



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY

Food and feed safety, innovation
Food information and composition, food waste

SUMMARY REPORT

EU PLATFORM ON FOOD LOSSES & FOOD WASTE

DG HEALTH AND FOOD SAFETY (SANTE)

3rd meeting

Brussels, 99-101 Rue Belliard (Jacques Delors building), JDE 52

7 November 2017 – From 9:30 to 18:00

Chair: Sabine Jülicher, *Director, Food and feed safety, Innovation, DG SANTE*

Commission: Commissioner Andriukaitis, Marco Valletta (CAB); **DG SANTE:** Alexandra Nikolakopoulou, Tim Gumbel, Anne-Laure Gassin, Bartosz Zambrzycki, Dora Szentpaly-Kleis, Athanasios Raikos, Natassa Alvizou, Manuela Marcolini; **DG AGRI:** Olivier Diana; **DG EMPL:** Marie-Anne Paraskevas; **DG ENV:** Jean-Claude Merciol, Davide Messina.

Invited speakers:

MEP Biljana Borzan; Professor Jørgen Dejjgård Jensen - University of Copenhagen; James Gardiner – ICF; Julian Parfitt – Anthesis; Thomas Candéal - IFWC (International Food Waste Coalition); Kirsi Silvennoinen - Natural Resources Institute Finland.

Member States represented (26):

AT, BE, BG, CY, CZ, DE, DK, EL, FI, FR, HR, HU, IE, IT, LT, LU, LV, NL, PL, PT, RO, SE, SI, UK.

Private sector organisations:

AIBI: International Association of Plant Bakers AISBL; BEUC: The European Consumer Organisation; BOROUME – "We Can"; City of Milan: Secretariat of the Milan Urban Food Policy Pact; COGECA: European Agri-Cooperatives; COPA: European Farmers; ECSLA: European Cold Storage and Logistics Association; EFFPA: European Former Foodstuff Processors Association; EUCOFEL: European Fruit and Vegetables Trade Association; EUROCOMMERCE: the retail, wholesale and international trade representation to the EU; EURO COOP: European Community of Consumer Co-operatives; FEBA: European Federation of Food Banks; FEEDBACK GLOBAL; FEFAC: European Feed Manufacturers Federation; FOODCLOUD; FOODDRINKEUROPE; FOODSERVICEEUROPE; FoodWIN (Food Waste Innovation Network); FRESHFEL: European Fresh Produce Association; HCWH Europe: Health Care Without Harm; HFBA: Hungarian Food Bank Association; HOTREC: Hospitality Europe; INDEPENDENT RETAIL EUROPE; LES RESTAURANTS DU COEUR; OSTFOLD RESEARCH, Nofima and Matvett Consortium; RISE RESEARCH INSTITUTES OF SWEDEN AB; STOP WASTING FOOD; SLOW FOOD; WAGENINGEN

UR: Wageningen University & Research; WRAP: Waste and Resource Action Programme; ZERO WASTE SCOTLAND.

Public entities:

EESC - European Economic and Social Committee, COR – European Committee of the Regions; OECD - Organisation for Economic Co-operation and Development; FAO – Food and Agriculture Organisation of the United Nations.

Observers:

EFTA: Norway; **Food SCP Roundtable:** European Food Sustainable Consumption and Production Round Table Secretariat.

1. INTRODUCTION AND WELCOME TO PARTICIPANTS

The Chair, Ms. Sabine Jülicher welcomed members to the third meeting of the EU Platform on Food Losses and Food Waste (FLW). She thanked Commissioner Andriukaitis for his participation and also extended her thanks to MEP Biljana Borzan for her presence at the Platform meeting. MEP Borzan was rappporteur for the European Parliament's Resolution on "Resource efficiency: reducing food waste, improving food safety" based on an own-initiative report of the Committee on the Environment, Public Health and Food Safety (ENVI). Last but not least, she expressed her appreciation to the European Committee of the Regions and to the European Economic and Social Committee for hosting the Platform's meeting in the Jacques Delors building.

The Chair then outlined the agenda which focussed on action to support food waste prevention, containing updates on policy and legislative initiatives, but also aiming to facilitate sharing of experience, opportunities and good practices.

After reminding members that the meeting was web streamed and offering information on the interpretation regime, the Chair encouraged participants to visit the exhibition organized by the European Committee of the Regions on best practices in food waste prevention from cities and regions. Further on, she adopted the agenda with no further comments and gave the floor sequentially to the speakers for their respective agenda items (Commissioner Andriukaitis; MEP Biljana Borzan; Alexandra Nikolakopoulou, Head of Unit DG SANTE; Carola Fabi, Statistician FAO and Professor Jørgen Dejjgård Jensen, University of Copenhagen).

2. COMMISSIONER VYTENIS ANDRIUKAITIS – HEALTH AND FOOD SAFETY: EU PLATFORM ON FOOD LOSSES AND FOOD WASTE – TAKING STOCK, ONE YEAR ON

In his presentation, Commissioner Andriukaitis focused on taking stock of what has been achieved in the implementation of the Circular Economy Action Plan, but also on assessing the progress made in taking action to reach the global target to halve food waste by 2030. He thanked MEP Borzan for her important work in preventing food waste and her call for an integrated and coordinated policy action by all key players in order to tackle this issue. Commissioner Andriukaitis also highlighted the role of the EU Platform on FLW as being

decisive in helping the EU to achieve the ambitious food waste reduction target laid down in the Sustainable Development Agenda. In this context, he informed members of the enhanced co-operation between the European Commission and the Food and Agriculture Organisation (FAO), on three critical issues related to the food supply chain: antimicrobial resistance, nutrition and food waste.

Commissioner Andriukaitis indicated the Platform and its sub-groups as successful deliverables of the Circular Economy Action Plan, emphasizing the role of the recently established 'Action and implementation' sub-group in facilitating sharing of experiences, business cases and effective models in food waste prevention and reduction. The Digital Network of the EU Platform on FLW and the REFRESH Community of Experts were pointed out as important tools to support the work of the Platform and facilitate collaboration between stakeholders.

