

The key recommendations for action of the EU Platform on Food Losses and Food Waste were prepared on the basis of recommendations put forward by rapporteurs assigned to the different stages of the food supply chain. In this document, you can find these recommendations of the different sectors listed for each stage.

Key recommendations for actions – COPA-COGECA

Background

As farmers and agri-cooperatives are always committed to providing citizens with high-quality, sustainable, nutritious, diversified and affordable food, fighting waste is inherently equivalent to respecting the **agricultural world**: an economic, social and environmental battle with farmers and agri-cooperatives on the front line.

Description of the sector's overall approach

It is essential to make a clear **distinction** between what is “avoidable” (waste) and what is “non-avoidable” (loss). When defining food losses, several factors affect primary agricultural production that are out of farmers’ control, such as adverse weather conditions and climate change, pests and diseases, and market disturbances.

Food waste prevention/reduction actions carried out: lessons learnt¹

Agriculture is circular by nature and farmers adapt quickly to close the circle. In fact, agricultural products that do not meet the marketing standards set out by EU legislation and that cannot be used directly for human consumption are used for food processing, animal feed, redistribution, bioenergy purposes or incorporated into the soil to increase the organic matter content. Over the years, agri-cooperatives in particular have developed exemplary circular economy initiatives. By-products and co-products resulting from the processing of commodities are used in **feed manufacturing**, as is the case for whey, fruit and vegetable peel, sugar beet pulp, cereal bran, just to mention a few. Used cooking oils and food waste are used to generate biofuel. Organic waste is a potential source of both **energy** and soil enrichment. It undergoes methanisation processes and eventually generates biogas and **organic fertiliser**. Overall, the reduced greenhouse gas emissions from avoiding landfilling, replacing fossil fuels with biogas and biodiesel, and substituting nitrogen-based fertilisers with organic fertilisers, ultimately help farmers and agri-cooperatives in their battle against **climate change**. Many agri-cooperatives are investing in **research and development** programmes in order to increase the shelf life of their agri-food products, to optimise the greenhouse conditions to grow plants and to include technology in their daily activities.

Identifying key issues and opportunities

Technology, such as precision farming, is essential and needs to help farmers to meet current challenges. Farmers need to be equipped with a toolbox to overcome current and future challenges, notably weather events, ranging from floods to droughts. For example, we need to develop new plant varieties that are resistant to water and heat stress, pests and diseases. **New Breeding Techniques** provide a reliable solution in this regard. **Plant health** is also being compromised by the loss of appropriate tools to treat plants and diseases, be they mechanical, chemical or biological. Farmers are faced with a decreasing availability of safe and effective plant protection products, either because they have been phased out due to new legal requirements (“cut-off criteria”) or because of changes to the European Union’s maximum residue limit (MRL) system.

In the area of **animal health**, we underline the importance of good hygiene and feed safety, proper animal nutrition, an appropriate rearing environment and animal husbandry. It is also important that veterinary medicines (VMPs) are available and affordable, specifically taking into account the needs of minor uses and species like rabbits, aquaculture or bees, which still face a substantial lack of VMPs. All of the above need to be supported with adequate measures to guarantee high animal welfare standards.

¹ #GrownNoThrown Campaign: <https://grownnothrown.eu/#>

Recommendations for actions:

➤ Sector-specific recommendations, including recommendations to address future challenges.

While **EU marketing standards** are understood to serve as a common language, ensuring a level playing field, their number has already been considerably reduced. The product identities laid down in marketing standards help to establish a minimum set of requirements to ensure high quality, fair competition, market transparency and consumer information and protection. Marketing standards also contribute to avoiding market distortion between producers in Europe and third countries. If marketing standards are removed, the lack of selection at the beginning of the food chain would ultimately lead to a selection performed by consumers at the end of the food chain, increasing the amount of food waste, energy consumption, packaging material and economic losses.

Greater focus on optimising and re-using resources permits **new business models** to activate and enhance the competitiveness of the EU agriculture sector. For instance, the idea of using residues from initial harvesting or co-products from primary raw material processing in other business activities is promising and should be promoted. The **circular economy** represents a real opportunity to develop and efficiently manage alternative processes and products as well as to gain access to new markets.

Technological developments in the **packaging, transportation and storing** of fresh and processed agri-food products are necessary to increase the shelf life of perishable goods. Preserving the cold chain with more impactful, affordable and cost-effective methodologies may certainly improve the percentage of products that proceed into the next stages of the food supply chain.

➤ Intersectorial recommendations

Raising **awareness** and educating people about the value of food are essential elements to prevent and reduce food losses and food waste. Understanding date markings on food packaging or how to better store food at home are also vital.

Cooperation within the food chain is fundamental to support Sustainable Development Goal 12². In many countries, farmers and their cooperatives are part of food **redistribution networks** to facilitate donations of agricultural produce. These initiatives must be promoted in all European countries and encouraged by financial support.

To boost competitiveness, **new business models** can be created by optimising the use and re-use of resources. Agri-cooperatives in this context are an asset, creating new markets for products that do not meet EU marketing standards or aesthetic standards from the retail sector.

