 1 600 <sup>70</sup>                       | Cooked sausage: 40 %  | Pigmeat: 65 %  |

<sup>69</sup> The indicated volume (10,000 tonnes) is with <1% salt (ie not a meat preparation); there are no further data on this product as a meat preparation (i.e. with some added seasoning etc.).

<sup>70</sup> The figure includes poultry processing. Out of the 390,000 t indicated, some 25,000 tonnes is poultry products only, generating €60 million.

| Geographical area | Type of meat / category |  | Volume ('000 kg) | Value (Mio €) | Share of type of meat products (% volume)                          | Share of type of animal species (% volume) |
|-------------------|-------------------------|--|------------------|---------------|--|--|
|                   |                         |  |                  |               | Cooked ham: 20 %<br>Dried sausage: 20 %<br>Others incl. bacon: 20% | Poultry: 20 %<br>Beef: 15 %                |

*Note: The meat categories covered by this study do not correspond to existing statistical classifications, thus the data presented here are collated from different sources and statistics. For the same reason, the figures presented in this table do not necessarily represent the total EU/MS market of the meat-based products covered by this study*

Source: FCEC based on consultation with industry stakeholders

### 3.1.2 Techno-economic linkages within the EU meat-processing supply chain

**Figure 7** presents all **processing stages** after slaughtering<sup>71</sup> associated to the production of processed meat products. Our stakeholder consultation and data analysis indicated that EU meat processing companies tend to procure raw material mainly from traders. Only in some cases meat processors directly purchase from slaughterhouses and cutting plants. Once the companies process meat ingredients into meat products, these are then sold to retailers/catering/butchers, whether or not sliced and/or packed.

**Figure 7: Supply chain for processed meat products**



Source: FCEC

Slaughterhouses and meat cutting plants are key actors with respect to passing meat origin information on to their clients (i.e. traders; retailers; and, operators in further processing stages down the supply chain). As highlighted by the DG AGRI study on fresh meat (LEI, 2013), access to origin information of unprocessed meat is made available through the existing traceability systems, as foreseen by EU legislation<sup>72</sup> (the current traceability system as such is further discussed in section 3.3). The findings of the DG AGRI study also highlight the important link between the degree of vertical integration, company size and traceability capacity. The study indicated that large scale integrated supply chains can most easily put traceability and origin information systems in place along the whole chain.

However, as it currently stands, **due to the prevailing structure of the supply chain in this sector and the absence of any significant (B2B) interest in this information, the transmission of origin information generally tends to stop at the earlier stages of the supply chain (slaughterhouses and cutting plants).** The industry noted that in the EU meat sector, except in the more limited cases of vertically integrated companies (see below), there is almost no relation between slaughterhouses and companies processing meat into meat products, as slaughtered meat and unprocessed meat are generally sold on spot markets; this is particularly the case for standard quality meat ingredients, such as pigmeat which is by far the largest volume of meat used in processed products.

<sup>71</sup> Supply chain stages related to fresh meat and minced meat covered by DG AGRI study (LEI, 2013).

<sup>72</sup> **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); and, Commission Implementing **Regulation (EU) No 931/2011** of 19 September 2011 on the traceability requirements set by Regulation (EC) No 178/2002 of the European Parliament and of the Council for food of animal origin).



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As suggested by stakeholders, the upward trend of meat processors purchasing raw material in batches from traders may be explained by an increase in the level of homogeneity in the meat supply and processing chain across EU, which have led many processing companies to adjust their business operations to the EU standard market requirements.

The general prevailing pattern is that the majority of small processing companies buy raw material directly from traders, while larger companies procure both from slaughterhouses/cutting plants and traders. Large companies represent a small share of all companies operating in the EU meat processing industry (with some of the larger companies operating mainly in the poultry meat sector; there is less presence of large companies in the other sectors).

The slaughtering stage tends to be more concentrated with company groups having more significant market power, in comparison to the EU processed meat industry which is more fragmented across the EU. According to GIRA estimates (2012), in the 9 key EU MS, the top-4 meat processing companies account for between 2% and 5% each of the total EU-9 production volume, while there are a further 16 leading meat processing companies accounting for less than 1% each; thus 20 of the largest companies in the 9 leading MS account for about a third of the total EU-9 production volume. As highlighted by industry stakeholders, in the EU processed meat sector the vast majority (90%) of companies are SMEs and characterised by a high level of specialisation.

For example, in France, the national processors' association (FICT) indicated that the vast majority of the French meat processing companies are SMEs (only 10% of them have more of 250 employees) and these tend to specialise in the production of (*niche*) traditional and local meat products which are closely linked to regional/local consumption patterns and preferences.

According to all of the consulted industry stakeholders (at both EU and MS level), vertically integrated businesses<sup>73</sup> are relatively limited and represent a small share of all companies operating in the EU meat processing industry. Some of the largest amongst these businesses are mainly present in the poultry meat sector. Through vertical integration several, the hatchery, feed mill and processing plant are owned and controlled by the integrating company<sup>74</sup>. For example, 2 large poultry companies in Italy reported that around 90% of meat comes from animals of their breeding processed in their slaughter plants; the operations of cutting processing, cooking, packaging are carried out in their plants.

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<sup>73</sup> Companies owning slaughtering, cutting and manufacturing including slicing/packaging operations.

<sup>74</sup> As for broiler or breeder farms, DG AGRI study notes that in some MS such as Italy, France and Spain integrating companies tend to work with broiler and breeder farms under specific contracts. i.e. the integrator owns and feed the day-old chicks, while the farmers are paid for their input through labour and the provision of poultry housing, which cover variable costs.

By contrast, the EU pigmeat sector is disjointed, with different companies operating at the various stages of production (as represented by CLITRAVI, UECEBV and their members). Although an increasing number of EU meat processing companies, mainly those of a larger scale, have slicing and packaging operations in-house, the vast majority of enterprises tend to appeal to external slicing facilities.

Beyond the differences between the poultry and pig sector in particular, the degree of vertical integration also varies from MS to MS, as follows:

- **Italy** and the **Netherlands** are characterised by a long standing tradition in inter-professional cooperation between operators along the meat supply chain, including situations where farms and slaughterhouses are integrated into co-operative structures with farmers as shareholders.
- In **Germany**, according to the German meat processing industry (BVDF), slaughtering and meat processing are usually not undertaken by same operators.
- In **France**, the industry reported that there are only a few companies which manage the operation of slaughtering, cutting, slicing, and packaging and then directly sell their products to retailers (30%).
- In the **Czech Republic**, the meat sector has significantly evolved over the last 10-15 years with an increasing specialisation into the separate operations along the chain, i.e.: slaughtering; cutting; and, processing. For the poultry meat sector there are some large plants processing poultry meat of their own slaughter line, or selling for further processing. CMPA however reported that only one holding (assembling some 100 companies) which is involved in many agri-food sectors and operations including livestock, could be considered as the only example of some vertical integration.
- As for the **poultry** sector, integrated production structures mainly prevail in Italy, France and Spain, while in northern European MS such as in the Netherlands and Belgium the production is organised with independent links. In Germany, both organisational production models are applied.

The EU butchers' federation (CIBC) and its members confirmed the limited presence of vertical integration along the EU supply meat chain. It also indicated that the business strategy and tactics of butchers have changed over the years in order to meet a different consumer demand. Unlike in the past, butchers now tend to differentiate their offer and sell different categories of meat products such as multiple ingredient preparations with meat (convenience products), meat-based meals and meat products (e.g. meat salads, sandwiches or cooked meat for lunch break). Almost 90% (in terms of the number of product types) of the 180 types of meat products produced by CIBC butchers can be considered as processed products falling within one of the 3 categories of products covered by this study.

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**The relatively low concentration level of the industry in the meat processing sector, the high presence of small-medium scale of operations, and the low degree of vertical integration all have strong implications in determining the extent of potential impacts, for individual 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** indeed 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<sup>75</sup>. For example, in the case of the Italian beef sector, Mora and Menozzi (2005) finds that unit cost of the mandatory traceability is higher for medium size firms<sup>76</sup>. However, for some of the (smaller) operators in more niche 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.

Our broad consultation with industry stakeholders revealed that the demand and need for country of origin information varies greatly, largely depending on the type of meat categories and meat products.

CLITRAVI noted that in general terms there is **currently very limited demand from processors for origin information on meat ingredients**. This is the case for all meat categories, but particularly for multi-ingredient meat products (e.g. minced meat in lasagna). ECFF underlined that techno-economic linkages for the production of multi ingredient products are very company specific and can only be examined on a case-by-case basis, depending on the type of company and the type of products. ECFF members producing chilled convenience food buy meat products from cutting plants, processors, MSM producers, wholesalers or traders. However, as third stage processors, they do not have enough bargaining power to impose the indication of origin to their suppliers, as the quantity that they request are relatively small compared to other key buyers (e.g. butchers); this is one reason why the proliferation of purely voluntary origin labelling schemes with strict origin specifications in this sector is relatively limited (as also discussed in Assessment A).

During the consultation with industry stakeholders it was emphasised that the indication of origin adds value to products, and is therefore considered valuable and feasible to provide to consumers, only for some types of meat products and meat preparations. As a general rule, CLITRAVI stressed that origin indication is relevant – in the sense of added value and

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<sup>75</sup> The advantages of economies of scale were also highlighted in the DG AGRI study for unprocessed meat (LEI, 2013).

<sup>76</sup> Mora, C and Menozzi, D (2005) Vertical Contractual Relations in the Italian Beef Supply Chain. *Agribusiness*, 21 (2): 213-235.

feasibility - for meat preparations coming from a ‘**single meat piece**’ as this is commonly perceived by consumers as being close to fresh meat. **Table 3** presents a distinction between processed meat products involving trimmings and products coming from a single part of the animal (examples of the latter are *roti d’Ardenne* and *lomo embuchado*).

For the majority of products, **meat preparations in particular** (e.g. burgers and sausages), which arrive at the processing stage **already mixed and/or trimmed**, origin is not considered as a relevant quality specification by the supply chain operators. This is because of the significant logistical constraints to separate the (continuous) flow of trimmings into batches by origin, making it difficult for them to identify the origin of meat ingredients. The product sectors using trimmings are particularly disadvantaged by any potential rules on origin labelling. For example, the German meat industry (BDVF) indicated that 30-40% of their sausage production have trimmings (e.g. *Boeckwurst*) and often all ingredients are already mixed in the cutting plants.

**Table 3: Type of raw material according to type of meat products**

| Products derived from single anatomical parts of the animal | Products involving trimmings |
|---|------------------------------|
| Dried ham   | Mortadella                   |
| Cooked ham  | Sausages                     |
| Pancetta/bacon  | Burgers                      |
| Lomo embuchado  | Salami,                      |
| Roti d’Ardenne  | Pâté                         |

Source: FCEC based on consultation with industry stakeholders

Even when trimmings or blending (prior to arrival at the processing plant) do not feature in the production process, origin labelling can still be a problem due to the extent of the mix of suppliers. For example, the Italian processed meat industry (ASSICA) noted that even though Italian products such as *pancetta* and dried ham do not involve mixing of different meat ingredients, in practice they have a continuous mix of suppliers therefore the source (origin) of the raw material is likely to be also frequently changing. These issues are further discussed in section 3.2.

The available evidence shows that only in certain cases, which generally account for a relatively limited share of the total processed meat production volume, meat origin is a specific condition imposed on or requested from suppliers at the different stages of the supply chain, in particular:

- Pigmeat from common breeds is considered to be a commodity, for which demand for origin information is negligible. The indication of origin is valuable information only in the case of pigmeat products from special breeds of pigs which fall under GIs (e.g. Iberian black pigs).
- As for beef, specific meat products, such as *Bresaola*, require quality specifications of meat which can be assured in sufficient quantity only by a specific origin (e.g. beef from Brazil or Argentina).
- In the context of processed products which fall under voluntary origin labelling schemes with strict origin requirements in terms of where the meat was produced and/or where the animal was born/raised/slaughtered (or some of these 3 stages); examples include the “*Hungarian poultry*” scheme, the “*Swedish meat*” scheme (for meat of all species), the Swedish “*Svensk Fågel*” scheme (for poultry) (see Theme 1, section 2.3.3).

### 3.2 Sourcing practices

Industry stakeholders indicated that, excluding PDO/PGI meat products as such, single sourcing practices are limited, if not negligible. The most common sourcing practices of EU meat processors are multiple sourcing from different countries (practice e and f, **Table 4**). The majority of EU meat processors place their operations inside the EU boundaries and only a few of them have increased their overseas production over the last decade. (GIRA, 2012)

Sourcing decisions taken at production level depend on the availability of suitable raw material, the quality specification of the final products (i.e. premium or lower value) and the degree of vertical integration within a company.

As discussed above, the EU meat processing industry is characterised by a low degree of vertical integration with only larger companies directly procuring from slaughterhouses and cutting plants. In some cases, large companies may own transport fleets which help buying directly from suppliers. In this latter case, they tend to differentiate their suppliers in order to provide for any risk and ensure the availability of meat raw material.

The industry stressed that the **availability of suitable raw material in sufficient volumes, standard quality specifications** (which are determined by the quality specification of the final products i.e. premium or lower value) **and at a competitive price are the key factors affecting their sourcing decisions**. This also 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. The business reality of the EU meat processing industry is that different stages of meat production often take place in different EU countries and there is significant trade of meat raw materials among the EU MS.

The sourcing practices are further described at the EU, MS and company level as follows:

At **EU level**, the type of multiple sourcing practices tends to be different between species, depending on the type of meat ingredients as well as on the type/characteristics of final products. In particular:

- **Multiple sourcing within the EU** (practice e, **Table 4**) is a practice prevailing for **pigmeat** based products. The EU is largely self-sufficient in pig meat production; very few quantities of pig meat are imported mainly from neighbouring countries such as Switzerland. Most of the cross-border trade in meat ingredients occurs in northern Europe (**Table 16**). Significant cross-border operations occur in the poultry sector as well. For example, in the Netherlands, the association of poultry processors indicated that some of its members own slaughterhouses in Belgium and import slaughtered flocks from Germany. In addition to this, the Association of Pasta Manufacturers of the European Union reported that for stuffed pasta containing meat (accounting for 20-25% of this sector's products), multiple sourcing within the EU is the main sourcing practice.
- **Multiple sourcing from EU and non-EU countries** (practice f, **Table 4**) is common for **beef and poultry meat** based products. Generally non EU imports from third countries of meat for processing are very limited due to SPS constraints. In 2011 the EU imported more than 300,000 tonnes of beef (fresh, frozen, prepared); these were mainly imports of 'high-quality' beef (mainly for catering/restaurants and *bresaola*, etc.) from Brazil and Argentina. A small quota of beef for processing (used in products such as corned/tinned beef, soups, pizza topping), was imported. The EU annually imports around 800,000 tonnes of frozen, prepared and salted poultry meats, mainly from Brazil and Thailand. The categories 'prepared' and 'salted' poultry represent around 75% of all imports of poultry meat.
- **Multiple sourcing within the EU** (practice e, **Table 4**) is a practice prevailing also for some types of meat-based multi-ingredient foods, although this is a sector where a strong case-by-case situation also prevails. This has implications in terms of traceability in view of the complexity of this sector: examples, of the supply chain for pork sausages (which is applicable both for sausages destined for final consumption and – in the last element of the chain – for sausages used as ingredient in food products) and of chicken-based ingredients used in food products, are provided respectively in **Figure 8** and **Figure 9** to illustrate the complexity of the structure of these products.

At **MS level** (starting first with the case study countries), sourcing practices vary according to country specificity (**Table 4**):

- In **France**, the meat processing industry reported that France as the single national source accounts for 25% of the total volume of pigmeat production, due to the

presence of the VPF labelling scheme. For the rest, multiple sourcing practices are prevailing, especially for pigmeat products. As France is not self-sufficient in the production of pigmeat for processing into cooked ham, nearly 30% of the requirement in cuts of pork is imported from other MS, such as Spain, Denmark and Germany. However, less than 0.1 % of pig meat imports come from third countries due to SPS constraints.

- Similarly, in **Italy**, the meat processing industry stressed that the main sourcing problem is the lack of self-sufficiency in raw material. In Italy there are around 11 million pigs which are heavier (160 kg) than those produced in other MS (100 kg). These are destined for high quality meat products, such as *Prosciutto di Parma* and *San Daniele*, which account for 60-70% of PDO/PGI products; PDO/PGI products account for 30-40% of total Italian production of pigmeat products while the remaining 60-70% - i.e. non-PGI/PDOs products - contain meat coming from other member states, such as Germany, the Netherlands and France<sup>77</sup>. As for beef meat, this is imported for high value meat products, such as *Bresaola*. The main TC origins for the productions of *Bresaola* are Brazil and Argentina. The Italian industry noted that third country imports would have been much higher if SPS standards were removed. Single local sources are used for PDO/PGI products only.
- In the **Czech Republic**, the industry reported that multiple sourcing from different MS is common practice, representing 83% of the total volume of production. For meat processed in small enterprises and meat products under private labelling schemes the prevailing practices are multiple national sourcing from different regions of the countries, representing 15% of total volume of production. A small proportion of meat production is coming from a combination of sourcing from EU and non-EU countries (2%).
- In **the UK**, TC sourcing is not of any significance. Multiple local sourcing is a normal practice and applies to all types of meat apart from lamb which comes from Wales (option b). Multiple national sourcing (option d) is prevailing, accounting for around 70% total volume.
- In **Germany**, BVDF indicated that its members tend to source in different suppliers from different areas within Germany (option d), but in some cases meat comes from Denmark, Spain and the Netherlands, in particular when there is seasonal demand (e.g. barbecue season). About 80% of total volume of fresh and processed meat is of German origin, while between 10-20% is of European origin. Sourcing from third countries is negligible. Germany has a significant cross-border movement of animals

<sup>77</sup> Germany with 371 thousand tonnes (including imports of live animals) followed by the Netherlands (160 thousand tonnes) and France (148 thousand tonnes).

with the Netherlands, Belgium and Denmark, making often difficult to distinguish where an animal is born, raised and slaughtered.

- **In the Netherlands**, multiple national sourcing is the main practice for all species (option d), while a combination of sources from other MS is prevailing for pigmeat based products (option e), while beef and poultry products are sourced from both MS and TCs (option f). For frozen poultry (mainly broilers) some Dutch companies are sourcing from third countries (Thai, Brazil and China), which goes in meat preparation processed in the Netherlands and other MS. There are imports processed duck for specialised catering purposes (e.g. China).
- **In Austria**, the Austria farmer association reported that the self-sufficiency rate for beef is 140 % (up to 100 % from Austrian sources of which around a 1/3 single local, 1/3 multiple local, 1/3 national). As for pig meat, the self-sufficiency rate is 106% (around 2/3 are sourced national of which one half local, 1/3 EU, such as Germany, Denmark, Netherlands). As for poultry (chicken) the self sufficiency rate is 91 %. Poultry meat produced national is sold on the national market with integrated supply chains.
- **In Denmark**, the EU farmer association reported that estimations on sourcing practices for pig meat and beef are the following: 85% of these products would originate from Danish national source, 10-15% from the EU and 0-5% from third countries. In Denmark, estimations on sourcing practices for poultry are the following: 70% of poultry from Danish source, 20-25% from EU and 0% -5% from third countries.

At **company level**, the situation in terms of sourcing practices is very heterogeneous. In the cases reported by the industry consultation at EU level and in the MS, it appears that companies tend to procure from specific suppliers. A poultry processing meat in Italy indicated that it mostly procures raw materials locally; 80% of total volume of productions is based on single local source (80%), followed by multiple local sources (17%) and only 3% is coming from third countries. On the other hand, an EU leading manufacturer of meat products reported that as much as 92% of the total production volume is based on raw materials coming from multiple sources within the EU (practice e, **Table 4**). CULINARIA members reported that they source meats from minimum 2 up to 8 countries, with a spread of two geographical areas Europe and non Europe (South America or Asia depending on the type of meat).

In terms of the frequency of change in the supply sources, CLITRAVI indicated that practice e (Table 5) is predominant in the meat processing sector, in order to guarantee an adequate volume of raw material. This is particularly the case for SMEs which procure limited quantities of meat from a great number of suppliers. However, the Italian SME association (ISB) noted that for specific high quality semi-processed products the size of the company is



not a main driver, as the procurement practices is based on long relationship between suppliers that have a very high level of specialisation.

In the poultry sector, on the other hand, the EU processing poultry meat industry (AVEC) indicated that the mix of suppliers **may change occasionally and the frequency is rather limited**. Changes may occur in terms of quantities per supplier depending on availability and price of raw materials

The use of meats from multiple origins and the frequency of changes in suppliers varies according to **seasonal availability, type of meat, type of product and price**. Moreover, differentiating sources serves as a business strategy to **reduce the risk** of delivery failure **driven by external factors** (e.g. animal diseases or food safety crisis, strikes etc.). for example, both the EU meat processing sector and the Italian SME Association (ISB) emphasised that storage activities are less and less common among FBOs due to potential outbreaks of animal diseases and food crisis.

Meat processing companies generally make specification orders, i.e. documents encompassing essential parameters such as type of cut, quality, quantity, etc). Only in the country of origin of meat ingredients is a characterizing parameter, this is also specified. However, the origin is not a consumer-relevant parameter unless the origin is used in product communication on-pack or off-pack. As all safety and quality parameters, which can be ensured by every geographical origin, are captured in the specification, indication of the country of origin is not usually included in the specifications.

As already outlined in the previous sections, meat as ingredient is a commodity with standardized parameters and therefore to be efficient, industrial production of meat products requires an adequate volume of raw materials from different suppliers which are able to ensure desired quality regardless the origin of meat.

As for butchers, CIBC indicated that the importance of the different sourcing practices of primary ingredients depends on the size of business. For most small butchers, pigmeat and beef for processing are not purchased by a combination of different sources, but are either procured locally or nationally from specific areas (practices b, c, d, **Table 4**). On the other hand, large processing businesses tend to procure meat raw material from a combination of sources from different EU MS (practice e, **Table 4**). The industry also noted that, generally, meat products based on trimmings, e.g. sausages, tend to contain raw ingredients coming from multiple sources. As for the frequency of change in the mix of suppliers, the CIBC reported that its members tend to have long relationship with their suppliers (practice c, Table 5) while large processing players change their suppliers frequently (practice e, Table 5).

The complexity of the sectors and of their sourcing practices has significant implications in terms of traceability issues, which are discussed further in the following section.

**Table 4: Overview of sourcing practices in the meat processing sector**

| Sector/industry stakeholder                                 | a. Single local source | b. Multiple local sources | c. Single national, EU or non-EU source | d. Multiple national sources                | e. Multiple sources, EU only                        | f. Multiple sources, EU/non-EU | g. Multiple sources, non-EU |
|---|------------------------|---------------------------|---|---|---|--------------------------------|-----------------------------|
| <b>EU level</b>   |                        |                           |   |   |   |                                |                             |
| CLITRAVI  |                        |                           |   |   | X   | X                              |                             |
| UECBV   |                        |                           |   |   | X   | X                              |                             |
| Butcher industry (CIBC)                                     |                        | X                         | X                                       | X   | X   | X                              |                             |
| AVEC  | case by case           | case by case              | case by case                            | case by case                                | case by case  | case by case                   | case by case                |
| ECFF  | case by case           | case by case              | case by case                            | case by case                                | case by case  | case by case                   | case by case                |
| CULINARIA EUROPE  |                        |                           |   | X   | X   |                                |                             |
| French association of canned ready meal manufacturers(FIAC) | case by case           | case by case              | case by case                            | case by case                                | case by case  | case by case                   | case by case                |
| Stuffed pasta with meat-containing filling (UNAFPA)         |                        |                           |   |   | X   |                                |                             |
| <b>MS level</b>   |                        |                           |   |   |   |                                |                             |
| French meat processing Industry (FICT)                      |                        |                           | 25%                                     |   | X   | X                              |                             |
| Dutch meat processing industry (VNV)                        |                        |                           |   | X   | X   | X                              |                             |
| Italian meat processing industry (ASSICA)                   |                        |                           |   |   | X   | X                              |                             |
| Czech meat processing industry (CMPA)                       |                        |                           |   | 15%   | 83%   | 2%                             |                             |
| UK meat processing industry (BMPA)                          | UK Lamb from Wales     | X (except lamb)           | 30%                                     | 70%   | 50%   | 50%                            | negligible                  |
| German meat processing industry (BVDF)                      |                        |                           |   | 80%   | 20%   |                                |                             |
| CZ poultry processors (SDRUZI )                             | case by case           | case by case              | case by case                            | case by case                                | case by case  | case by case                   | case by case                |
| Italian meat trader association (UNICEB)                    |                        |                           |   |   |   | X                              |                             |
| Italian SME Association (ISB)                               |                        |                           |   |   | Pigmeat   | Beef                           | Beef                        |
| Swedish Retailer Association                                |                        |                           |   | X   | X   |                                |                             |
| Denmark (Copa –Cogeca)                                      |                        |                           |   | 85% (beef and pigmeat);<br>70% poultry meat | 10-15% (beef and pigmeat);<br>20- 25 % poultry meat |                                | 0-5%                        |
| Austria (Copa Cogeca)                                       | 33% (beef);            | 33% (beef)                |   | 33% (beef)                                  | 20%   |                                |                             |

| Sector/industry stakeholder | a. Single local source | b. Multiple local sources | c. Single national, EU or non-EU source | d. Multiple national sources | e. Multiple sources, EU only | f. Multiple sources, EU/non-EU | g. Multiple sources, non-EU |
|-----------------------------|------------------------|---------------------------|---|------------------------------|------------------------------|--------------------------------|-----------------------------|
|                             | 33% (pigmeat)          |                           |   | X (poultry)                  | (pigmeat)                    |                                |                             |
| <b>Company level</b>        |                        |                           |   |                              |                              |                                |                             |
| Meat processing company     | 80%                    | 17%                       |   |                              |                              |                                | 3%                          |
| Meat processing company     |                        |                           | X                                       |                              |                              |                                |                             |
| Meat processing company     |                        |                           |   | 7.6%                         | 92%                          | 0.2%                           |                             |

Source: FCEC based on industry consultation

**Table 5: Overview of the frequency of change in the mix of suppliers in the meat processing sector**

| Sector/ industry stakeholders             | a. Mix of suppliers tends to remain unchanged over time | b. Occasional changes in the mix of suppliers (1-2 p.a.)/a minority of suppliers | c. Occasional changes in the mix of suppliers are occasional (1-2 p.a.) /the majority of suppliers | d. Frequent changes in the mix of suppliers (3 or more p.a.) / a minority of suppliers | e. Frequent changes in the mix of suppliers (3 or more p.a) / the majority of suppliers |
|---|---|--|--|--|---|
| <b>Meat preparations/ products</b>        |   |  |  |  |   |
| CLITRAVI                                  |   |  |  |  | X   |
| French meat processing Industry (FICT)    |   |  |  |  | X   |
| Dutch meat processing industry (VNV)      |   | X  |  |  |   |
| Italian meat processing industry (ASSICA) |   |  |  |  | X   |
| Czech meat processing industry (CMPA)     |   |  |  |  | X   |
| UK meat processing industry (BMPA)        |   |  |  |  | X   |
| German meat processing industry (BVDF)    |   |  |  |  | X   |
| CIBC                                      |   |  | X  |  | X   |
| AVEC                                      | X   | X  |  |  |   |
| CZ AVEC member                            | case by case  | case by case   | case by case   | case by case   | case by case  |
| UNAFPA pasta (staffed with meat)          |   | X  |  |  |   |
| <b>Prepared dishes</b>                    |   |  |  |  |   |
| ECFF                                      | case by case  | case by case   | case by case   | case by case   | case by case  |
| CULINARIA EUROPE                          | case by case  | case by case   | case by case   | case by case   | case by case  |
| UNAFPA                                    |   | X  |  |  | X   |

Source: FCEC based on industry consultation

### 3.3 Traceability systems

#### 3.3.1 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 to food of animal origin 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 ensure the traceability of food-producing animals and food of animal origin through all stages of production, processing and distribution. Regulation (EC) No 178/2002 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.
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.