In regard to food waste measurement, Commissioner Andriukaitis explained that the legislative proposal to revise the Waste Framework Directive was still under discussion by the Council and the European Parliament. He recognised ongoing discussions in the Platform sub-group on food waste measurement, pending adoption of the new waste legislation, on elements of a measurement methodology and thanked all Platform members for sharing their respective experience in food waste quantification. He also extended his gratitude for the Platform members' contribution to the EU food donation guidelines, adopted on World Food Day, and reported on the progress made in the elaboration of EU guidelines on the use of former foodstuffs as feed. As for date marking, he acknowledged the need to optimise policies in this area without compromising either food safety or consumer information. He referred to the discussions on date marking which would take place in the afternoon when presentations on new research findings would be given both by the Netherlands and the Commission (cf study on mapping of date marking practices by food business operators and control authorities across several Member States).

3. MEP BILJANA BORZAN – OPTIONS FOR INTER-SECTORAL COOPERATION TO PREVENT FOOD WASTE WHILE IMPROVING FOOD SAFETY

MEP Borzan began her presentation by thanking Commissioner Andriukaitis for the invitation to the Platform's plenary meeting, as well as his support on the complex issue of food waste prevention and reduction. She emphasized the fact that the topic had political support from all parties as well as the unanimous support of the European Parliament's ENVI Committee. Further on, she called on the European Union to fulfil the moral and political obligation to reduce food waste quantities at all stages of the food supply chain, in this way setting a clear example for the rest of the world. Highlighting the fact that there was no simple solution to the issue of food waste, she appealed for a coordinated policy response on both EU and national levels, in line with respective competences, in areas such as waste management, food safety and information, fiscal rules, research and innovation, environment, education, agriculture and social policy.

MEP Borzan explained that the European Parliament's Resolution explored political and practical means to reduce and prevent food waste, while maintaining food safety as a red line which should not be crossed. Further on, she outlined the key points of the Resolution which highlights the need to reduce the amount of food waste generated and improve resource efficiency. She stated that, amongst others, the Resolution calls upon the Commission to:

establish a common definition of food losses and food waste; assess whether EU legislation on date marking was fit for purpose; combat unfair trading practices; promote active and intelligent food contact materials and other innovative solutions to increase resource efficiency; and encourage and facilitate donations at all stages of the food supply chain. Agriculture was identified as a field with a huge potential to reduce and prevent food loss and waste; with digitalisation offering solutions to specific sectorial issues (*e.g.* matching supply and demand, creating better forecasts etc.).

The Resolution also pointed to the need for action by all players (*e.g.* Member States, actors in the food supply chain...) notably in the pursuit of information and educational campaigns and showcased examples of successful actions, for instance to facilitate food donation. The private sector, in particular the retail one, was also identified as holding a key role in boosting knowledge and creating awareness around the topic of food waste, as well as exploring innovative packaging materials.

In ending the presentation, MEP Borzan made reference to the on-going Trilogue discussions on the Waste Framework Directive and welcomed the work of the EU Platform on FLW as a crucial step in combating food waste in the EU.

4. DISCUSSION BY PLATFORM MEMBERS WITH COMMISSIONER ANDRIUKAITIS AND MEP BORZAN

In the discussion, Platform members raised issues related to ongoing negotiations on the Waste Framework Directive. The main focus revolved around the possible establishment of EU-wide food waste reduction targets, with some members declaring themselves in favour of including such targets in the Waste Framework Directive (HCWH, SLOWFOOD, AT). HCWH argued that some Member States or sectors of the food supply chain would not feel obliged to implement measurement of food waste in the absence of specific targets. The organisation recalled the statement made in collaboration with FEEDBACK GLOBAL and FoodWIN, in which it calls upon Ministries of Health and Environment from all Member States, the European Commission and key MEPs to put forward the European Parliament's proposal to establish food waste reduction targets. SLOWFOOD added that a "food use" hierarchy was also needed in order to prioritize and guide food waste prevention actions. Austria emphasized the need to distinguish between avoidable and unavoidable food waste and indicated that any targets proposed need to be realistic to support effective action.

Commissioner Andriukaitis explained that it would be difficult to impose specific targets to Member States due to their diverse situations and capabilities; however he emphasized that all Member States had committed to achieving the Sustainable Development Goals (SDG), with food waste reduction being one of them. It was the responsibility of Member States to define a roadmap to achieve the SDG on food waste and to set their own concrete targets as needed. At the same time, he urged all actors of the food supply chain to assess and monitor food waste levels on ground and take concrete actions which could also be complemented by national measures. He stressed the importance of a common food waste measurement methodology, provided for in the Commission's waste legislation proposal, in order to assess the effectiveness of food waste prevention actions as well as monitor the EU's progress towards the SDG food waste reduction target. As to a "food use" hierarchy, he indicated that the waste prevention hierarchy laid down in the Waste Framework Directive already provides guidance in this regard.

MEP Borzan agreed that certain goals had to be put in place in order to motivate Member States to take concrete measures against food waste and indicated that there was space for negotiations in that sense, for instance by referring to Member States' intention to reduce food waste (e.g. "Member States *shall aim to reduce* (...)").

The Chair underlined the fact that the Trilogue negotiations were ongoing and that, while all wish for the revised Waste Framework Directive to be adopted in due time, one should not anticipate on the conclusions of the discussions of co-legislators. She clarified that, in the interim, work to support the elaboration of a food waste measurement methodology was ongoing in cooperation with Platform members. She highlighted the importance of maintaining a strong link with FAO in order to avoid duplication of efforts or divergent methodology and to ensure interoperability of the two approaches.

STOP WASTING FOOD stressed that urgent action was required to reduce food waste but expressed its concern that the current target set by SDG 12.3 might turn out to be too ambitious (in regard to results achieved thus far by Member States such as DK) and proposed setting smaller goals instead. Italy also stressed the importance of taking small steps, that initiatives at EU level (such as the food donation guidelines) helped to improve work and that it was important to measure and monitor results (citing in this regard a national observatory put in place in Italy).