➤ Policy recommendations and vision

Tackling food waste may encourage the European Union to jointly address **climate change, job creation and food insecurity**. However, as farmers earn 46.5% of the average income of the rest of the economy, financial support is necessary to promote the sector's adaptation. We need a coherent legislative framework, tailored economic support and science-based political will to reposition agriculture at the centre of the circular economy, improving the farmers' toolbox and their access to innovation (biological, technological and societal). We need to avoid any organic landfilling by developing an all-encompassing multi-stakeholder approach to collecting unsold, unconsumed and inedible food and re-directing it into feed manufacture, biofuel generation, or biogas production. This can be achieved through composting and/or anaerobic digestion, resulting in natural fertilisation, as well as innovation yet to come. After all, **agriculture is the only stage that will be capable of closing the gap in the food chain and making our society truly circular.**

² Goal 12: Ensure sustainable consumption and production patterns:

<https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

WHO	WHAT	HOW	WHEN
EU Institutions	Re-establish the previous marketing standards and develop new ones covering other agri-food sectors.	Amend the single CMO Regulation, the “Breakfast Directives” and the secondary CMO legislation.	
Farmers, agri-cooperatives and food banks	Promote the establishment of food redistribution networks and integrate farmers and their cooperatives.		
Member States	Rebalance the power in the food chain.	Transpose and implement the Unfair Trading Practices (UTPs) Directive at national level in order to protect sellers from unfair practices (e.g. short notice cancellations and unilateral contract changes).	
EU Institutions	New plant varieties may be developed to increase yields and tackle new pests and diseases as well as adverse weather conditions.	European farmers and agri-cooperatives shall take advantage of the sustainable opportunities opened up by innovation in biotechnology. Clarifying the legal status of new mutagenesis techniques in plant breeding is one of the priorities for the next Commission’s work programme. Modern mutagenesis techniques are an important part of new plant breeding techniques.	
EU Institutions	The lack of plant protection products is becoming a growing problem that needs to be addressed.	Improve the functioning of the mutual recognition system for plant protection products under Regulation (EC) No 1107/2009; simplify the criteria and fast-track procedures for low-risk active substances, including biocontrol solutions; and tackle the lack of solutions for treating specialty crops (Minor Uses).	
EU Institutions	Appropriate treatment and veterinary medicines should be available in all EU Member States for all species.	Support research into the availability and affordability of new veterinary medicines (VMPs) while involving farmers in the whole development process; reduce the need for antibiotic treatment by improving animal health (e.g. prevention); and harmonise VMP collection and monitoring systems and the use of antibiotics by Member States.	
Member States	Policy and financial support is needed to facilitate the sector’s adaptation; jointly address climate change, job creation and food insecurity.	Food waste prevention can be tackled by enhanced circular economy support, exchanging knowledge of best practices (e.g. looking for suitable customers; adding value to residual flows and by-products) and also climate change adaptation and mitigation in the framework of the new green architecture	
EU Institutions, farmers and academia	Better access to technological developments and innovative solutions.	Include farmers and their cooperatives in the research and innovation activities from the beginning of the process. This will improve further uptake of innovative solutions and technologies within the sector. Foster discussions and exchanges of views between researchers, farmers and their cooperatives, in order for the latter to explain the challenges and difficulties that they are encountering.	

September 2019

FoodDrinkEurope revised draft key recommendations for action to reduce food waste in the food supply chain following meeting with the Commission on 10 July 2019

Background

The global food and agricultural system is facing multiple challenges: having to produce more food to meet higher demand from a rising global population against a background of less available land, water and energy and increased temperatures and greater extremes of weather resulting from climate change. Food waste represents a missed opportunity to feed the growing world population, a major waste of resources and a needless source of greenhouse gas emissions that impacts climate change. It also has negative economic consequences for everyone along the food chain when food goes to waste (i.e production value).

Description of the overall approach of the sector

Preventing food waste wherever it occurs in the food chain is a key priority for food and drink manufacturers. Whilst the primary focus is on driving out inefficiencies within supply chains and preventing food wastage from occurring in the first place, where surpluses cannot be avoided, redirecting food to feed people should be a first consideration in accordance with the food wastage hierarchy¹. The food and drink industry is firmly committed to supporting the implementation of the UN SDG 12.3 to halve food waste by 2030.

Food Waste prevention/reduction actions carried out; related learnings

In 2013, FoodDrinkEurope launched “[Maximizing food resources: A toolkit for food manufacturers on avoiding food wastage](#)” in parallel with a joint declaration on food waste entitled “[Every Crumb Counts](#)”. Following these two segments of work, FoodDrinkEurope launched in 2014 a progress report entitled ‘[Preventing food wastage in the food and drink sector](#)’, and in 2016 the ‘[Every Meal Matters](#)’ joint food donation guidelines which were developed together with the European food banks (FEBA) and the retailers (EuroCommerce). Bearing the above in mind, food waste prevention is part of the internal environmental management system and overall sustainability strategy for most of the food and drink companies.

Identifications of key issues and opportunities

There are a wide range of key issues when it comes to tackling food waste in the food and drink sector and along the supply chain (upstream and downstream).

Processing practices, consumer awareness and food redistribution are the key main areas where opportunities lie in order to make a big impact in reducing food waste.

¹ Joint Food Wastage Declaration ‘[Every Crumb Counts](#)’

Recommendations for action:

- Encourage the **training of personnel** and **raise awareness** within the organization on how to prevent food wastage at all levels of operations (e.g marketing, procurement, logistics, etc.)
- Encourage the use of **digital tools** that will help the organization better plan/forecast for raw material buying
- Encourage the use of tools such as the **Food Waste Atlas (WRI)** to publish and share food waste data.
- Work across the value chain on packaging solutions that enhance food quality, freshness and safety, including by looking for **packaging solutions** that allow shelf-life extension and by offering a range of portion sizes, as different packaging sizes and in-pack portioning can help cater to different lifestyles and household needs.
- Facilitate correct and consistent implementation of the provisions of the FIC regulation regarding the **‘use by’** and **‘best before date’** (‘use by’ to be used only for safety reasons and ‘best before’ for quality reasons’). Provide clear and meaningful open life instructions to consumers whenever appropriate. Provide clearly legible and visible date marking indications in line with the FIC regulation requirements.
- Share best practices in platforms such as the **EU platform on Food Losses and Food Waste** alongside finding opportunities with stakeholders to foster/coordinate **EU wide communication initiatives** (e.g. social media, partnerships with schools and national media) along the supply chain in order to raise citizen awareness of ways to reduce food wastage and to achieve long-term results.
- Continue to raise awareness about the possibilities to **redistribute food** within the food and drink sector through the dissemination of guidelines such as FoodDrinkEurope’s **‘Every Meal Matters’** joint food donation guidelines and [EU guidelines on food donation](#) that are in line with the food waste hierarchy
- Encourage the allocation of more funding (private and public) dedicated to **research and innovation** in order to develop new products derived by co-products. This could be especially beneficial to SME’s.