This system ensures full traceability across the entire value chain, at every stage of the food supply chain. The requirement for FBOs to identify the businesses to which their products have been supplied (with the exception of retailers selling to ultimate consumers) and to trace their raw material inputs back to the immediate supplier is called '**one step back-one step forward**' traceability. This approach involves the following conditions:

1. FBOs shall have in place a system enabling them to identify the immediate supplies and customers;

2. A link ‘supplier-product’ shall be established ( which products supplied from which suppliers);
3. A link ‘customer-product shall be established (which products supplied to which customers).

Commission Implementing Regulation (EU) No 931/2011 requires additional information to be provided for unprocessed and processed products of animal origin to ensure the correct application of the traceability requirements set out in Article 18 of Regulation (EC) No 178/2002. The additional information covers *inter alia* a reference identifying the lot, batch or consignment as appropriate, but not readily origin information as such; the information must be updated on a daily basis.

Regulation (EC) No 853/2004 establishes that products of animal origin have an identification mark indicating the last approved establishment in which the product was prepared. The identification mark must indicate the country where the establishment is located and its approval number. Establishments located within the EU must be indicated as EC (or equivalent abbreviation in other languages).

As for trade with Third Countries, there is a detailed EU regulation in the veterinary field lays down the conditions that apply to imports of live animals and animal products from third countries. Regulation (EC) No 853/2004 sets general obligations for the importation of products of animal origin from third countries while Regulation (EC) No 178/2002 cover general requirement for imported food products.. In 2007 the COM (DG SANCO) developed a summary of the import requirements in a guidance document<sup>78</sup>.

Live animals and meat can only be imported from countries and establishments that are on approved lists maintained by the DG SANCO Food and Veterinary Office (FVO).In most cases, an on-the-spot inspection by the FVO is required to evaluate the animal and public health situation, the official services, the legal provisions, the control systems, the production standards and other measures needed to meet EU requirements before a third country (or region) and establishments can be approved for export.

Non-EU countries interested in exporting food of animal origin to the EU must have traceability systems in place for exports, which are able to provide equivalent standards to those in the EU. The FVO also ensures that equivalent standards of animal identification, movement control and traceability systems must be in place in exporting third countries to ensure traceability throughout the whole process of production and supply of live animals and food of animal origin.

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<sup>78</sup> General guidance on EU import and transit rules for live animals and animal products from third countries, DG SANCO Directorate D – Animal Health and Welfare, 2007

### 3.3.2 Traceability systems for origin labelling purposes

Animal identification and traceability systems are a useful starting basis for the management of the EU's consumer information policy on meat as an ingredient. As traceability for food safety purposes is ensured, this may imply that origin information can be made available through the current traceability system.

However, there are two major issues with extending the use of the current traceability system to also address origin labelling purposes. These are described as follows.

First, the **existing EU traceability systems vary significantly between the different animal species**. As **Table 7** shows, currently, traceability for origin purposes is most complete for beef. Specific EU legislation<sup>79</sup> in the beef sector requires full traceability of individual bovine animals and fresh, chilled or frozen beef products with recording of country of birth, fattening and slaughtering on the product label. On the other hand, the traceability systems of pigs<sup>80</sup>, poultry<sup>81</sup> and sheep and goats<sup>82</sup> do not require all movements of these individual animals to be recorded on national databases.

As also indicated by the DG AGRI study<sup>83</sup>, the less developed traceability systems for meat of other species make it more difficult to obtain origin information for those species compared to meat of bovine animals. Therefore, as traceability systems are different depending on the animal species, the access to origin information through traceability also varies between species. The case studies conducted during the DG AGRI study indeed demonstrate that current traceability practices at slaughterhouse and meat cutting plant level differ between species and also between operators (**Table 6**).

**Table 6: Current traceability practices at slaughterhouse and meat cutting plant level**

| Sector                  | Traceability system (for food safety purposes)   |
|-------------------------|--|
| Pig case study – France | Most large scale slaughtering and cutting companies already have systems in place to guarantee MS origin (born, bred and slaughtered). Traceability is mainly provided on a batch basis back to individual farms.  |
| Pig case study – Spain  | Flows of live pigs of different origin are separated. Meat from pigs from more than one farm may be combined to prepare a batch for delivery to a retailer: this will only be problematical for country of origin labelling if the farms are in different countries. Traceability in the slaughterhouse is principally by line numbering. Traceability through cutting and packing is on day batches where possible. |

<sup>79</sup> Regulations (EC) No 1760/2000 and (EC) No 1825/2000

<sup>80</sup> The identification and registration of live pigs is described in Council Directive 2008/71/EC and traceability of pig meat is covered by the general provisions of Regulation (EC) No 178/2002 (General Food Law) and Commission Implementing Regulation 931/2011

<sup>81</sup> Traceability of poultry meat is covered by the general provisions of Regulation (EC) No 178/2002 and Regulation (EC) No 931/2011;

<sup>82</sup> Regulation (EC) No 21/2004 concerns the identification and registration of sheep and goats, and traceability of sheep and goat meat falls under the general provisions of Regulation (EC) No 178/2002 (General Food Law)

<sup>83</sup> LEI, 2013

| Sector                                     | Traceability system (for food safety purposes)   |
|--|--|
| Pig case study – Germany                   | Traceability systems are mainly based on batches and days. Most meat companies demand a standardised system to get piglet origin information from farmers.   |
| Poultry case study – France                | French industry has already implemented a tracking and tracing system which allows the origin labelling with mention of the country of origin.   |
| Poultry case study – the Netherlands       | Both slaughterhouses and processing plants work with ‘registration systems’, which guarantee the traceability of products.<br>The origin of the product is known at the slaughter and farming level. However the origin of the day-old-chicks (‘born’ level) is generally not known.   |
| Sheep and goat case study – United Kingdom | Virtually all sheep slaughtered in UK slaughterhouses will be of UK origin.<br>The high level of full or partial vertical integration within the UK sheep meat supply chain means that traceability systems are already set up by large scale operators throughout the chain.<br>In many cases medium and small scale cutting and packing plants will already have computerised systems to record product flows through the plant. Others may employ simpler systems, such as batch separation or ‘luggage tags’ to identify individual cuts or batches of meat.<br>However, some medium and small sized cutting and packing plants may incur additional costs to install and operate complete traceability and labelling systems. |
| Sheep and goat case study - Romania        | Traceability systems are in place and operational in slaughterhouses and meat establishments.  |

Source: FCEC extraction from DG AGRI study (LEI, 2013)

Beyond the differences between the different species in the current set up of traceability systems for food safety as such, other factors contribute to increase the complexity of traceability, and therefore the implementation of potential mandatory origin labelling provisions, for meat of other species.

In particular, in the case of pigmeat, this has the highest share of processed meat, which increases the challenges for implementing the required traceability system for origin purposes in this sector.

Furthermore, in practice, at FBO level, current traceability is ensured by using paper records required for the implementation of the above EU hygiene, business/commercial documents (e.g. supplier invoice), 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); **information exchange still mostly occurs via paper documentation (e.g. supplier invoice)**. This documentation is generally linked to each cutting and 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 the veterinary control number. The information is then manually transferred into the internal IT systems and processed to match tracking and traceability requirements.



Secondly, **traceability is currently set up only ‘one step up and one step down’; this is the necessary and sufficient level for food safety purposes. As such, it does not gather all the information that has been accumulated through the chain (“cumulative traceability”) which would be the requirement for origin labelling purposes.** Beyond one step up and one step down, traceability becomes an extremely challenging exercise, particularly as product complexity and level of processing (i.e. passing through several stages in the production process) increases. Although there are certain voluntary quality schemes following more stringent traceability controls which make easier the access to origin information these tend to be designed under specific schemes and to cover specific products of a lesser level of complexity (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 – see section 2.3).

As a general principle, **the more complex the cutting and processing stages and the more advanced the level of processing, the more difficult becomes traceability for the purposes of origin labelling.** This is especially the case with **trimmings**, as this “by-product” of the cutting operation becomes the starting product for further processing. Trimmings arrive at the stage of further processing (i.e. for incorporation into intermediary or final products) mixed up in batches and cannot be distinguished by origin, thus making origin labelling not feasible for any trimmings-based meat preparations/products. This conclusion has also been drawn by the 2004 EU Commission report on mandatory origin rules for beef and beef products<sup>84</sup>. The report underlines that off-cuts of meat and trimmings from carcasses come from different batches and are assembled for sale by the full pallet and the quantity produced in a day’s work in a small cutting plants may not be enough for a full pallet. Therefore, operators are not generally able to make batches of trimmings that are of homogenous origin.

Because of the severe limitations of the current traceability system, the industry stakeholders argue that the conclusions of the 2004 EU Commission analysis with respect to mandatory origin rules for beef-based processed meat and meat products are still valid. According to this analysis, *“an extension of mandatory beef labelling to these products would not produce any extra safeguards for public health – the businesses concerned already apply “step-by-step” traceability to their products – or have an impact on beef consumption, which has already returned to its level prior to the second BSE crisis.”* In particular the studies underlined the following issues related to the extension of the traceability and origin labelling rules to these products would pose a number of problems:

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<sup>84</sup> European Commission, COM/2004/0316 final, 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.

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- The risks of origin traceability errors are multiplied at each new stage of processing of beef products, particularly as a multitude of batches of raw materials are combined to prepare a single batch of finished products. It does not appear feasible to extend the current provisions to processed beef products even before developing a reliable way of applying them to the beef obtained in secondary cutting.
  - Industrial production of processed beef products makes use of large quantities of raw materials simultaneously, and therefore of numerous batches of beef. These batches meet the specifications agreed by clients and suppliers, which indicate the precise characteristics of the cuts required and the cost constraints but not the origin within the meaning of Regulation (EC) No 1760/2000. Requiring a homogenous origin would create additional supply constraints which would not be easily compatible with production conditions.

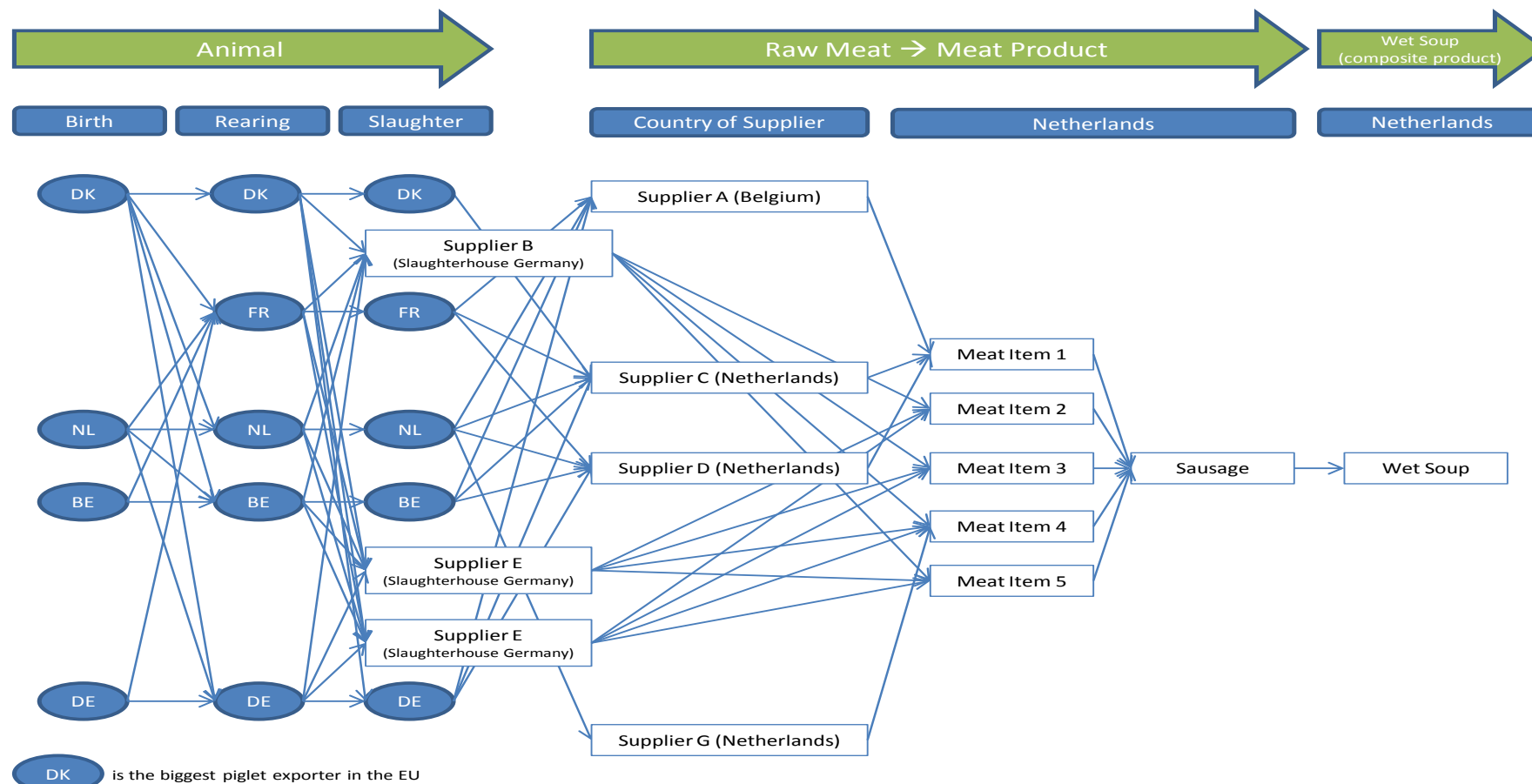
**The issues pointed out by the previous impact assessment for beef-based products are amplified in the case of meat ingredients of the other species. These challenges are also amplified for more complex products, in particular multi-ingredient foods (Cat II), as illustrated in the specific examples of the complexity of the supply chain for these products provided in Figure 8 and Figure 9.** In particular, as the number of parameters to take into consideration increases, traceability becomes more burdensome and complex. During our consultation, the industry provided some concrete examples of the exponential increase in the number of possible combination of origin parameters, as follows:

- The number of possible origin combinations for an FBO processing meat product from pigmeat, beef meat and fat. If this operator sources from 15 suppliers for pigmeat, 10 suppliers for beef meat and 5 suppliers for fat there are  $15 \times 10 \times 5 = 750$  possibilities of origin parameters. If origin parameter are extended e.g. to 3 other sub-parameters such as ‘country of birth’, ‘country of fattening’ and ‘country of slaughter’, then the possible combinations rise to 2,250. These possible combinations must be taken into account and carried on during the storage, the manufacturing process and for labelling. Although smaller companies in general tend to have fewer suppliers, they do not have sufficient management and documentation tools to handle such data volumes with sufficient safety. In this respect, large businesses in general benefit from the support of more staff and better technical equipment, but they also tend to have many more suppliers and product sources.
- The French meat processing industry reported that for “*duck pâté with pistachios – fabriqué en France*”<sup>85</sup> made of duck meat from different countries, the FBO have and  $3 \times 3 \times 3 \times 3 \times 2 = 162$  possibilities of primary ingredients’ origin for the mandatory meat labelling.

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<sup>85</sup> The example provided has the following ingredients: *duck meat 51% (duck leg (France or Bulgaria or Romania), duck filet (France or Romania or Israel), duck fat (France or Hungary or Bulgaria)), duck fat (France or Hungary or Bulgaria) duck liver (France or Israel), pistachios (Iran or Turkey) salt, preservatives : sodium nitrit, sodium ascorbat.*

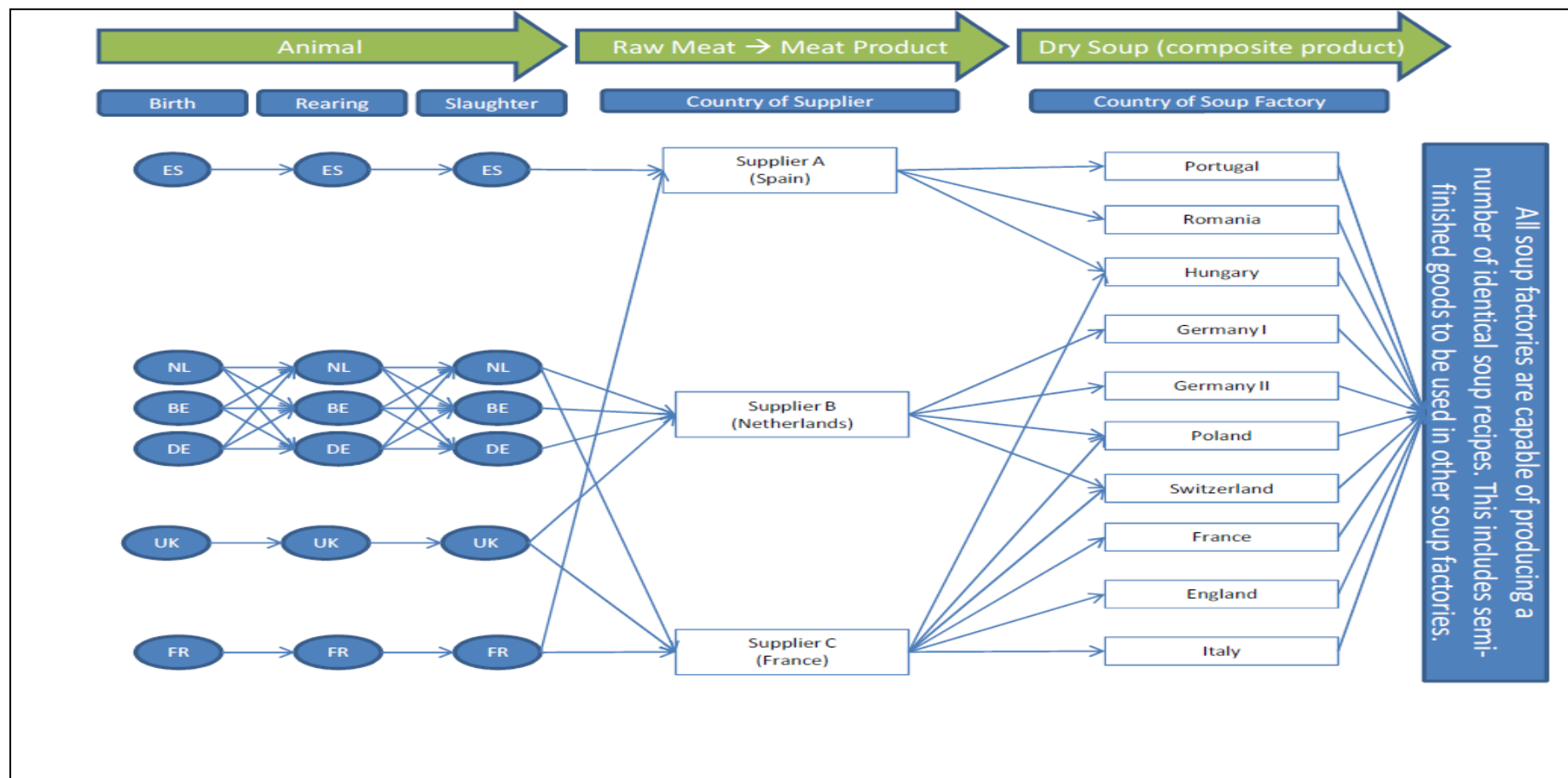
Figure 8: Structure of the supply chain: pigmeat sausages for final consumption and used as ingredient in food product



Note: this figure represents the supply chain for uncooked sausages (cat I), cooked sausages (cat III) and sausages used as ingredient in food products (cat II).

Source: CLITRAVI

Figure 9: Structure of the supply chain: chicken-based meat ingredient



Source: CULINARIA EUROPE

Finally, the consulted stakeholders (MS CAs and the industry) commented that there is currently limited understanding on whether IT systems would be capable of capturing and processing more detailed origin information and –above all - whether such information could be transferred accurately and efficiently in real time (i.e. following the speed of production lines) to product labels. There are a few positive experiences of the use of new technologies related to the computerisation of the traceability system, which could be relevant and useful:

- In the **UK** specialised software and British Retail Consortium (BRC) standards can be used but the information is not always in a form for use for origin labelling purposes as such and it relies on links in the supply chain.
- The various levels of meat production in **Germany** – farming, feed sector, slaughter, processing and distribution – have founded a private quality certification system (QS *Qualität und Sicherheit GmbH*<sup>86</sup>), which is additional to the legal requirements. As of today, this has more than 100,000 participants not only in Germany but also in the Netherlands, Belgium, Denmark and some other countries.

### 3.4 Conclusions

Even though precise aggregate data on the volume and value of production of the 3 meat categories covered by the study are not available, the industry stakeholders indicated that as a general rule between 30 – 50% (depending on the MS) of the total slaughtered meat volume are processed into minced meat/meat preparations/meat products. At EU level, **pigmeat** has by far the **largest share of all processed meat**: in total, an estimated 70% of the EU processed meat production volume is made of pigmeat, followed by poultrymeat (18%) and beef (10%). For meat of other species, including sheep and goat meat, game, rabbit meat and horse meat, these represent less than 2% of the EU processed meat market.

The EU meat processing sector is characterised by a **low degree of concentration**, with the vast majority (90%) of companies being SMEs which independently operate at different stages of the supply chain. Furthermore, there is **limited vertical integration** (i.e. forward integration from slaughter/meat cutting to meat processing). These structures and techno-economic linkages are common for all species, but particularly prevail in the case of the processed pigmeat and beef sectors (while larger vertically integrated companies tend to be more prevalent in the poultry meat sector).

Slaughterhouses and meat cutting plants are key actors with respect to passing meat origin information on to their clients (i.e. traders; retailers; and, operators in further processing stages down the supply chain). The **relatively fragmented and disjointed structure of the meat processing industry beyond slaughter stage makes it more difficult for operators to have access to origin information** at the different levels of the supply chain. The industry

<sup>86</sup> [www.q-s.de](http://www.q-s.de)

noted that in the EU meat sector, except in the more limited cases of vertically integrated companies, there is almost no relation between slaughterhouses and companies processing meat into meat products, as slaughtered meat and unprocessed meat are generally sold on spot markets; this is particularly the case for standard quality meat ingredients, such as pigmeat which is by far the largest volume of meat used in processed products.

At the same time, our findings indicate that there is **limited demand from processors for origin information or origin-specified/certified meat ingredients**. According to the industry, as a general rule, the indication of origin adds value to products only in the case of some meat preparations and meat products coming from a ‘**single meat piece**’ (e.g. **dried ham**) as this is commonly perceived by consumers as being close to fresh meat. It is not relevant for the majority of **meat preparations** (e.g. burgers and sausages), which arrive at the processing stage **already mixed and/or trimmed**; this is because of the **significant logistical constraints** to separate the (continuous) flow of trimmings into batches by origin, making it difficult for them to identify the origin of meat ingredients. The available evidence shows that, except in certain cases which generally account for a relatively limited share of the total processed meat production volume, **meat origin is not a specific condition imposed on or requested from suppliers** at the different stages of the supply chain.

Thus, due to the currently prevailing structure of the supply chain in this sector and the absence of any significant (B2B) interest in origin information, **the transmission of origin information generally tends to stop at the earlier stages of the supply chain (slaughterhouses and cutting plants)**.

In terms of **sourcing practices**, several factors influence the production strategies and thus the sourcing practices of meat processors. In particular, both for small and large companies, the main important parameters for meat processors’ sourcing decisions are the availability of suitable raw material in sufficient volumes, standard quality specifications (which are determined by the quality specification of the final products i.e. premium or lower value) and at a competitive price. Our collection of data and evidence reveals that at EU level as a whole, meat processors tend to procure unprocessed meat and meat products from **multiple sources**, whether EU only or EU/non-EU. Beyond this general pattern, multiple sourcing practices tend to differ between species, depending on the type of meat raw material as well as on the final products. While **multiple sourcing within the EU** is a practice prevailing for pig-meat based products, **multiple sourcing from EU and non-EU countries** is observed mainly in the beef- and poultry based product sectors.

The frequency of changes in the mix of suppliers is affected by the same factors as sourcing patterns. Moreover, differentiating sources serves as a business strategy to **reduce the risk** of delivery failure **driven by external factors** (e.g. animal diseases or food safety crisis, strikes etc.). It was noted that FBOs, particularly SMEs, tend to change their suppliers 3 or more times per year in order to guarantee an adequate level of raw material.

**Traceability** is currently ensured in compliance with **existing EU legislation for food safety purposes**, whereby although the systems currently set up ensure traceability across the entire value chain, at every stage (with the exception of retailers selling to ultimate consumers) only **‘one step down and one step up’** the supply chain is known; this system does not gather all the information that has been accumulated through the chain (cumulative traceability). In analysing the access to origin information through the traceability system, as a general principle **the higher the complexity of the cutting and processing stages, the more difficult it becomes to trace the origin of meat ingredients, especially in the case of trimmings**. Furthermore, **traceability requirements vary between the different animal species**, thus making accessibility to origin information also dependant on this factor. While the current traceability system of beef is most complete for origin purposes, the traceability systems of pigs, poultry and sheep and goats are not set up for recording the movement of individual animals throughout the supply chain: this makes origin information of meat of these animal species from existing traceability systems less available.

