



EUROPEAN COMMISSION
HEALTH AND FOOD SAFETY DIRECTORATE-GENERAL

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

DRAFT SUMMARY REPORT

EU PLATFORM ON FOOD LOSSES AND FOOD WASTE: SUBGROUP ON ACTION AND IMPLEMENTATION

DG HEALTH AND FOOD SAFETY (SANTE)

3rd meeting

THREE-SIXTY Innovation Centre, Huygensweg 10, Veghel, Netherlands

1-2 October 2018

Chair: Anne-Laure Gassin, *Policy officer, Food information and composition, food waste, DG SANTE*

Commission: **DG SANTE:** Dora Szentpaly-Kleis, Bartosz Zambrzycki, Manuela Marcolini; **JRC:** Carla Patinha Caldeira.

Member States represented:

DE, ES, HR, IE, NL, PT and SE

Private sector organisations:

BOROUME; CITY OF MILAN; EUROCOMMERCE; European Food Banks Federation (FEBA); FOODDRINKEUROPE (FDE); HOTREC; OSTFOLD RESEARCH, Nofima and Matvett Consortium; Wageningen UR; ZERO WASTE SCOTLAND.

BACKGROUND INFORMATION:

Following the invitation of the THREE-SIXTY Innovation Centre, the 3rd meeting of the "Action and Implementation" sub-group of the EU Platform on Food Losses and Food Waste, was held on 1 and 2 October 2018 at this unique facility dedicated to food waste prevention and circular economy in the Netherlands. The trip was also the opportunity to visit and discuss with companies who have implemented food waste prevention and circularity in their business model and operations. In the organisation of the meeting the Commission was supported by the Dutch members of the EU Platform on Food Losses and Food Waste including Wageningen University and Research (Wageningen UR) and the Dutch Ministry of Agriculture, Nature and Food Quality.

DAY 1

The two-day meeting of the subgroup on "Action and implementation" kicked off with field visits at members of the Dutch Taskforce Circular Economy in Food, where subgroup members discovered the operations behind two circular economy initiatives and learned more about their achievements and barriers.

1. The first field visit was at *Protix Biosystems*, a company that farms insects predominantly for animal and aquaculture feed, while following a sustainable approach in their operations. The insects are fed with a mix of grain-, fruit-, and vegetable leftovers from local sources, as they have the ability to turn low-grade food waste into valuable high-end proteins and fats.
2. The second field visit brought subgroup members to the premises of *Van Rijsingen*, a vegetable factory which follows circular economy principles in their daily operations. Based on demand, the company sows, harvests, processes and sells a wide variety of vegetables; processing any potential wasted parts into new products destined for human consumption (juices, vegetable powders etc.). The company consists of four divisions, each dealing with different aspects of their operations: Source, Carrot concepts, Fresh service and Ingredients. Subgroup members received a tour of the factory and observed the production process: from their initial processing as healthy snacks ('baby carrots'), to the transformation of by-products into juice and later on into vegetable powder. The tour was followed by product sampling and further information regarding new product applications.
3. Upon arrival at the THREE-SIXTY innovation centre, members were greeted by the founder of the centre, Mr. Bob Hutten, and several members of the Dutch Taskforce Circular Economy in Food. In order to get familiarised with the work dynamic of the centre and its facilities, participants were divided into 4 groups, taking turns in meeting 4 innovators in food waste prevention during 15-minute information and tasting sessions.

#1 Leon

Leon is part of a fourth generation of farmers; his family runs an orchard producing around 500 tons of apples and pears every year. Seeing a significant part of his fruit production going to waste due to strict market quality standards, Leon developed a business model to transform the otherwise wasted fruits into delicious liqueurs and drinks, on the farm. *Leon* products are now sold in various stores across the country and guided visits of the farm and its distillery are organised, helping to raise awareness about food waste.

#2 Yespers

Yespers' goal is to contribute to more sustainable food systems, while also offering consumers healthier alternatives for different foods. The company guides its activity according to three SDGs: 1) No poverty, 2) Zero hunger and 12) Responsible consumption and production. Looking to build sustainable and transparent collaboration with local farmers, *Yespers* uses traceable ingredients to create fruit and vegetable spreads from surplus produce, as well as naturally sourced granola.