Intersectoral recommendations:

- Continue to support UN SDG target 12.3 in order to halve food waste by 2030 (i.e as reflected by the recommendations for action from each of the rapporteurs)
- Continue and support activities undertaken within the EU Platform on Food Losses and Food Waste (i.e sharing of best practices amongst a wide range of stakeholders)
- Promote and contribute towards local and national food wastage prevention initiatives (i.e providing support, guidelines)
- Contribute to consumer education and awareness (i.e joint communication initiatives).

Annex

WHO	WHAT	HOW	WHEN
Food Manufacturers	Encourage integration of food waste prevention throughout the business/supply chain (from raw material buying to marketing, logistics etc..)	Encourage the training of personnel and raise awareness within the organization on how to prevent food wastage at all levels of operations (e.g marketing, procurement, logistics, etc.)	
Food Manufacturers	Better planning/forecasting for raw material buying	Encourage the use of digital tools that will help the organization better plan/forecast for raw material buying	
Food Manufacturers	Monitor, measure and report on food loss and waste quantities in order to identify and take action on hotspots	Use tools such as Food Waste Atlas to publish food waste data	
Food Manufacturers	Take full account of critical role of packaging in ensuring food quality, safety and preventing food waste	Work across the value chain on packaging solutions that enhance food quality, freshness and safety, including by looking for packaging solutions that allow shelf-life extension and by offering a range of portion sizes, as different packaging sizes and in-pack portioning can help cater to different lifestyles and household needs.	
Food Manufacturers	Offer consumers right portion sizes and preparation instructions	See above	
Food Manufacturers	Improve consumer understanding of date marking jointly with other stakeholders	Facilitate correct and consistent implementation of the provisions of the FIC regulation regarding the ‘use by’ and ‘best before date’ (‘use by’ to be used only for safety reasons and ‘best before’ for quality reasons’). Provide clear and meaningful open life instructions to consumers whenever appropriate. Provide clearly legible and visible date marking indications in line with the FIC regulation requirements.	
Food Manufacturers	Raise awareness/share best practice along the supply chain	Share best practices in platforms such as the EU platform on Food Losses and Food Waste alongside finding opportunities with stakeholders to foster/coordinate EU wide communication initiatives (e.g. social media, partnerships with schools and national media) along the supply chain in order to raise citizen awareness of ways to reduce food wastage and to achieve long-term results.	
Food Manufacturers	Favour food redistribution to humans and animals if surpluses cannot be avoided	Continue to raise awareness about the possibilities to redistribute food within the food and drink sector through the dissemination of guidelines such as FoodDrinkEurope’s ‘Every Meal Matters’ joint food donation guidelines and EU guidelines on food donation that are in line with the food waste hierarchy	
Food Manufacturers	Increase sales of co-products and create more innovative products that utilise such co-products	Encourage the allocation of more funding (private and public) dedicated to research and innovation in order to develop new products derived by co-products. This could be especially beneficial to SME’s.	

Action to reduce food waste in the food supply chain

Background

Retail and wholesalers account for 5% of total food waste in the whole supply chain up to the consumers. As food waste has undeniable environmental, social but also economic consequences, our sector takes this issue very seriously. Cost of food waste and markdowns for European Retail is estimated to be €13 billion, 1.64 % of total sales.

Description of the overall approach of the sector:

The retail sector often drives sustainability issues through voluntary action at company or more global level such as the 2012 Retail Agreement on Waste and the resolution of the Consumer Goods Forum, under which leading food companies and retailers have pledged to halve the amount of food wasted within their operations by 2025. Several retailers have also taken part in the EU-funded REFRESH project.

The causes of waste in retail shops and the wholesale sector are diverse and our sector works in three main areas to prevent and reduce waste: (i) supporting upstream suppliers, (ii) improving logistics and stock in our store and (iii) building awareness on consumers.

Food waste prevention/reduction actions carried out; related learnings:

Retailers and wholesalers have a pivotal role to play in contributing to reduce food waste along the value chain. The various stages of the agricultural and industrial process should be taken into account. The causes of food waste results are varied such as changes in seasonal supply or knowledge of the precise level of consumers demand, inappropriate sizes or packaging compared to the type of households, esthetical considerations or lack of understanding of the meaning of “best before” compared to “use by”.

Actions

Managing the retail value chain: working with upstream partners

- **Optimise merchandise planning and storage** to guarantee a supply of goods tailored to meeting the current needs of the market, with, for instance, automated ordering and forecasting systems based on sales data from previous years, and on weather forecasts.
- **Optimise logistic and delivery** to keep transport routes between warehouses and stores as short as possible and improve transport conditions and packaging to reduce food loss
- **Avoid surplus** and buy goods from the farmer including the ones that do not meet their standards in terms of appearance for fresh sales. These are processed into soups, salads, juices or jams or sold at a discounted price.

