# Preventing food wastage in the food and drink sector

Europe's food and drink manufacturers take action to prevent food wastage



## Find out more

Interested in learning more about Europe's food and drink industry commitments to prevent and reduce food wastage?





### For further information

#### **Tove Larsson**

Director of Environmental Affairs FoodDrinkEurope

**Tel:** +32 2 514 11 11

Email: t.larsson@fooddrinkeurope.eu

## Introduction

The European food and drink industry is constantly looking for new ways to be competitive, productive and more sustainable (economically, environmentally and socially). Maximising the use of food and reducing food wastage are therefore of key importance for the food and drink industry. In June 2013, FoodDrinkEurope launched 'Maximizing food resources: A toolkit for food manufacturers on avoiding food wastage' in parallel with a joint declaration on food wastage, 'Every Crumb Counts'. The toolkit, which has been disseminated throughout the membership, is intended to help food and drink manufacturers further prevent food wastage both within their own operations as well as up and down their supply chains. The toolkit fulfils FoodDrinkEurope's commitment, as a signatory of the declaration, to raise awareness of the need to reduce food wastage both within manufacturing operations and along the food chain. It also fulfils our commitment to contribute to the development and dissemination of best practices.

When we launched the Every Crumb Counts declaration and our toolkit, we recognised that it is important to ensure that the commitments outlined in the declaration are taken forward and to provide evidence of this. We therefore carried out a survey among our membership in 2014 to assess uptake of the toolkit and to simultaneously raise awareness about food wastage and what can be done. This report shows a selection of the many actions that are being taken by food and drink manufacturers across Europe to prevent food wastage, covering many different sectors and by large, medium and small companies alike.

It affirms that food and drink companies and their associations recognise the need to lead by example and are working to reduce food wastage in their operations or respective sectors. Companies and their associations are taking action not only because of the economic impacts but also because food wastage adds to total greenhouse gas emissions and is a waste of all the valuable resources that went into producing the food in the first place. They also share the moral imperative not to allow good food to go to waste while some 805 million people in the world go hungry<sup>1</sup>.

The survey responses also show that many organisations are taking a whole chain approach to preventing food wastage and are working with suppliers to help them improve the quality of their raw materials. In addition, FoodDrinkEurope members are taking action to prevent food wastage from occurring downstream, for example by raising consumer awareness, providing them with portion and storage guidance as well as with innovative solutions. When accomplishing these goals, FoodDrinkEurope members are taking a multi-stakeholder approach and reaching out to other sectors, including other supply chain partners, governmental and non-governmental organisations and scientists.

Looking ahead, the food and drink industry will continue to strive to prevent and reduce food wastage. Some of the innovative actions that are mentioned by FoodDrinkEurope members include encouraging companies to integrate European food wastage reduction and resource efficiency in all parts of the supply chain and throughout the business including through offering products that help consumers use leftovers. FoodDrinkEurope will continue to contribute to the development of an internationally recognised definition and measurement methodology for food wastage. We will also continue to raise awareness and share best-practice among our membership and more broadly, to prevent and reduce food wastage throughout the food chain.

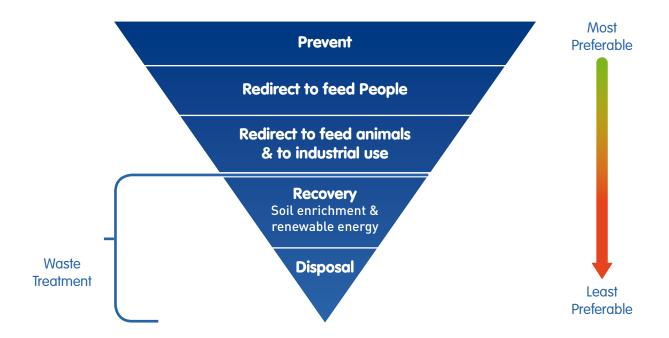
We invite all stakeholders to join us in this journey to make sure that Every Crumb Counts.

**Mella Frewen** 

Director General FoodDrinkEurope

## **Survey Methodology**

Following the launch of the joint Every Crumb Counts Declaration and the FoodDrinkEurope Food Wastage Toolkit on Maximising Food Resources, we conducted an online survey of all companies and associations within the FoodDrinkEurope membership in 2014 to gain a better understanding of food wastage prevention activities. The survey focused on actions to prevent food wastage as per the food wastage hierarchy in the Declaration.