#3 *Lekkere man*

The start-up *Lekkere man* (i.e. Tasty Man) aims to strengthen sustainability of dairy and meat industries, by promoting consumption of 'male' meat, mainly roosters, bucks and bulls. Due to the lack of market opportunity, male species are rarely slaughtered for human consumption.

In collaboration with a local chef, *Lekkere Man* provides catering services for events, sells high-end products made out of 'male' meat to selected outlets and gives workshops to tell the story of the marketing of food made from male animal species.

#4 *Too Good to Go*

Too Good to Go offers a digital solution to fighting food waste, through a mobile app that connects bakeries/restaurants wishing to sell their surplus food with potential customers who are interested in buying the food/meals at a fraction of the price. The app is present in 9 countries (BE, CH, DE, DK, ES, FR, NL, NO, UK), it has over 3 million users and has helped rescue over 2.5 million meals.

Next, Bob Hutten, the founder of The Waste Factory, officially welcomed subgroup members and Dutch Taskforce Circular Economy in Food stakeholders to THREE-SIXTY, and shared his vision for creating more sustainable food systems. Visitors were then invited to discover the factory through a guided tour. The Waste Factory uses ingredients of negligible value (production scraps, misshapen vegetables, mislabelled products), transforming them into tasty products such as soups, sauces and ketchup. Products made at the factory are then sold through various suppliers and retailers (the group was informed that a new product would be sold shortly by the major NL retailer, Albert Heijn).

The highlight of the tour was the visit to the cooling chamber, where visitors saw large amounts of vegetables discarded due to aesthetic considerations (tomatoes that are too firm, pumpkins with lightly-coloured peels, misshapen celeries, zucchinis with fine scratches etc.). At the end of the visit, the group was invited to taste soup and ketchup made out of vegetables which would have otherwise been discarded.

The 'No waste' dinner prepared from ingredients and foods which would otherwise have been wasted, offered sub-group members and the Dutch Taskforce Circular Economy in Food stakeholders the opportunity to exchange views and share initiatives in food waste prevention, while becoming acquainted with the work of other frontrunners in circular economy: *Plus retail/Keep-it* and *Kromkommer*.

DAY 2

The technical meeting of the subgroup took place in the morning of the second day at the premises of THREE-SIXTY.

1. WELCOME AND ADOPTION OF THE AGENDA

The Chair opened the meeting by thanking Dutch colleagues for their hospitality and for the excellent organisation of the sub-group's field trip. Next, the Commission provided an overview of the evaluation exercise, pointed out the members who had agreed to be rapporteur for defining recommendations for action at each stage of the food supply chain (primary production – COGECA, manufacturing – FOODDRINKEUROPE, retail – EUROCOMMERCE, hospitality and food services - HOTREC, consumer – ZERO WASTE SCOTLAND) and outlined a timeframe including next steps. It was explained that JRC would write a report by the end of February 2019 on the evaluation of initiatives received from Platform members, which will constitute the basis for rapporteurs' drafting of recommendations for action. The latter will then be discussed within the subgroup on Action and Implementation, and presented later on during the Platform meeting in May 2019.

2. FRAMEWORK FOR THE ASSESSMENT OF FOOD WASTE PREVENTION ACTIONS – PRESENTATION BY JRC

JRC offered an overview of the food waste prevention actions reported by Platform members through the online EU Survey questionnaire, which was followed by an extensive discussion on the evaluation framework proposed. Some stages of the food supply chain were better represented than others and, taking into account that initiatives need to be considered in a contextual framework, it was agreed not to rank the actions, but to provide a descriptive assessment for each one.