Managing food waste in the shop

- **Staff training**; to check the quality and aesthetics of goods and provide innovative ways to offer them such as in ready-made meals (salads and soups).

- **Product management:** When large amounts of a product are in stock, special promotions help to sell off the goods quickly. Equally, if, in spite of all these measures, products are getting close to their expiry date, stores often reduce their price and label them for rapid sale.
- **Appropriate packaging:** to reduce food waste and increase shelf-life for fresh products.
- **Local partnerships:** When, despite of all prevention measures, food remains unsold, retailers collaborate with food banks and charity organisations to make food donations. Retailers are the largest food donors in Europe, providing a variety of products that other players cannot deliver.

Engaging consumers: Build awareness

Retailers are working with consumers to help them reduce the amount of food thrown away at home.

- **Adapt process and product** that best fit consumers' needs: Appropriate packaging and date marking also play a role in extending shelf life and providing better information to consumers.
- **Conduct information campaigns:** propose cooking suggestions in the instore magazines and, thanks to digital transformation, via the retailers' website – linking it to the consumers' shopping list.

Learnings:

- **By combining the efforts of all the value chain actors we can make a real difference to avoid food waste and handle surplus food.** A close cooperation with suppliers is key to optimize the food value chain and increase efficiency, by an improved forecasting and delivery for instance.
- **Stay close to consumer demand.** Consumers demand and taste are ever-changing and complex. It is critical that all actors, and especially retailers, understand consumers' habits and behaviour to put in place processes and propose products that will help them reduce their food waste at home.
- **Adequate management processes in store are necessary,** reducing food waste in store requires resources, mostly human and space. It is important to get the buy-in of employees and ensure they are trained as well as management support to put in place new processes to reduce food waste.
- **Greater transparency** along the value chain of supply and demand of surplus food would leverage to save greater volumes of food

Identification of key issues and opportunities;

Main challenges

- **Adapting to consumers demand:** Striking the right balance between the appropriate offer of fresh products and the right estimates and forecasts of food supply to avoid excessive stocks requires accurate volume demand forecasting. Due to changing consumer demand and unforeseen circumstance this is a fine balance to be maintained.
- **Effective collaboration** with the other players of the food supply chain is key. This implies a relationship based on shared benefits and mutual trust that can take time to establish and could be challenged by diverging interests.
- **Regulatory framework remains unclear:** This is especially the case for donations and date marking.
- **Lack of baseline and differences in measuring methodologies for food waste:** quantitative data may be found at another level of the supply chain where the retailer or wholesaler cannot measure directly.
- **Limited resources:** to be efficient food waste prevention processes have to be integrated into existing store management processes.

Opportunities

- **Digitalisation of supply, orders and consumers information:** Innovative solutions can help fill the gaps by, for example, facilitating the relationship among players, improving forecasting and store inventory as well as optimised transport and extending shelf life with packaging.
- **Support flexible regulations for incentives,** without compromising the EU basic principles on food (safety, quality): Public authorities could also provide incentives as for example a reduced VAT on donations. A clear legal framework is also necessary for operators to adopt best practices against food waste.

Recommendations for actions:

- *Sector specific recommendations, including recommendations to address future challenges. The recommendations shall address actors from both public and private sector (European, national, local level if appropriate);*

For retailers

- **Integrate food waste strategy in company's culture** with quantitative targets: strong buy-in from employees and support from management will maximise the chances of success. All have to be trained and rewarded for their extra efforts in tackling food waste
- **Enable data sharing and develop transparency with suppliers.** Keeping in mind the confidential nature of some information, retailers and wholesalers should try to share data and information on forecasting whenever possible to stay as close as possible to the demand. Improve logistics continuously to ensure an optimal transport of food. Agree together on accurate date marking to provide long shelf life without compromising safety or quality.
- **Use consumer research** to better understand the roots of food waste at home and how to propose food products that will help consumers reduce their waste. This include adopting an adequate policy on discounts and promotions. Continue to develop information tools such as recipes and shopping lists, and consider educational activities with targeted groups.
- **Engage and train staff:** Increase inventory and sales data accuracy and optimise workforce's know-how. Retailers and wholesalers could look into technologies that enable on-demand inventory and analytical insights into supply and demand.
- **Establish a baseline to measure progress and a monitoring system.** Both are essential to assess it how to improve it. In order to remain easy to implement, the monitoring process has to be integrated to existing processes.

For governments

- **Facilitate food waste prevention actions** and (legal) clarifications on the distribution and limitation of liabilities in the food supply chain, including as regards animal feed, hygiene and product regulations
- **Support good practices through fiscal incentives:** VAT exemption rules for donations are a good example of incentive, or reduction of waste management fees.
- **Put in place a favourable framework** to encourage food waste reduction and cooperation among supply chain such as the development of efficient food donation process.

- *Intersectorial recommendations;*

TBC – to be decided after each sector shares its recommendations

Annex - Table

WHO	WHAT	HOW	WHEN
	Establish trustful relation with suppliers; share data and information on forecasting to better match supply and demand.	Coordinate food waste prevention in a joint business plan among supply chain, Promote price transparency, Agree on benefit splits, Use digital and automatic ordering to avoid human error, Develop jointly volume demand forecasting, contribute to link primary food production to other markets (process) to avoid landfilling in case of surplus	
	Date marking : agree on accurate date marking to provide long shelf-life without compromising safety or quality. Role of innovation (eg bar codes? Other?)	Align food sector to agree on common standards Ascertain consistent date marking in the EU Promote packaging innovation to longer shelf life Provide guidance to both food sector and consumers	
	Greater use of food repurposing in store (eg processing unsold fruit/vegetables)		
Public authorities	Review/revise the prescribed date marking rules for eggs i.e. 28-day « best before » set in marketing standards and the 21-day « sell by » date.	FBOs should determine date marking as for other foods (<i>point put forward by EuroCommerce</i>).	
	Use consumer research to better understand causes of food waste at home and tailor products, discounts and promotions to help consumers prevent food waste at home.		
	Engage and train staff	<u>Make food waste prevention/reduction a company priority with clear KPIs</u> Provide incentives for internal collaboration across company's departments	