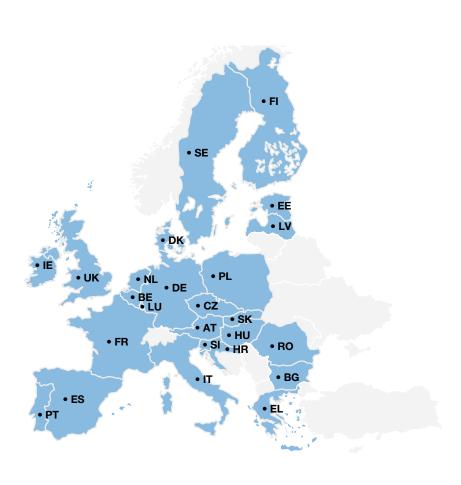


We also sought more detailed information about the uptake of the specific actions recommended in our Food Wastage Toolkit, covering both the actions manufacturers can take within their operations as well as up and down their supply chains.

We use the term 'Food wastage' to mean the decrease in edible food mass that was originally intended for human consumption<sup>2</sup>, in line with the UN Food and Agriculture Organisation's (FAO) definition<sup>3</sup>, excluding food that is redirected to feed people or animals or used for industrial use. We refer to "food wastage" to clearly distinguish the concept from waste, which is defined in the EU's Waste Framework Directive, and to emphasise the need for a supply chain approach.

<sup>&</sup>lt;sup>2</sup> FAO. 2011. Global food losses and food waste - Extent, causes and prevention. Rome

<sup>&</sup>lt;sup>3</sup> Global Food Losses and Food Waste, Swedish Institute for Food and Biotechnology, commissioned by FAO 2012





Responses were received from 29 companies, European sector associations and national federations in the food and drink manufacturing sector with operations or members covering 22 EU countries and other non-EU countries. It therefore provides a useful overview of food wastage prevention activities at national level, at sub sectors level and by companies across Europe, from multinational companies to small and medium-sized enterprises.

#### Respondents represent a wide range of food and drink products, including:



<sup>&</sup>lt;sup>4</sup> This figure is based on company respondents. The ten sector associations and national federations that responded were not counted in these figures to prevent double counting. 17 out of 19 companies provided input on number of employees; 13 companies provided information on their revenue.

## **Overview**

## **Key Findings**

### Many actions are being taken to prevent food wastage



A large majority of respondents (over 80%) stressed they are working to identify the causes of food wastage wherever it occurs and are optimising their production systems accordingly.



**80%** of respondents confirmed that they are collaborating with other stakeholders in order to prevent, as well as reduce food wastage.





Many organisations **(55%)** are training employees to prevent food wastage and optimise production.



Approximately **70%** of respondents are working with upstream supply chain partners, such as to improve storage, cold chain facilities and transportation, so foods and drinks maintain their quality and safety longer.



In addition, just over one-third (37%) of respondents said they are working with farmers to ensure that raw materials are produced to meet commercial and regulatory safety and quality standards through training and innovation thereby preventing food wastage on farms.



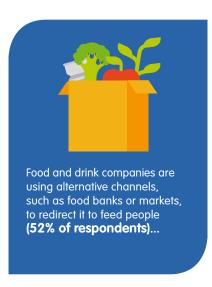
The most common actions for helping consumers prevent food wastage include using or developing packaging and processing innovations to prevent food spoilage (63%)...

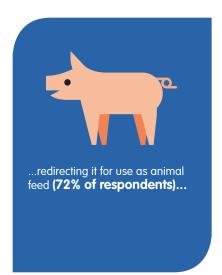


...providing clear storage, freezing, de-frosting and preparation instructions **(58%)...** 



...and providing a variety of quantity options, measuring tools or other portioning means for relevant products to fit the needs of consumers (50%).









90%

In terms of future actions, the vast majority of respondents (90%) are planning to continue to tackle food wastage in their operations and along the chain in collaboration with other stakeholders and supply chain partners (see pages 16-17 for details).





"SAVE FOOD Initiative, **FAO** and **UNEP** welcome this very interesting survey report from FoodDrinkEurope, which highlights the importance of both food waste quantification and collaboration between stakeholders in the supply chain.

We are delighted to see that 60% of survey respondents include food waste in their sustainability strategy and we hope this report will inspire others to take further and more comprehensive action.

**FAO** and **UNEP** look forward to continued fruitful cooperation with FoodDrinkEurope, via the Think Eat Save Guidance on the development of food waste prevention programmes, the Food Loss and Waste Measurement Protocol, and the new Sustainable Food Systems Programme of the 10 Year Framework of Programmes on SCP."