Commissioner Andriukaitis explained that the generation of food waste was deeply linked to values, education and awareness of the issue; and that addressing behaviours (especially at household level) was a time-consuming process. He reiterated the need for indicators to benchmark progress and appealed for a common approach and concerted action across all Member States, calling upon countries that provide positive models in food waste prevention and reduction to set up regional cooperation clusters. Other instruments could include strengthened cooperation between pan-European organisations in order to find synergies across the food supply chain and the "pull" of local leaders who have powerful leverage in their cities and communities, for instance Mayors, to drive further action on the ground.

MEP Borzan commended the work of NGOs such as STOP WASTING FOOD for their work in food waste prevention and reduction. She stated that ambitious goals were important to drive action and could motivate Member States to their best in taking action to prevent generation of food waste.

Another important topic raised was the possible influence of marketing standards on food waste generation. In this regard, COPA informed that the number of marketing standards had been greatly reduced over time and that they are needed to ensure the quality of products and the competitiveness of smaller, local producers. The organisation highlighted that the agricultural sector was already complying with provisions and called on the Commission to rethink its rural development programmes and to avoid certain commitments that would overwhelm farmers' capacity to produce and meet market expectations. Italy also emphasized that marketing standards should not be "incriminated" but rather monitored and assessed in relation to food waste prevention. Italy referred to its own practices to recover imperfect produce through concerted actions of Ministries and organisations which curtailed food waste and helped to monitor quantities of food recovered and redistributed in Italy.

Commissioner Andriukaitis called for a balanced approach to marketing standards, acknowledging the complexity of the market and the pressure that lay on farmers' shoulders. While declaring his concern about the promotion of perfectionism in food produce, he

acknowledged that community-based initiatives taken to recover and redistribute food which do not meet marketing standards were a good approach to prevent food waste and ensure that such food is provided to those in need.

FEEDBACK GLOBAL addressed the issue of Unfair Trading Practices in the food supply chain and their influence on food waste generation including in developing countries. Food waste generation in the supply chain can be a symptom of unfair commercial practices. FEEDBACK further underlined the need for comprehensive farm to fork food waste measurement. The Chair explained that Directorate General for Health and Food Safety was working closely with Directorate General for Agriculture in order to ensure that the sustainability and food waste angles were also taken into account, in addition to the main aim of ensuring fair revenues to farmers, in work related to Unfair Trading Practices.

WRAP proposed using EU development funds to support developing countries achieve the SDG 12.3 target highlighting that such a measure would also be of benefit to the EU as it would contribute towards a more sustainable and resilient supply chain. Commissioner Andriukaitis agreed on the need to use all available instruments in order to address food waste, emphasizing also the importance of collaborating with FAO and other international structures to build consensus and create more coherent approaches. In this sense, he referred to the recent establishment of the multi-stakeholder Platform on Sustainable Development Goals which will meet for the first time in 2018 and will be chaired by European Commission First Vice-President Frans Timmermans. Concurring with this approach, MEP Borzan also underlined the different drivers of food loss and waste generation in developing countries (mostly food losses due to poor infrastructure) and developed ones (predominantly food waste at consumer level).

In closing the discussion, the Chair thanked both speakers for their presence and openness, as well as for acknowledging the important role of the Platform in tackling food losses and food waste on a European level.

5. UPDATE ON THE CIRCULAR ECONOMY ACTION PLAN: EU FOOD WASTE PREVENTION INITIATIVES, INCLUDING WASTE LEGISLATION PROPOSAL AND WORK OF SUB-GROUPS ON "FOOD WASTE MEASUREMENT", "FOOD DONATION" AND "ACTION AND IMPLEMENTATION" – PRESENTATION BY THE COMMISSION

Ms. Nikolakopoulou provided an update on the Circular Economy Action Plan with a focus on EU food waste prevention initiatives. She began her presentation by discussing the state-of-play of the waste legislation and highlighting the obligations related to food waste as laid out in the Commission's proposal. She then explained the amendments suggested by the European Parliament that were being negotiated by Council and Parliament with the support of the Commission, with the aim to agree on a final text by the end of 2017. In parallel with the negotiations on the Waste Framework Directive, the Commission was preparing a methodology to monitor food waste in close collaboration with the 'Food waste measurement' sub-group. Ms. Nikolakopoulou also mentioned the strengthened cooperation with FAO on monitoring SDG 12.3, reinforced through the signing of a Letter of Intent between the two institutions.

The adoption of the EU guidelines on food donation on World Food Day was highlighted as a major deliverable of the Platform and its 'Food donation' sub-group. Ms. Nikolakopoulou recalled the Platform's agreement to prepare a document illustrating Member States' practices

related to food redistribution and indicated that all members would be asked to contribute. Among the issues discussed during the last meeting of the 'Food donation' sub-group, Ms. Nikolakopoulou mentioned: a second opinion requested by the Commission from the European Food Safety Authority (EFSA) on hazard analysis approaches for certain small retail establishments with a focus on possible additional hazards related to food donation activities; an update on the Fund for European Aid to the Most Deprived (FEAD) and opportunities it provides for supporting food donation; practices of Member States and stakeholders to recover and redistribute agricultural surplus; and an update on the digital tools put in place to support the work of the Platform and, more generally, stakeholders engaged in food waste prevention. She then explained the overall aim of the European Parliament pilot project on food redistribution, and listed the principal tasks to be undertaken by the contractor regarding further research on legal frameworks and operational practices in Member States as well as supporting dissemination of the EU food donation guidelines and stakeholder dialogue at national level.

As for the 'Action and implementation' sub-group, which held its first meeting on the 25 October, its members agreed to develop a reporting tool for food waste prevention initiatives; to focus on recommendations for actions targeted at key sectors and to adopt a roadmap outlining main milestones and deliverables for the sub-group to be achieved by 2019. Ms. Nikolakopoulou also offered an update on the revision of the Green Public Procurement Criteria for food and catering services, a process led by the Directorate-General for the Environment with the support of the Joint Research Centre. The finalisation of the review is to be expected early 2018.