		Train staff on frequently marked down products, support waste prevention etc.	
	Establish a baseline to measure progress and a monitoring system.		
Public authorities	Put in place a favourable framework to encourage food waste reduction.	Clarify, facilitate and incentivise food waste prevention (eg clarify liability issues ; corporate tax credits and VAT rules for food donation)	

‘Key recommendations’ for action to reduce food waste in the food supply chain – food service sector - DRAFT

1. Background

In line with its relative share of food waste in the food chain¹, the food service sector has a role to play to contribute to the goal of halving food waste. It is very heterogeneous, with sub-sectors differing in size, organisation and services: hotels, restaurants, contract catering, event catering, etc. It is also very fragmented: 99% of its 2 million businesses are SMEs, 90% are micro-enterprises. Moreover, the vast majority of businesses do not produce standardised meals, change their menus and ingredients regularly, often do not have highly standardised procedures and work in small kitchens. These factors create unique challenges.

2. Description of the overall approach of the sector

Actions in the sector are characterised by the following goals: to bridge the knowledge gap on food waste through the development of guidance, to make use of cooperations with third-parties to build further knowledge and to engage both businesses and customers.

3. Food waste prevention/reduction actions carried out; related learnings

a) Actions carried-out

Most actions developed by sectorial hospitality organisations², hospitality businesses (in cooperation with third-parties)³ and the contract catering sector⁴ relate to supply chain efficiency (e.g. guidance materials) and consumer behavioural changes.

b) Related learnings

- Because of the sector’s heterogeneity, one-size-fits-all actions should be avoided, commercial settings’ specificities must be taken into account and flexibility offered.
- Many small businesses lack knowledge to further reduce food waste. Trade associations and third-parties have a key role to disseminate knowledge and share good practices.
- A key for success is to engage both staff and management, while tackling customer behaviour and expectations;
- Food donations face strong challenges (i.e. difficulty to collect at the right moment very small quantities of food in multiple locations, no clear guideline from authorities).
- Empirical measurement of progresses is challenging in smaller businesses (lack of resources and capacity). The approach to measurement must be tailored to avoid new excessive burdens. While some (mostly larger) businesses may be able to measure food waste to some extent, many (small businesses) face major difficulties.

4. Identification of key issues and opportunities

The key issues in the sector are capacity and knowledge building, the application of SMART objectives, the implementation of simple Key Performance Indicators (KPIs) and measurement of food waste reduction efforts in smaller businesses. Key opportunities lie in businesses’ willingness to reduce food waste to reduce costs. Cooperation with third-parties offers potential to help smaller businesses with guidance and logistics.

¹The food service sector generates 12% of the total food waste in Europe - see FUSIONS report “[Food waste data set for EU-28](#)”

² See action S1 in JRC report and also HOTREC brochure ‘[European hospitality industry guidelines to reduce food waste and recommendations to manage food donations](#)’ on page 18-19

³ See actions B3, B5, S3, V1, V2 and V3 in JRC report

⁴ See actions B7, S4 and S5 in JRC report, the collection of case studies from the contract catering industry on food waste reduction (available online)

5. Recommendations for actions

Stage specific recommendations

- Trade associations to motivate businesses to engage in food waste reduction by showing a clear business case that encourages food waste reduction in every part of the processes.
- Trade associations, in cooperation with public authorities and third-parties, should address knowledge and capacity-building (e.g. guidance, training materials), as small businesses need external support. Staff and management should be involved in the development of training programs. Due to time constraints for staff training, written materials must be simple and other formats should be considered.
- Businesses, trade associations and third-parties designing food waste reduction actions should define SMART objectives and KPIs that are realistic, simple and easy for businesses to understand and use, taking into consideration the challenges and logistic burdens (e.g. for small operators). ‘*Total amount of food waste prevented*’/ ‘*Total amount of food waste*’ are the simplest KPIs for most actions (“*Food waste per meal*’ may also be used although not in all circumstances), except for the making available of guidance where the KPIs ‘*number of businesses entering the programme*’ or ‘*audience reached among businesses*’ are more realistic. More complex KPIs should be avoided.

Cross-cutting recommendations:

- Public authorities should mobilise trade associations and stakeholders through the setting-up of national working groups or platform (on the model of the EU platform on food losses and food waste) to help to spread knowledge and find pragmatic solutions.
- As small businesses lack resources to introduce measurement tools, trade associations, public authorities, NGOs and research centres should cooperate to facilitate measurement through differentiated solutions. Cooperation should consider means to facilitate external support to small businesses through external consultancy (if funding allows), cooperation with third-parties with an expertise in food waste, or through agreements with public authorities and waste collecting companies (which have the capacity to measure food waste collected from food service businesses). Support should also be provided to small businesses willing to run small campaigns of measurement.
- Public authorities, trade associations and food banks should cooperate to develop solutions to the logistical challenge linked to the collection of small quantities of food in multiple locations (e.g. development of technological solutions).

Hotspot specific recommendations:

- National food safety authorities should adopt clear guidelines on what can be donated by food service businesses and under which conditions.
- As a high share of food waste also comes from leftovers post-preparation in food services businesses, customer behaviour, engagement and shift in expectations are crucial for success. Businesses should ensure that front-of-house personnel can communicate with customers on aspects such as portion sizes. Public authorities and NGOs should run awareness campaigns to shift consumer expectations when eating out of home. Client organisations should review contracting practices impacting food waste.
- Public authorities in charge of education to integrate food waste prevention in hospitality studies curricula.