Clementine O'Connor, Consultant, United Nations Environment Programme

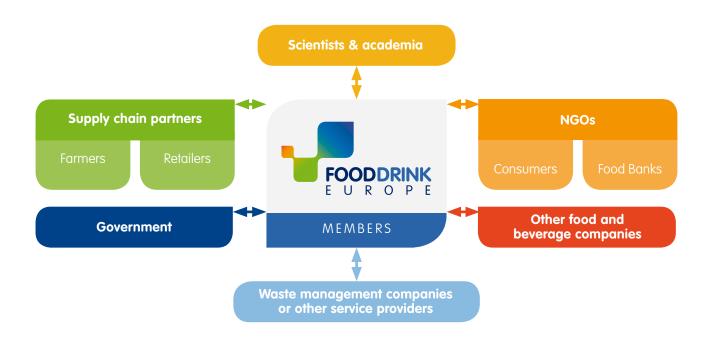
Camelia Bucatariu, Policy Development International Consultant, Rural Infrastructure and

Agro-Industries Division (AGS), Food and Agriculture Organization of the United Nations (FAO)

# Collaborating with partners

### Most respondents are working with others to prevent food wastage.

**80%** of respondents confirmed that they are collaborating with other stakeholders in order to prevent, as well as reduce food wastage. The following image gives an overview of with whom food and drink industry organisations are collaborating.





"The 256 food banks in 22 countries which form the **European Food Bank Federation** (FEBA) collect daily large surplus food from various sources including multinational food companies and food retailers and redistribute it to 32,000 partner organisations which support deprived people. Building win/win solidarities and partnerships between the different constituents of the communities they live in is at the heart of their dual mission of alleviating food poverty and combating food waste. We welcome the opportunity to cooperate with more FoodDrinkEurope members in future in favour of the most vulnerable people across Europe".

Isabel Jonet, President of FEBA



The Belgian food industry federation, **FEVIA** (Fédération de l'Industrie Alimentaire), together with Comeos, UBC, Horeca Vlaanderen, OIVO and the Flemish government, has signed a declaration, stating that the association will take actions to reduce food loss and will make a roadmap together with the other signatories with concrete actions. FEVIA Vlaanderen also led a one and a half-year project regarding food loss within food companies. In a first phase, the project involved collecting more information on food loss within companies through audits and a questionnaire. In a second phase, it involved offering preventive measures, tools and techniques that companies can take against food loss, which were disseminated through workshops, a theme day and a brochure. FEVIA cooperates with the government and its agencies, as well as local authorities on several projects and initiatives related to food waste including: Alliance Emploi et Environment in Brussels and FAVV regarding data for food banks Belgium.



The **Finnish Food and Drink Industries' Federation** (ETL) participated in a food wastage theme week in November 2013 organised by the Consumers' Union of Finland during which food wastage was discussed in various forums by several stakeholders (industry, retailers, ministries etc.). Due to the success of the event, it will be organised again during November 2014.



Nestlé is a member, on behalf of the Consumer Goods Forum, of the steering committee of the World Resources Institute's Food Loss and Waste Measurement Protocol and a member of the Grocery Manufacturers Association (GMA). The company also participates in the Food Waste Opportunities and Challenges initiative and the GMA-led Food Waste Reduction Alliance, which aims to decrease food wastage sent to landfill in the USA. Nestlé has contributed to the Organisation for Economic Co-operation and Development's Food Chain Analysis Network. It also participates in the EU Fusions Project and UNEP/FAO Agrifood taskforce. It collaborates with various food banks, such as FareShare, a charity that redistributes surplus food in the UK.

Photo credit: Nestlé

# A strategic approach

Preventing food wastage is part of the sustainability strategy of most organisations (60%).

43%	Many respondents (43%) stressed that their organisations measure food wastage.
32%	Several organisations (32%) said they even have a policy on preventing food wastage.
36%	To ensure food wastage prevention, some respondents (36%) said that they have at least one person with preventing food wastage within their mandate and to strategically drive this within the organisation.
21%	Other respondents (21%) even have a dedicated person whose role is to look at preventing food wastage on a strategic level.
32%	Several respondents (32%) stated that food wastage prevention is managed at factory level rather than via a corporate or sector-level approach.

#### Additional actions that organisations are taking include:

- Being involved in the European sector association activities;
- Conducting research on food wastage to be used as the basis for any future strategy;
- Integrating the prevention of food wastage in their internal environmental management system and their sustainability strategy.