In terms of the technologies used for the implementation of traceability along the supply chain, information exchange still mostly occurs via paper documentation (e.g. supplier invoice), but some sophisticated IT traceability systems have been applied in few MS, and could be used for (geographical) origin related issues. However, both the industry and MS CAs have at the moment relatively limited understanding of whether IT systems would be capable of capturing and processing more detailed origin information and transferring it to labels at an affordable cost.

**Table 7** provides, per species, an overview of the main techno-economic characteristics of the EU meat processing supply chain and the current traceability set up, highlighting the complexity of origin labelling for meat as an ingredient of all species.

**The relatively low concentration level of the industry in the meat processing sector, the high presence of small-medium scale operators, the low degree of vertical integration, the complexity of sourcing practices, and the current traceability set up per species, all have strong implications in determining the extent of potential impacts for individual FBOs (Theme 3).** Our findings highlight the important link between the degree of vertical integration, company size and traceability capacity, which may allow larger scale integrated supply chains to put traceability and origin information systems in place along the whole chain<sup>87</sup> more easily and at a lower cost (per unit of output), to the extent they can benefit from scale economies. For some of the smaller operators, however, 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.

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<sup>87</sup> As also noted, for the earlier stages of the supply chain, in the DG AGRI study on the implementation of mandatory origin labelling for fresh meat (LEI, 2013).

**Table 7: Main characteristics of the EU meat processing supply chain, per animal species**

| Supply chain | Extent to which current traceability system serves origin labelling purposes  | Share of processed meat production | Industry structure (meat processing sector)   | Type of sourcing practice  |
|--------------|---|------------------------------------|---|--|
| Pigmeat      | The identification and registration of live pigs is described in Council Directive 2008/71/EC. <b>The pig identification system is based on batch identification</b> - not individual animal identification. The national <b>databases</b> for pigs do <b>not contain information on all individual movements</b> . This makes it more difficult to achieve full information on the origin of pig meat. Traceability of pigmeat is covered by the general provisions of Regulation (EC) No 178/2002 and Commission Implementing Regulation (EU) No 931/2011 using the ' <i>one step back – one step forward</i> ' approach to transmit information between operators. | 70%                                | Relatively low level of concentration of pig production and processing, and low vertical integration, although some bigger processing companies operate in this sector. | <b>Multiple sourcing within the EU</b>   |
| Beef         | Regulations (EC) No 1760/2000 and (EC) No 1825/2000 provide detailed specifications for <b>complete traceability of individual bovine</b> animals and fresh, chilled or frozen <b>beef products</b> with recording of country of birth, rearing and slaughtering on the product label. The existing beef traceability and labelling system provides detailed origin information to consumers for unprocessed meat.  | 19%                                | Relatively more concentrated livestock sector and slaughter operations, but processing still fragmented and nationally oriented.  | <b>Multiple sourcing from EU and non-EU countries:</b> In 2011 the EU imported more than 300,000 tonnes of beef (fresh, frozen, prepared); these were mainly imports of 'high-quality' beef (mainly for catering/restaurants and <i>bresaola</i> , etc.) from Brazil and Argentina.    |
| Poultry meat | Traceability of poultry meat is covered by the general provisions of Regulation (EC) No 178/2002 and Commission Implementing Regulation (EU) No 931/2011 using the ' <i>one step back – one step forward</i> ' <b>approach</b> to transmit information between operators.   | 18%                                | High vertical integration and high concentration (generally higher than in other species).  | <b>Multiple sourcing from EU and non-EU countries</b> The EU annually imports around 800,000 tonnes of frozen, prepared and salted poultry meats, mainly from Brazil and Thailand. The categories 'prepared' and 'salted' poultry represent around 75% of all imports of poultry meat. |



| Supply chain      | Extent to which current traceability system serves origin labelling purposes   | Share of processed meat production | Industry structure (meat sector)  | Type of sourcing practice   |
|-------------------|--|------------------------------------|---|---|
| Sheep & goat meat | Regulation (EC) No 21/2004 concerns the identification and registration of sheep and goats to permit individual traceability throughout their lifetime via electronic identification for animals born after 1 January 2010, and individual tracking during movements is required as from 31 December 2014. Databases containing information on individual sheep and goat movements are not compulsory but may be implemented voluntarily in Member States. <b>The lack of national databases makes full information on the origin of sheep and goat meat more difficult to access.</b> Traceability of sheep and goat meat is provided under Regulation (EC) No 178/2002 and Commission Implementing Regulation (EU) No 931/2011 using the ‘ <i>one step back – one step forward</i> ’ approach to transmit information between operators. | Less than 2%                       | Sheep and goat production is generally fragmented as compared to other meat sectors | Imports of sheep and goat meat are overwhelmingly from New Zealand (83% of imports in 2010), followed by Australia (8% of imports in 2010). |

Source: FCEC elaboration

## 4 Theme 3: Impact of the potential options of mandatory origin labelling for meat used as ingredient

### 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 meat used as an ingredient. 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 meat ingredients, the following possible options and modalities were examined by the study:

#### *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. *Labelling indicating the Member State or third country.*
3. *Other geographical entities as place of provenance.*

##### *Modalities to be considered for each of the 3 above options:*

- a. *In the case of unprocessed meat ingredients, minced meat, mechanically separated meat and meat preparations:*
  1. *Origin split in three stages: "born, raised and slaughtered" (following the beef origin labelling or any different combinations).*
  2. *Origin determined according to the customs origin definition: slaughter and minimum period of raising prior to slaughter.*
- b. *In the case of meat ingredients used in the form of meat products for the production of multi-ingredient foods (e.g. ham on pizza):*
  1. *Origin as determined in accordance with the EU Customs Code (mainly corresponding to the country of the last substantial transformation).*
  2. *More extensive origin information related to the provenance of the fresh meat from which the meat product is produced.*

Consumers, MS CAs, and industry 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 (4.3).
2. Additional costs for FBOs due to the sole implementation of traceability (4.4).
3. Additional operational costs for FBOs due to the implementation of the relevant policy options (4.5).
4. Additional administrative burden and costs for MS CAs and FBOs (4.6).
5. Impacts on competitiveness of FBOs in the internal market (4.7).
6. Impacts on competitiveness of FBOs in international trade (4.8).
7. Environmental impacts (4.9).

The impacts on SMEs in particular are included in the analysis per type of impact. 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 FBOs and between MS in terms of the scale of these impacts, and associated costs; this is also an observation made in the case of unprocessed meat in the DG AGRI study, but it is further amplified in the case of processed meat due to the range and diversity of affected sectors. In particular the direction and intensity of the impact will depend on several factors including the product range, animal species concerned, sourcing practices, degree of vertical integration, current traceability system (whether paper based or electronic).

## **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 will apply as of 13 December 2014 subject to the adoption of an implementing act by 13 December 2013. The impact of various options for the implementation of Article 26(3) has been analysed in Assessment A of the present study.

MS CAs and FBOs were consulted on whether the current voluntary labelling provisions as provided in Article 26(3) of Regulation (EU) No 1169/2011 would be considered sufficient for responding to EU consumer calls on country of origin labelling, and whether mandatory rules need to be introduced, and explain the reason why.

**While the position of FBOs was clearly that ensuring a smooth implementation of voluntary origin labelling rules under Article 26(3) would provide a sufficient and satisfactory solution, the views of MS CAs on this were more divided.**

In particular, for 8 MS CAs (out of the 19 MS CAs that responded to the consultation) Article 26(3) provides a sufficient and satisfactory solution, with a further 3 MS CAs indicating it could provide a partially sufficient solution, while 7 MS CAs did not consider it adequate (and 1 MS CA provided no answers).

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 meat as primary ingredient and could be difficult to establish this in certain categories of products, particularly in 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 meat/meat ingredients. Consequently, 8-10 MS CAs called for the introduction of mandatory origin labelling, with several of them considering it necessary for meat as primary ingredient only i.e. not for minor ingredients (: ‘yes’; ‘no’; 4 MS CAs: no answer).

For those considering that Article 26(3) can be a solution (8-11 MS CAs), this is on the condition that implementing rules for voluntary origin labelling are clear and meaningful to consumers. Several MS (5) 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;
- The controls required are expected to be too complex and too costly while the effectiveness of controls based on documentary checks is questioned;
- 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 low (as also indicated by the majority of MS CAs and backed up by evidence (section 2.2.2)).

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

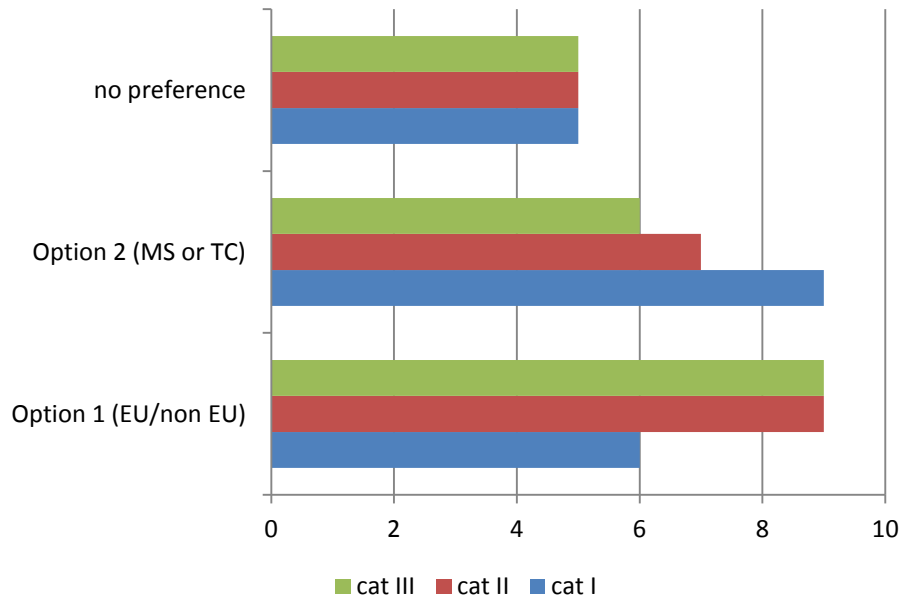
*Note:* This section aims to provide a comprehensive overview of the preferences of the consulted stakeholders in case action is taken. In practice, the consulted stakeholders very rarely provided the required detail when expressing their preferred options and modalities. Furthermore, some stakeholders declared to favour “hybrid” options, combinations of more options, or ad hoc options which could not be unambiguously referred to any of the proposed ones.

In total, 19 MS CAs provided feedback to this study. It should be borne in mind that the MS CAs are still forming their position on the issues under study and this explains the relatively limited number of preferences expressed. Out of the 15 MS CAs that provided an answer on the question of whether mandatory rules should be introduced, 5 MS CAs raised doubts about the need to implement mandatory origin labelling (MCOOL) for meat used as ingredient, in general or with reference to specific product typologies, for the following reasons:

- The rationale of applying MCOOL for meat used as an ingredient in order to improve consumer information was questioned, as well as whether MCOOL is an effective tool to meet this objective. 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 processed meat/meat product and is therefore of little informative value to consumers.
- There are concerns that introduction of MCOOL would simply open the opportunity for more fraud in this already troubled sector.
- There are serious doubts that consumers would actually be willing to pay for the additional costs stemming from MCOOL implementation (indeed the results of FCEC consumer survey in section 2, reveal that consumers’ willingness to pay is rather weak, thus confirming the concern of both MS CAs and industry in this respect).
- The controls required would be too complex and too costly for MS CAs to carry out (please refer to section 4.6 for a more detailed analysis), while the effectiveness of controls based on documentary checks alone is questionable.

**Figure 10** illustrates the **preferences of MS CAs concerning the relevant options on the geographical level of origin labelling**; 5 MS CAs did not indicate a preferred option on this, while 1 MS CA expressed preferences which cut across the three categories considered.

**Figure 10: Preferred options for the mandatory indication of origin of meat used as ingredient, as expressed by MS CAs (n=19)**



Source: FCEC based on consultation of MS CAs

Referring to the three product categories considered in the analysis, it can be seen that:

- I. For category I products (minced meat/MSM/ meat preparations), **option 2** (labelling indicating the MS or TC) prevails over option 1 (labelling indicating EU/non-EU origin or EU/third country): 8-9 MS CAs favoured option 2, whereas 4-6 MS CAs favoured option 1. For those products of this category that involve low-level of processing 1 MS CA indicated they would favour Option 2, while for mixed products e.g. minced meat they would favour Option 1. 2 MS CAs consider option 1 as a “minimum level” in the sense that FBOs may opt for a more detailed level if they wish.
- II. For category II products (unprocessed meat/minced meat/MSM/meat preparations used in multi-ingredient foods), **option 1** prevails over option 2 (7-9 MS CAs vs. 6-7 MS CAs). 3 MS CAs consider option 1 as a “minimum level” (i.e. FBOs can opt for a more detailed level). For those products of this category that involve low-level of processing the FR CA would favour Option 2, while for other products e.g. minced meat they would favour Option 1.
- III. For category III (meat products), **option 1** prevails over option 2 (7-9 MS CAs vs. 5-6 MS CAs). However, 4 MS CAs consider option 1 as a “minimum level”, with FBOs free to opt for a more detailed one. 2 MS CAs favour option 2 for “simple” processed products, and option 1 for more complex ones.

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It can be concluded therefore that the higher level of processing and perceived sector complexity (which is generally the case as we move from Category I to Category II and III) the less the level of detail that is considered possible by MS CAs to provide on the origin of meat as ingredient.

**Table 8** provides more detail on the **preferred policy options of MS CAs and the related modalities** (whenever the latter were also specified). Even though it is not easy to identify clear trends (as explained at the start of this chapter, several CAs did not specify systematically their preferred modalities under cases “a” and “b”), the following observations can be made:

- I. For products falling under category I, **option a.1** (origin split in three stages: “born, raised and slaughtered” - following the beef origin labelling or any different combinations) prevails over option a.2 (origin determined according to the customs origin definition: slaughter and minimum period of raising prior to slaughter). Option a.1 is favoured by 5 MS CAs, whereas option a.2 is favoured by 3 MS CAs.
- II. As for category II, **option b.1** (origin as determined in accordance with the EU Customs Code - mainly corresponding to the country of the last substantial transformation) is favoured by 3-4 MS CAs, and hence prevails over option b.2 (preferred by 1-2 MS CAs).
- III. Finally, for category III, no clear trends emerge from the preferences expressed by a very limited number of MS CAs.

**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’, 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.

However, the combinations of some of the other options with modality a.2 and modalities b also address the place of provenance.

On the modalities in particular, the following comments emerged from the consultation of MS CAs:

- Most MS called for the need to ensure consistency with the implementing rules for mandatory origin labelling on fresh meat (those already existing, in the case of beef, and those to be introduced, in the case of pig, poultry, sheep and goat meat). This

means that rules for meat ingredients cannot go further in scope or be stricter in their modalities than rules of fresh meat for the relevant species.

- Some MS indicated that both modalities are relevant in most cases, as they deemed that origin-related information on the upstream stages of the supply chain (animal farming and/or slaughtering) is important for consumers in addition to the country or place of processing of the final product.

The **position of FBOs** is strictly related to the technical feasibility of the different options and modalities, as further discussed in section 4.3.

As for **consumers**, their preferences for the different options were mainly investigated through specific questions of the FCEC consumer survey (Q11, Q13, Q15) in relation to representative products in each of the 3 categories examined by the study (uncooked sausages or burgers; cooked ham; frozen pizza with salami: see section 2.1). The survey also investigated consumers' willingness to pay for additional information on the origin of meat ingredients, as provided by the different policy options and related modalities (Q12, Q14, Q16, referred to the same representative products: see section 2.2). The detailed results of the FCEC consumer survey for assessment B are reported in **Annex D**.

The main **advantages and disadvantages** of each of the proposed options/modalities, as highlighted by the relevant stakeholders (consumers, MS CAs and FBOs) are summarised in **Table 9**.



**Table 8: Preferred options and modalities for the mandatory indication of origin of meat used as ingredient, by MS**

| MS (CA)        | Meat categories (a) | Options on geographical level of origin labelling (b)                      | Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c) | Case “b”: modalities for meat products for the production of multi-ingredient foods (d) |
|----------------|---------------------|--|---|---|
| Austria        | I                   | 2  | a.1   |   |
|                | II                  | 1  |   |   |
|                | III                 | 1<br>(2 for “simple” processed products, e.g. ham; PI = meat)              | a.1   |   |
| Belgium        | I                   |  | a.2   | b.1   |
|                | II                  |  | a.2   | b.1.  |
|                | III                 |  | a.2   | b.1   |
| Czech Republic | I                   | 2  | a.1 <sup>88</sup>   |   |
|                | II                  | 2  |   | b.1 <sup>89</sup>   |
|                | III                 | 1 (“Minimum level” => FBOs can opt for a more detailed level if they wish) | a.1   |   |
| Denmark        | I                   | 1  |   |   |

<sup>88</sup> The Czech CA proposed that for the origin of *minced pork or poultry meat*, the formulation “manufactured/produced in (name of the MS or TC concerned)” is applied according to the place where the minced meat was manufactured/produced, while the formulation “origin” applies only where the MS concerned is/are different from the one where the minced meat has been manufactured/ produced. Such obligation is currently required for minced beef pursuant to Article 14 of Regulation (EC) 1760/2000, and it would be logical that the requirements for labelling of minced beef, pork, and poultry meat are the same. In the case of *mechanically separated meat*, Czech CA envisions the introduction of the same labelling requirements applying for minced meat; however, in the case of *meat preparations*, the CA would not recommend such requirements.

<sup>89</sup> In this case the Czech CA observed that the relevant information (country code) is featured in the identification mark providing information on the plant where the product of animal origin was produced or handled for the last time. A FBO manufacturing/producing multi-ingredient foods should therefore transfer data (country codes in identification marks) from individual meat products used into the label of the multi-ingredient food concerned. This would allow CAs to carry out origin-related controls. However, at each change of supplier (in particular in food manufactured/produced from different meat products), the concerned FBOs would have to change labels, and this would lead to additional costs.

| MS (CA) | Meat categories (a)  | Options on geographical level of origin labelling (b)   | Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c) | Case “b”: modalities for meat products for the production of multi-ingredient foods (d) |
|---------|--|---|---|---|
|         | II   | 1   |   |   |
|         | III  | 1   |   |   |
| Estonia | I  | 1   | a.2   |   |
|         | II   | 1   |   | b.1   |
|         | III  | 1   | a.2   | b.1   |
| Finland | I  | 1 (“Minimum level” => FBOs can opt for a more detailed level if they wish) or 2   | a.2   |   |
|         | II   |   |   |   |
|         | III  |   |   |   |
| France  | I-III  | 2 (MS or TC): for fresh products and for “simple” processed products (low level of processing)<br>1 (EU/non-EU or EU/TC): minimum level for more complex processed products (higher level of processing) or for mixed products (e.g. minced meat)<br>“Minimum level” => FBOs can opt for a more detailed level if they wish |   |   |
| Germany | I-III  | 2   | a.1   | Combination of b.1 and b.2  |
|         | The preference for one of the available options will depend on, and will have to be consistent with, MCOOL regulations for fresh meat (pork, poultry and sheep and goats).<br>The same reasoning applies for beef, where a comprehensive labelling system for fresh meat already exists.<br><i>General principle: maximum detail in identification of origin for meat as an ingredient must be consistent with the one defined for fresh meat, which is its precursor in the supply chain.</i><br>Preferred modalities under cases “a” and “b”: the country of rearing / fattening of an animal is likely to be a decisive factor for consumers, in addition to the country or place of processing of the final product =><br>a. under case “a”, modality a.1 is the preferred one, irrespective of the type of meat-based products;<br>b. under case “b”, the preferred modality is a combination of b.1 and b.2. |   |   |   |
| Greece  | I  | 1   | a.1   |   |
|         | II   | 1   |   | b.1   |
|         | III  | 1   |   |   |
| Hungary | I  | 2   | a.1   |   |
|         | II   | 2   |   | b.2   |
|         | III  | 2   |   | b.2   |

| MS (CA)     | Meat categories (a)  | Options on geographical level of origin labelling (b)                      | Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c)  | Case “b”: modalities for meat products for the production of multi-ingredient foods (d) |
|-------------|--|--|--|---|
| Italy       |  | No preferred option  | No preferred modality  | No preferred modality   |
| Lithuania   | I  | 2  | Indication of the place of origin of the primary ingredient should include the country of origin (and place of rearing of animals if different from the place of slaughter) as the country of origin (and place of rearing of animals) is one of the critical factors for consumers in meat purchasing decisions |   |
|             | II   | 2  |  |   |
|             | III  | 2  |  |   |
| Netherlands | <p>The preference for one of the available options will depend on, and will have to be consistent with, MCOOL regulations for fresh meat. The biggest challenges for implementation of MCOOL arise in the cases of mixes of multiple types of meat from different countries or places (e.g. meat croquettes, meat-containing snacks in general, other meat products, meat used in multi-ingredient foods).<br/> <i>In any case, labels featuring more than one country are not desirable, as they can be confusing for the consumer and as they will lead to additional costs for FBOs and controlling bodies.</i></p> |  |  |   |
| Poland      | I  | 2  |  |   |
|             | II   | 2  |  |   |
|             | II   | 2  |  |   |
| Portugal    | I  | 1 (“Minimum level” => FBOs can opt for a more detailed level if they wish) |  |   |
|             | II   |  |  |   |
|             | III  |  |  |   |
| Slovakia    | I  | 2  |  |   |
|             | II   | 2  |  |   |
|             | III  | 2  |  |   |

| MS (CA)        | Meat categories (a) | Options on geographical level of origin labelling (b)                      | Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c)  | Case “b”: modalities for meat products for the production of multi-ingredient foods (d) |
|----------------|---------------------|--|--|---|
| Spain          | I                   | 2  | Modalities should be considered on a case by case basis, to determine the most suitable approach in each sector.<br>The results of the impact assessment on MCOOL for fresh meat of sheep, goats, pigs and poultry, being carried out for DG AGRI, should also be taken into account |   |
|                | II                  | 1 (“Minimum level” => FBOs can opt for a more detailed level if they wish) |  |   |
|                | III                 | 1 (“Minimum level” => FBOs can opt for a more detailed level if they wish) |  |   |
| Sweden         |                     | No preferred option  | No preferred modality  | No preferred modality   |
| United Kingdom | I                   | No preferred option  | a.2  |   |
|                | II                  | No preferred option  | a.2  |   |
|                | III                 | No preferred option  | a.2  |   |

**Meat categories (a):**

- I. Minced meat / mechanically separated meat / meat preparations
- II. Unprocessed meat / minced meat / mechanically separated meat / meat preparations used in multi-ingredient foods

**III. Meat products**

**Options on geographical level of origin labelling (b)**

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

**Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c)**

1. Origin split in three stages: “born, raised and slaughtered” (following the beef origin labelling or any different combinations).
2. Origin determined according to the customs origin definition: slaughter and minimum period of raising prior to slaughter.

**Case “b”: modalities for meat products for the production of multi-ingredient foods (d)**

1. Origin as determined in accordance with the EU Customs Code (mainly corresponding to the country of the last substantial transformation).
2. More extensive origin information related to the provenance of the fresh meat from which the meat product is produced.

Source: FCEC based on consultation of MS CAs

**Table 9: Overview of main advantages and disadvantages of the proposed options and modalities for the mandatory indication of origin of meat used as ingredient**

**Options**

| Options on geographical level of origin labelling  | Advantages   | Disadvantages  |
|--|--|--|
| <p>1. <i>Origin labelling based on:</i><br/>                     a) <i>EU/non-EU origin, or</i><br/>                     b) <i>EU/third country.</i></p> | <p>More practical in case of mixes of different meats and/or in case of mixed origins;<br/>                     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 processed meat/meat product;<br/>                     Allows flexibility in sourcing, which is essential in the sector, particularly in case of epizootic disease outbreaks.</p> | <p>Informative value for consumers is lower than for option 2, although considered more relevant in the context of the EU market.<br/><br/>                     EU/TC: potentially discriminatory <i>vis a vis</i> TC suppliers.</p>   |
| <p>2. <i>Labelling indicating the Member State or third country.</i></p>   | <p>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).</p>  | <p>Implementation is extremely challenging in case of mixes of different meats and/or in case of mixed origins;<br/>                     Constraints access to a larger sourcing area, which is essential in the sector, particularly in case of epizootic disease outbreaks.</p>  |
| <p>3. <i>Other geographical entities as place of provenance.</i></p>   | <p>No specific remarks.</p>  | <p>Generally not considered feasible for MCOOL, especially if the geographical detail of the place of provenance is sub-national (e.g. regional), 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/PGIs.</p> |

**Modalities**

| Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations  | Advantages  | Disadvantages   |
|--|---|---|
| <p>1. <i>Origin split in three stages: “born, raised and slaughtered” (following the beef origin labelling or any different combinations).</i></p> | <p>Provides information on upstream stages of the supply chain, which consumers deem important when purchasing such products.</p> | <p>If multiple origins are involved in upstream stages of the supply chain, implementation is extremely challenging;<br/>                     According to some stakeholders (MS CAs and FBOs), too much information might confuse consumers.</p> |
| <p>2. <i>Origin determined according to the customs origin definition: slaughter and minimum period of raising prior to slaughter.</i></p>         | <p>More practical if multiple origins are involved in upstream stages of the supply chain.</p>                                    |   |

| Case “b”: modalities for meat products for the production of multi-ingredient foods   | Advantages  | Disadvantages   |
|---|---|---|
| <i>1. Origin as determined in accordance with the EU Customs Code (mainly corresponding to the country of the last substantial transformation).</i> | 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 meat ingredients, which 27-28% of consumers (according to the results of the FCEC survey) deem important to know. |
| <i>2. More extensive origin information related to the provenance of the fresh meat from which the meat product is produced.</i>                    | Provides information on upstream stages of the supply chain of meat 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;<br>Too much information can confuse consumers.                        |

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:

- a. Technical feasibility for the suppliers of the primary ingredient;
- b. Sourcing practices for the primary ingredient, including adaptation of transportation systems, storage facilities and practices, etc.;
- c. Adaptation of production process of the final product (layout of production lines, production techniques, packaging, labelling, etc.);
- d. Marketing of the final products;
- e. 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 each sector (as identified in Theme 2, and as resulting from desk research and contributions from industry stakeholders).