Next, the focus of the presentation shifted to the digital tools that support the work of the EU Platform on FLW. Ms. Nikolakopoulou began by explaining the main objectives of the Digital Network of the EU Platform on FLW, a digital tool created to support the work of the Platform and restricted to the use of its members only. She then listed its main functionalities and encouraged all members to publish news and documents that they would like to share with the rest of the Platform. Subsequently, she introduced the REFRESH Community of Experts, a knowledge-sharing site for initiatives and best practices in food waste prevention, open to the general public and all interested stakeholders. After explaining its main objectives and functionalities, she pointed out the new features that REFRESH intends to develop: expert profiles with additional background information on the user's experience in the field, as well as an "Ask the expert" service.

Ms. Nikolakopoulou ended her intervention by announcing future Platform meetings, including sub-groups (to be organised in February/March 2018) and Plenary (24 May - Vilnius and November/December – date to be confirmed).

Following Ms. Nikolakopoulou's presentation, the Chair opened up the floor for comments. OECD congratulated the Commission on the work carried out and inquired about the added value of the European Parliament pilot project on food redistribution in regard to previous work carried out. The Commission underlined that the project aims to build on previous studies on the issue (such as the EESC Comparative Study on EU Member States' legislation and practices on food donation), aiming to provide a more detailed mapping of regulatory and operational frameworks relevant for food redistribution across all Member States, but also to support dissemination of the EU food donation guidelines while engaging stakeholders on the ground. As regards the format used for data collection (IE), Ms. Nikolakopoulou explained that the contractor had the responsibility to choose the best method(s) to collect information

and that the work would be carried out in close cooperation with Platform members, in particular with members of the food donation sub-group.

In closing the agenda point, the Chair apologized for having to leave the meeting as her presence was required to address an urgent matter and indicated that Ms. Nikolakopoulou would assume the role of Chair for the remaining agenda items.

6. STATE-OF-PLAY ON THE GLOBAL FOOD LOSS INDEX TO MONITOR SDG TARGET 12.3 – PRESENTATION BY CAROLA FABI, STATISTICIAN FOOD AND AGRICULTURE ORGANISATION (FAO)

FAO outlined the progress carried out in establishing the indicators and measurement methodology for SDG 12.3, a target classified by the United Nations as Tier 3 due to the fact that there were no indicators, methodology, nor data yet available at global level. As the custodian of the SDG 12.3 target, FAO proposed to measure the distance to the target through two separate indicators (one on food losses and another on food waste), as the two represent separate phenomena. FAO will be responsible for developing the indicator SDG 12.3.1 describing food losses, while UNEP will take control over SDG 12.3.2 addressing food waste.

Further on, the focus of the presentation shifted to the monitoring of food losses, going from theoretical approaches to methodological considerations. In the absence of an internationally agreed definition of food losses, FAO developed a conceptual framework bringing together various concepts and definitions which, for operational reasons, had been reduced to the definition employed in agricultural statistics based on Food Balance Sheets (FBS). A simplification of the food value chain has also been applied in order to distinguish between losses from post-harvest operations up to retail and consumption level - sectors where food losses were considered waste. Losses are expressed in quantity terms and cover commodity as a whole (including non-edible parts). Pre-harvest losses were excluded from the definition due to extreme events that were covered under a different indicator. Harvest losses were also excluded, as agricultural production is measured after harvest losses. It is however possible to take them into account if necessary. FAO identified other challenges in establishing indicators for SDG 12.3.1 as being the lack of international guidelines on how to define and collect data on post-harvest losses, unavailability of reliable nationally representative data on losses, the complexity of measurement and the need to report both national and international indicators in a comparable manner.

FAO presented the definitions and formulas of the Food Loss Percentage (FLP) – indicator compiling food loss percentage losses applied to agricultural production in a given country; and Food Loss Index (FLI) – which considered the ratio of total percentage losses in a given year compared to a baseline. The latter could be employed to analyse trend points in the efficiency of the food supply chain over time, on a macro level. Additionally, country FLI would be aggregated to monitor the SDG by regions and on a global scale. As it is not possible to monitor all commodities, the FLP focusses on 10 key commodities per country. FAO created a series of five commodity headings to help prioritize and choose products that could be easy to compare across countries later on.

In order to deal with the shortage of basic data, FAO proposed the development of sample surveys to measure and monitor losses along the whole food supply chain as a long-term solution to the issue. This implies identifying the critical loss points and targeting surveys on those specific areas, but also creating guidelines on how to estimate losses according to specific sectors. As for a short term approach, the organisation suggested international model-

based estimates of losses by country and commodity and country-specific models developed by FAO which would be turned into national models. While referring to the reporting framework, FAO explained that no additional burdens would be put on Member States, as data would be gathered through the annual production questionnaire.

In ending the presentation, FAO explained that a decision was expected whether to upgrade the SDG 12.3.1 indicator to Tier 2, as there was a methodology available but no data. At the same time, it would be determined if SDG 12.3 would be split into two separate targets.