Enabling approaches:

- Public authorities should provide funding to support actions in small businesses, as they lack the capacity to invest in prevention. E.g. setting-up of training programs, creation

and making available of simple measurement tools (e.g. apps or software) or helping small businesses to obtain external support to further reduce food waste.

- Public authorities should provide incentives for companies actively engaged in food waste reduction. E.g. reduced garbage collection fee, tax breaks or incentives for businesses showing a reduction in food waste.

Annex

WHO	WHAT	HOW	WHEN
Trade associations, research centres	Focus on knowledge and capacity-building in small businesses, as they need external support.	Develop and spread guidance and training materials to businesses. Involve staff and management in development of training programmes and awareness raising (simple, easy-to-use information materials and tools, including alternative formats - e.g. graphic materials, short videos, interactive tools). Information and materials should encourage food waste reduction activities in every part of the processes (ordering, storing, preparing, serving and waste managing of food products)	As soon as technically possible and maintain awareness overtime
Trade associations	Motivate businesses to participate in actions by showing them a clear business case.	Showing business examples where food waste reduction efforts led to a fast return on investment or short-term economic benefit.	Ongoing and to be sustained.
Public authorities, trade associations and food banks	Public-private and inter-sectorial cooperation to identify solutions to the logistical challenge linked to the collection of small quantities of food in multiple locations.	Development of technological solutions that could better connect offer and needs and to help decentralise collection.	

<p>Businesses, trade associations and third-parties designing food waste reduction actions</p>	<p>Define SMART objectives and KPIs that are simple and easy for businesses to understand and use.</p>	<p>Partners in voluntary actions to agree on the right indicators. <i>‘Total amount of food waste prevented’/ ‘Total amount of food waste’</i> are the simplest KPIs to assess most actions when measurement is possible. <i>‘Food waste per meal’</i> is also a relevant KPI, although it may be difficult to use it in certain circumstances (e.g when the precise number of individual meals cannot be assessed. E.g. open buffets, etc.). Measurement is difficult for actions related to the making available of guidance. In such cases, use the KPIs <i>‘number of businesses entering the programme’</i> or <i>‘audience reached among businesses’</i>.</p>	<p>When designing food waste reduction action and national campaigns on food waste reduction</p>
<p>Food service businesses, public authorities, consumer and environment NGOs, client organisations</p>	<p>As a high share of food waste comes from leftovers post-preparation, link actions related to internal efficiency gains and consumer expectations/behaviour.</p>	<ol style="list-style-type: none"> 1- Businesses to ensure that front-of-house personnel can clearly communicate with customers on portion sizes, menu choice etc. 2- Public authorities and consumer and 	<p>Actions by staff of businesses already being promoted towards businesses and to be further promoted and</p>

		<p>environment NGOs to run awareness campaigns to shift consumer behaviour when eating out of home.</p> <p>3- Client organisations to review their contracting practices (e.g. clauses regarding availability of food selection during non-peak hours</p>	<p>sustained over time. Awareness-raising campaigns can be launched after coordination with all relevant stakeholders (e.g. within national forum/platform).</p>
Public authorities	Further clarify what can be donated by hospitality businesses and under which conditions.	Issue clear guidelines	To be done as soon as technically feasible.
Public authorities	Mobilise trade associations and stakeholders to help spread knowledge and best practice and identify pragmatic solutions to concrete problems.	Set up national commissions or working groups and/or replicate EU Platform at national level, with the view to share and spread knowledge and discuss solution to problems in the sector (e.g. measurement).	Can be done quickly. Some Member States already established such fora.
Trade associations, businesses public authorities, NGOs and research centres	Cooperate to facilitate measurement of food waste in small businesses	Identify solutions to provide external support to small businesses through the co-funding of external consultancy for businesses, cooperation with third-parties with an expertise in food waste, or through agreements with public authorities	

		<p>and waste collecting companies (which have the capacity to measure food waste collected from businesses).</p> <p>Technical support can also be provided to help businesses to measure themselves through small campaigns of measurement on which data are extrapolated (e.g. 5 consecutive days, once or twice a year, possibly with samples taken from different periods to account for differences linked to demand fluctuations).</p>	
Public authorities (EU/national/local)	Provide public funding to support actions in small businesses.	Fund/financially support the setting-up and making available of training programs, simple measurement tools (e.g. apps or software) or co-fund small businesses' use of external support to guide them to further reduce food waste (e.g. consultant services)	
Public authorities, cities	Provide fiscal incentives/tax reductions for companies engaging in food waste reduction.	e.g. reduced garbage collection fee to businesses showing reduction in food waste	
Public authorities in charge of education	Integrate food waste prevention in hospitality sector studies curriculum.	Education ministries to discuss with relevant hospitality schools.	

Key recommendations for action: households

In Europe, around 50% of food waste is estimated to come from householdsⁱ, and in some countries this share is even higher. Householder focused interventions are therefore essential to delivering ambitious overall food waste reduction. However, as highlighted in recent reviewsⁱⁱ the evidence base for their effectiveness is lacking.

Overall approach of the sector and lessons learned

Most actions addressing household food waste have focused on voluntary behaviour change driven by information provision ranging from small, local scale projects through to national scale communication campaigns. Child focused actions have also been implemented widely to develop positive behaviour patterns from an early age. Reflecting societal trends, many actions use social media or other digital platforms as key communication channels over television or print format as in the past. Information provision alone is the mostly widely used intervention; however, there is little robust evidence for its effectiveness in isolation from other factors.