As previously noted in section 1.4, the detail of the evidence provided by industry organisations and individual FBOs was often quite far from the one theoretically required by the assessment, especially concerning the feasibility of specific modalities under cases “a” and “b”, given the difficulty of considering possible scenarios in the event that origin labelling of meat ingredients would become mandatory. **Table 10** aims to illustrate under a structured framework the available evidence, providing details whenever these are available.

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

- 
1. **Option 1** (origin labelling based on a) EU/non-EU origin or b) 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 industry organisations pointed out that whenever meat of EU and non-EU origin is mixed in the production process, mandatory origin labelling would pose serious operational challenges and require radical adaptations.
  2. **Generally, only modality b.1** (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 feasible** by FBOs; this is particularly the case of cat II products (use of meat ingredients for the production of multi-ingredient foods).
  3. 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 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). However, the combinations of some of the other options with modality a.2 and modalities b also address the place of provenance.
  4. The main reasons why some options/modalities are considered **not feasible** are the following:
    - a. *Incompatible sourcing patterns and practices for live animals and fresh meat.* 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 (the latter are especially important for beef and poultry); 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 meat at the plants where it is used as an ingredient.
    - b. *The need to switch to smaller production batches, and/or to interrupt continuous phases of the production process* (for instance, mincing of meat used as an ingredient, and filling wrappings with meat content when producing sausages and similar products, especially in large-scale automated plants), in order to achieve segregation by origin within the plants. Both adaptations actually generate serious inefficiencies.
    - c. *Systematic adaptation of labelling/packaging to changes in the origin(s) of meat used as ingredient:* in view of the frequent change of origins (see point a. above), this can require extremely frequent changes of packaging and labels and additional investment in printing equipment, and can result in underutilization of packaging lines and in an increase in waste packaging material.

**Table 10: Technical feasibility of possible options concerning precision of origin indication of meat used as ingredient, by sector**

| Sector (a)   | Options on geographical level of origin labelling (b)   | Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c) | Case “b”: modalities for meat products for the production of multi-ingredient foods (d)  | Reasons why some options/modalities are considered <u>not feasible</u>   |
|--|---|---|--|--|
| <p><b>Meat preparations / meat products</b><br/>                     (CLITRAVI; UECBV; AVEC; IBC; FDE)</p> | <p>CLITRAVI/UECBV (pork and beef):<br/> <b>Option 1:</b> less challenging only if EU origin is not mixed with non-EU origin<br/> <b>Options 2 and 3:</b> extremely challenging or not feasible</p> <p>AVEC (poultry): the higher the geographical detail, the greater the challenges for MCOOL implementation</p> <p>IBC:<br/> <b>Option 1:</b> less challenging only if EU origin is not mixed with non-EU origin<br/> <b>Options 2 and 3:</b> extremely challenging or not feasible</p> |   | <p>CLITRAVI (pork and beef):<br/>                     Only modality b.1 is acceptable</p> <p>IBC:<br/>                     Only modality b.1 is acceptable</p> | <ol style="list-style-type: none"> <li>1. <i>Incompatible sourcing patterns and practices</i> for live animals and fresh meat: often very complex, multiple EU and also non-EU origins (especially for beef and poultry), often changing frequently over time (both for commercial reasons and following unforeseen circumstances e.g. epizootic disease outbreak); mixing of different origins can occur at various stages in the chain (for more detail see section 3.2);</li> <li>2. Switch to smaller batches, and/or interruptions in continuous phases of <i>production process</i> =&gt; inefficiencies;</li> <li>3. <i>Systematic adaptation of labelling/packaging</i> =&gt; extremely frequent changes =&gt; additional investment in printing equipment =&gt; underutilisation / increase in waste packaging material.</li> </ol> |



| Sector (a)                        | Options on geographical level of origin labelling (b)   | Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c) | Case “b”: modalities for meat products for the production of multi-ingredient foods (d)   | Reasons why some options/modalities are considered <u>not feasible</u>   |
|-----------------------------------|---|---|---|--|
| Prepared meals (ECFF + CULINARIA) | <p>ECFF:<br/> <b>Option 1:</b> theoretically feasible only if EU origin is not mixed with non-EU origin<br/> <b>Options 2 and 3:</b> not feasible</p> <p>CULINARIA:<br/> <b>Option 1:</b> generally feasible for pork, chicken and beef used as ingredients<br/> <b>Option 2:</b><br/> <ul style="list-style-type: none"> <li>not feasible for pork and chicken used as ingredients</li> <li>for beef: not feasible for EU origin; feasible but challenging for non-EU origin (Brazil &amp; Argentina)</li> </ul> <b>Option 3:</b> not assessed</p> |   | <p>ECFF: only modality b.1 is acceptable</p> <p>CULINARIA:<br/> <ul style="list-style-type: none"> <li>if <i>Option 1</i> is adopted, both b.1 and b.2 are generally feasible for pork, chicken and beef used as ingredients</li> <li>if <i>Option 2</i> is adopted, neither b.1 nor b.2 are feasible for pork (any origin) chicken (any origin) and beef (EU origin) used as ingredients; the only exception is non-EU beef used as ingredient, where both b.1 and 2. are feasible but challenging</li> </ul> </p> | <p>1. Incompatible <i>sourcing patterns and practices</i> for meat ingredients: often very complex, multiple EU and also non-EU origins, often changing frequently over time; mixing of different origins can occur at various stages in the chain, before arrival at the plant; origin of meat and especially of live animals in meat ingredients is often not declared by suppliers (for more detail see section 3.2);</p> <p>2. Switch to smaller batches, and/or interruptions in continuous phases of <i>production process</i> =&gt; inefficiencies;</p> <p>3. <i>Systematic adaptation of labelling/packaging</i> =&gt; extremely frequent changes =&gt; additional investment in printing equipment =&gt; underutilisation / increase in waste packaging material.</p> |
| Pasta (UNAFPA)                    | <b>Option 1:</b> more feasible than 2 or 3  |   | If option 1 is adopted, modality b.1 is more feasible   | <i>No specific evidence provided*</i> ; however, the section on “prepared meals” can be relevant also for pasta  |

**Sector (a):** organisations contributing to the assessment from processing, distribution and retail sectors (including inputs from MS-level member organisations/companies)

\* UNAFPA underlined that the difficulty of providing detailed replies to our consultation mainly derived from the fact that “fresh pasta stuffed with meat-containing fillings” is just a sub-segment of the wider “fresh stuffed pasta” segment and therefore data on this specific sub-segment are not readily available.

**Options on geographical level of origin labelling (b)**

- Origin labelling based on a) EU/non-EU origin or b) EU/third country.
- Labelling indicating the Member State or third country.
- Other geographical entities as place of provenance.

**Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c)**

- Origin split in three stages: “born, raised and slaughtered” (following the beef origin labelling or any different combinations).
- Origin determined according to the customs origin definition: slaughter and minimum period of raising prior to slaughter.

**Case “b”: modalities for meat products for the production of multi-ingredient foods (d)**

1. *Origin as determined in accordance with the EU Customs Code (mainly corresponding to the country of the last substantial transformation).*
2. *More extensive origin information related to the provenance of the fresh meat from which the meat product is produced.*

Source: FCEC based on industry consultation

#### 4.4 Traceability costs

Additional costs and burden<sup>90</sup> for FBOs deriving from the sole implementation of traceability for origin labelling along the supply chain 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 distinguish between fixed costs (stemming from the *ad hoc* investment needed to set up the traceability system) and variable costs (deriving from the operation of the traceability system for different volumes of production).

The concept of traceability which is relevant for the present study is defined by the modalities considered under cases “a” and “b” (see section 4.1). In modality a.1 (origin split in three stages: “born, raised and slaughtered” - following the beef origin labelling or any different combinations) the concept of traceability refers to detailed origin follow-up, i.e. “*full traceability*” or “*cumulative traceability*” over the entire length of the supply chain, starting from animal birth up to the production of final products. More extensive traceability is also required in the case of modality a.2 (origin determined according to the customs origin definition: slaughter and minimum period of raising prior to slaughter) and modality b.2 (more extensive origin information related to the provenance of the fresh meat from which the meat product is produced).

Indeed, all of the reviewed modalities (with the exception of modality b.1) require the implementation of a traceability system that **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 (see section 3.3)<sup>91</sup>.

The ***most common operational implications of achieving full (cumulative) traceability along the supply chain*** are the following:

- a. Adaptation of sourcing patterns and practices for live animals, fresh meat, or meat / meat products used as ingredient.
- b. Separation of storage facilities and production lines, to allow segregation by origin.
- c. Switch to batch production and/or use of smaller batches (with the associated decrease in efficiency).
- d. Adaptation of internal monitoring.
- e. Systematic update of labels/packaging, to follow changes in the origin of live animals, fresh meat, or meat / meat products used as ingredient.

<sup>90</sup> The administrative costs and burden related to traceability are discussed in section 4.6.

<sup>91</sup> This point was also highlighted by the DG AGRI report on the study on mandatory origin labelling for fresh meat, which analyses in particular the issue of traceability up to the level of meat cutting plants.

Only few stakeholders (from across the range of sectors including processing, distribution and retail stages of the supply chain) provided more or less detailed quantitative estimates of additional costs stemming from implementation of full traceability for the relevant policy options/modalities; other stakeholders could only provide qualitative considerations on the matter. The evidence base is anyway very heterogeneous, and does not allow the systematic analysis of the information or extrapolation of the quantitative estimates provided as they refer to specific situations and assumptions.

Bearing in mind these caveats, as **Table 11** indicates, sectors for which an indicative quantification was provided (meat preparations / meat products; prepared meals) feature *additional costs estimated in the range of +3% to +10% of the total production cost of these products*.

**Table 11: Estimated additional costs for FBOs due to implementation of traceability for the relevant policy options and related modalities**

| Sector (a)   | Additional costs (b)  |
|--|---|
| <b>Meat preparations / meat products</b><br>(CLITRAVI) | <p><i>DE case study - Option 2</i> (MS / TC level): <i>significant additional costs (uncooked or cooked sausages – pig meat)</i></p> <p><i>UK case study</i></p> <p><b>Option 1</b> (EU/non-EU or EU/TC)</p> <ul style="list-style-type: none"> <li>• Sausages (pig meat): +3-5%</li> <li>• Burgers (beef): +3-5%</li> </ul> <p><b>Option 2</b> (MS / TC level)</p> <ul style="list-style-type: none"> <li>• Sausages (pig meat): +5-10%</li> <li>• Burgers (beef): +5-10%</li> </ul> |
| <b>Prepared meals</b><br>(ECFF + CULINARIA)            | <p>ECFF: <b>Option 1</b> (EU/non-EU or EU/TC): + 3-5% (<i>on average, across the range of products</i>)</p> <p>CULINARIA: <i>significant additional costs</i></p>   |

(a) Organisations contributing to the assessment from processing, distribution and retail sectors (including inputs from MS-level member organisations/companies).

Only the organisations that provided specific evidence on this are included. The following organisations did not provide any specific evidence on this: AVEC (poultry meat-based products); IBC (butchers); UNAFPA (pasta products). FDE referred to the sector-specific organisations for this issue. UECBV supports the replies provided by CLITRAVI on this issue.

(b) The costs indicated are specific to the production cost of the final products, and are largely in addition to the costs likely to be incurred at the earlier stages of the supply chain up to slaughterhouse/meat cutting plant (where the latter was not the place of the last processing of the final product).

Source: FCEC based on industry consultation

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 up to

slaughterhouse/meat cutting plant (where the latter were not the place of the last processing of the final product).

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 species, as follows (an overview is provided in **Table 7**):

- *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 *current status of traceability systems and practices* (this factor is also linked to the animal species): the more advanced the systems currently used (which is the case generally in the beef and sheep/goat meat sector), the less the adaptation cost to implement the required full traceability.
- The *competitive structure and resulting bargaining power* in the meat supply chain: as the first point in the chain to pick up the additional costs of origin labelling will be the slaughterhouse, while the processing plant would simply demand detailed information on origin on every delivery of their suppliers, the ability of the slaughterhouse to transfer this cost to their customers will depend on their bargaining power *vis a vis* those customers. Similar situations will prevail further downstream the supply chain between processors and actors in the distribution sector.

Regarding the earlier stages of the supply chain, as noted in section 3.3, Regulations (EC) No 178/2002 and (EU) No 931/2011 set out the existing traceability system for food safety purposes, on the basis of the ‘*one-step-back/one-step-forward*’ approach. The information available on this basis would be a good starting point for origin traceability and there may be situations where the full information can be readily available up to the final point of sales (retailer). However, additional traceability requirements and a completion of existing food safety or quality management systems will be needed to ensure the full origin information is available throughout the supply chain. The case studies conducted during the DG AGRI study indeed demonstrate that current traceability practices at slaughterhouse and meat cutting plant level differ between species and also between operators (**Table 6**); the study notes that from the experience of the beef labelling regulation it is known that adapting the structure (sourcing, batch sizes, reducing intermediaries) is more cost effective than upgrading the internal traceability and administration systems.

To the extent that the meat cutting plants and vertically integrated operators are also involved in the production of the processed meat categories covered by the present study, the above

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traceability observations will also apply in the case of the processed meat operations of these operators.

#### 4.5 Operational costs

The additional operational costs<sup>92</sup> for FBOs deriving from the implementation of the relevant policy options were assessed only for the policy options which were deemed technically feasible (see section 4.3). 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:

- a. Adaptation of sourcing practices and potential changes in the mix of suppliers of live animals, fresh meat, or meat / meat products used as ingredient;
- b. Adaptation of production and/or marketing process of live animals, fresh meat, or meat / meat products used as ingredient;
- c. Adaptation of production process of the final product containing meat as an ingredient;
- d. Adaptation of packaging and labels/labelling process;
- e. Adaptation of marketing practices of the final product;
- f. Adaptation/implementation of traceability systems (see also section 4.4);
- g. Additional internal controls required to ensure compliance with MCOOL rules;
- h. Any other possible aspects specified by FBOs.

**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. As in the case of traceability costs, 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 concerning the various sectors is presented in **Table 12** in terms of:

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<sup>92</sup> The assessment also focused on the *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 4.6.

- The available quantitative or qualitative elements on the overall additional costs for FBOs (estimates) ;
- Indication of the main cost items likely to be impacted;
- Indications on the potential role of innovation in limiting additional costs in the medium term.

More detailed information on these estimates of additional operational costs is provided in a series of boxes for:

- Two products in the framework of EU-level exercises (conducted by CLITRAVI in consultation with national members, under guidance from the FCEC) (**Box 3**); and,

Other specific products, in the framework of the MS case studies (**Box 4 to Box 8**).

**Box 7** 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 up to slaughterhouse/meat cutting plant (where the latter were not the place of the last processing of the final product). To complete the evidence base, the estimates provided by the DG AGRI study on fresh meat are also attached in **Box 9**.

The main findings on the additional costs stemming from implementation of mandatory origin labelling for meat used as an ingredient are the following:

1. 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 +25%, whereas additional costs for Option 2 range from +15-20% to + 50% (EU-average estimates, **Table 12** and **Box 3**).
2. 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. As also noted in the case of traceability costs, the operational reality will differ between FBOs; for each individual operator, the extent of the additional costs will depend on a range of factors (highlighted in **Table 7**), including *sourcing practices*, the degree of *vertical integration*, the *current status of traceability systems and practices* (which is also linked to the animal species), and the *competitive structure and resulting bargaining power* in the meat supply chain. Thus, MS-level estimates (made by national organisations which are members of CLITRAVI) can differ significantly from EU-average estimates (made by CLITRAVI), because the national estimates refer to specific products and the operational conditions which apply in the relevant MS, whereas the latter (Box 3) refer to two rather broad product categories and consider “average” operational conditions applying across the EU. For this reason, the EU-average level estimates have been retained in the analysis here<sup>93</sup>.
3. The **four most impacted cost items** have been identified by industry stakeholders to be as follows:
  - a. adaptation of sourcing practices and possible changes in the mix of suppliers;
  - b. adaptation of production process of the final product;
  - c. adaptation of packaging and labels/labelling process;

<sup>93</sup> National estimates are nonetheless provided here as they are indicative of the extent of the differences that can prevail across different operational contexts.



- d. implementation/adaptation of traceability (taking into account the features of existing systems).
4. The industry also noted that in case **trimmings/fat** are covered by MCOOL rules it would not be able to implement traceability, therefore it would not be able to make use of this type of co-products<sup>94</sup>. This would result in additional losses in terms of foregone revenue from these co-products which is generally estimated at 10% of the turnover of slaughterhouses/meat cutting plants. There would be additional costs for the safe disposal of this waste material as well as the environmental impact of food waste. However, these costs are expected to be mitigated to some extent, if this material can be exported or destined to other uses (e.g. as animal by-products).
5. FBOs have shown very **limited (if any) confidence in the potential contribution of innovation** (and especially RFID technology for what concerns traceability costs) in limiting additional costs in the mid-term.

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<sup>94</sup> This conclusion has also been drawn by the 2004 EU Commission report on mandatory origin rules for beef and beef products (European Commission, COM/2004/0316 final, 2004). The report underlines that off-cuts of meat and trimmings from carcasses come from different batches and are assembled for sale by the full pallet and the quantity produced in a day's work in a small cutting plants may not be enough for a full pallet. Therefore, operators are not generally able to make batches of trimmings that are of homogenous origin.

**Table 12: FBOs: estimated additional operational costs of the relevant policy options and related modalities**

| Sector (a)  | Additional costs (b)   | Most impacted cost items  | Role of innovation in limiting additional costs in the medium term   |
|---|--|---|--|
| <p>Meat preparations / meat products (CLITRAVI)</p> | <p><b>EU</b> (source: CLITRAVI)<br/>                     (3 stages = born, raised, slaughtered; EU-level average % increase in production cost)<br/> <b>Option 1</b> (EU/non-EU or EU/TC)</p> <ul style="list-style-type: none"> <li>• Cooked sausage (pig meat): +1-5%</li> <li>• Cooked ham (pig meat): +1-5%</li> </ul> <p><b>Option 2:</b> (MS / TC level)</p> <ul style="list-style-type: none"> <li>• Cooked sausage (pig meat): +18-45%</li> <li>• Cooked ham (pig meat): +21-55%</li> </ul> <p><b>CZ case study</b><br/> <b>Option 2</b> (MS / TC level)</p> <ul style="list-style-type: none"> <li>• “Spekacky” sausage (pig meat): +30.5%</li> <li>• Cooked ham (pig meat): + 27.5%</li> <li>• Poultry meat: at least +10%</li> </ul> <p><b>DE case study</b><br/> <b>Option 2</b> (MS / TC level):</p> <ul style="list-style-type: none"> <li>• Uncooked or cooked sausages (pig meat): up to + 50%</li> </ul> <p><b>IT case study</b><br/> <b>Option 1</b> (EU/non-EU or EU/TC)</p> <ul style="list-style-type: none"> <li>• Mortadella (Bologna sausage – pig meat): +1%</li> <li>• Cooked ham (pig meat): +1%</li> </ul> <p><b>Option 2</b> (MS / TC level)</p> <ul style="list-style-type: none"> <li>• Mortadella (Bologna sausage – pig meat): +20-30% (depending on pre-MCOOL origin mix of meat)</li> <li>• Cooked ham (pig meat): +10-35% (depending on pre-MCOOL origin mix of meat)</li> </ul> <p><b>UK case study</b><br/> <b>Option 1</b> (EU/non-EU or EU/TC)</p> <ul style="list-style-type: none"> <li>• Sausages (pig meat): +5-15%</li> <li>• Burgers (beef): +13-21%</li> </ul> <p><b>Option 2</b> (MS / TC level)</p> <ul style="list-style-type: none"> <li>• Sausages (pig meat): +17-35%</li> <li>• Burgers (beef): +26-45%</li> </ul> | <ul style="list-style-type: none"> <li>• Adaptation of sourcing practices and possible changes in the mix of suppliers</li> <li>• Adaptation of production process of the final product</li> <li>• Adaptation of packaging and labels/labelling process</li> <li>• Implementation/adaptation of traceability (taking into account the features of existing systems)</li> </ul> <p><i>The industry also noted that in case trimmings/fat are covered by MCOOL rules it would not be able to implement traceability for them , therefore it would not be able to make use of this type of co-products. This would result in additional losses in terms of foregone revenue from these co-products which is generally estimated at 10% of the turnover of slaughterhouses/meat cutting plants.</i></p> | <p>Limited ( RFID techniques have been tested by a number of meat processing companies in a range of different meat products and have proved not being cost-effective)</p> |

| Sector (a)  | Additional costs (b)  | Most impacted cost items   | Role of innovation in limiting additional costs in the medium term  |
|---|---|--|---|
| <p><b>Prepared meals</b><br/>(ECFF + CULINARIA)</p> | <p>ECFF: <b>Option 1</b> (EU/non-EU or EU/TC): + 15-25%<br/>                     CULINARIA: <i>substantial adaptation costs</i></p> | <ul style="list-style-type: none"> <li>• Adaptation of sourcing practices and possible changes in the mix of suppliers</li> <li>• Adaptation of production process of the final product</li> <li>• Adaptation of packaging and labels/labelling process</li> <li>• Adaptation of marketing practices of the final product</li> <li>• Implementation/adaptation of traceability (taking into account the features of existing systems)</li> </ul> | <p>Limited (RFID techniques have substantial setup costs, require radical adaptations, and have proved not being cost-effective, especially for SMEs)</p> |

- (a) Organisations contributing to the assessment from processing, distribution and retail sectors (including inputs from MS-level member organisations/companies). Only the organisations that provided specific evidence on this are included. The following organisations did not provide any specific evidence on this: AVEC (poultry meat-based products); IBC (butchers); UNAFPA (pasta products). FDE referred to the sector-specific organisations for this issue. UECBV supports the replies provided by CLITRAVI on this issue.
- (b) The costs indicated are specific to the production cost of the final products, and are largely in addition to the costs likely to be incurred at the earlier stages of the supply chain up to slaughterhouse/meat cutting plant (where the latter was not the place of the last processing of the final product).

Source: FCEC based on industry consultation

**Box 3: Cooked sausages and cooked ham: breakdown of estimated additional costs (EU average)**

CLITRAVI provided estimates of indicative average increases at EU level for specific cost items in the production of cooked sausages and cooked ham, stemming from implementation of MCOOL for meat used as ingredient according to the following scenarios:

1. EU / non-EU or EU / TC origin information (Option 1), split in three stages: born, raised and slaughtered
2. MS / TC origin information (Option 2), split in three stages: born, raised and slaughtered.

Under scenario 2, CLITRAVI deems plausible that FBOs will adapt by switching to sourcing meat from a single country (very likely their own country = domestic sourcing only) in order to reduce complexity. As a result, no adaptations will be needed to:

- production and/or marketing process of the meat ingredient;
- production process of the final product;
- marketing practices of the final product.

The estimated increases for the various cost items are reported in the table.

| Type of product | Cost items  | Option 1<br>(EU/non-EU or EU/TC)<br><i>% increase with respect to total production cost</i> | Option 2<br>(MS / TC)<br><i>% increase with respect to total production cost</i> |
|-----------------|---|---|--|
| Cooked sausages | Adaptation of sourcing practices and possible changes in the mix of suppliers | +1-5% *   | +8-25%   |
|                 | Adaptation of packaging and labels/labelling process                          |   | +2-5%**  |
|                 | Compliance controls   |   | +8-12%   |
|                 | <b>Total production cost</b>  |   | <b>+18-45%</b>   |
| Cooked ham      | Adaptation of sourcing practices and possible changes in the mix of suppliers | +1-5% *   | +10-35%  |
|                 | Adaptation of packaging and labels/labelling process                          |   | +1-3%**  |
|                 | Compliance controls   |   | +8-12%   |
|                 | <b>Total production cost</b>  |   | <b>+21-55%</b>   |

Source: CLITRAVI

\* depending on whether EU/non-EU or EU/TC label can (or cannot) be used as a “generic label” also for products containing only EU meat.

\*\* applies only if FBOs decide to source from more than one origin: then they will have to print as many different labels as the combination of origins they are using.

Source: FCEC based on industry consultation

**Box 4: Sausages and cooked ham: breakdown of estimated additional costs (Czech Republic)**

CLITRAVI CZ member association CMPA provided estimates of indicative increases for specific cost items in the production of “Spekacky” sausages (typical of CZ) and cooked ham, stemming from implementation of MCOOL for meat used as ingredient, under option 2 (MS / TC) with origin information to be split in three stages (born, raised and slaughtered). The estimated increases for the various cost items are reported in the table.

| Type of product     | Cost items                   | Option 2 (MS / TC) % increase |
|---------------------|------------------------------|-------------------------------|
| “Spekacky” sausages | Raw materials (meat)         | +34%                          |
|                     | Human resources              | +5%                           |
|                     | Energy & technology          | +3%                           |
|                     | <b>Total production cost</b> | <b>+27.5%</b>                 |
| Cooked ham          | Raw materials (meat)         | +41%                          |
|                     | Human resources              | +7%                           |
|                     | Energy & technology          | +4%                           |
|                     | <b>Total production cost</b> | <b>+30.5%</b>                 |

Source: CMPA

The main reasons behind the increases would be the following:

- For raw materials (meat): increase of meat price caused by strong demand for single origin meat (born, raised, slaughtered) sourced from as few as possible MS (CZ is not self-sufficient for pig meat).
- For human resources: expansion of the staff responsible for traceability and labelling.
- Energy & technology: increased demand for space in cold storage facilities to achieve segregation by origin => increased energy costs and also investment in additional cold storage capacity; investment into technology and traceability systems.