"Food waste not only wastes the resources used in production of the food, but also adds to total greenhouse gas emissions through decomposition. As a result it undermines the efforts both to use resources more efficiently and to improve food security."

**UK Food and Drink Federation** 

# Avoiding food loss during processing

Many organisations are taking concrete steps to avoid food loss during processing.



A large majority of respondents (82%) stressed they are trying to identify causes of food wastage where it occurs...



... and many organisations (81%) are optimising their production systems to prevent it arising.



More than half of respondents are training personnel to prevent food wastage, such as through awareness raising.

The Association National des Industries Alimentaires (ANIA) has set up a working group dedicated to food wastage involving sector federations and companies of all sizes. Through this group, it aims to exchange information regarding the causes of food wastage and to share best practices. Work is also on-going to advance the measurement of food wastage.

Other measures specified by respondents include participating in research projects led by trade associations, which aim to measure and identify food wastage.

Companies that are members of the **European Dairy Association** are striving to measure and minimise milk losses during processing, such as through waste audits. Some loss during cleaning is unavoidable, but dairy companies aim to keep this to a minimum, for instance by training staff to optimise production. Companies are also taking initiatives to improve delivery route efficiencies to reduce damaged products, returns and missed delivery windows.

# Helping farmers reduce food wastage



Almost 70% of organisations participating in the survey are working with supply chain partners to prevent food losses from arising due to quality and safety issues.



**European Potato Processors' Association** (EUPPA) surveyed its members in 2014 to understand the initiatives that were being employed to reduce food losses and waste in the potato processing supply chain. The results reveal that the potato processing sector is taking responsibility for waste reduction by adopting a total chain approach to reducing food waste and is working with their supply chains to reduce losses starting on the farm.

Good practices for preventing food waste in the potato processing sector include:

- Programmes to develop new varieties and improve disease resistance;
- Reducing input requirements and increasing the usable portion of the potato for processing;
- Improving understanding of soil type, plant spacing and soil nutrition resulting in improving marketable yield per hectare;
- De-stoning the soil before planting;
- Limiting mechanical potato damage during harvesting and minimising drop heights at unloading post-harvest;
- Reducing losses during long term potato storage through effective sprout control and air quality management.



In the milk supply chain, **Nestlé** has provided cooling facilities to farmers in developing countries that have cut milk losses between farm and factories – saving water, energy and GHG emissions and increasing income for the farmers. In Pakistan, in the district of Renala, for example, the company has more than halved the losses of milk between the cooling facilities and the factory.

Photo orodit: Noctió



Approximately 40% of respondents said they are working with farmers to ensure that more raw materials meet commercial and regulatory safety and quality standards through training and innovation, thereby reducing on farm wastage.



The Spanish Association **FIAB** organises the Envifood meeting point, which brings together environmental professionals and food industry companies to discuss environmental issues affecting the food industry, including the problem of food wastage at farm level. The forum gives a deeper and more direct understanding of the areas for improvement and the environmental needs of the food industry.

A number of members of the Dutch association **FNLI**, particularly those in the fruit, vegetable and potato processing sectors, co-operate with farmers in plant breeding and spoilage prevention before, during and after harvest. For instance, breeding potatoes that are the right shape for crisps or chips helps avoid unnecessary losses during peeling and cutting. In many lower-income countries, Dutch companies and knowledge institutions invest in storage and cooling facilities in order to reduce post-harvest losses.

In a few cases, some manufacturers have a policy or strategy to situate factories near fields where there is an environmental benefit and it is appropriate. This means that less time is spent transporting materials for processing thereby allowing perishable food to stay fresher for longer.

# Helping consumers reduce food waste



More than **60%** of respondents are using or developing packaging and processing innovations to help prevent food spoilage and to keep products fresher for longer in the home.

Most organisations are also providing clear storage, freezing, de-frosting and preparation instructions for relevant products to help consumers make their food last longer. 50% of the respondents are providing a variety of quantity options, measuring tools or other portioning means for relevant products to fit the needs of consumers.



The vast majority of the potato products produced by **European Potato Processors' Association** (EUPPA) members are frozen.

Frozen food ensures a longer shelf life, easier portion control and generates less food waste during final preparation. Recent research done by Sheffield Hallam University (UK) showed that frozen food generates 47% less food waste, compared to ambient and chilled food consumed in the homes.