Deploying and measuring interventions robustly in household settings is challenging. Practitioners are a highly varied group who may not be specialists in action design and evaluation. Actions are measured using methods such as food waste diaries, kitchen caddies, photo coding, and a range of surveys, questionnaires and interviews, in addition to waste composition studies when available. Baselineing, clear definition and consistent measurement methodology (e.g. WRI FLW Protocolⁱⁱⁱ) is very important particularly when looking to compare within or across regions and countries.

Many household focused actions do not have a monitoring system, do not determine KPIs or set SMART objectives^{iv} so effectiveness and efficiency cannot be evaluated. Long term impacts are particularly hard to systematically assess. An effective evaluation framework and well-designed monitoring system is vital and should be developed at the design stage. There is also real benefit gained from sharing what has worked and what has not.

Key issues and opportunities

- Food is an emotive subject, associated with many aspects of human behaviour, and an area where many policy interests interact (health, environment, social justice/equality).
- Households are significantly influenced by other sectors' actions and external factors - how can we determine the interactions, feedbacks and, importantly, potential co-benefits?
- Addressing all segments of the population is difficult, resource and cost intensive. Increased understanding of barriers is required to reach ambitious targets and facilitate transferability.
- Methods such as diaries and surveys do not work in all contexts and we must not attach too high levels of confidence to their outcomes given well documented underreporting by participants^v and the potentially unrepresentative nature of the sample.
- Measuring household food waste is highly complex - the methodology is rapidly advancing but many uncertainties remain, and standardisation is required^{vi}.
- Appropriate timing and funding of systematic evaluation to determine whether impact on behaviour is sustained. Understanding the duration of change is very important in assessing cost-effectiveness, long term action impact, and future sustainability.

Despite the challenges, household food waste prevention is a huge opportunity, with significant environmental, economic, and social benefits and a growing number and range of interventions. If we can harness this enthusiasm to strengthen the evidence base on what works, and share that knowledge widely, real change is clearly achievable in this sector.

Key recommendations for action: households

Recommendations for action

Improved action design, monitoring and evaluation

Action design, monitoring and evaluation needs to be more robust and replicable. Due to a lack of tangible economic return for householder focused actions, practitioners must prove effectiveness and efficiency to justify future funding and sustainability required to deliver a consistent message. Standardised guidelines for action design, together with development of an evidence hierarchy and common evaluation framework building on JRC work, is required to inform future interventions and promote replicability across Member States.

ACTION: The Platform should initiate a pilot common evaluation framework, development of an evidence hierarchy, and action design guidelines by end of 2020.

Increasing range of behaviour change methods

Interventions should try a broader spectrum of behaviour change methods with clear theories of change that account for contextual and external factors aiding/counteracting change. Scottish Government's ISM behaviour change tool^{vii} is based on 'moving beyond the individual' to consider all the contexts that shape people's behaviours.

ACTION: Funding programme scoping (at EU, national and local levels) to promote and facilitate the use, and development, of a wider range of behaviour change methods and active academic-practitioner collaboration.

Increased use and development of audience segmentation

Efforts should be made to increase in depth understanding of audience segments, the associated barriers to behaviour change, and capacity to change in order to effectively target interventions. Improved understanding of audience segmentation will facilitate and help determine transferability at local, national and EU levels.

ACTION: Academia and practitioners should work collaboratively, facilitated by funding and research managers, to develop deeper understanding of audiences when planning interventions.

Improved determination of sustainability of impact

More longitudinal studies are required to assess impact on short (immediate) and longer term (defined points after action implementation) evaluation to determine action sustainability and provide further lessons learned. This will determine whether an impact is temporary or instead drives a step-change in householder behaviour.

ACTION: Funding and policy managers should ensure provision of longer term funding for longitudinal studies and requirements for the assessment of sustainability of change.

Improved data, analysis and knowledge sharing

We need to improve the data available for household food waste and improve our analysis to allow for more effective impact assessment and evaluation. Recent developments in food waste reporting requirements at EU and national levels will support this. Key success factors, barriers, and data should be identified and shared, to support development of future actions, enhanced replicability and long term action sustainability.

ACTION: The Platform and funding programme managers should promote, and facilitate advancing food waste analysis, open access data sharing and collaborative action development by end of 2020.

Key recommendations for action: households

Cross-sectoral recommendations

Regarding wider reaching recommendations we suggest the following to ensure maximum impact in reducing food waste across the entire food supply chain:

- More active sharing of knowledge, data and lessons learned - we must learn from each other, including what does not work, and share this knowledge. Data and methods should be increasingly open and accessible to promote robust and replicable intervention design.
- Enhanced interaction with actions focused on other supply chain sectors - this is particularly relevant for the household sector as it is hugely affected by actions of other sectors. Consideration of the positive and negative feedbacks on other sectors should be evaluated and co-benefits highlighted.
- Widespread adoption of a common evaluation framework. This will drive improved action design, particularly in tandem with use of a common definition of food waste and consistent and widely utilised food waste measurement methodology. Such a common evaluation framework would also allow for the kind of higher level analysis of the potential 'rebound effect' of actions/interventions across all sectors.
- The development of an evidence hierarchy would allow for easy identification of methods with lower uncertainties for the wide range of practitioners involved in food waste reduction interventions building on existing work in this area.

Finally, we must continue to learn by doing - we cannot wait until everything is known before acting given the scale of our challenge. We can however learn through action in a more systematic manner by implementing some or all of the recommendations highlighted here.