Source: FCEC based on industry consultation

**Box 5: “Mortadella” and cooked ham: breakdown of estimated additional costs (Italy)**

CLITRAVI IT member association ASSICA provided estimates of indicative increases for specific cost items in the production of “Mortadella” (Bologna sausage, typical Italian product) and cooked ham, stemming from implementation of MCOOL for meat used as ingredient, under the following scenarios:

1. EU / non-EU or EU / TC origin information (Option 1)
2. MS / TC origin information (Option 2).

The estimated increases for the various cost items are reported in the table.

| Type of product | Cost items                   | Option 1<br>(EU/non-EU or EU/TC)<br>% increase | Option 2<br>(MS / TC)<br>% increase                            |
|-----------------|------------------------------|--|--|
| “Mortadella”    | Raw materials (meat)         |  | +13-15% (use of IT meat)<br>+10% (use of meat from another MS) |
|                 | Labour & management          | +0.5%  | +10%   |
|                 | Packaging & labelling        | +0.5%  | +3% or more  |
|                 | <b>Total production cost</b> | <b>+1%</b>                                     | <b>+20-30%</b>   |
| Cooked ham      | Raw materials (meat)         |  | +33% (use of IT meat)<br>+20% (use of meat from another MS)    |
|                 | Labour & management          | +0.5%  | +10%   |
|                 | Packaging & labelling        | +0.5%  | +3% or more  |
|                 | <b>Total production cost</b> | <b>+1%</b>                                     | <b>+10-35%</b>   |

Source: ASSICA

The main reasons behind the very significant increases under option 2 would be the following:

- For raw materials (meat): increase of meat price caused by strong demand for single origin meat sourced domestically (Italy is not self-sufficient for pig meat) or in another MS.
- For labour & management costs: increased use of labour and more complex management to achieve segregation by origin within the plants; increased internal controls.
- Packaging & labelling costs: additional costs derive from systematic adaptation to changes in the origin of meat used as ingredient.

The much lower costs stemming from option 1 derive mainly from the fact that imports of non-EU pig meat have no significant role in the production of mortadella and cooked ham, and anyway the adaptations required to achieve segregation by origin would definitely be less challenging.

Source: FCEC based on industry consultation

**Box 6: Sausages and burgers: breakdown of estimated additional costs (United Kingdom)**

CLITRAVI UK member association BMPA provided estimates of indicative increases for specific cost items in the production of pig meat sausages and of beef burgers, stemming from implementation of MCOOL for meat used as ingredient, under the following scenarios:

1. EU / non-EU or EU / TC origin information (Option 1)
2. MS / TC origin information (Option 2).

The estimated increases for the various cost items are reported in the table.

| <b>Type of product</b> | <b>Cost items</b>   | <b>Option 1<br/>(EU/non-EU or EU/TC)<br/>% increase with respect to total production cost</b> | <b>Option 2<br/>(MS / TC)<br/>% increase with respect to total production cost</b> |
|------------------------|---|---|--|
| Sausages               | Adaptation of sourcing practices and possible changes in the mix of suppliers | +1-5%   | +10-20%  |
|                        | Adaptation of packaging and labels/labelling process                          | +1-5%   | +2-5%  |
|                        | Implementation/adaptation of traceability                                     | +3-5%   | +5-10%   |
|                        | <b>Total production cost</b>  | <b>+5-15%</b>   | <b>+17-35%</b>   |
| Burgers                | Adaptation of sourcing practices and possible changes in the mix of suppliers | +6-10%  | +15-25%  |
|                        | Adaptation of packaging and labels/labelling process                          | +4-6%   | +6-10%   |
|                        | Implementation/adaptation of traceability                                     | +3-5%   | +5-10%   |
|                        | <b>Total production cost</b>  | <b>+13-21%</b>  | <b>+26-45%</b>   |

Source: BMPA

The main reason behind the higher additional costs for burgers under both options is the fact that imports of meat from third countries play a significant role in sourcing, whereas pig meat for sausages is almost entirely of EU origin; the adaptations required to achieve segregation by origin in the production of burgers are hence more challenging.

Source: FCEC based on industry consultation

**Box 7: Additional costs at sector level, (France)**

CLITRAVI's French member organisation FICT provided a quanti-qualitative assessment of potential additional costs from adoption of MCOOL (origin information to be provided with country detail) for the entire meat products sector in France, whose annual production is around 1,150,000 tonnes (80% pork; 10% poultry; 5% beef; 5% other: lamb, goose, duck, game, etc.), for a total turnover of 6.2 billion €.

The following additional costs at sector level were estimated (through extrapolation from results of a survey among producers):

- Adaptation of sourcing (“nationalisation” of sourcing patterns): around 150 million € (excluding extra-costs from possible lack of national supply for certain ingredients)
- Adaptation of production/marketing for meat ingredients : slight increase
- Adaptation of production/marketing for final products: 35 to 100 million €
- Adaptation of packaging and labels: 8 to 48 million €
- Implementation/adaptation of traceability : slight increase (in case no investments in new technology development – e.g. RFID – have to be made).
- Implementation of controls (checks for consistency between origin information provided and actual origin mix in final products): 3,2 million €

Source: FCEC based on industry consultation



**Box 8: Prepared meals: breakdown of estimated additional costs**

ECFF estimates an *average additional cost of 15-25%*, broken down as follows:

- Adaptation of sourcing practices for ingredients: +3-5%
- Adaptation of production of the final product: +3-5%
- Adaptation of packaging and labelling: +3-5%
- Adaptation of marketing practices of final product: +3-5%
- Adaptation of traceability: +3-5%

Additional costs mainly derive from:

- changes in supply sources and suppliers (the latter must be able to provide single-origin meat ingredients, or at least to provide all the required information concerning the origin of such ingredients),
- selection and audit of suppliers,
- re-organisation of storage and production
- increase in waste (unused meat ingredients; unused packaging & labels)
- modification of labels (approximately €2,000-3,000 per reference)
- downtime of packing lines for systematic update of packaging and labels
- management of label and packaging stocks in the plant and in the printers

As noted in Theme 2, this sector encompasses a wide range of products, with diverse levels of complexity and degrees of processing. This makes it difficult to provide cost estimates that would cover all possible scenarios. This has been highlighted in previous studies covering this sector; for example, the study by LEI (2012) only covers mixed salads, and also that - due to the complexity of the sector - does not provide quantitative estimates beyond qualitative considerations on the potential additional costs of MCOOL.

Source: FCEC based on industry consultation

**Box 9: MCOOL implementation in the unprocessed meat sector: additional costs (estimates)**

Unprocessed meat constitutes the raw material for all the product categories covered by the present assessment. As such, additional costs stemming from MCOOL implementation in the unprocessed meat sector (for pig meat, poultry meat, sheep and goat meat) are covered by the *Study on mandatory origin labelling for pig, poultry and sheep & goat meat*, which is being carried out by LEI Agricultural Economics Research Institute, Wageningen UR (NL) for DG AGRI. At the time of drafting of the present report, the draft conclusions for the DG AGRI study were already available. For what concerns additional costs for FBOs due to MCOOL implementation, the study concludes that:

1. **Option 1** (mandatory EU or non-EU origin) will have almost no additional costs for companies in the meat chain: this conclusion holds for fresh and frozen meat of pigs, poultry, sheep and goats.
2. **Option 2** (MCOOL at MS / TC level of all life stages of animals: born, reared and slaughtered) will increase production costs in meat chains. The biggest cost increase is expected for pigs (+2.3% with respect to the wholesale price), followed by poultry (+1.3%) and sheep (+0.64%). For individual companies the expected cost increase can be far higher (above +10%) depending on a number of factors (company size, method of sourcing animals or meat, traceability system in place, presence of voluntary labelling systems, IT systems in place, degree of integrated production).

It is also interesting to report some estimates of additional costs due to MCOOL implementation in the unprocessed meat sector made by UECEBV and by its member organisations in FR, DE, IT and ES (see table). These estimates were made for the same options considered for the DG AGRI study.

| <b>Type of meat / MS</b>                             | <b>Option 1 (EU / non-EU)</b><br><i>Additional cost (€/kg)</i> | <b>Option 2 (MS/TC – born, reared, slaughtered)</b><br><i>Additional cost (€/kg)</i> |
|--|--|--|
| Pig meat / France                                    | 0.06   | 0.41   |
| Pig meat / Germany                                   | 0.00   | 0.02-0.31  |
| Pig meat / Italy                                     | 0.19   | 0.36   |
| Lamb meat / France                                   | 0.07   | 1.01   |
| Lamb meat / Italy                                    | 0.25   | 1.04   |
| Lamb meat / Spain                                    | 0.15-0.23  | 0.31-0.40  |
| <b><i>Pig meat / UECEBV internal assessment</i></b>  | <b><i>0.08</i></b>   | <b><i>0.31</i></b>   |
| <b><i>Lamb meat / UECEBV internal assessment</i></b> | <b><i>0.17</i></b>   | <b><i>0.80</i></b>   |

Source: FCEC based on industry consultation (UECEBV) and DG AGRI (2013)

The potential impact of these 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.

According to the DG AGRI study on the impact of mandatory origin labelling on unprocessed meat (LEI, 2013), in a situation of perfect competition (i.e. perfect price transmission) consumer prices will be relatively more affected than producer prices. In

particular, given the full competition assumption underlying the CAPRI model used in this study, 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. On this basis, according to the study's estimates, consumers in the EU27 lose about €1.35 billion due to the increase in EU pork, poultry, and sheep and goat meat prices as a result of the labelling costs that have to be made in option 2 of that study (mandatory labelling at MS/TC level, for the 3 stages of production).

The actual impact on consumer prices will depend on the prevailing degree of vertical integration and market concentration, hence bargaining power along the meat supply chain, 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 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 above estimates. For example, if 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). Previous studies on competitiveness in this sector (e.g. Ecorys 2012) have pointed to potential power imbalances, particularly leaning towards retailers, and the effects of bargaining power on price transmission. As discussed in Theme 2, the supply chain for processed meat is such that concentration tends to be higher at the level of slaughterhouses and the larger retailers, while the processing sector tends to be relatively more fragmented.

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 rules are to be proposed.

## **4.6 Additional administrative costs and burden**

### **4.6.1 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<sup>95</sup>. In particular, the SCM distinguishes between

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<sup>95</sup> EU Commission's Impact Assessment Guidelines (European Commission, 2009):

[http://ec.europa.eu/governance/impact/commission\\_guidelines/commission\\_guidelines\\_en.htm](http://ec.europa.eu/governance/impact/commission_guidelines/commission_guidelines_en.htm)

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12 types of information obligations and 14 categories of required actions associated to these information obligations<sup>96</sup>.

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<sup>97</sup>). 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.

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<sup>96</sup> 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.

<sup>97</sup> 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.

#### 4.6.2 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/formulations 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)<sup>98</sup>:

- 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/formulations - amongst the 12 categories of IOs presented above - are likely to involve costs for enforcement authorities. Information obligations (IOs) that may arise from the new COOL 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, 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**.

<sup>98</sup> 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.

**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; |
| 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 **compliance costs**, MS CAs made the following two observations of key relevance to calculating these costs:

- 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 this difficulty, MS CAs have been asked to identify as a

proxy the time spent and costs of controls on mandatory labelling for beef, but this has proven equally difficult in most cases<sup>99</sup>.

- 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 primary 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.

The response of MS CAs to the FCEC consultation on the baseline and the estimates of the likely additional costs (controls costs including administrative burden) from the introduction of mandatory COOL for meat as an ingredient is presented in **Table 14**.

The general observation, from nearly all MS, is that an increase in control costs (as well as traceability 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 inspection visits.

There are divergent MS CA views on the extent to which the different options have implications in terms of the three main cost components examined (i.e. staff time needed, qualification of staff needed and staff unit costs). Despite the lack of specific figures, all MS CAs have emphasised that particularly the MS/TC labelling option will result in an increase in staff time needed. Although there will not be a need as such for more qualified inspection staff, some training will be required, but this cost is relatively small/negligible (could be done via BTSF). Some MS CAs indicated that all main cost components stemming from the new IOs will increase under all options explored in the study.

**In total, most MS CAS that have provided some quantitative estimate of the scale of the anticipated additional costs, have indicated they expect a 10-30 % increase in control**

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<sup>99</sup> In addition, MS CAs in the 6 case study countries for Ass. B were enquired on the time spent on 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 particularly for Assessment A on VCOOL, but has proven equally impossible for the MS CAs to determine even in rough approximate terms.

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**costs (in terms of verification checks carried out at FBO point, including administrative burden).**

Drawing a parallel from other cases, in particular 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 DK experience with the additional administrative costs and burden caused by the specific labelling requirements for beef meat (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 DE CA estimated its current annual expenditures for beef labelling controls at approximately €4.2 million per year, which corresponds to 50 inspectors currently employed at federal and Länder level.

**If the funding allocated to control authorities by the state budgets is not increased** - and the tendency in the current economic climate is to keep this stable or even to have budgetary cuts – then the increase in the time needed to perform inspections will need to be compensated by other key cost factors, leading potentially to **a reduction in the frequency of the controls, or a change in priorities**. Both could have detrimental consequences, particularly in MS where the competent authorities have undergone severe budgetary cuts in recent years, leading to a situation where controls on traceability and origin labelling might not be properly carried out therefore jeopardising the entire EU system of controls on this.

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 section 4.4 on traceability - but also in the case of voluntary COOL (Assessment A) - 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 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. The available evidence suggests that the EU traceability systems have quite a long way to go to yield these advantages.

Regarding traceability at the earlier stages of the supply chain (live animals and up to slaughter/meat cutting plants), it was noted, by both MS CAs and FBOs, that as a first step, it is important for all national CAs to establish a register in order to keep record of livestock movement and production stages from the place of farming onwards<sup>100</sup>. These issues have

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<sup>100</sup> In the form of a central register of all holdings or computerised database at national level. It is also noted that EU rules on the electronic identification of individual live animals only exist in the case of bovine animals and sheep and goats. In the porcine sector, the identification and registration is carried out at the level of groups of



been discussed under section 4.4 on traceability costs, based also on the evidence of current traceability conditions in these first stages of the supply chain as provided by the DG AGRI study (2013) on mandatory COOL of fresh meat.

Even where traceability is currently up and running (i.e. in beef sector) this is not currently designed for full tracing back to origin. Incomplete traceability and the extensive trading of live animals and animals for slaughter/cutting makes it very impractical to apply origin labelling at all 3 stages (born, raised and slaughtered). The consulted MS CAs noted that this requires clear provisions to be put in place for the development of full traceability, as well as a control (sampling and testing) system that is reliable and has a reasonable cost; this is not currently laid down in the required level of detail by the FIC Regulation. Every time the authorities need to do an enquiry, they need to invent the sampling and testing system and this increases the administrative effort and costs involved.

**New technologies**, in particular **RFID tools and isotope analysis**, could also help mitigate costs, but this is only longer term, not in the short to medium term as the technology uptake at the moment in the processed meat, and more generally food industry, is virtually non-existent. The industry indicated that RFID tools have been tested by a number of meat processing companies in a range of different meat products and have proven not cost-effective. MS CAs by and large (with the exception of only one MS) remain unconvinced that isotope analysis can provide a cost-effective solution for wider implementation of origin verification controls, as both the costs of this testing are high and the available test methods are not widely tested yet.

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 from an animal (i.e. not to cuts, blends, trimmings, mixes of species 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?).

In the absence of available tools for effective implementation, nearly all of the consulted MS CAs have raised concerns on the **potential risk of fraudulent practices**; this risk will be higher the stricter and more detailed the rules to be put in place. Documentary checks, the

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pigs on the basis of ear-tags or tattoos, although this also requires maintaining a register on each holding (farm, market etc.) and a computerised database at national level.

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most widely used basis of the current controls, are generally not considered sufficient, although this depends on the species and product. For example, in the beef sector where there is less trade in live animals and meat between MS, an effective traceability system in place and strict provisions on the origin of fresh meat, documentary checks will be more reliable than in the poultry and pigs sector where there is significant movement of live animals and meat between countries (as quoted by several consulted parties, *‘pigmear and poultrymeat are bound to have different origin’*) and no traceability system in place while the modalities of the future rules on fresh meat are not yet known. In such cases, there will be need for agreements between the administrative authorities of MS, and with TCs, to enable the build of trust and cooperation between control authorities.

According to several of the consulted MS authorities, fraud on origin labelling exists already in several documented cases, and there is no system or scientific basis to verify full traceability going back to the origin of the raw meat ingredient or the animal. The horsemeat scandal highlights the economic interest and scope of fraudulent practices in this sector. Perversely, a consequence of this scandal is that it may lead to renationalisation of consumer preferences (consumers appear to trust more what they perceive to have been produced in their country or *‘locally’*) and this could create a market for origin labelling and, in the absence of effective tools to perform controls, potentially more fraud.

The above challenges are amplified in the case of meat used as an ingredient in multi-ingredient products.

**Table 14: Impact in terms of estimated additional control costs (including administrative burden) for MS CAs (n=19 MS)**

| MS CAs (a) | EU/non EU             | MS/TC                    | Estimated additional cost (for the preferred option indicated) (b)  |
|------------|-----------------------|--------------------------|---|
| AT         | <i>cat II and III</i> | <i>cat I</i>             | 10% increase in control costs (verification checks).  |
| BE         |                       | <i>cat I, II and III</i> | 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         | <i>cat III</i>        | <i>cat I and II</i>      | <p>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<sup>101</sup>. 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).</p> <p>If there are budget constraints, the frequency of inspections will have to be reduced.</p> <p>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.</p> |
| DE         |                       | <i>cat I, II and III</i> | <p>Current controls on labelling are part of the Federal Control Plan<sup>102</sup>.</p> <p>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</p>   |

<sup>101</sup> 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). According to data provided by CAFIA: in the Czech Republic approximately 30% of total products of animal origin are non-pre packed while the remaining 70% is pre-packed food; in terms of the number of FBOs selling meat products, 50% of them are butchers and 50% are other points of sale; in terms of volume sold, more than 50% of meat products are sold by large retailers.

<sup>102</sup> In Germany the Länder Authorities are in charge of verification controls conducted in the context of food law. These 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 (a) | EU/non EU                            | MS/TC   | Estimated additional cost (for the preferred option indicated) (b)  |
|------------|--------------------------------------|---|---|
|            |                                      |   | <p>this are approximately €4.2 million per year.</p> <p>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 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.</p>  |
| DK         | <i>cat I, II and III</i>             |   | <p><i>No estimates.</i></p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> |
| EE         | <i>cat I, II and III</i>             |   | <i>No estimates</i> (increase expected)   |
| EL         | <i>cat I, II and III</i>             |   | 10-20 % increase in control costs (verification checks)   |
| ES         | <i>cat II and III</i>                | <i>cat I</i>                                  | <i>No estimates.</i> The considerable additional costs that could result from mandatory COOL, a priori seem too high in relation to the objectives pursued.   |
| FI         | <i>cat I, II and III</i>             |   | <i>No estimates.</i>  |
| FR         | <i>(for highly processed, mixed)</i> | <i>(for fresh or low level of processing)</i> | <p><i>No estimates.</i></p> <p>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</p>   |

| MS CAs (a) | EU/non EU              | MS/TC             | Estimated additional cost (for the preferred option indicated) (b)  |
|------------|------------------------|-------------------|---|
|            |                        |                   | <p>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.</p> <p>Currently, such controls are carried out by the DGCCRF<sup>103</sup> 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.</p>   |
| HU         |                        | cat I, II and III | No estimates (increase expected)  |
| IT         | No preference provided |                   | <p>For MS enforcement authorities:</p> <p>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.</p> <p>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.</p> |
| LT         |                        | cat I, II and III | 5-10 % increase in control costs (verification checks)  |
| NL         | cat I, II and III      |                   | Against MCOOL: lowest level of intervention possible. No estimates (but refer us to LEI study of 2012)  |
| PL         |                        | cat I, II and III | No estimates (increase expected)  |
| PT         | cat I, II and          |                   | No estimates (increase expected)  |

<sup>103</sup> 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 (a) | EU/non EU                     | MS/TC                    | Estimated additional cost (for the preferred option indicated) (b)   |
|------------|-------------------------------|--------------------------|--|
|            | <i>III</i>                    |                          |  |
| SK         |                               | <i>cat I, II and III</i> | 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).<br><br>No impact for administrative costs. MS enforcement authorities and private operators are affected by these information obligations.  |
| SE         | <i>cat I, II and III</i>      |                          | <i>Against MCOOL: lowest level of intervention possible.</i> 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 administrativa 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         | <i>No preference provided</i> |                          | 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.   |

*Cat I: Minced meat /mechanically separated meat/meat preparations*

*Cat II: Unprocessed meat/minced meat/mechanically separated meat/meat preparations used in multi-ingredient foods*

*Cat III: Meat products*

(a) *Includes administrative burden, as this could not be separated from the overall costs of controls as such.*

(b) *Highlighted rows refer to case study MS.*

Source: FCEC, based on consultation of MS CAs

### 4.6.3 Costs for FBOs

At the level of stakeholders, the aim has been to estimate the implementation of additional paperwork linked to potential increase in 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.

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 costs of traceability and control costs more generally (as provided, respectively, in sections 4.4 and 4.5).

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. Whether meat used as ingredient is a single cut from one source only or is multiple cuts from different origins;
- 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 hygiene 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 previous operator in the supply chain.

In the two examples provided at EU level (pigmeat sector: sausages and cooked ham) the total control costs are negligible in the case of Option 1, but become more substantial in the case of Option 2 (increase of up to 8-12% of the total production costs) (**Box 3**); these costs include additional new staff for the verification of production lines for compliance to origin labelling are based on current traceability systems (which to some extent remains manual based on paperwork), but could longer term be mitigated by more complete and computerised traceability systems.

These are normal control costs, not those required in the context of controls in extraordinary situations such as in the case of errors and product recalls. FBOs have also noted that the more detailed the requirements the higher the risk of errors and need for recalls. Recall costs will depend on the scale of the FBO and relations between processors and retailers, as the latter impose processors a fine to pay back their losses. Recall costs for bigger companies have been estimated at >€50,000 - €100,000 per recall.

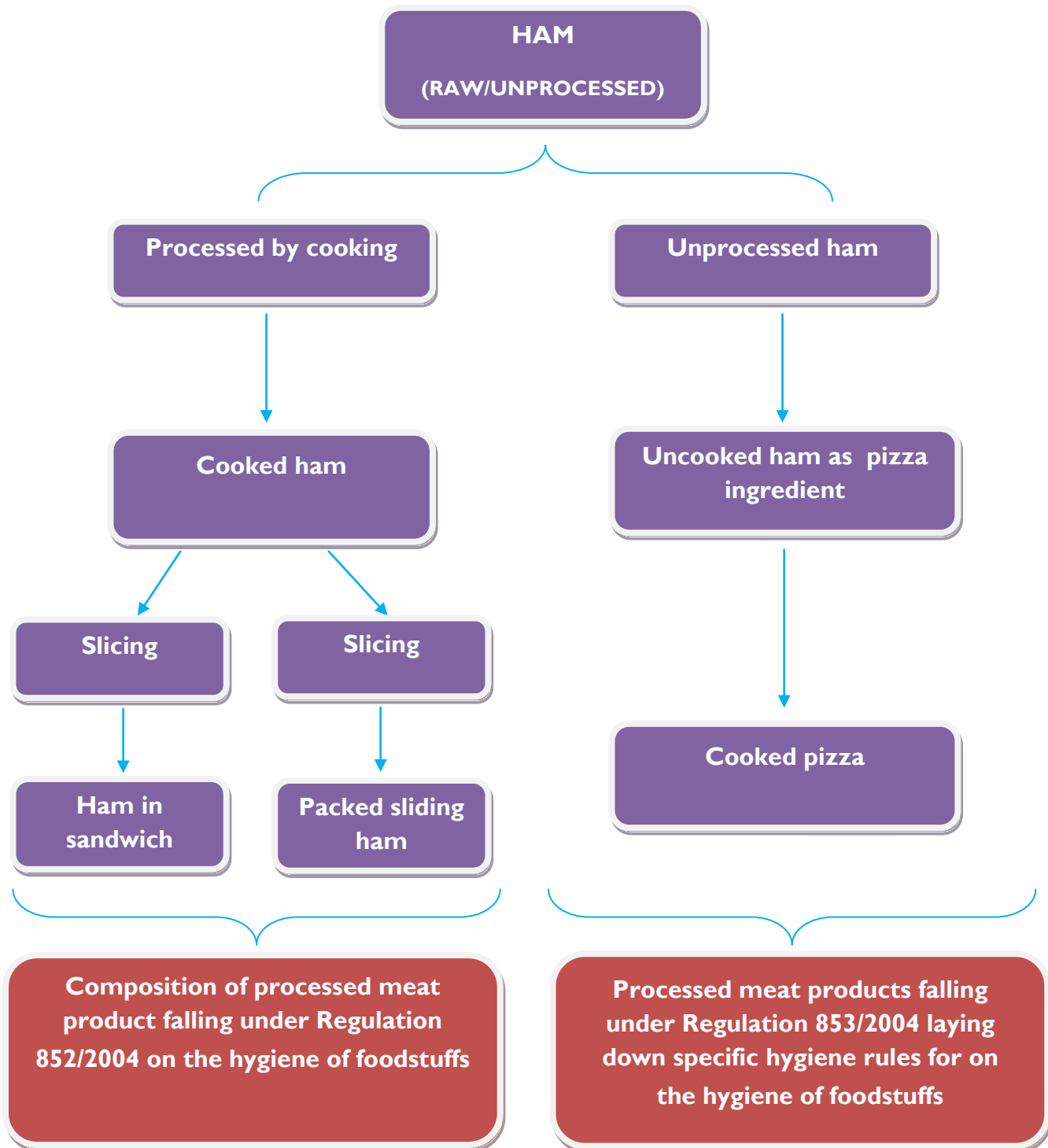
In relation to the controls carried out by control authorities at FBO point, the meat processing industry also pointed out that the current framework of hygiene controls differs between products depending on whether ingredients are processed or not. This distinction is illustrated in **Figure 11**. In particular, in the case where the meat ingredient is already cooked, lighter controls are in place under Regulation (EC) No 852/2004 than in the case where the meat ingredient is not cooked where tighter controls are in place under Regulation (EC) No 853/2004 as dealing with raw meat in a plant is considered to be a higher risk case from a hygiene/food safety point of view.

This distinction in the control framework may have a bearing in terms of control costs, in the sense that where meat is 'cooked' (first case) control frequency is generally lower (i.e. operators are inspected less than in the second case). One FBO (producer of a multi-ingredient product) confirmed that in the first case that applies to this FBO (i.e. controls under Regulation (EC) No 852/2004), he is subject to 1-2 inspections per year, while an operator using fresh ingredients could be subject to as many as 2-8 inspections per year (i.e. controls under Regulation (EC) No 853/2004). The industry noted that this depends on the track record of the FBOs and the applicable control plans in the MS. Generally, for FBOs the costs of inspections in the first case are significantly lower, at least half of the costs borne by FBOs subject to controls in the second case.

These differences in the control framework and cost differentials have implications on the controls costs for mandatory origin labelling in the case that controls for the latter are combined into the general inspections for food safety and hygiene purposes, as seems to be the consensus amongst MS CAs.