Main points raised by subgroup members:

- As a significant amount of actions lacked data on amount of food waste prevented, it was decided that for the purpose of the pilot exercise, descriptive assessments would be preferred over numerical ones. For initiatives which did not provide any information on the amount of food waste prevented, this aspect would be reflected in their evaluation form as a recommendation to measure. The initial approach to use proxies was ruled out given the lack of reliable data and the fact that such an approach would not support measurement as a core action to take (JRC, Wageningen UR). FOODDRINKEUROPE and EUROCOMMERCE highlighted similar difficulties in gathering data on quantities of food waste prevented, including from the retail industry (e.g. quantifying the amount of 'use by' products saved through price discounts).
- On the classification of actions, it was suggested to add a category to reflect packaging innovation (Matvett); to include consumer information on product labelling (SE). Several members have raised the issue of complex initiatives which fall under multiple categories (HR, BOROUME). JRC clarified that the latter would be evaluated based on their primary characteristics and type, as one of the aims of the exercise is to match outcomes with type of actions. Further on, secondary activities will be also considered. CITY OF MILAN

announced on-going work on developing a classification system for urban food waste prevention initiatives according to the actors in charge of their implementation.

- JRC explained that an evaluation factsheet will be produced for each initiative, including information on type of actors, implementation difficulties and barriers etc. In order to maintain a systematic approach, factsheets would be drafted by the JRC.

SE suggested capturing information on possible side effects of actions (eg possible impact of school programmes on food waste prevention at home), while ZERO WASTE SCOTLAND advised to include information on the dynamic of the initiatives, lessons learned and possible failures. Other proposals: to include background information on previous actions for repetitive initiatives (SE); a description of measurement methods (IE); success factors (SE). JRC confirmed that all aspects would be taken into account, however subject to the availability of data reported through the form.

- Regarding data reliability, Wageningen UR highlighted there was no mechanism in place to verify the accuracy of information received. The sub-group agreed that the project relied on the sense of accountability of the actors involved and their interest in reporting accurate information in order to draw learning from the outcomes of the exercise.
- JRC informed members of the outcomes of the expert meeting organised to discuss the evaluation framework of food waste prevention initiatives. While the initial approach considered the implementation of a scoring system, due to lack of reported data, it was decided to follow a more descriptive analysis of the initiatives submitted. The assessment factsheet would then aim to capture the reasons behind the data gaps.

Experts also discussed the issue of innovation and suggested that this aspect not form part of the evaluation criteria as such, but would be referenced, as appropriate, in the evaluation factsheet.

- It was clarified that this exercise will only address food waste prevention actions and initiatives will not be ranked as such.
- BOROUME pointed out that for some initiatives, it is more difficult to assess their possible impact on food waste prevention; for example the possible influence of consumer awareness campaigns on actual behavioural change. The Commission explained that for such communications initiatives, the project will aim to gather and analyse data on intermediate indicators (eg number of persons reached with a given message, cost per contact...) in order to draw learning and help inform members regarding the preferred manner to design and implement actions in order to optimise their outreach.
- Environmental impacts would be assessed using a calculator developed by JRC, based on the Life Cycle Assessment methodology, which takes into account waste treatment costs (proxy data) and relevant EU statistics on food consumption (e.g. baskets of representative products for each Member State). In the absence of key data, the calculator would provide estimates. The calculator captures the typical resources associated with actions in order to build typologies of initiatives.
- Following the pilot exercise, DG SANTE will assess the best digital tool through which the calculator will be made available online, together with the JRC evaluation report, factsheets and recommendations for action. It is intended to store the evaluation factsheets in a

searchable database structured according to relevant categories of food waste prevention initiatives.

- Social efficiency will be calculated through the number of meals provided and, where relevant and reported, the number of jobs created, against the cost of the action which is taken as a baseline.
- Other indicators employed in the assessment methodology include sustainability of the action over time, transferability and scalability as well as inter-sectoral cooperation. City of Milan highlighted transferability as a key aspect for initiatives carried out through networks of stakeholders.
- In answer to a query raised by HR, the Commission confirmed that practices that have not met the minimum reporting quality standards would be excluded from the assessment process; however they will be mentioned in the report together with the explanation for their exclusion.

Before the beginning of the assessment process (November 2018), the Commission would share with subgroup members the list of initiatives reported to date in order to inform on the type of data gathered to date and to receive feedback on potential gaps which need to be addressed. The list would not include those initiatives for which authors have opted out from making these available to all Platform members on the [Digital Network](#). Authors of initiatives that lack certain data may be contacted by the Commission for further information, while also copying in their representative on the EU Platform on FLW.