Prior to opening the floor for comments, the Chair highlighted the importance of the Commission and FAO collaboration on ensuring a consistent approach to measure food losses and food waste on both EU and international levels. A summary of the following discussion is provided hereafter:

1. FEEDBACK GLOBAL expressed concern that in some cases products were left unharvested deliberately due to marketing standards or other factors (such as lack of market demand), thus being considered pre-harvest losses and falling out of the scope of the measuring methodology of food waste. The organisation referred to TESCO as an example of best practice for their commitment to report on food waste levels from farm to fork, including pre-harvest losses. In this sense, the organisation proposed the (WRI) concept of "ready-to-harvest" as opposed to "pre-harvest". FAO explained that it was difficult to differentiate between "mature pre-harvest" and "post-harvest" losses on the ground. As the aspect of "intentional harvest losses" had not been included within current methodologies and data collection tools, capturing data linked to this phenomenon would come at a high cost. However, FAO clarified that such losses could be measured separately and integrated within the framework at a later point.
2. COPA- expressed its disagreement with the negative image of agriculture as a waste-intensive activity, highlighting the external factors that influenced agricultural production beyond the responsibility of farmers and calling for a focus on processed foods that become waste. COPA highlighted that there are inherent limits as to how much inedible food waste can be reduced, and that food waste can also result due to order cancellations. FAO agreed that farmers could not be blamed for losses and waste occurring due to events beyond their control and/or poor infrastructure and factors linked to other actors in the food value chain. The FAO speaker clarified that the concept of "waste" was different from loss in that it includes a notion of intentionality.
3. Norway inquired about the applicability of the Food Loss and Waste Protocol (FLWP) developed by WRI and UNEP in collaboration with other international partners. FAO explained that FLWP was a reporting framework covering a wide range of information; however it was not a methodology for data collection as such, making it hard to apply for the monitoring of agricultural losses in developing countries.
4. WRAP inquired about the manner in which recovered food waste was being accounted for under FLI. FAO clarified that non-food utilisations of food products, such as animal feed, were not considered losses under Food Balance Sheets, and thus were not covered under FLI. Anaerobic digestion and composting were considered as losses under FLI, however part of them could be attributed to the waste indicator. The FLI did not look into the final destination of food lost and wasted.
5. OECD welcomed the agreement established between the Commission and FAO to strengthen cooperation on food losses and food waste; nevertheless the organisation expressed disagreement in regard to oversimplification of the manner in which food supply chains functioned in developed and developing countries (eg food waste also

occurs in households in developing countries and food losses, for instance at farm level, occur in the EU). FAO welcomed the intervention of OECD, highlighting that such conceptual simplifications had been established primarily for communication purposes and to focus efforts globally on food losses and food waste reduction.

6. City of Milan offered a short overview of the organisation's work and highlighted its cooperation with FAO on developing indicators to assess food waste in municipalities. The organisation then suggested sharing the results with Platform members.

7. COST AND EFFECTIVENESS OF FOOD WASTE PREVENTION AND REDUCTION STRATEGIES - PRESENTATION BY PROFESSOR JØRGEN DEJGÅRD JENSEN, UNIVERSITY OF COPENHAGEN (REPORT COMMISSIONED BY THE DANISH VETERINARY AND FOOD ADMINISTRATION)

A representative of the Danish Ministry of Environment and Food introduced the context under which the study on cost and effectiveness of food waste prevention and reduction strategies had been carried out. The study, commissioned by the Department of Food and Resource Economy (IFRO) and undertaken by the University of Copenhagen, aimed to identify quantities of food waste across the food supply chain; incentives to reduce food waste; recommendations to prevention approaches; as well as to compare the cost-effectiveness of different initiatives.

The study compiles a series of different data sources, among which previous research undertaken by the University of Copenhagen, data from studies carried out by the Danish Environmental Protection Agency, by various industry actors, but also literature-based estimates of food losses from agriculture and fisheries. The study estimated the physical quantities and economic value of certain category of products (*e.g.* fruits and vegetables, meat, grains etc.) that are lost or wasted at various stages of the food supply chain. Preliminary results indicated that the largest amounts of food waste occurred in primary production and at household level; with grain-based products, fruits and vegetables being the most wasted type of foods. However, the research also considered the discrepancy between the quantity and value of food in order to assess the economic impact of food waste. Economic loss associated with food waste was most visible in meat products which are wasted less, but are high value foods requiring a higher input of resources for their production, processing, transport, refrigeration etc.

Professor Jensen explained some of the trade-offs between the costs of food waste and those related to prevention, taking into account the extra input of resources (personnel, energy, packaging etc.) to prevent waste, the lower value of "marginal products" that are otherwise wasted, but which could have an impact on the market prices of similar food commodities and the extra efforts invested in campaigning, data collection and administration. The study evaluates the costs of such initiatives by assessing their food waste reduction potential, the effectiveness and costs related to the measures considered and their impact on other levels and actors in the food supply chain. Professor Jensen offered the example of two measures aiming to reduce fruit and vegetable waste – *i.e.* selling of second-grade products to the food service sector and tracking food waste in professional kitchens – and the manner in which their costs and benefits have been calculated.

The study assessed a series of 12 food waste prevention and reduction initiatives, ranked according to their cost-effectiveness; preliminary findings showed consumer education and awareness campaigns to be the most efficient (€/kg saved food), while changing the cooling

temperature of foods was the least cost-effective. The research revealed a large variation in the cost effectiveness of different food waste prevention measures according to the type of products and the sector concerned in the food supply chain. Lack of relevant data on food waste and behavioural parameters were highlighted as important parameters affecting impact assessment of food waste prevention initiatives.

Following the presentation given by Professor Jensen, several Platform members raised questions or comments. Their interventions are summarized as follows:

1. FoodWIN and Zero Waste Scotland raised questions about the approaches used in evaluating the cost-effectiveness of consumer awareness campaigns (*e.g. who benefits?*) and how it is possible to isolate the effectiveness of different food waste prevention initiatives. The speaker clarified that the evaluation of measures' efficiency was based on model calculation, rather than actual behavioural data. He recognised the inherent difficulty in assessing the specific effects of individual measures and called for additional control studies to be carried out in order to distinguish between different measures and their effects. In the case of consumer awareness campaigns, the research considered authorities as the bearers of costs with consumers benefitting from related cost savings.
2. WRAP mentioned a study carried out in collaboration with the World Resources Institute which looked into the Return on Investment of companies which undertook food waste prevention initiatives; results indicated that nearly every company had a positive return on their investments to curb food loss and waste in operations.
3. STOP WASTING FOOD signalled the case of a Danish supermarket that decided to instruct its employees to repack second quality products that would otherwise end up as waste, in order to introduce them on the market at discounted prices.