**Figure 11: Definition of meat product (for the purposes of hygiene controls)**



Source: FCEC, based on industry consultation

#### 4.7 Impacts on the internal market

The study aimed to explore whether mandatory origin labelling could have potential impacts on the internal market in terms of:

- Costs of production and/or other dimensions of competitiveness (product differentiation, product innovation, safeguard of sensitive business information, etc.);
- 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 collected relevant evidence is illustrated in **Table 15**. The main potential impacts identified are the following:

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

- a. In the case of Options 2 or 3, the new labelling rules are largely expected to lead to the adjustment of EU FBOs' sourcing strategy and patterns, with the aim to focus on a more limited number of origins (countries/regions) for their sourcing of meat ingredients. 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. The most significant impacts in this case are expected for: FBOs in MS that are not self-sufficient in raw material; and, for FBOs that rely on specific types of meat 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 meat ingredients, largely responding to the need of FBOs of securing adequate supply of raw materials and/or ingredients with the required specifications.
- b. Similarly FBOs using meat as ingredient could be adversely affected vs. FBOs that do not use meat as ingredient (e.g. in the prepared meals sector). Also FBOs sourcing meat ingredients from third countries (particularly of poultry meat or beef ingredients) could be more adversely affected (see also section 4.8).

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

- a. Potential changes in intra-EU trade flows for live animals, unprocessed meat, meat ingredients, 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 meat ingredients (France, Germany, Denmark, Netherlands, Belgium, Spain etc.) suffering the most significant impacts. For example, the most significant trade flows in the pigmeat sector

are mostly occurring between these countries (**Table 16**). Particularly FBOs situated close to borders of those MS appear to be involved in significant cross border trade and therefore are expected to be most affected.

- b. 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..

The extent of the potential shifts in trade flows for unprocessed meat of pigs, poultry and sheep & goats, which ultimately constitutes the raw material for all the product categories covered by the present assessment, has been investigated by the parallel study on the impacts of mandatory origin labelling carried out for DG AGRI (LEI, 2013); this study also highlighted the intensity of cross border trade between some of the key trading MS.

For what concerns impacts on net trade of the EU and individual MS, the study concludes that Option 1 - *mandatory EU or non-EU origin* - will have negligible (if any) impacts; this conclusion holds for fresh and frozen meat of pigs, poultry, sheep and goats. Option 2 - *MCOOL at MS / TC level of all life stages of animals (born, reared and slaughtered)* - and Option 3 - *MCOOL at MS / TC level of country of rearing* - will have some impacts on the net trade position at EU27 level and at the level of MS. In most cases these changes are relatively limited, with the induced changes in the net trade in pigmeat being generally less than 2% or down from the reference level. Pigmeat is the sector most significantly affected in terms of trade, given also the significance of trade in meat of this species (**Table 16**); trade in poultry meat and sheep/goat meat is even less affected. However, more significant shifts in the net trade position are expected in the case of some major net importer or exporter MS. These conclusions are in line with the findings of our study as presented here.

**Table 15: Impacts on competitiveness in the internal market, by sector**

| Sector (a)  | Impacts on cost-related competitiveness   | Impacts on other dimensions of competitiveness  | Impacts on intra-EU trade of the concerned products  |
|---|---|---|--|
| <b>Meat preparations / meat products</b><br>(CLITRAVI;<br>UECBV; AVEC;<br>IBC; FDE) | <i>Options 2 and 3</i><br>EU FBOs expect to adjust sourcing patterns to the new labelling rules by procuring within a more limited number of countries/regions to ensure minimal origin diversification => as FBOs have less possibilities to diversify their supply base they expect to face higher prices of raw materials / ingredients within the reduced supply base => additional costs for FBOs (especially in MS which are not self-sufficient for live animals, unprocessed meat, meat ingredients). | Potential risks for security of supply (especially for specific quality grades / typologies)<br><i>But:</i><br>Competitive pressure from additional costs could be an incentive for FBOs to focus on innovation to boost competitiveness (AVEC) | “Nationalisation / regionalisation” of sourcing patterns =><br><ul style="list-style-type: none"> <li>Distortion of intra-EU trade flows for live animals, unprocessed meat, meat ingredients</li> <li>Reduced intra-EU trade of live animals, unprocessed meat, meat ingredients</li> </ul> MS that are highly specialised in supplying live animals, unprocessed meat and meat ingredients will be impacted in terms of reduced exports; MS dependent on imports for their meat processing sector will be impacted in terms of reduced access to inputs. |
| <b>Prepared meals</b><br>(ECFF;<br>CULINARIA;<br>UNAFPA*)                           | <u>ECFF</u><br>Cost-competitiveness of (FBOs producing) prepared meals containing meat ingredients can be negatively affected vis-à-vis (FBOs producing) prepared meals without meat ingredients<br><u>CULINARIA</u><br>Cost competitiveness of FBOs switching from South American beef-based ingredients (cooked beef; beef extract) to EU beef-based ingredients would be negatively affected   | No specific evidence  | “Nationalisation / regionalisation” of sourcing patterns => distortion of intra-EU trade flows for meat ingredients<br>Risk of “food chauvinism” => consumers preferring products with ingredients from their own country, even if they have no differential value in terms of safety/quality  |

**Sector (a):** organisations contributing to the assessment from processing, distribution and retail sectors (including inputs from MS-level member organisations/companies)

\* Due to the diversity of its product range, the EU pasta sector (UNAFPA) was not in a position to provide any further specific evidence on this

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

**Case “a”:** modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c)

1. Origin split in three stages: “born, raised and slaughtered” (following the beef origin labelling or any different combinations).
2. Origin determined according to the customs origin definition: slaughter and minimum period of raising prior to slaughter.

**Case “b”:** modalities for meat products for the production of multi-ingredient foods (d)

1. Origin as determined in accordance with the EU Customs Code (mainly corresponding to the country of the last substantial transformation).
2. More extensive origin information related to the provenance of the fresh meat from which the meat product is produced.

Source: FCEC, based on industry consultation

**Table 16: Intra EU trade in live pigs, pigmeat and pigmeat products (exports), 2011 ('000 tonnes)**

|        |       | Destination |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    | TOT   |      |
|--------|-------|-------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|-------|------|
|        |       | DE          | IT    | UK  | PL  | NL  | FR  | BE  | CZ  | DK  | HU  | AU  | PT  | RO  | EL  | ES  | SK  | SE  | IE  | BG | LT | LV | FL | SK | CY | EE | LU |       | MT   |
| Origin | MS    |             |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |       |      |
|        | DE    | 0           | 372   | 157 | 272 | 376 | 116 | 73  | 127 | 133 | 85  | 201 | 10  | 59  | 39  | 21  | 32  | 61  | 18  | 26 | 18 | 10 | 13 | 9  | 4  | 7  | 4  | 0     | 2242 |
|        | NL    | 557         | 160   | 227 | 95  | 0   | 67  | 124 | 22  | 24  | 32  | 7   | 1   | 27  | 96  | 36  | 9   | 2   | 15  | 4  | 5  | 1  | 35 | 4  | 15 | 0  | 0  | 1     | 1573 |
|        | DK    | 697         | 120   | 279 | 234 | 20  | 19  | 5   | 16  | 0   | 1   | 1   | 0   | 7   | 11  | 6   | 3   | 50  | 13  | 2  | 8  | 5  | 5  | 0  | 4  | 5  | 0  | 1     | 1511 |
|        | ES    | 79          | 145   | 34  | 24  | 35  | 327 | 21  | 20  | 34  | 12  | 4   | 220 | 22  | 14  | 0   | 9   | 11  | 4   | 23 | 2  | 1  | 0  | 1  | 3  | 1  | 0  | 1     | 1046 |
|        | BE    | 302         | 52    | 59  | 83  | 166 | 57  | 0   | 17  | 12  | 9   | 3   | 1   | 14  | 9   | 16  | 3   | 3   | 2   | 10 | 12 | 3  | 1  | 5  | 7  | 3  | 10 | 0     | 857  |
|        | FR    | 59          | 148   | 56  | 13  | 22  | 0   | 90  | 11  | 12  | 13  | 6   | 3   | 8   | 38  | 78  | 5   | 2   | 6   | 18 | 0  | 2  | 0  | 0  | 2  | 0  | 2  | 0     | 595  |
|        | PL    | 18          | 29    | 48  | 0   | 8   | 3   | 5   | 33  | 21  | 34  | 0   | 1   | 6   | 1   | 1   | 26  | 2   | 5   | 7  | 27 | 14 | 0  | 0  | 0  | 4  | 0  | 0     | 293  |
|        | IT    | 50          | 0     | 25  | 2   | 13  | 54  | 22  | 10  | 3   | 16  | 18  | 0   | 10  | 4   | 14  | 2   | 3   | 1   | 3  | 0  | 0  | 0  | 7  | 0  | 0  | 1  | 2     | 259  |
|        | AU    | 78          | 57    | 1   | 2   | 3   | 1   | 1   | 28  | 2   | 23  | 0   | 0   | 12  | 0   | 0   | 15  | 0   | 0   | 2  | 0  | 0  | 0  | 24 | 1  | 0  | 0  | 0     | 252  |
|        | UK    | 33          | 4     | 0   | 3   | 33  | 8   | 14  | 0   | 17  | 0   | 0   | 0   | 0   | 0   | 5   | 0   | 2   | 57  | 0  | 0  | 0  | 0  | 0  | 2  | 1  | 0  | 0     | 180  |
|        | HU    | 8           | 32    | 6   | 6   | 1   | 1   | 1   | 7   | 3   | 0   | 6   | 0   | 50  | 0   | 5   | 30  | 1   | 0   | 9  | 1  | 1  | 0  | 1  | 3  | 0  | 0  | 0     | 173  |
|        | IE    | 13          | 3     | 102 | 1   | 2   | 3   | 3   | 1   | 9   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 4   | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     | 142  |
|        | CZ    | 10          | 0     | 0   | 2   | 1   | 0   | 2   | 0   | 0   | 17  | 1   | 0   | 1   | 0   | 0   | 69  | 0   | 0   | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     | 105  |
|        | SK    | 0           | 0     | 0   | 2   | 0   | 0   | 0   | 7   | 0   | 33  | 2   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     | 45   |
|        | SE    | 9           | 2     | 1   | 11  | 0   | 0   | 0   | 0   | 12  | 1   | 0   | 0   | 0   | 1   | 1   | 0   | 0   | 0   | 0  | 0  | 1  | 3  | 0  | 0  | 1  | 0  | 0     | 43   |
|        | PT    | 1           | 0     | 3   | 1   | 0   | 2   | 3   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 22  | 0   | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     | 33   |
|        | FL    | 3           | 1     | 0   | 3   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 8   | 0   | 0  | 2  | 1  | 0  | 0  | 0  | 6  | 0  | 0     | 24   |
|        | LT    | 1           | 0     | 1   | 8   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1  | 0  | 0  | 11 | 0  | 0  | 0  | 1  | 0     | 24   |
|        | EE    | 0           | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 7  | 12 | 2  | 0  | 0  | 0  | 0  | 0     | 23   |
|        | RO    | 0           | 4     | 1   | 0   | 2   | 0   | 0   | 0   | 0   | 4   | 0   | 0   | 0   | 0   | 2   | 0   | 0   | 0   | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     | 18   |
|        | LU    | 4           | 0     | 0   | 0   | 0   | 3   | 7   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     | 14   |
|        | EL    | 0           | 0     | 0   | 0   | 0   | 0   | 2   | 0   | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 1   | 0   | 7  | 0  | 0  | 0  | 0  | 2  | 0  | 0  | 0     | 13   |
|        | LV    | 1           | 0     | 0   | 3   | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 4  | 0  | 0  | 0  | 0  | 3  | 0  | 0     | 12   |
|        | BG    | 0           | 0     | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 4   | 4   | 1   | 0   | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     | 10   |
|        | SV    | 0           | 1     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 4   | 0   | 0   | 0   | 0   | 0   | 1   | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     | 8    |
| CY     | 0     | 0           | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 3   | 0   | 0   | 0   | 0   | 1   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 5     |      |
| MT     | 0     | 0           | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0     |      |
| TOT    | 1,924 | 1,131       | 1,000 | 766 | 684 | 663 | 374 | 300 | 282 | 282 | 252 | 236 | 222 | 220 | 210 | 204 | 150 | 120 | 113 | 85 | 62 | 60 | 51 | 45 | 34 | 17 | 6  | 9,500 |      |

Note: intra-community trade statistics on live pigs, pigmeat and prepared pigmeat (i.e. processed pigmeat products)

Source: Eurostat (COMEXT)

#### 4.8 Impacts on international trade

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**, **Table 17** presents the main origins of EU imports of the unprocessed meat and meat product categories covered by the assessment. The following observations can be made:

- Currently, the bulk of the EU imports within each product category is accounted for by a handful of suppliers, with Brazil and Thailand leading exporters to the EU of some of the key categories of meat (poultry and beef) for processing (imports within existing quotas);
- As already noted, imports of pig meat and sheep meat for processing are virtually non-existent;
- Current trade flows are affected by existing SPS rules and retractions; 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, particularly in terms of imports into the EU of pigmeat for processing.

Given the significance of the current few 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 meat as ingredient. However, the extent of the impact will depend on 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), and existing traceability systems.

In particular, the consulted third country stakeholders (Brazil and US) highlighted their concerns on the potential loss of their exports of unprocessed meat and meat ingredients towards the EU, because of:

- a. Shift of EU FBOs towards EU suppliers, to avoid managing the complexities deriving from multiple EU and third country origins.
- 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.

The above impacts would concern especially those third countries that currently export significant quantities of unprocessed meat / meat ingredients to the EU: Thailand and Brazil for poultry, Brazil and Argentina for beef. In the case of Brazil, the consulted authorities and stakeholders in that country noted that traceability and original labelling are currently only provided at the level of the country and only traces the place of farming and slaughter. A fuller origin labelling option requiring born-raised-slaughter traceability would therefore have very significant implications for imports from that country.

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, as demonstrated with the prolonged dispute settlement process launched following complaints from Canada and Mexico against the US, whereby the (WTO) judged that US COOL rules violate the Technical Barriers to Trade (TBT) agreement as they were assessed to be discriminatory against imported cattle and pigs<sup>104</sup>. 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.

Our consultation with the Commission has also highlighted that when countries take measures that are more stringent than those recommended by international standards, they are required to provide a **legitimate objective** for not basing national level requirements on existing international standards, and to demonstrate in particular that there is **no discrimination** and measures are the **least trade-restrictive**<sup>105</sup>. 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

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<sup>104</sup> The latest (modified) version of the US rules specify that labels should allow consumers to determine where meat producing animals were born, raised and slaughtered, while also removing any allowance for commingled muscle cuts. After US COOL laws first came into force in March 2009 many US meatpackers either stopped accepting Canadian livestock or bought less due to the increased costs of segregating animals by domestic and foreign origin. US consumer groups generally support the COOL rules, saying consumers have the right to know the origin of the meat they buy. But US meat processors side with Canada's argument that the provision unnecessarily raises costs and disrupts trade. The National Farmers Union, a strong supporter of COOL, has praised USDA's final rules.

<sup>105</sup> The WTO 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**.

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 (**Box 10**).



Table 17: Origins of EU imports of relevant meat products

| ANIMAL SPECIES  |  |         |  |  |         |
|---|--|---------|--|--|---------|
| PIG MEAT (HS code 0203)                                     |  |         | SHEEP & GOAT MEAT (HS code 0204)       |  |         |
| Top 5 Origins   |  |         | Top 5 Origins                          |  |         |
| Country   | Imported Volume, T<br>(3-year average 2009-11) |         | Country                                | Imported Volume, T<br>(3-year average 2009-11) |         |
| 1   | CHILE  | 10,845  | 1                                      | NEW ZEALAND                                    | 166,264 |
| 2   | UNITED STATES                                  | 5,322   | 2                                      | AUSTRALIA                                      | 16,289  |
| 3   | AUSTRALIA                                      | 1,283   | 3                                      | CHILE  | 5,043   |
| 4   | NORWAY   | 986     | 4                                      | ARGENTINA                                      | 4,771   |
| 5   | JAPAN  | 598     | 5                                      | URUGUAY  | 3,043   |
| POULTRY MEAT (HS code 0207)                                 |  |         | BEEF (HS codes 0201 and 0202 combined) |  |         |
| Top 5 Origins   |  |         | Top 5 Origins                          |  |         |
| Country   | Imported Volume, T<br>(3-year average 2009-11) |         | Country                                | Imported Volume, T<br>(3-year average 2009-11) |         |
| 1   | BRAZIL   | 150,522 | 1                                      | ARGENTINA                                      | 56,179  |
| 2   | CHILE  | 12,976  | 2                                      | URUGUAY  | 48,283  |
| 3   | ARGENTINA                                      | 11,824  | 3                                      | BRAZIL   | 43,143  |
| 4   | ISRAEL   | 3,651   | 4                                      | UNITED STATES                                  | 11,773  |
| 5   | NORWAY   | 465     | 5                                      | AUSTRALIA                                      | 10,951  |
| RABBITS, HARES, PIGEONS & OTHER ANIMALS MEAT (HS code 0208) |  |         |  |  |         |
| Top 5 Origins   |  |         |  |  |         |
| Country   | Imported Volume, T (3-year average 2009-11)    |         |  |  |         |
| 1   | NEW ZEALAND                                    | 12,269  |  |  |         |
| 2   | CHINA  | 6,348   |  |  |         |
| 3   | INDONESIA                                      | 3,962   |  |  |         |
| 4   | SOUTH AFRICA                                   | 3,163   |  |  |         |
| 5   | AUSTRALIA                                      | 2,150   |  |  |         |

| MEAT CATEGORIES                                   |  |        |  |  |         |
|---|--|--------|--|--|---------|
| OFFAL, FRESH, CHILLED or FROZEN<br>(HS code 0206) |  |        | MEAT and EDIBLE OFFAL, SALTED, IN BRINE, DRIED or<br>SMOKED; EDIBLE FLOURS and MEALS OF MEAT (HS code<br>0210) |  |         |
| Top 5 Origins                                     |  |        | Top 5 Origins  |  |         |
| Country   | Imported Volume, T<br>(3-year average 2009-11) |        | Country  | Imported Volume, T (3-year<br>average 2009-11) |         |
| 1   | SWITZERLAND                                    | 18,742 | 1  | BRAZIL   | 192,278 |
| 2   | NEW ZEALAND                                    | 12,411 | 2  | CHILE  | 11,933  |
| 3   | AUSTRALIA                                      | 3,035  | 3  | SWITZERLAND                                    | 1,767   |
| 4   | ICELAND  | 576    | 4  | ARGENTINA                                      | 762     |
| 5   | URUGUAY  | 395    | 5  | UNITED STATES                                  | 710     |
| SAUSAGES & SIMILAR (HS code 1601)                 |  |        | PREPARED or PRESERVED MEAT, excluding sausages &<br>similar (HS code 1602*)                                    |  |         |
| Top 5 Origins                                     |  |        | Top 5 Origins  |  |         |
| Country   | Imported Volume, T<br>(3-year average 2009-11) |        | Country  | Imported Volume, T<br>(3-year average 2009-11) |         |
| 1   | ISRAEL   | 565    | 1  | BRAZIL   | 280,987 |
| 2   | SWITZERLAND                                    | 222    | 2  | THAILAND                                       | 196,238 |
| 3   | CANADA   | 41     | 3  | ARGENTINA                                      | 12,909  |
| 4   | UNITED STATES                                  | 34     | 4  | CHINA  | 12,569  |
| 5   | CROATIA  | 33     | 5  | CHILE  | 4,926   |

\*Note: Food preparations fall in this chapter provided that they contain more than 20 % by weight of sausage, meat, meat offal, blood. . In cases where the preparation contains two or more of the products mentioned above, it is classified in the heading of Chapter 16 corresponding to the component or components which predominate by weight. These provisions do not apply to the stuffed products of heading 1902 (stuffed pasta) or to the preparations of heading 2103 (sauces and preparations thereof) and 2104 Soups and broths and preparations thereof) .For preparations containing liver, the provisions of the second sentence do not apply in determining the subheadings within heading 1601 or 1602.

Source: FCEC elaboration on EUROSTAT-COMEXT data

## Box 10: WTO Dispute Settlement on US MCOOL rules

Canada and Mexico are major suppliers of live cattle and pigs (hogs) to the US for feeding and processing in US meat plants. Canada was concerned about the US MCOOL requirement, fearing that the origin labelling would adversely affect the Canadian livestock sector. Trade figures showed a drop in exports from Canada between 2008 /2009 in comparison to earlier years, and studies supported a negative effect. Against this background, Canada challenged the US MCOOL at the WTO level.

### WTO panel ruling

On 19 November 2009, the WTO Dispute Settlement Body established a single panel to examine the dispute on US MCOOL. The WTO panel found that the origin labelling requirement is a technical regulation under the Technical Barriers to Trade (TBT) Agreement, and that it is **inconsistent with the WTO obligations of the US**. The WTO panel ruling can be summarised in the following two points:

1. The US MCOOL was found to treat imported Canadian cattle and hogs less favourably than US domestic like products. This is a violation against the national treatment obligation described in Article 2.1 of the TBT Agreement. The detrimental impact on imported livestock, particularly due to record-keeping and verification requirements in relation to US MCOOL, creates an incentive for processors to exclusively use domestic livestock, instead of imported livestock. Furthermore, record-keeping and verification requirements impose a disproportionate burden on upstream producers and processors of livestock.
2. The US MCOOL does not fulfil its legitimate objective of providing consumers with information on origin, and therefore violates Article 2.2 of the TBT Agreement. The objective of the MCOOL measure as being “to provide consumer information on origin” was acknowledged as a “legitimate” objective, but it was found that US MCOOL is unable to fully reach the objective. A considerable proportion of meat sold in the US is not subject to the MCOOL at all. While obtained at the producer level, not all relevant information about the country of origin is communicated to consumers in an understandable or accurate manner at the retail level. The ruling did not include judgement on whether the US MCOOL was more trade restrictive than necessary to fulfil a legitimate objective.

In response to the ruling, the US informed the WTO Dispute Settlement Body about the intentions to implement the recommendations and rulings on 21 August 2012.

### Appeal of the panel ruling at the WTO Appellate Body

The US, Canada and Mexico appealed some points and legal interpretations developed by the WTO panel ruling on the US MCOOL case. Following the common procedure, the appeal was brought to the WTO Appellate Body. On 23 July 2012, the WTO dispute settlement adopted the Appellate Body report and the panel report, as modified by the Appellate Body report.

The Appellate Body upheld the panel ruling that the **US MCOOL measure does result in less favourable treatment to imported Canadian cattle and hogs** than to like domestic cattle and hogs (violation of Article 2.1 of the TBT Agreement upheld). The Appellate Body agreed with the WTO panel ruling, but it should be noted that the reasoning differs. The Appellate Body emphasised that little information was actually communicated to consumers (in comparison to the information collected in the tracking and tracing and record-keeping effort) in an understandable or accurate manner. The detrimental impact can thus not be exclusively considered to be exclusively due to the labelling requirement, which is generally considered a legitimate regulatory distinction, but instead reflects discrimination, which is in violation of Article 2.1. For these reasons, the Appellate Body upheld the WTO panel ruling under Article 2.1.

**The Appellate Body reversed the panel ruling that the US MCOOL violates Article 2.2 of the TBT Agreement since it does not fulfil its legitimate objective of providing consumers with information on origin.** While considering MCOOL as a measure to provide consumer information on origin, which is a “legitimate” objective according to WTO law, the Appellate Body noted that MCOOL does contribute, at least to some extent, to achieving its objective. Although the objective may not be completely fulfilled, MCOOL should therefore be considered consistent with Article 2.2 of the TBT Agreement. The Appellate Body was unable to ascertain that MCOOL is more trade restrictive than necessary to meet the legitimate objective of consumer information.

Source: Dispute Settlement: United States — Certain Country of Origin Labelling (COOL) Requirements (Dispute DS384)

In terms of the potential impacts on international trade, as identified from the **perspective of EU FBOs**, relevant evidence is illustrated in **Table 18**. Amongst such impacts, the following can be highlighted:

1. ***Impacts on international competitiveness of EU exports:***

- a. 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.

2. ***Changes in the geographical structure / volume of trade flows between the EU and third countries:***

- a. The adjustment of EU FBOs' sourcing patterns to the new labelling rules might result in reduced imports of meat ingredients from third countries, particularly of poultry and beef ingredients, as imports from third countries (mainly Thailand and Brazil for poultry-based ingredients; Brazil and Argentina for beef-based ingredients) play an important role in supplying these ingredients to EU FBOs. It is also worth noting that some EU meat products (e.g. Italian "*bresaola*") are mainly or entirely made from third country raw materials / ingredients (beef from Brazil, of a certain quality specification required for this meat product).
- b. Risk that patterns of "food chauvinism" may emerge, in the event that EU consumers show a preference for products made with EU meat ingredients.

**Table 18: Impacts on competitiveness in international trade, by sector**

| Sector (a)  | Impacts on international competitiveness of EU exports   | Changes in the geographical structure / volume of trade flows between the EU and TCs  |
|---|--|---|
| <b>Meat preparations / meat products</b><br>(CLITRAVI; UECBV; AVEC; IBC; FDE) | <i>All options</i><br>Additional costs for EU FBOs due to MCOOL => negative impact on international competitiveness of EU vis-à-vis TC competitors (likely to be more significant for options 2 and 3) |   |
| <b>Prepared meals</b><br>(ECFF; UNAFPA*) CULINARIA;                           | <i>All options</i><br>Additional costs for EU FBOs due to MCOOL => negative impact on international competitiveness of EU vis-à-vis TC competitors   | <ul style="list-style-type: none"> <li>• “Nationalisation / regionalisation” of sourcing patterns =&gt; reduced international trade of meat ingredients (more significant for poultry- and beef-based ingredients, as imports from TCs play an important role in the supply of EU FBOs).</li> <li>• Risk of “food chauvinism” =&gt; EU consumers preferring food products with EU meat ingredients, even if they have no differential value in terms of safety/quality</li> </ul> |

**Sector (a):** organisations contributing to the assessment from processing, distribution and retail sectors (including inputs from MS-level member organisations/companies)

\* Due to the diversity of its product range, the EU pasta sector (UNAFPA) was not in a position to provide any further specific

#### Options on geographical level of origin labelling

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

#### Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c)

1. Origin split in three stages: “born, raised and slaughtered” (following the beef origin labelling or any different combinations).
2. Origin determined according to the customs origin definition: slaughter and minimum period of raising prior to slaughter.