**Nestlé** provides preparation instructions on pack, which is crucial to prevent food wastage, and via websites such as 'Maggi Kochstudio' in Germany. Nestlé has also been developing creative solutions to help consumers make the most of leftovers. These include a range of different kinds of dough (pizzas, pasties, etc.) that can be filled with leftover food from their fridge. In France, Maggi has brought out a smartphone leftovers app full of top tips and recipes.

Members of the **European Dairy Association** develop servings more adapted to the consumer needs. One of the members for instance was the first national cheese brand to introduce re-sealable packaging. In 2014, the company further improved this packaging innovation with a new zip lock, which has been recognised by WRAP as helping to reduce food waste. Other members of the association use specially designed milk bottles, with less plastic which remain strong, fit for purpose and reduce milk loss. They have also introduced more choice when it comes to pack sizes. This is especially true for our cheese brands and milkshakes.

33%

Several respondents (33%) are providing consumers with information on how to interpret date labels...

25%

...some respondents (25%) are making dispensing food easier for relevant products to help consumers remove as much as possible from the packaging

25%

One-quarter (25%) of respondents are also informing consumers about packaging and labelling innovations that help prevent food spoilage, and some organisations are raising consumer awareness about food wastage.

## You make my shelf life complete



The **UK Food and Drink Federation** participates in 'Fresher for Longer', a ground-breaking and award winning behavioural change initiative launched in March 2013 under the Waste & Resources Action Programme's (WRAP) Love Food Hate Waste campaign. It aims to demonstrate to consumers how better use of packaging - and the information it carries - can help them reduce the amount of food that gets thrown away at home, saving them money and helping the environment. The campaign therefore seeks to tackle the significant opportunity for reducing household food waste that remains. On the day Fresher for Longer launched, it reached more than three million Britons through national press and radio coverage and social media.

Photo credit: Love Food Hate Waste, http://www.lovefoodhatewaste.com/



To help raise awareness about food wastage, the French industry association, **Association National des Industries Alimentaires** (ANIA) has developed an interactive consumer-facing online game about food wastage reduction on its website (JEUX NE GASPILLE PAS!)

Photo credit: Ania, http://www.ania.net/jeux-ne-gaspille-pas

Members of the **European Dairy Association** provide information on their websites regarding the *Fresher for longer initiative*, part of WRAP's Love Food Hate Waste campaign (see above). Branded websites promote the best way to keep food fresher for longer and tell/remind consumers that they can freeze milk. Labels are also being redesigned to give clearer information on food storage, temperature control and shelf-life.

# Finding uses for surplus food

Several respondents (52%) are using alternative channels, such as food banks or markets, to redirect surplus foodstuffs to feed people.



Belgian food and drink federation, **FEVIA**, has worked jointly with the retail and catering industry, food banks and many Belgian government departments to publish a brochure on food donation in order to stimulate food donation among food companies and retailers by providing them with practical information.



**Kellogg**, as part of its new global social responsibility strategy – Breakfasts for Better Days, focuses on hunger relief, particularly breakfast. Kellogg is aiming to provide 15 million servings of cereal and snacks to UK children and families in need by the end of 2016 and will do this through partnerships with food banks such as FareShare, the Trussell Trust and His Church as well as local school breakfast clubs.

The company has recently produced a new set of guidelines to ensure as much surplus food as possible is redistributed to community partners. The kinds of food that can now be donated include products in damaged packaging, short dated food, under or over weighted food, food intended for distribution in another country, residual stock and incorrectly labelled food. In 2013 the company provided 4.7 million portions of breakfast cereal and snacks to children and families in need, which is double the amount of the food donated in 2012. *Photo credit: Kellogg* 

The UK **Food and Drink Federation** (FDF) has worked with other food chain organisations and stakeholders under WRAP's leadership to develop Guiding principles on food redistribution. The Guiding Principles encourage food chain organisations and stakeholders to 1) Prevent food surpluses, 2) Feed people first, 3) Break down the barriers to redistribution and 4) Measure and monitor.



"Many dairy products have a very short shelf life, making it very important for our sector to control wastage in the whole chain. Our members do not want to waste resources producing food that may possibly be wasted. Should a product become unsellable but still fit for consumption, it should remain of value as food. Ideally this could be reused in the supply chain, either for charitable redistribution or at least for animal feed."