8. DATE MARKING: PRESENTATION OF NEW RESEARCH AND DISCUSSION WITH MEMBERS

The Chair introduced the following speakers, outlining the main topics of the presentations and the order in which they would be given. She then offered the floor to a representative of the Ministry of Agriculture, Nature and Food Quality in the Netherlands who explained the aim of the two subsequent interventions as to inform the Platform on research carried out to investigate the possible extension of the list of foods exempted from the obligation of bearing a date of minimum durability (*i.e.* Annex X of Regulation No 1169/2011 on Food Information to Consumers (FIC)).

8.1 Advisory report on the options to extend the list of foods that are exempted from the requirement to bear a date mark - Presentation by Aarieke de Jong (Office for Risk Assessment and Research (BuRO), Netherlands Food and Consumer Product Safety Authority (NVWA))

The Netherlands Food and Consumer Product Safety Authority (NVWA) carried out a risk assessment on date marking in relation to food safety, with the purpose of identifying additional products that could be added to Annex X of the FIC Regulation, which features a list of foods exempted from the obligation of bearing a date of minimum durability *i.e.* 'best before' date. After outlining the main provisions of the regulation, the speaker explained that the scope of the research excluded products requiring 'use by' dates.

In terms of food safety, the NVWA distinguished between biological, physical, microbiological and chemical deterioration and their respective effects on food. As microbiological deterioration plays the most important role with regard to food safety during shelf life, the different types of pathogens and the way in which they can affect human health were explained. Next, the presentation elaborated on the main aspects to be considered when assessing the need for indicating a date of minimum durability (*e.g.* acidity, water activity and storage temperature & time), stating for instance that foods with a low enough pH will not become harmful over time. The risk assessment concluded that no date marking was needed for foods: that due to their nature have a very short life; for which spoilage is evident before they become harmful; that are and remain sterile; and which do not support bacterial growth. On this basis, the NVWA has made a series of recommendations for product criteria which could be utilised to assess food products which could potentially be added to the list of foods exempt from "best before" labelling under Annex X of the FIC Regulation. In closing, she recalled that the purpose of date marking was not only to ensure food safety but also product quality, including signalling the date until which the product's nutritional contribution is guaranteed (*e.g.* vitamins and mineral levels indicated in nutritional labelling).

8.2 The effect of date marking terminology of products with a long shelf life on food discarding behaviour of consumers – Presentation by Hilke Bos-Brouwers (Wageningen Food & Biobased Research)

The study commissioned by the Dutch Ministry of Economic Affairs (now the the Ministry of Agriculture, Nature and Food Quality) focused on measuring the effect of different date marking terminology and the results of removing it altogether on the discarding behaviour of consumers at household level. The approach included both sorting and online tasks, as well as focus group discussions with a representative sample of 86 participants from the consumer panel of the Wageningen University. The study focused on a selection of 20 products with long shelf life.

The results of the sorting task indicated that on average, 12% less products were discarded when no date is declared in labelling compared with products beyond the "best before" date; significant differences were noted across different product categories. The online task explored the impact of using 5 alternative terminologies for "best before" for products with longer shelf life. The approach revealed that foods labelled with 'long shelf life' (without a date) led to 31 % less products being discarded, and foods labelled with the term 'quality guaranteed until [date]' led to 5 % less products being discarded. The products marked with 'at its best if used before [date]' and 'produced on [date]' were discarded more; while the label 'inspect, smell and taste after [date]' had no influence on discarding behaviour as compared to the 'best before' date. A key learning from the study was that while participants found the 'long shelf life' label not very attractive, it had the highest impact on food discarding behaviour of consumers. As for the focus group discussions, it was found that consumer perception of risks associated with various food categories is intuitive taking into account for instance the products' ingredients and texture.

This preliminary study is part of the 'Green Deal' on shelf life which is developed in the Netherlands; the term refers to an approach which engages Dutch authorities and relevant stakeholders in establishing mutual agreements on various topics.

Following the presentations given by the Netherlands, several Platform members raised questions or comments. The interventions are summarized as follows:

1. Italy inquired about the criteria employed to select the sample of participants to the study and expressed concern about their low number. In regard to consumer information, Italy recommended rather to continue to clarify the meaning of the different terminology of date marking currently in force rather than changing it repeatedly. The speaker from Wageningen UR confirmed that the research conducted was a qualitative study aiming to explore concepts and their possible impact on behaviour; it was therefore not a quantitative study carried out on a representative sample of the population as such. She called for more research to be carried out in this regard and also reiterated advice given to relevant stakeholders in the Netherlands to explore use of alternative terminology for "best before".

In this regard, the Chair highlighted that food business operators could not employ other wording than the one laid down under the FIC Regulation, which prescribed the terms to be used for both 'use by' and 'best before' dates.

2. Poland welcomed the two interventions by the Netherlands and the potential positive impact of the proposed measures on food waste generation. Poland indicated that products may have different characteristics in the different Member States and that EFSA's opinion should be sought should a possible extension of the list of products under Annex X be considered.

3. COPA pointed to a contradictory result of the study which showed that products labelled with 'long shelf life' were being discarded less although consumers considered the terminology unattractive. The organisation emphasised that "best before" labelling was also an indication of product quality and that lack of date marking would be an obstacle in helping consumers make informed choices about whether to discard the products or not. In reply, the speaker suggested that food business operators should use more realistic dates for foods with long shelf lives.

4. Germany welcomed the on-going debate on date marking and the initiatives undertaken by the Netherlands to assess its effect on consumer behaviour related to food waste. Germany offered to share the opinion of the Max Rubner-Institut of Nutrition and Food, which has analysed the Dutch proposal to extend the list of foods exempted from bearing date marking and came up with a different list of potential candidates including long shelf life products that were microbiologically stable and products which had been chilled or frozen. It was also highlighted that the experimental approach of the qualitative study carried out by Wageningen UR could not be easily interpreted for their possible relevance to discarding behaviour given that participants were not allowed to examine the products closely but only collect information from the label. Responding to the first point, the speaker from NVWA agreed there was a wider range of foods which could be considered while extending Annex X but which were outside the scope of the given preliminary study.