#### Case “b”: modalities for meat products for the production of multi-ingredient foods (d)

1. Origin as determined in accordance with the EU Customs Code (mainly corresponding to the country of the last substantial transformation).
2. More extensive origin information related to the provenance of the fresh meat from which the meat product is produced.

Source: FCEC, based on industry consultation

#### 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:

1. Providing a potential incentive to consumption of products produced in proximity;
2. 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;
3. Other kinds of environmental impacts not falling into the above categories.

Relevant evidence for the assessment, again within the limits allowed by the available data and information, is illustrated in **Table 19**.

Amongst the various potential impacts which were identified, the following appear to be the most important:

1. ***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. In general, higher potential is attributed to option 3 (*other geographical entities as place of provenance*), whereas option 1 (*origin labelling based on a) EU/non-EU origin or b) EU/third country*) is clearly seen as providing no incentive to consumption of products in proximity.
2. ***Risk of increasing the size of labels / packaging***: also here the views of the consulted stakeholders are not unanimous: industry stakeholders tend to consider this risk significant, unlike some MS CAs.
3. ***Other environmental impacts***: the most important potential impacts identified were as follows:
  - a. Increase in waste ingredients (food waste): in particular, use of trimmings would become impractical and too costly, unless exported or destined to other uses (e.g. as in the case of animal by-products).
  - b. Increase in the waste of packaging material: packaging ready for use 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.

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); and, the additional use of chemicals due to separate production lines, and/or for cleaning lines between production runs.

**Table 19: Environmental impacts**

| Stakeholders (industry organisations / MS CAs)* | Incentive to consumption of products produced in proximity  | Risk of increasing the size of labels / packaging  | Other kinds of environmental impacts  |
|---|---|--|---|
| CLITRAVI  | Would likely apply only in the case of option 3 (in the case of option 2, distances between place of production and place of consumption can be substantial even within MSs)  | High, especially for options 2 and 3, where the increase can be very significant   | Use of trimmings from meats of different origins to make meat products no longer sustainable => a significant share of the raw material purchased by FBOs would become food waste => negative environmental (and economic) effects  |
| ECCF  |   | Significant  | Increase in packaging waste (due to changes in the mix of origins, packaging ready for use might have to be disposed of);   |
| CULINARIA                                       | Negligible in the case of the most feasible option (option 1, EU vs. non-EU)  | Can be significant if combined with other new labelling requirements introduced by the FIC Regulation  | Increase in packaging waste (due to changes in the mix of origins, ready to use packaging might have to be disposed of);  |
| MS CAs  | <p><u>Option 1:</u></p> <p>1. Negligible: CZ, ES</p> <p>2. Significant:</p> <p><u>Option 2:</u></p> <p>1. Negligible:</p> <p>2. Significant: CZ, ES (modalities a.1 and b.2 only), EL, LT, PL</p> <p><u>Option 3:</u></p> <p>1. Negligible:</p> <p>2. Significant: CZ, ES (modalities a.1 and b.2 only)</p> <p><u>No reference to specific options:</u></p> <p>1. Unclear: BE, DE, DK, SE</p> <p>2. Significant: PT</p> | <p><u>Option 1:</u></p> <p>1. Negligible: CZ, EL, LT</p> <p>2. Significant: BE, DE, DK</p> <p><u>Option 2:</u></p> <p>1. Negligible: EL, LT</p> <p>2. Significant: BE, CZ, DE, DK, PL</p> <p><u>Option 3:</u></p> <p>1. Negligible: EL, LT</p> <p>2. Significant: BE, CZ, DE, DK</p> <p><u>No reference to specific options:</u></p> <p>1. Unclear: BE, DE, DK</p> <p>2. Significant: PT, SE</p> | <ul style="list-style-type: none"> <li>• MCOOL could make food labelling more complex, thus increasing the risk of labelling errors, which could end up in more food waste (DK, NL, SE);</li> <li>• Increase in packaging waste (NL, SE);</li> <li>• Inefficient transport/logistics + trend towards larger plants (NL);</li> <li>• Additional use of chemicals due to separate production lines / for cleaning production lines (NL, SE).</li> </ul> |

\* only stakeholders providing specific comments are included in the table

**Options on geographical level of origin labelling**

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

**Case “a”: modalities for unprocessed meat ingredients, minced meat, MSM and meat preparations (c)**

1. Origin split in three stages: “born, raised and slaughtered” (following the beef origin labelling or any different combinations).
2. Origin determined according to the customs origin definition: slaughter and minimum period of raising prior to slaughter.

**Case “b”: modalities for meat products for the production of multi-ingredient foods (d)**

1. Origin as determined in accordance with the EU Customs Code (mainly corresponding to the country of the last substantial transformation).
2. More extensive origin information related to the provenance of the fresh meat from which the meat product is produced.

Source: FCEC, based on stakeholder consultation

#### 4.10 Conclusions

A range of options and modalities were assessed, including the ‘*no policy change*’ option. According to several MS as well as FBOs (the industries using meat ingredients), ensuring a smooth 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 meat used as an ingredient; therefore they are against the introduction of rules on a mandatory basis. The views of MS CAs on this are, however, quite divided. 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 1).

For those against the introduction of origin rules for meat used as an ingredient on a mandatory basis there are questions of relevance, effectiveness and efficiency. In particular, the key concerns identified are as follows: 1) whether mandatory rules are a relevant or effective tool to meet the objective of improving consumer information; 2) to ensure effective implementation will involve complex and costly control for both MS CAs and FBOs, while the effectiveness of controls based on documentary checks is questioned – coupled with difficulties of implementation this may potentially create room for more fraud; 3) the rules are expected to lead to significant cost increases, hence to increased consumer prices, while consumer willingness to pay (WTP) for the additional costs is generally considered (as also backed up by evidence) to be low.

Article 26(3) is therefore considered as a partially or entirely sufficient solution by those against the introduction of rules on a mandatory basis, as expressed by the majority of stakeholders and 11 MS CAs (out of the 19 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 MS CAs) why voluntary origin labelling under Article 26(3) is not sufficient/ satisfactory are that it only covers meat as primary ingredient and could be difficult to establish this in certain categories of products, while there could still be a significant gap where voluntary schemes are not widespread or do not exist.

Consequently, 8-10 MS CAs (out of the 19 that responded to the consultation) were in favour of the introduction of some mandatory uniform rules, at least for meat as primary ingredient (i.e. not for minor ingredients), while 5 MS CAs were against the introduction of rules on a mandatory basis.

All stakeholders noted the need for a full scale impact assessment in the event it is considered necessary to proceed to the proposal of detailed rules on origin labelling of meat ingredients on a mandatory basis.



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Both MS CAs and FBOs indicated that the higher the level of processing and perceived sector complexity, the less the level of detail that is considered possible to provide on the origin of meat as ingredient.

In the case of **MS CAs**, it should be borne in mind that they are still forming their position on the issues under study and this explains the relatively limited number of preferences expressed. MS CAs highlighted the need to **ensure consistency with implementing rules for mandatory origin labelling of fresh meat**, i.e. that rules for meat ingredients cannot go further in scope or be stricter in their modalities than rules of fresh meat for the relevant species. Even though it is difficult to identify clear trends, the preferred **policy options of MS CAs and the related modalities** per category of products<sup>106</sup> are shaping as follows:

- For **cat I** products (meat preparations), towards **option 2** (labelling indicating the MS or TC) and **modality a.1** (origin split in three stages: “*born, raised and slaughtered*” following the beef origin labelling, or any different combinations);
- For **cat II** products (meat ingredients in multi-ingredient foods) towards **option 1** (labelling indicating EU/non-EU origin or EU/third country) – although marginally preferred over option 2 – but no clear trends emerge on modalities; and,
- For **cat III** (meat products) **option 1 and modality b.1** (origin as determined in accordance with the EU Customs Code - mainly corresponding to the country of the last 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** (origin labelling based on a) EU/non-EU origin or b) EU/third country) is **generally 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, all of the industry organisations pointed out that whenever meat of EU and non-EU origin is mixed in the production process, mandatory origin labelling would pose serious operational challenges and require radical adaptations.
2. **Generally, only modality b.1** (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 feasible** by FBOs; this is particularly the case of cat II products (use of meat ingredients for the production of multi-ingredient foods).

Other options/modalities are considered **not feasible** by FBOs for the following reasons:

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<sup>106</sup> It is noted that each of the three categories of products examined by the study comprises a diverse range of products of various levels of processing and complexity.

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- a. *Incompatible sourcing patterns and practices for live animals and fresh/unprocessed meat.* As described in Theme 2, the current sourcing practices are often very complex and involve multiple EU and also non-EU origins (the latter are especially important for beef and poultry); 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 meat at the plants where it is used as an ingredient.
  - b. *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 actually generate serious inefficiencies.
  - c. *Systematic adaptation of labelling/packaging to changes in the origin(s) of meat used as ingredient:* in view of the frequent change of origins (see point a. above), this can require extremely frequent changes of packaging and labels and additional investment in printing equipment, and can result in underutilization of packaging lines and in an increase in waste packaging material.

**For both MS CAs and FBOs, 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 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. However, the combinations of some of the other options with modality a.2 and modalities b also address the place of provenance.

As for **consumers**, their preferences (and WTP) for the different options were mainly investigated through specific questions of the FCEC consumer survey (Q11, Q13, Q15) in relation to representative products in each of the 3 categories examined by the study (uncooked sausages or burgers; cooked ham; frozen pizza with salami. This has been thoroughly analysed in Theme 1.

In terms of the costs of implementation **for those options considered technically feasible**, the **costs (and feasibility) of traceability are a key concern**. As already discussed in Theme 2, traceability for live animals and fresh meat is currently ensured through the implementation of Regulation (EC) No 178/2002 (the General Food Law) and more specific EU legislation aiming to ensure the safety of food products.

The existing EU traceability requirements for food safety purposes would in principle be a useful baseline for providing origin labelling information for meat ingredients. However, 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, which would be the requirement for establishing origin traceability. Therefore all of the reviewed modalities (with

the exception of modality b.1) require the implementation of a traceability system that **goes beyond the currently set up systems of mandatory traceability** required by EU regulations on food safety. This point was also highlighted by the DG AGRI report on the study on mandatory origin labelling for fresh meat (LEI, 2013), which analyses in particular the issue of traceability up to the level of meat cutting plants.

Significant adjustments would need therefore to be undertaken **to achieve full (cumulative) traceability along the supply chain** for origin labelling purposes, in terms of:

- a. Adaptation of sourcing patterns and practices for live animals, fresh meat, or meat/meat products used as ingredient.
- b. Separation of storage facilities and production lines, to allow segregation by origin.
- c. Switch to batch production and/or use of smaller batches (with the associated decrease in efficiency).
- d. Adaptation of internal monitoring.
- e. Systematic update of labels/packaging, to follow changes in the origin of live animals, fresh meat, or meat / meat products used as ingredient.

Even though there is limited and very heterogeneous evidence on potential additional costs associated to full traceability, sectors for which an indicative quantification was provided (meat preparations / meat products; prepared meals) feature **additional traceability costs in the range of +3% to +10% of the total production cost of these products**.

Our consultation with stakeholders indicated these costs will be specific to the production of final products and are – at least partly - in addition to the costs likely to be incurred at the earlier stages of the supply chain up to slaughterhouse/meat cutting plant (where the latter were not the place of the last processing of the final product). Traceability issues and costs associated to the upstream stages of the supply chain have already been reported by the findings of the DG AGRI study, and these will apply in addition to the costs identified by the present study, to the extent that these are relevant to the case of the processed meat operations.

As for the fuller **operational feasibility and costs**<sup>107</sup> for FBOs deriving from the implementation of the relevant policy options, the collected evidence is even more

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<sup>107</sup> The specific aspects considered in the assessment were the following:

- a. Adaptation of sourcing practices and potential changes in the mix of suppliers of live animals, fresh meat, or meat / meat products used as ingredient;
- b. Adaptation of production and/or marketing process of live animals, fresh meat, or meat / meat products used as ingredient;
- c. Adaptation of production process of the final product containing meat as an ingredient;
- d. Adaptation of packaging and labels/labelling process;

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heterogeneous than in the case of traceability costs making difficult to carry out a systematic analysis of the information and not possible to compare quantitative estimates provided, as they refer to specific situations and assumptions. Our main findings on the additional costs stemming from implementation of mandatory origin labelling for meat used as an ingredient are the following:

1. The extent of additional costs can vary remarkably, and will depend on the specific operational situation prevailing at the time of the potential introduction of the rules. It can nonetheless be concluded that 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 additional costs stemming from 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 +25%, whereas additional costs for Option 2 range from +15-20% to + 50%.
2. The most impacted cost items have been identified by industry stakeholders to be as follows:
  - a. adaptation of sourcing practices and possible changes in the mix of suppliers;
  - b. adaptation of production process of the final product;
  - c. adaptation of packaging and labels/labelling process;
  - d. implementation/adaptation of traceability (taking into account the features of existing systems).
3. The industry also noted that in case trimmings/fat are covered by MCOOL rules it would not be able to implement traceability for them, therefore it would not be able to make use of this type of co-products. This would result in additional losses in terms of foregone revenue from these co-products which is generally estimated at 10% of the turnover of slaughterhouses/meat cutting plants as well as to additional costs for its disposal as waste. These costs could to some extent be mitigated if this material is destined to other non-food uses.
4. In the context of controls in extraordinary situations such as in the case of errors and product recalls, FBOs have also noted that the more detailed the requirements the higher the risk of errors and need for recalls. For bigger companies recall costs have been estimated at >€50,000 - €100,000 per recall.

In terms of additional administrative costs and burden, it has not been possible 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 the costs of traceability and control costs more generally. The general observation is that an increase in control costs (and

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- e. Adaptation of marketing practices of the final product;
  - f. Adaptation/implementation of traceability systems (see also section 4.4);
  - g. Additional internal controls required to ensure compliance with MCOOL rules;
  - h. Any other possible aspects specified by FBOs.

traceability costs) is expected in all cases; the more the level of detail the higher the cost. For MS CAs, the increase in control costs is in terms of the number of staff needed: **most MS CAs that have provided some quantitative estimate of the scale of the anticipated additional costs, have indicated they expect a 10-30 % increase in control costs (in terms of verification checks at FBO point), including administrative burden.** Additional costs, beyond BAU as such, are also expected in the case of **FBOs**: in the two examples provided at EU level (pigmeat sector: sausages and cooked ham) the **total control costs** are negligible in the case of Option 1, but become more substantial in the case of **Option 2 (increase of up to 8-12% of the total production costs).**

The impacts described here are set out at aggregate level. There are **differences between FBOs and between MS in terms of the scale of these impacts, and associated costs**; this is also an observation made in the case of unprocessed meat in the DG AGRI study, but it is further amplified in the case of processed meat due to the range and diversity of affected sectors. The direction and intensity of the impact will depend on several factors including the product range, animal species concerned, sourcing practices, degree of vertical integration, current traceability system (whether paper based or electronic).

In particular, for **each individual operator, the extent of the additional costs will depend on the following factors**<sup>108</sup>:

- **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 **current status of traceability systems and practices** (this factor is also linked to the animal species): the more advanced the systems currently used (which is the case generally in the beef and sheep/goat meat sector), the less the adaptation cost to implement the required full traceability.
- The **competitive structure and resulting bargaining power** in the meat supply chain: as the first point in the chain to pick up the additional costs of origin labelling will be the slaughterhouse, while the processing plant would simply demand detailed information on origin on every delivery of their suppliers, the ability of the slaughterhouse to transfer this cost to their customers will depend on their bargaining power *vis-a-vis* those customers. Similar situations will prevail further downstream the supply chain between processors and actors in the distribution sector.

It is **not considered possible**, at least in the short to medium term, **to mitigate these costs through** improved traceability and advances in **technology** (e.g. RFID, isotope analysis), as

<sup>108</sup> These factors also depend on the species, as presented in Theme 2. An overview is provided in **Table 7**.

the technology uptake at the moment in the processed meat, and more generally food industry, is virtually non-existent. The industry indicated that RFID tools have been tested by a number of meat processing companies in a range of different meat products and have proven not cost-effective. MS CAs by and large (with the exception of only one MS) remain unconvinced that isotope analysis can provide a cost-effective solution for wider implementation of origin verification controls, as both the costs of this testing are high and the available test methods are not widely tested yet.

The additional traceability and other 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) cannot be estimated as such. It will depend on a range of factors, including the competitive structure of the industry, 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 producing meat preparations/meat products particularly in MS that are not self sufficient in raw material; FBOs using meat as ingredient (compared to those that do not); and, FBOs sourcing from third countries (e.g. for poultry and beef ingredients). In addition, potential changes in intra-EU trade flows, and the risk that patterns of “food chauvinism” may emerge, have been identified by stakeholders as potential impacts.

In terms of potential impacts on **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.

As for 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 (in general, this impact is mainly expected in the case of option 3); and, it carries the risk of increasing the size of labels / packaging. Other potential environmental impacts include the increase in waste ingredients (e.g. in the event that the use of trimmings would become not feasible this would result in an increase in their disposal as waste, unless they could be exported or used as animal by-products), the increase in waste of packaging material.

## 5 Overall conclusions

The FCEC consumer survey results reveal that at EU level 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; this order of ranking of consumer priorities in food purchasing decisions is also evidenced in all of the reviewed existing consumer research.

The analysis of **consumer attitudes towards geographical origin labelling (Theme 1)** indicates that consumers declare strong interest to know more on the origin of meat ingredients. At the same time, there is evidence of a **'paradox' in consumer attitudes towards origin labelling, in terms of a discrepancy between declared strong interest and low willingness to pay (WTP), but also purchasing** behaviour. In particular the following key findings are highlighted.

In the EU there is a wealth of literature demonstrating strong consumer interest in the geographical origin labelling of fresh meat and meat products. This evidence is generally backed up by the results of the FCEC consumer survey<sup>109</sup>. Interest in origin labelling for meat-based food has scored the highest amongst the various food groups covered by the FCEC survey, with more than 90% of consumer respondents finding it important that origin is labelled, particularly in the case of meat preparations and meat products<sup>110</sup>. However, as it is indicated further below, the consumers' strong interest is not reflected in their willingness to pay for this information.

Consumers indicated in all cases the highest interest to know the *'country where meat was produced'*: nearly half of consumers (EU average) require this level of detail on the origin, while roughly only a third of consumers require any other level of detail (whether more general such as *'produced in the EU or outside the EU'*, or more specific such as *'the country where the animal was born/raised/slaughtered'*). Furthermore, the analysis of existing studies on consumer attitudes towards meat (and/or food) origin labelling suggests that consumers may be disadvantaged in the market because when an origin indication is provided, it is not necessarily what the consumer thinks it is; this would suggest that there is potential 'market failure' to the detriment of the consumer.

Furthermore, 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. There are also very significant differences between MS in consumer understanding of origin information and levels of motivation/reasons for requesting such information. Overall, as also

<sup>109</sup> The FCEC survey was carried out in February 2013 and covered 3000 consumers in 15 MS (the selected MS account for 89% of the total EU population).

<sup>110</sup> Examples for each group: *uncooked sausages or burgers* (cat I); *cooked ham* (cat III); and, *frozen pizza with salami* (cat II). It needs to be borne in mind, however, that the range of products covered by the 2 meat-based food categories followed in this study is inevitably large and diverse; hence, care should be taken in extending the findings over the whole range of products falling within each category

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discussed in the report on Assessment A, results of the FCEC survey indicate that the **consumer preferences are not uniform across the EU**.

These issues were also extensively raised in our consultation with both the MS CAs and food business operators (FBOs). In order to complete the evidence base, MS CAs were also consulted on consumer attitudes towards origin labelling; indeed, in a few MS, authorities have been studying consumers' concerns and perceptions on these issues. Based on the available evidence and their own experience, all the 19 MS CAs that responded to the FCEC consultation indicated that there is consumer interest in origin labelling of meat ingredients in their country: 15 MS CAs consider consumer interest to be at least moderate and in most cases strong, although in most cases to a lesser extent than for fresh meat. At the same time, 12 MS CAs consider consumer willingness to pay (WTP) for origin information to be weak and in some cases moderate, while no MS CA considers it to be strong. Indeed, several MS CAs questioned the reliability or completeness of existing consumer surveys demonstrating strong consumer interest in origin labelling due to the absence of WTP questions<sup>111</sup> and the fact that consumers' actual purchasing behaviour is not considered, therefore results are subject to some uncertainty.

The FCEC consumer survey has therefore specifically addressed this issue by including a question on WTP for each of the three product groups covered by the survey<sup>5</sup>. The results obtained indicate that at the base price (i.e. without any price increase), the majority of consumers opt for the highest possible level of detail on origin. However, the **proportion of consumers willing to pay more than the base price for origin information falls very significantly** (by 60-80%, depending on the labelling option and the product) **at the first price increase over and above the base price** (this would be in a range from +5% to +9%, depending on the level of information required<sup>112</sup>). These results suggest that consumers are largely unwilling to pay more than the current base price for origin labelling information, but would be interested in receiving the information (at the highest level of detail possible) if this was to be offered without any increase in price.

Beyond the concerns expressed by MS CAs and BFOs on the discrepancy in consumer attitudes to origin labelling, they have also raised questions as to **why the consumer wants to know** the geographical origin, and also **what consumers understand by 'origin'** and what this information means to consumers. In the context, it was noted that **consumers' interest can be prompted by the desire to buy national or even 'local'** (not only due to perceived higher quality and safety or animal welfare standards, but also to support the economy, minimise food miles, etc.). According to the recent DG SANCO consumer market

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<sup>111</sup> Although WTP as such is not addressed in existing studies on consumers' preferences, these studies indicate that the price is a more important factor for the consumer when buying meat products (and food more generally) ranking it at a higher order than geographical origin as such (with price, appearance, quality, use by date, brand, generally indicated by consumers as the most relevant aspects affecting their purchasing decisions).

<sup>112</sup> This level of price increase represents what would be considered a relatively modest increase on the base price.



study on the functioning of the meat market for consumers in the EU, consumers' preference for national or local meat is also considered to be an underlying reason for consumers' interest in origin labelling (particularly for fresh meat/meat products for which 'local' is associated with freshness).

For both MS CAs and FBOs, in particular, a clear evidence that consumer WTP for additional origin information on meat ingredients is relatively weak is the fact that voluntary schemes as such remain confined to particular MS and product groups. 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 price constraint is also a key finding of the above DG SANCO consumer market study.

According to both the MS CAs and the EU meat processing industry (CLITRAVI, UECEBV), the of **voluntary schemes approved at national or concerted industry level** concerning the origin of meat ingredients in meat and meat-based products is *generally limited*<sup>113</sup>. The existence currently of some scheme covering the geographical origin of meat (or more generally of food) was indicated by 11 MS CAs (out of the 19 MS CAs that responded to the consultation). Where such schemes exist they tend to be mostly private and are not related only to geographical origin labelling but form part of a wider quality initiative. Only in few MS, such schemes are considered to already account for a significant part of the market and this tends to be for the specific species and meat products covered by the scheme (e.g. *Viande Porcine Française (VPF)* in France: VPF brand products now account for 25% of the total French pigmeat production and 40% of French cooked ham production; UK voluntary Principles: 71% of "lightly processed meat products"<sup>114</sup> labelled the origin of meat as set out in the UK Principles).

In terms of the **characteristics of the supply and processing chain (Theme 2)**, even though precise aggregate data on the volume and value of production of the 3 meat categories covered by the study are not available, industry stakeholders indicated that as a general rule between 30 – 50% (depending on the MS) of the total slaughtered meat volume are processed into minced meat/meat preparations/meat products. At EU level, **pigmeat** has by far the **largest share of all processed meat**: in total, an estimated 70% of the EU processed meat production volume is made of pigmeat, followed by poultrymeat (18%) and beef (10%). For meat of other species, including sheep and goat meat, game, rabbit meat and horse meat, these represent less than 2% of the EU processed meat market.

<sup>113</sup> Beyond PDO/PGI as such (Council Regulation (EC) No 510/2006) which account for an estimated maximum 10% of the total sales value of the EU meat/meat products sector. According to DG AGRI data, in 2010 some 98 meat products were registered as GIs, with a sales value of €3.16 billion, with products mainly registered in Italy (accounting for nearly 60% of the total EU sales value of meat product GIs), Germany, France and Spain. According to the DG AGRI GI database, to date over 130 meat products are registered as GIs under the EU scheme.

<sup>114</sup> The UK Principles on Country of Origin Information differentiate between 'lightly processed' meat products, including bacon, ham, gammon, sausages and burgers, and 'composite' meat products, such as pies, casseroles, ready meals, and canned and jarred products.

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The EU meat processing sector is characterised by a **low degree of concentration**, with the vast majority (90%) of companies being SMEs which independently operate at different stages of the supply chain. Furthermore, there is **limited vertical integration** (i.e. forward integration from slaughter/meat cutting to meat processing). These structures and techno-economic linkages are common for all species, but particularly prevail in the case of the processed pigmeat and beef sectors (while larger vertically integrated companies tend to be more prevalent in the poultry meat sector).

Slaughterhouses and meat cutting plants are key actors with respect to passing meat origin information on to their clients (i.e. traders; retailers; and, operators in further processing stages down the supply chain). The **relatively fragmented and disjointed structure of the meat processing industry beyond the slaughter stage makes it more difficult for operators to have access to origin information** at the different levels of the supply chain. The industry noted that in the EU meat sector, except in the more limited cases of vertically integrated companies, there is almost no relation between slaughterhouses and companies processing meat into meat products, as slaughtered meat and unprocessed meat are generally sold on spot markets; this is particularly the case for standard quality meat ingredients, such as pigmeat which is by far the largest volume of meat used in processed products.

At the same time, our findings indicate that there is **limited demand from processors for origin information or origin-specified/certified meat ingredients**<sup>115</sup>. Also, except in certain cases which generally account for a relatively limited share of the total processed meat production volume, **meat origin is not a specific condition imposed on or requested from suppliers** at the different stages of the supply chain.

Thus, due to the currently prevailing structure of the supply chain in this sector and the absence of any significant (B2B) interest in origin information, **the transmission of origin information generally tends to stop at the earlier stages of the supply chain (slaughterhouses and cutting plants)**.