3. INFORMATION SHARING ON FOOD WASTE PREVENTION INITIATIVES IN MEMBER STATES/BY SECTORIAL ORGANISATIONS

3.1 RECENT DEVELOPMENTS IN EFFORTS TO COMBAT FOOD WASTE – PRESENTATION BY THE NETHERLANDS

NL referred to the latest developments in national efforts to prevent food waste, with a focus on the line of action aimed at consumers. The Dutch Taskforce Circular Economy in Food and the Dutch Nutrition Centre have collaborated to create a toolbox 'United against food waste' to inspire and activate consumers, as well as businesses, to take action against food waste. These include, for instance, a fridge sticker illustrating the storage conditions of specific foods, a fridge tab to signal products which need to be consumed with priority and measuring cups for portions (e.g. pasta, rice, couscous ...). The latter have been distributed in supermarkets, at selected retailers upon agreements established with the Dutch Nutrition Centre.

The toolbox will be employed and disseminated in a national campaign coordinated by members of the taskforce through events and specific actions, but also through social media influencers. The consumer awareness campaign is part of a strategic plan which will run through 2030.

3.2 UPDATE ON EUROPEAN CITIES' EXPERIENCE IN FOOD WASTE PREVENTION – PRESENTATION BY CITY OF MILAN

City of Milan offered an update on their work within the European research and innovation policy FOOD 2030 as well as the Milan Pact Award – an action to collect 50 practices of signatory cities

in the six categories of the Milan Pact Framework for Action, in order to create a representative sample of food policies and practices that signatory cities are implementing. City of Milan is also collaborating with FAO in building a monitoring framework to assess progress made by cities towards more sustainable food systems. Among the indicators developed to monitor urban food systems, four refer to food waste.

3.3 REDUCTION OF FOOD WASTE THROUGH PACKAGING – PRESENTATION BY MATVETT

The presentation kicked off with an overview of the Ostfold Research, Nofima and Matvett consortium representing Norway in the EU Platform on FLW, as well as a brief description of the 'Norwegian model' of inter-sectoral collaboration in food waste prevention.

Next, the focus shifted to the role of packaging in reducing food waste by extending the shelf life and maintaining the quality of products marked with "best before" dates. Taking the example of cauliflowers, it was explained that greenhouse gas emissions associated with the cultivation process of the vegetable were significantly higher (76%) than those associated with its packaging (4%).

Improved packaging leads to a significant reduction in wasted minced beef (76%), as low oxygen packaging ensures a shelf life of 16-18 days at 4°C; however, the low concentration of oxygen also affects the aspect (colour) of the product. SE and Wageningen UR highlighted that such a measure should be accompanied by informative communications towards consumers, who need to understand the changes made and how they affect the qualities of the product.

In reply to a query from BOROUME as to the reasons behind labelling products considered highly perishable (milk, minced meat) with a "best before" date, Norway explained that the quality of the foods could be assessed by consumers themselves through an organoleptic approach. The Commission referred to the work of the taskforce of the date marking sub-group, aiming to elaborate technical guidance to support food business operators in implementing date marking where issues such as what constitutes "highly perishable" foods and factors which can affect product shelf life (eg packaging) are currently being discussed.

4. A.O.B.

The Commission informed subgroup members about the launch of the UK Food Waste Reduction Roadmap and the [Food Waste Atlas](#) – a free online database which gathers data on food losses and food waste across the whole food supply chain. Both initiatives would be presented during the Platform meeting on 6 December 2018.

The Commission also referred to the recently adopted EFSA opinion on simplified food safety management systems for food donation, which could assist small retail establishments (both donors and recipients) in controlling food safety throughout the redistribution process.

ES announced that data from the quantification panel for Spanish households were available online on the official [website](#) dedicated to food waste prevention and reduction: *menosdesperdicio.es*.

In closing the meeting, the Commission announced the next meeting of the Action and implementation subgroup to take place in spring 2019, once the JRC evaluation report becomes available