5. Croatia underlined that within the current legislative framework, food business operators could not be prevented from applying date marking on foods for which date marking was not obligatory (eg food products exempt from the obligation to bear a "best before" date listed under Annex X).

8.3 Key findings from Commission study on date marking practices and other information provided on food labels and food waste prevention

The presentation offered an overview of the objectives, methodology and key findings of the study commissioned by Directorate General for Health and Food Safety on food labelling

practices and its possible impact on food waste. The research consisted of three main activities: desk research of relevant literature, mystery shopping of sample products and interviews with stakeholders from the food supply chain.

During the first stage of the study, a review of evidence linking date labelling to food waste was carried out in order to construct a detailed account of the types of products being wasted at different stages of the food supply chain. After establishing a list of the most discarded foods across Member States (fruit and vegetables, bakery products, meat, dairy etc.), the research team made an estimate of the amount of food waste which may be linked to date marking. The second stage involved mystery shopping for 10 key products across 8 Member States, so as to map practices related to the type of date marking employed and other information about storage and open life guidance found on labelling of these products. The last activity of the research consisted in carrying out interviews with food business operators and National Competent Authorities on their approaches to date labelling as well as its use in management and regulation of the supply chain.

The study indicated that date marks were more influential in consumer decisions to discard certain product types such as yoghurts, fresh juices, fresh meat etc.; with evidence in some Member States for a link between consumer understanding of date mark type with its market prevalence. Estimates suggested that overall quantities of food waste related to date marking amounted for approximately 10% of the total 88 million tonnes of EU-28 total food waste (FUSIONS, 2016). In terms of compliance with the FIC Regulation, the research showed that awareness was high across food business operators, national authorities and other stakeholders; however the standard of implementation of the regulation varied between Member States and product types.

In regards to further recommendations, the study proposed to: develop guidance on the FIC Regulation for food business operators and national authorities to promote understanding and more consistent use of 'use by' and 'best before' dates; develop scientific and technical guidance on setting shelf life and defining storage and open life advice; support research on storage and labelling innovations as well as consumer behaviour related to date marking and food waste; collate current research prior to carrying out consumer education campaigns; and consult packaging industry and share best practices in food labelling.

Next, the Chair opened the floor for Platform members to raise questions or comments. The interventions are summarized as follows:

1. STOP WASTING FOOD inquired about the results obtained in the case of the Norwegian dairy producer who labelled its milk with a 'best before' date mark including additional consumer information 'not bad after'. Matvett explained that no concrete results were obtained on the impact of the labelling change on food waste; however consumers welcomed the additional information, leading another major national dairy producer to consider applying the same changes. It was also highlighted that the additional information complemented the date marking employed in compliance with current EU labelling rules.

2. LES RESTAURANTS DU COEUR proposed referring to the 'optimal' product life rather than 'minimum' durability, as the latter term could lead to confusion. The organisation also showed interest in the use of colour schemes to facilitate consumer understanding and referred to the on-going debate in France on the use of such "traffic light" labelling to convey nutritional information. Italy clarified that the colour-code system utilised to facilitate understanding of date marking only appeared in a best practice manual, intended to support

relevant actors in selecting the most appropriate date marking for food products and did not appear on the label as such.

3. Norway issued a series of recommendations stemming from the Nordic Council of Ministers' research project on date labelling and food waste, highlighting that 'use by' dates should only apply to highly perishable products to ensure their safe use; calling for better guidance for both industry and consumers and questioning a complete removal of 'best before' dates for certain categories of long shelf-life foods. Norway also expressed support for CODEX's work on Annex X and the creation of a Platform sub-group on date marking. Last but not least, Norway offered to share its experience on date labelling and food waste with other members of the Platform.

4. To OECD's question on possible differences in date marks applied to the same foods across Member States, it was highlighted that the choice of a certain date mark or additional label information was under the responsibility of food business operators and sometimes varied according to the national context. Products destined for the international market also displayed different advice on storage according to the targeted market.

5. Zero Waste Scotland inquired about the Commission's plans to consider possible changes to relevant legislation on date marking or in the manner in which information was displayed on the packaging of products, including terminology. The Chair explained that it was premature to discuss such modifications, highlighting that, as laid down in the FIC Regulation, any legislative proposals to change current EU rules would need to be justified by clear evidence demonstrating a link between the date marking of a certain type of product and its discarding, but also on scientific and technological progress or consumers' need for information. She also emphasised that research findings presented at the Platform today as well as possible policy actions (including both legislative and non-legislative) would be further analysed and discussed with relevant stakeholders. Findings of the date marking research presented at the Platform would also be presented to the Member States' Working Group on Food Information to Consumers at its meeting on 24 November 2017.

6. FEEDBACK GLOBAL underlined that consumers may not always be appropriately informed about shelf life of foods as food business operators preferred to use a cautious approach when selecting date marks for their products.

The Chair confirmed the existence of such practices, also mentioned in the findings of the study on date marking and food waste. Without committing to any specific line of action, she also outlined possible lines of action as including the elaboration of guidance to support industry in establishing date marks.

The agenda topic concluded with the decision to set up a specific sub-group on date marking.

9. DO GOOD: SAVE FOOD! – PRESENTATION OF EDUCATIONAL MATERIALS AND PILOT PROGRAMME DEVELOPED BY FAO IN PARTNERSHIP WITH THE INTERNATIONAL FOOD WASTE COALITION (IFWC). JOINT PRESENTATION BY JULIA NANA HEYL (NUTRITION AND FOOD SYSTEMS DIVISION, FAO) AND THOMAS CANDEAL (IFWC)

IFWC offered an overview of its activity, describing itself as a multi-stakeholder initiative in the area of food services, aiming to address food waste prevention across its respective sectors of the food supply chain, including school canteens.