**European Dairy Association** 



**Nestlé** works with several food banks to donate food on a regular basis, as well as purposefully during disaster relief operations. For example, Nestlé Bulgaria has been working with the Bulgarian Food Bank (BFB) since 2012 to donate food to local groups who suffer from poverty or malnutrition. In 2014, the company donated more than 1100 kg of products to the BFB. It has also proved to be a reliable partner in events of natural disasters by providing food to needy people during the flooding of Asparuhovo, Varna in 2014. *Photo credit: Nestlé* 



**72%** of organisations are preventing food wastage by using it as animal feed.



**44%** of respondents are also finding markets for food to be used as inputs to other industries and...



48% are developing innovative new products from edible food and ingredients that are leftover from production.



In 2006 **Cargill** Texturizing Solutions' (CTS) plant in Malchin started a "Waste to Value" (W2V) campaign. The employees were asked to brainstorm ideas on how they could turn the residual materials from the plant into savings or, better yet, revenue. The team is working on a solution for lemon seeds, a residual product of pectin processing. The seeds contain oils, which could be used in the cosmetic or aromatherapy industries. CTS is trialling a process to separate the seeds before selling the residuals. *Photo credit: Cargill* 

## Next steps



Organisations within the food and drink manufacturing sector will continue to take action to prevent food wastage.

When asked about their future plans for further preventing food wastage, organisations in the food and drink manufacturing sector cited the following activities:

#### At manufacturing level:

- Continue to increase manufacturing efficiency and optimise production systems
- Better planning for raw material buying
- Continue to raise awareness
- Conduct regular audits that aim to monitor and analyse food wastage quantities and identify opportunities for improvement
- Where surpluses cannot be prevented, favour food redistribution to humans and animals
- Increase sales of co-products and create more innovative products that could make use of co-products
- Use by-products to develop new packaging materials
- Develop product and packaging innovations that help to reduce food wastage
- Encourage the integration of food wastage prevention throughout the business (e.g. marketing, procurement, logistics, etc.) as well as throughout the supply chain as part of improving resource efficiency



"As well as having an environmental impact, food wastage ultimately leads to higher costs for the sector as a whole. As a responsible manufacturer, addressing food wastage will benefit both the company and consumers."

KP Snocks

#### In collaboration with stakeholders:

- Continue to contribute to the development of an internationally recognised food wastage definition and measurement methodology
- Promote and contribute towards local and national food wastage prevention initiatives
- Contribute to consumer education and awareness

#### **Upstream:**

- Work with suppliers to improve agricultural practices and to ensure waste and environmental impacts are minimised (e.g. waste reduction programmes with specific targets to address year on year)
- Continuously improve control over supply chain logistics (e.g. time, temperature)
- Invest in R&D for plant science initiatives such as breeding techniques to produce better quality ingredients
- Help farmers improve yield and improve efficiency of distribution from farm to factory
- Improve packaging material for prolongation of shelf-life



"We aim to further inform and stimulate our members to take up the challenge, and integrate the topic of food wastage/resource efficiency in all parts of their supply chain and processes. This means that not only the CSR-manager needs to be involved, but also the marketing manager, the Chief Financial Officer, the procurement manager, the logistics manager, etc. need to take up food wastage reduction as a KPI in their work."

Federation of Dutch Food and Grocery Industry (FNLI)

#### **Downstream:**

- Improved packaging material for prolongation of shelf-life
- Offer consumers the right portion sizes, preparation instructions and storage guidance
- Offer products that help consumers prepare left-overs
- Further distribute tools and information



Good Food, Good Life

"Employee engagement campaigns can help to raise awareness and reduce food wastage in canteens and factories. At our headquarters, we conducted a campaign aimed at cutting food wastage. In the restaurant employees were encouraged to ask for a reasonable portion of food corresponding to their appetite and were given the opportunity to buy any leftover food and take it home. In six months, we saw food waste at our headquarters' restaurant cut by a third." Nestlé

#### **Recommendations**

When asked what would help the organisation or sector further prevent and reduce food wastage from farm to fork, most respondents called for:

- More sharing of best practice and case studies within the food and drink sector (73%);
- Improvements in consumer understanding of optimal food storage along with 'use by' and 'best before' date labels jointly with other stakeholders (67%);
- A harmonised and internationally recognised definition of food wastage along with a measurement methodology (56%).

Around one-third of respondents also thought the following initiatives would be helpful to explore:

- Development of EU guidance on food donation (37%);
- Establishing an online food wastage troubleshooting forum where companies can post questions and experts can suggest solutions (37%);
- More clarity around producers' liability when food is donated (33%).







Avenue des Nerviens, 9-31 1040 Brussels Belgium

**Tel:** +32 2 514 11 11

Email: info@fooddrinkeurope.eu