In terms of **sourcing practices**, at EU level as a whole, meat processors tend to **procure unprocessed meat and other meat ingredients from multiple sources**, whether EU only or EU/non-EU. Beyond this general pattern, multiple sourcing practices tend to differ between species, depending on the type of meat raw material as well as on the final products: **multiple sourcing within the EU** is a practice prevailing for **pigmeat** based products, while **multiple sourcing from EU and non-EU countries** is observed mainly in the **beef and poultry** based product sectors. The frequency of changes in the mix of suppliers is affected by the same

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<sup>115</sup> According to the industry, as a general rule, the indication of origin adds value to products only in the case of some meat preparations and meat products coming from a ‘**single meat piece**’ (e.g. **dried ham**) as this is commonly perceived by consumers as being close to fresh meat. It is not relevant for the majority of **meat preparations** (e.g. burgers and sausages), which arrive at the processing stage **already mixed and/or trimmed**; this is because of the **significant logistical constraints** to separate the (continuous) flow of trimmings into batches by origin, making it difficult for them to identify the origin of meat ingredients.

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factors as sourcing patterns; differentiating sources also serves as a business strategy to reduce the risk of delivery failure driven by external factors (e.g. animal diseases or food safety crisis, strikes etc.). FBOs, particularly SMEs, tend to **change their suppliers 3 or more times per year** in order to guarantee an adequate level of raw material.

**Traceability** is currently ensured in compliance with **existing EU legislation for food safety purposes**, whereby although the systems currently set up ensure traceability across the entire value chain, at every stage (with the exception of retailers selling to ultimate consumers) only **‘one step down and one step up’** the supply chain is known; this system does not gather all the information that has been accumulated through the chain (cumulative traceability). As a general principle **the higher the complexity of the cutting and processing stages, the more difficult it becomes to trace the origin of meat ingredients, especially in the case of trimmings**. Also, **traceability requirements vary between the different animal species**, thus making accessibility to origin information also dependant on this factor. While the current traceability system of beef is most complete for origin purposes, the traceability systems of pigs, poultry and sheep and goats are not set up to record the movement of individual animals throughout the supply chain: this makes origin information of meat of these animal species from existing traceability systems less available.

Furthermore, information exchange still mostly occurs via paper documentation (e.g. supplier invoice); although few MS have applied some sophisticated IT traceability systems, both the industry and MS CAs have at the moment relatively limited understanding of whether IT systems would be capable of capturing and processing more detailed origin information and transferring it to labels at an affordable cost.

In terms of the **impact of potential options of mandatory origin labelling (Theme 3)**, a range of options and modalities were assessed, including the *‘no policy change’* option.

For those against the introduction of origin rules for meat used as an ingredient on a mandatory basis there are questions of relevance, effectiveness and efficiency. In particular, the key concerns identified are as follows: 1) whether mandatory rules are a relevant or effective tool to meet the objective of improving consumer information; 2) to ensure effective implementation will involve complex and costly control for both MS CAs and FBOs, while the effectiveness of controls based on documentary checks is questioned – coupled with difficulties of implementation this may potentially create room for more fraud; 3) the rules are expected to lead to significant cost increases, hence to increased consumer prices, while consumer willingness to pay (WTP) for the additional costs is generally considered (as also backed up by evidence presented in Theme 1) to be low.

Article 26(3) is therefore considered as a partially or entirely sufficient solution by those against the introduction of rules on a mandatory basis, as expressed by the majority of stakeholders and 11 MS CAs (out of the 19 that responded to the consultation). This is on the

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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 MS CAs) why voluntary origin labelling under Article 26(3) is not sufficient/ satisfactory are that it only covers meat as primary ingredient and could be difficult to establish this in certain categories of products, while there could still be a significant gap where voluntary schemes are not widespread or do not exist.

Consequently, 8-10 MS CAs (out of the 19 that responded to the consultation) were in favour of the introduction of some mandatory uniform rules, at least for meat as primary ingredient (i.e. not for minor ingredients), while 5 MS CAs were against the introduction of rules on a mandatory basis.

Both MS CAs and FBOs indicated that the higher the level of processing and perceived sector complexity, the less the level of detail that is considered possible to provide on the origin of meat as ingredient. All stakeholders noted the need for a full scale impact assessment in the event it is considered necessary to proceed to the proposal of detailed rules on origin labelling of meat ingredients on a mandatory basis.

In the case of **MS CAs**, even though it is difficult to identify clear trends in view of the relatively limited number of responses at this stage<sup>116</sup>, the **preferred policy options by MS CAs and the related modalities** per category of products<sup>117</sup> are shaping as follows: for **cat I** products (meat preparations), towards **option 2** (labelling indicating the MS or TC) and **modality a.1** (origin split in three stages: “*born, raised and slaughtered*” following the beef origin labelling, or any different combinations); for **cat II** products (meat ingredients in multi-ingredient foods) towards **option 1** (labelling indicating EU/non-EU origin or EU/third country) – although marginally preferred over option 2 – but no clear trends emerge on modalities; and, for **cat III** (meat products) **option 1 and modality b.1** (origin as determined in accordance with the EU Customs Code - mainly corresponding to the country of the last substantial transformation). MS CAs highlighted the need to **ensure consistency with implementing rules for mandatory origin labelling of fresh meat**, i.e. that rules for meat ingredients cannot go further in scope or be stricter in their modalities than rules of fresh meat for the relevant species.

In the case of **FBOs**, the technical feasibility of the various options and modalities was a key issue. **Option 1** (origin labelling based on a) EU/non-EU origin or b) EU/third country) is **considered more feasible** (or at least less challenging) than the other options. Generally, **only modality b.1** (origin as determined in accordance with the EU Customs Code - mainly

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<sup>116</sup> It should be borne in mind that the MS CAs are still forming their position on the issues under study and this explains the relatively limited number of preferences expressed.

<sup>117</sup> It is noted that each of the three categories of products examined by the study comprises a diverse range of products of various levels of processing and complexity.

corresponding to the country of the last substantial transformation) under Option 1 **is considered technically feasible** by FBOs; this is particularly the case of cat II products (use of meat ingredients for the production of multi-ingredient foods). Other options/modalities are considered **not feasible** for the following reasons:

- a. *Incompatible sourcing patterns and practices* for live animals and fresh/unprocessed meat. As described in Theme 2, the current sourcing practices are often very complex and involve multiple EU and also non-EU origins (the latter are especially important for beef and poultry); 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 meat at the plants where it is used as an ingredient.
- b. *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 actually generate serious inefficiencies.
- c. *Systematic adaptation of labelling/packaging to changes in the origin(s) of meat used as ingredient*: in view of the frequent change of origins (see point a. above), this can require extremely frequent changes of packaging and labels and additional investment in printing equipment, and can result in underutilization of packaging lines and in an increase in waste packaging material.

**For both MS CAs and FBOs, 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 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). However, the combinations of some of the other options with modality a.2 and modalities b also address the place of provenance.

In terms of the costs of implementation **for those options considered technically feasible, the costs (and feasibility) of traceability are a key concern**. The existing EU traceability requirements (in the context of food safety, Regulation (EC) No 178/2002) would in principle be a useful baseline for providing origin labelling information for meat ingredients; however, as they are designed to serve a different purpose, they only provide at present *“one step forward/one step back”* traceability, rather than cumulative traceability throughout the supply chain which would be the requirement for establishing origin traceability. All of the reviewed modalities (with the exception of modality b.1) require the implementation of a traceability system that **goes beyond the systems of mandatory traceability currently in place**<sup>118</sup> and **significant adjustments** would therefore be needed **to achieve full (cumulative)**

<sup>118</sup> This point was also highlighted by the DG AGRI study on mandatory origin labelling for fresh meat (LEI, 2013), which analyses traceability up to the level of meat cutting plants. The costs associated to the upstream stages of the supply chain have already been reported in that study, and these will apply in addition to the costs identified here, to the extent that these are relevant to the case of the processed meat operations.

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**traceability along the supply chain** for origin labelling purposes. Even though there is limited and very heterogeneous evidence on potential additional costs associated to full traceability, sectors for which an indicative quantification was provided (meat preparations / meat products; prepared meals) feature **additional traceability costs in the range of +3% to +10% of the total production cost of these products were identified**<sup>119</sup>.

As for the fuller **operational feasibility and costs** deriving from the implementation of the relevant policy options, the following key conclusions can be drawn:

1. **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 additional costs stemming from 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 +25%**, whereas additional costs **for Option 2 range from +15-20% to + 50%**.
2. The four most impacted cost items, as identified by industry stakeholders, are as follows:
  - a. adaptation of sourcing practices and possible changes in the mix of suppliers;
  - b. adaptation of production process of the final product;
  - c. adaptation of packaging and labels/labelling process;
  - d. implementation/adaptation of traceability (taking into account the features of existing systems).
3. In case trimmings/fat are covered by mandatory rules, the industry would not be able to implement traceability, therefore it would not make use of these co-products. This would result in additional losses in terms of foregone revenue generally estimated at 10% of the turnover of slaughterhouses/meat cutting plants, as well as to additional costs for its disposal as waste. These costs could to some extent be mitigated if this material is destined to other non-food uses.
4. FBOs have also noted that the more detailed the requirements the higher the risk of errors and need for recalls. For bigger companies recall costs have been estimated at >€50,000 - €100,000 per recall.

In terms of additional administrative costs and burden, it has not been possible 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 the costs of traceability and control costs more generally. The general observation is that an increase in control costs (and traceability costs) is expected in all cases; the more the level of detail the higher the cost. For MS CAs, the increase in control costs is in terms of the number of staff needed: **most MS**

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<sup>119</sup> These costs will be specific to the production of final products. They are – at least partly - in addition to the costs likely to be incurred at the earlier stages of the supply chain up to slaughterhouse/meat cutting plant (where the latter were not the place of the last processing of the final product); the latter costs are covered by the DG AGRI study on the impact of mandatory labelling of fresh meat under various options.

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**CAs that have provided some quantitative estimate of the scale of the anticipated additional costs, have indicated they expect a 10-30 % increase in control costs (in terms of verification checks at FBO point), including administrative burden.** Additional costs, beyond ‘business- as-usual’ (BAU) as such, are also expected in the case of **FBOs**: in the two examples provided at EU level (pigmeat sector: sausages and cooked ham) the **total control costs** are negligible in the case of Option 1, but become more substantial in the case of **Option 2 (increase of up to 8-12% of the total production costs).**

The impacts described here are set out at aggregate level. There are **differences between FBOs and between MS in terms of the scale of these impacts, and associated costs.** For each individual operator, the extent of the additional costs will depend on several factors including: *product range; animal species concerned; current extent of voluntary origin labelling; sourcing practices*; degree of *vertical integration*; the *current status of traceability systems and practices* (this factor is also linked to the animal species); and, the *competitive structure and resulting bargaining power* in the meat supply chain, which will determine which elements of the chain will eventually bear the adjustment costs. These factors can vary significantly between operators, and there are also differences between species, as outlined in Theme 2<sup>120</sup>. These factors will determine the ability of individual operators to take advantage of existing systems and economies of scale in setting up the required traceability and operational structures for the implementation of the rules.

It is **not considered possible**, at least in the short to medium term, **to mitigate these costs through** improved traceability and advances in **technology** (e.g. RFID, isotope analysis), as the technology uptake at the moment in the processed meat, and more generally food industry, is virtually non-existent. The industry indicated that RFID tools have been tested by a number of meat processing companies in a range of different meat products and have proven not cost-effective. MS CAs by and large (with the exception of only one MS) remain unconvinced that isotope analysis can provide a cost-effective solution for wider implementation of origin verification controls, as both the costs of this testing are high and the available test methods are not widely tested yet.

The additional traceability and other 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) cannot be estimated as such. It will depend on a range of factors, including the competitive structure of the industry, 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

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<sup>120</sup> This makes it difficult to carry out a systematic analysis of costs for the industry as a whole and not possible to compare quantitative estimates when these refer to specific situations and assumptions.

retailer concentration is particularly high, some price increase should be expected due to the additional costs likely to be incurred. This point is of particular importance given consumers' reluctance to pay more for such labelling as is indicated under Theme 1.

In terms of potential impacts on **competitiveness in the internal market**, available evidence suggests that Options 2 and 3 would affect the competitive position of: FBOs producing meat preparations/meat products particularly in MS that are not self sufficient in raw material; FBOs using meat as ingredient (compared to those that do not); and, FBOs sourcing from third countries (e.g. for poultry and beef ingredients). In addition, potential changes in intra-EU trade flows, and the risk that patterns of “food chauvinism” may emerge, have been identified by stakeholders as potential impacts.

In terms of potential impacts on **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.

Although views on potential **environmental impacts** 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 (in general, this impact is mainly expected in the case of option 3); and, it carries the risk of increasing the size of labels / packaging. Other potential environmental impacts include the increase in waste ingredients (e.g. in the event that the use of trimmings would become not feasible this would result in an increase in their disposal as waste, unless they could be exported or used as animal by-products), the increase in waste of packaging material.

All stakeholders noted the need for a full scale **impact assessment** in the event that it is considered necessary to proceed to the proposal of detailed rules on mandatory origin labelling of meat ingredients.



## **Annex A: Terms of Reference (ToR)**

Terms of Reference (ToR) of this study are available at:

[http://ec.europa.eu/food/food/labellingnutrition/foodlabelling/docs/tor\\_voluntary\\_origin\\_en.pdf](http://ec.europa.eu/food/food/labellingnutrition/foodlabelling/docs/tor_voluntary_origin_en.pdf)

## **Annex B: Detailed methodology for Assessment B**

### **Consumer survey**

The methodology, design and results of the FCEC consumer survey are presented in **Annex D**.

### **Selection of case studies**

The aim of the case studies is to collect and analyse in-depth data on specific product sectors and/or sub/sectors, with a view to assessing the possible impacts of the introduction of the new rules in a number of different operational contexts, and by making reference to concrete situations. This analysis therefore serves to draw conclusions of the feasibility of the different options considered under assessments “A” and “B” for the various sectors and/or product sectors, in particular to establish the extent to which one solution fits all situations, or whether any adjustments may be needed depending on the sector.

In order to identify the most relevant sectors/products to be covered by the case studies, exploratory interviews were carried out with stakeholders (including the key industry sectors and BEUC) and the Commission. The selection identified through this process was confirmed for **assessment B** at the end of the inception phase.

*Categories of products where meat is used as an ingredient:*

- **Cat I: Meat preparations**, including seasoned minced meat and mechanically separated meat (e.g. uncooked sausages, burgers, skewers, fresh meat with spices etc.);
- **Cat II: Meat ingredients used in multi-ingredient foods** (e.g. salami in pizza etc.):
  - When used as 'primary ingredient';
  - When used as ingredient 'other than primary ingredient';
- **Cat III: Meat products** (e.g. cooked ham, burger, sausages etc.).

*Key processors for specific meat sector:*

**UK:** poultry, sheep and goats, beef;

**FR:** pig meat, rabbit meat and game;

**DE:** pig meat;

**CZ:** pig meat and poultry;

**NL:** poultry and pig meat;

**IT:** Beef.

## **Stakeholder consultation**

In-depth interviews, structured consultation and phone interviews have included the following stakeholders and Commission Services:

### **1. Commission Services**

- Interviews with the relevant units of DG SANCO, DG AGRI, and DG TRADE.

### **2. Member States Competent Authorities**

- 6 bilateral interviews with CAs of the 6 MS covered by the case studies, i.e. NL, UK, FR, CZ, DE, IT.

### **3. Consumer organisations at EU and national level:**

- BEUC : BEUC has conducted parallel research on labelling issues, including a recent specific consumer survey on origin labelling (published end of January 2013).
- 4 phone interviews with consumer national organisations have been conducted in order to have information on potential misleading labelling practices any systematic data on the number of complaints submitted by consumers on food labelling and how many of those relate to the origin labelling of foods

### **4. Agri-food industry at EU level:**

- Farming sector organisations: COPA-COGECA.
- Sector organisations of the food industry, at various stages of the processing chain (for a wide range of sectors concerned by assessment A and/or B; (see **Error! eference source not found.** and **Error! Reference source not found.** for detail)).

### **5. Distribution sector at EU level**

- Horizontal organizations: EUROCOMMERCE
- Sector specific organizations: International Butchers' Confederation

### **6. EU level – other**

The European Association of Craft, Small and Medium-Sized Enterprises (UEAPME) was interviewed in view of the importance attached to the investigation of the potential impacts on SMEs in the framework of assessment A and B.

### **7. Individual companies**

As already indicated, due to the complexity and specificity of the data required in order to estimate the costs of the various labelling options covered in this study (both Ass. A and Ass. B), a number of companies have been consulted directly by the FCEC or via their EU/national representative organisations, in order to obtain concrete data and evidence.

### **Survey of SMEs**

To allow for a more focused investigation of the impacts for SMEs and micro-enterprises in the framework of both Assessment A and B, a dedicated online survey was carried out through the European Enterprise Network (EEN) panel (hosted by DG Enterprise and Industry<sup>121</sup>). The questionnaire has been managed internally by DG SANCO.

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<sup>121</sup> EEN / DG ENTER, *SME Panels – Consultation of SMEs via the Enterprise Europe Network*.

## **Annex C: Key facts and figures of the EU meat processing sector**

The EU is a leading player in world meat production, with pigmeat by far the leading meat sub-sector. Accounting for more than a 9% share of EU agricultural output in value terms in 2011, EU pigmeat production is by far the most significant among the EU livestock sectors. With 22 million tonnes (of slaughtered carcass weight) in 2011, pigmeat production was nearly triple the production volume of bovine meat (from cattle) and more than 30 times higher than the production of sheep meat (Eurostat data).

In terms of its economic importance, from our consultation with stakeholders and desk-research literature, the following latest key data describe the EU meat processing industry:

- The meat sector is the largest sub-sector of the EU food and drinks industry, representing 20% of total food and drinks turnover in 2010 (**Figure 12**), and 20% of the total food and drinks value added. The meat sector employs around 21% of total workers in the EU food and drink industry in 2010 (**Figure 13**) while an estimated 40,000 companies operate in this sector<sup>122</sup>;
- There are more than 13,000 companies<sup>123</sup> operating in the processed meat sector, which generates an estimated €85 billion in turnover and employs 350,000 people (**Table 20**);
- SMEs represent around 90% of total companies operating in the EU meat processing sector, with 20 of the largest companies in the 9 leading MS accounting for about a third of the total EU-9 production volume<sup>124</sup>;
- Pigmeat remains the meat most preferred by EU consumers, followed by poultry meat and beef (
- **Figure 14**);
- The EU pigmeat sector has by far the largest share of all processed meat: in total, an estimated 70% of the EU processed meat production volume consists of pigmeat, followed by poultrymeat (18%) and beef (10%).

It is important to note that the EU meat sectors can vary greatly in nature and type of products, in turn making it difficult to present the sectors in a universally comparable manner. Notwithstanding this difficulty, key characteristics of the sectors identified as of primary importance in the ToR are presented in **Table 20**. Data identified on other major meat sectors during the course of the study is presented after this, on a meat category basis. The data are

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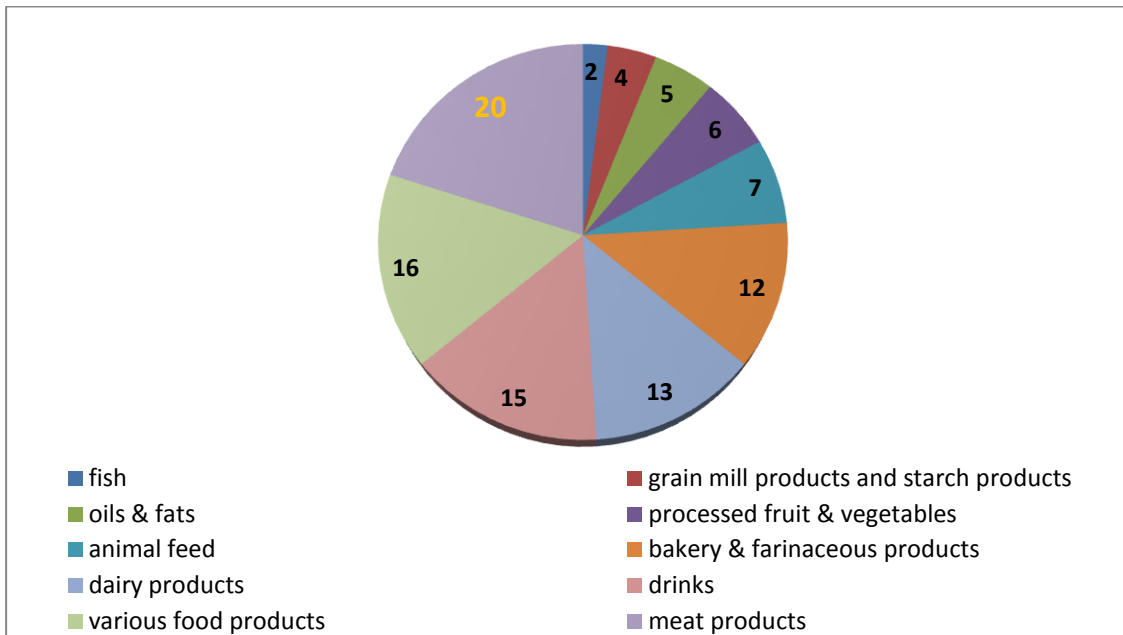
<sup>122</sup> Source: FDE. According to the industry consultation, the data refer to the wider meat supply chain, including slaughterhouses, meat cutting plants, meat processors and traders.

<sup>123</sup> According to CLITRAVI, its membership includes 13,000 companies and these are estimated to account for over 90% of the EU-27 companies in the meat processing sector (i.e. excluding slaughterhouses and traders).

<sup>124</sup> Agra CEAS estimates based on GIRA data (2012).

based on industry sources, supplemented by Eurostat (including COMEXT<sup>125</sup>). Care should be taken in combining data from different sources as the scope and coverage in terms of sub-sectors and MS can be different.

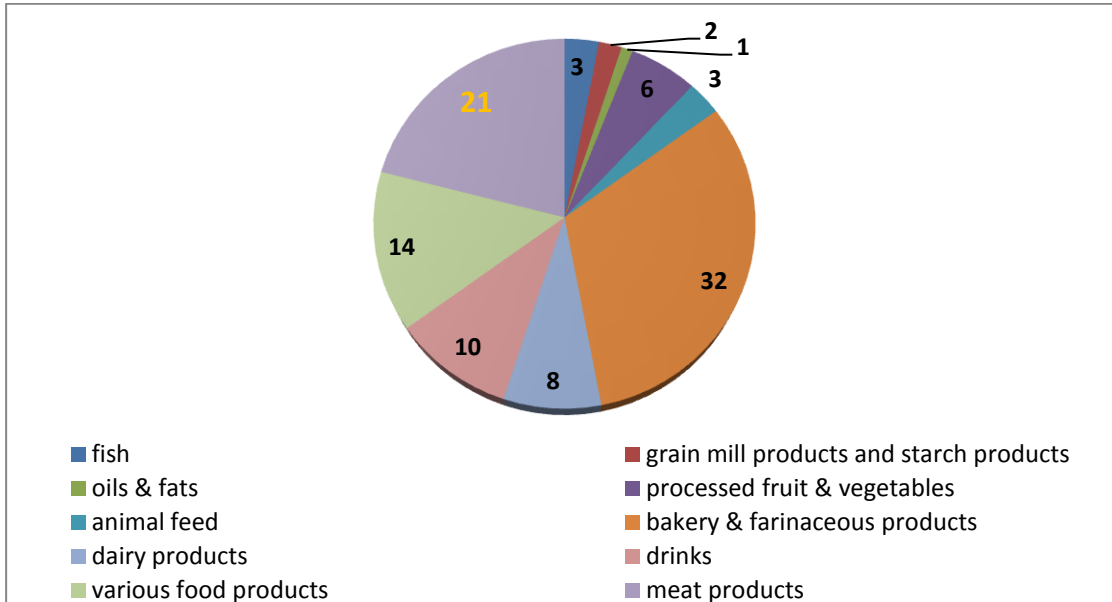
**Figure 12: Distribution of turnover in the sectors of the EU food and drink industry (%)**



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<sup>125</sup> 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.

**Figure 13: Distribution of number of employees (%)**



Source: Fooddrink Europe (2012)

**Figure 14: EU meat consumption, 2010-2012**



Notes: Consumption in kg retail weight. Coefficients to transform carcass weight into retail weight are 0.7 for beef and veal meat, 0.78 for pigmeat and 0.88 for both poultry meat and sheep and goat meat. Total meat includes pigmeat, poultry, beef/veal and sheep/goat meat.

Source: European Commission, Directorate-General for Agriculture and Rural Development (2013)

**Table 20: Overview of key characteristics of the EU sectors using meat as an ingredient**

| Meat Sector                    | Volume of production, tonnes | Value of production €                       | Value of exports and imports, €                      | Presence of SMEs and micro-ent.; (1) % of companies, (2) % of revenue   | Employment, number of people |
|--------------------------------|------------------------------|---|--|---|------------------------------|
| <b>Prepared dishes: total</b>  | n.a.                         | €27.1bn                                     | n.a.   | Estimated at:   | n.a.                         |
| <i>Of which frozen foods</i>   | n.a.                         | €20bn                                       | n.a. (est. ~3-4% or production value)                | (1) 75% of companies<br>(2) ~25% of revenue   | 130,000*                     |
| <i>Of which culinary foods</i> | n.a.                         | €7.1bn                                      | n.a.   | Mainly SMEs (but no data provided)  | n.a.                         |
| <b>Meat products</b>           | 13.5m tonnes                 | €85bn                                       | Imports 402,000 tonnes ***<br>Exports 725,000 tonnes | 90% of companies<br>Varies by MS.<br>MS examples:<br>(1) Number:<br>IT 98%; FR 92%<br>(2) Revenue:<br>FR 55%; | 350,000                      |
| <b>EU Butchers</b>             |                              | €60 bn****                                  |  | 150,000****<br>(1) 90% micro-enterprises  | 1 mn*****                    |
| <b>Pasta UNAFPA</b>            | 4.5m tonnes                  | Imports 50,087 tons<br>Exports 620,398 tons | n.a.   | 45% of revenue  | 12,865                       |

*n.a. Data not relevant and/or not available*

\* Figure obtained or calculated by 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.

\*\*\* Figures n.a. in value terms; quoted figure covers CLITRAVI members only (11/27 MS) and is not directly comparable with the other data on this sector

\*\*\*\* These figures cover CIBC members only (13/27 MS +Switzerland and Turkey) and represent the turnover of the entire sector including unprocessed meat (minced meat).

Source: FCEC based on industry consultation and Eurostat (including COMEXT)



## **Annex D: FCEC consumer survey**

*(provided as a separate file)*

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