FAO has created a series of educational materials on the topic of food waste, with the main goal to help children achieve food literacy and capacity development. With food waste reduction at their heart, the educational materials also offer a wider perspective on the functioning of the food supply chain and address bigger global challenges like food insecurity or environmental issues. The resources display quality illustrations targeted to the respective age groups and a modular approach, making them attractive and easy to use for students and teachers alike.

The main goal of the educational campaign is 'to bring back the true value of food' in order to have a positive impact on food waste generation. The educational materials are available in different languages and in four adapted versions for specific age groups, each containing two core lessons to provide basic knowledge on the topic, but also a diverse range of practical activities such as worksheets, games, writing/drama exercises etc. Teachers were offered detailed step-by-step instructions with information such as learning objectives, required time to complete the activities etc. Other additional resources include flyers and letters for parents, communication support to help schools launch campaigns – posters with key messages to be displayed in canteens.

IFWC has mainly been involved in pilot testing the materials in schools. Between 2015 and 2017, IFWC implemented the project in 18 schools and canteens across 4 different countries, reaching around 5000 children and achieving an average of 15% food waste reduction. Schools were offered surveys to monitor the results of the food waste prevention campaigns, together with teacher feedback forms which helped improve the project further on.

In parallel, IFWC is also running complementary projects: an optimisation pack for canteen and kitchen staff to help monitor food and a collaboration pack to encourage cooperation between various players across the food supply chain.

In ending the presentation, a call was launched for all Platform members to help disseminate the resources and reach out to policy makers, local communities and schools; but also to translate and adapt the content of the materials to the cultural context where they are employed.

Italy inquired about the contacts established there by IFWC, to which the organisation explained they were in touch with schools and catering providers across the region of Milan, but also with international schools in Rome where English materials have been tested.

The Chair mentioned that educational initiatives to prevent food waste, such as those carried out by FAO and IFWC, could also be addressed within the 'Action and implementation' subgroup, where both consumer education and action in the catering sector had been highlighted as opportunity areas for action and change.

10. LIFE AND THE CIRCULAR ECONOMY: OPPORTUNITIES TO SUPPORT FOOD WASTE PREVENTION. PRESENTATION OF LIFE PROGRAMME BY MR. JEAN-CLAUDE MERCIOL (HEAD OF UNIT, LIFE PROGRAMME, DG ENV.D4) AND THE LIFE INTEGRATED PROJECT CIRCWASTE-FINLAND BY KIRSI SILVENNOINEN (NATURAL RESOURCES INSTITUTE FINLAND)

Mr. Merciol offered an overview of the LIFE programme and explained the objectives of its latest funding scheme for 2014-2020. Next, he highlighted areas where the programme had proven successful: activities for industrial symbiosis and knowledge transfer; the development

of new models towards a more circular economy; eco-label, eco-design, bio-mass, food waste prevention and others.

With over 700 waste reduction and reuse projects funded since 1992, Mr. Merciol focused on two examples of LIFE-funded projects tackling food waste. The beauty of ugly fruit or 'Fruta Feia' (PT) aims to change food consumption habits and create an alternative market for oddly shaped fruits and vegetables by changing consumer behaviour and involving local farmers. The second project, called Food.Waste.StandUp (IT), aims to raise awareness of surplus food management and food waste prevention among three key actors of the food supply chain: agri-food companies, retailers and consumers.

Integrated projects in the LIFE Programme were also highlighted as projects implementing environmental or climate plans or strategies on a large territorial scale, while ensuring the involvement of stakeholders and promoting the mobilisation of complementary funding sources. The aim of integrated projects is to build up capacities of National Competent Authorities and stakeholders and to ensure their ability to continue implementing the plans or strategies after their end. In terms of beneficiaries, they can be competent authorities capable of coordinating the integrated projects and/or associated beneficiaries including public and/or private commercial and/or non-profit organisations. Beneficiaries have the opportunity to receive technical support for writing the plan/strategy in specific areas of action, amongst which Waste Management Plans and/or Waste Prevention Programmes.

Further on, a representative from the Natural Resources Institute in Finland presented CIRCWASTE, an integrated project focused on waste prevention through reducing food waste, a better utilisation of co-products and recycling of nutrients. The institute has been researching food waste across the whole food supply chain since 2010, through joint projects with the Nordic Council of Ministers or by employing methods such as interviews, statistics, diary studies etc. and is currently working on launching an online application for reporting household food waste in real time.

CIRCWASTE focuses on several lines of action, such as researching for resource efficient production, distribution and use of food in the Finnish hospitality sector or improving redistribution and re-channeling of food to reduce food waste.

11. CONCLUSIONS AND WRAP-UP BY THE CHAIR

In her closing remarks, the Chair thanked Platform members, speakers, interpreters and the DG SANTE food waste team for a successful meeting which offered a comprehensive view on the pending issues, further steps and future challenges in food waste prevention and reduction. In this regard, she highlighted the key role of the 'Action and implementation' subgroup in helping the Platform to deliver concrete results and support effective sharing of best practice.

The Chair encouraged all Member States, regardless of the state-of-play in actions taken at national level to prevent and reduce food waste, to participate and contribute actively to the work of the Platform in a dynamic and proactive manner. In terms of food waste measurement, the Chair reaffirmed the Commission's commitment to coordinate efforts with FAO in order to establish a methodology which can support food waste monitoring at EU and global levels.

The Chair reiterated the creation, in 2018, of a new sub-group on 'Date marking' which will discuss further the results of various studies linking food waste with product labelling and reflect on possible lines of action.

In regards to communication, the Chair invited all Platform members to take contact with one another outside the physical meetings of the Platform and its sub-groups, encouraging them to make the best use of the available digital tools: the Digital network of the EU Platform on FLW and the REFRESH Community of Experts. She then asked members for their input on the functionalities of the tools in view of implementing further improvements, and indicated the SANTE food waste team as the contact point for any technical assistance and support needed.

The next Platform plenary meeting was announced for 24 May 2018 in Vilnius, Lithuania; future sub-group meetings would be scheduled in February-March 2018.