Key recommendations for action: households

WHO	WHAT	HOW	WHEN
EU Platform	Improved action design, monitoring and evaluation	Initiate a pilot common evaluation framework, development of an evidence hierarchy, and action design guidelines.	By end of 2020
Funding programme managers	Increasing range of behaviour change methods	Promote and facilitate the use, and development, of a wider range of behaviour change methods and active academic-practitioner collaboration.	Starting 2020
Academia and practitioners supported by funding managers	Increased use and development of audience segmentation	Develop deeper understanding of audiences when planning interventions through collaborative working and co-creation between academic and practitioner communities.	Starting 2020
Funding and policy managers	Improved determination of sustainability of impact	Ensure provision of longer term funding for longitudinal studies and requirements for the assessment of sustainability of change.	Starting 2020
EU Platform and funding programme managers	Improved data, analysis and knowledge sharing	Promote, and facilitate advancing food waste analysis, open access data sharing and collaborative action development.	By end of 2020

ⁱ [Stenmarck et al., 2016](#)

ⁱⁱ JRC Report, 2019, [Reynolds et al, 2019](#), [Stockli et al, 2018](#)

ⁱⁱⁱ [World Resource Institute Food Loss and Waste Protocol](#)

^{iv} JRC Report, 2019

^v [Herpen et al, 2019](#)

^{vi} [Porpino, 2016](#)

^{vii} [ISM tool user guide, Scottish Government, 2013](#)

Key recommendations for action: citizens

What can we all do every day?

Sometimes it can feel a problem like tackling food waste is so big that our individual and community actions cannot make a difference, but it can! Little changes from everyone can result in a big difference especially in reducing food waste from households but citizens can also influence hugely how restaurants, food manufacturers and retailers manage and reduce waste.

Nearly every country has a resource to help citizens reduce their food waste such as *Love Food Hate Waste Scotland*, *Stop Spild af Mad* in Denmark, or *Zu gut für die Tonne!* in Germany. Each is designed with their national audience in mind regarding regional tastes and ingredients but there are also some common practical tips. Here are some examples:

At home

- **Plan your portions** – don't cook more than you need will save waste and your waistline!
- **Use your leftovers** – they can be delicious, will save you money, and there are lots of exciting recipe ideas to help you online.
- **Know your labels** – be aware of the difference between 'use by' (for food safety) and 'best before' (still safe to eat)
- **Use your freezer** – you can freeze many more foods than you might think, and it means you can have healthy meals ready for when you are short on time.
- **Store your food properly** – check the labels for storage instructions, make sure your fridge is between 1 and 5°C and know what is in your cupboards.

At the shops or market

- **Write a list** – only buy what you need and don't be enticed by multipacks or offers to save waste and money.
- **Eat in season** – foods that are in season and locally produced will be fresher and healthier.
- **Buy loose** - buy loose fruit, vegetables, meat and fish in the quantity you need rather than pre-packed.

At work/school/university

- **In the canteen** – don't take more than you can eat and ask for smaller portions.
- **The office fridge** – remember what you have left in the fridge and make sure to use it up before it goes bad.
- **Redistribute**– if you have leftover food from meetings or events consider redistributing to a charity or to staff to take home.

In cafés, restaurants and hotels

- **Grab a smaller plate** – at the buffet try a smaller plate so you don't take more than you can eat or try two starters instead of a starter and a main course.
- **Take away your leftovers** – if you cannot eat everything ask for a box or bag (or bring your own) to take it away for later.
- **Manage your expectations** – don't expect a full range to be available at all times of the day as this can mean cafes and restaurants end up wasting food.

Remember, when we throw food away, we don't just create the waste we see, but we also waste all the energy, resources, effort, and ultimately carbon, that went into growing, harvesting,

Key recommendations for action: citizens

processing, manufacturing, transporting and preparing it. Food waste prevention is therefore a big carbon savings opportunity we can all contribute to

‘Key recommendations’ for action to reduce food waste in the food supply chain

Overview of the sector’s approach to FLW prevention

Initially established to solve the paradox of scarcity in abundance, Food Banks daily contribute to the achievement of the Sustainable Development Goals, especially SDG 2 and 12.3. Recovering safe and quality food from all the stages of the food supply chain and redistributing to charities and people in need, Food Banks are critical to sustainability because their activity is declined into four aspects: environment conservation, economic efficiency, food safety, and social value.

Today more than 1,400 Food Banks operate in over 60 countries and redistribute 2,840 million tons of food to 63 million most deprived people worldwide.¹ In Europe in 2018 FEBA members provided 781,000 tons of edible and safe food² – equivalent to 4.3 million daily meals – to 9.3 million most deprived people through the collaboration of 45,700 charitable organizations and the professionalism of 31,700 co-workers (85% volunteers). In addition to surplus food from the food supply chain, FEBA members also redistribute food from the Fund for European Aid to the most Deprived (FEAD) and the Fruits and Vegetables withdrawal scheme, as well as from individual donations.

Learnings gained from actions undertaken and key issues/opportunities

Throughout Europe the system of Food Banks has evolved and diversified according to the different specific contexts, bringing innovation and added value to the core mission. Much work has been done to foster food donation through clarifying relevant provisions in European legislation and helping lift barriers within the current regulatory framework.³ Moreover, the overall landscape is changing due to many factors, including a growing focus on circular economy; sustainability and corporate social responsibility; manufacturing advances and innovations; increased attention on nutrition and health; technology and digital transformation; and a stronger interest in public-private partnerships in order to build a more resilient food system.

The key issues for food waste reduction actions in the sector are multiple and complex and mainly concern the following areas: legislation to promote food donation, especially at national level; to increase food donation both in quantity and quality; data collection to uniform measurement and impact assessment; innovation to develop new models and systems; collaboration to achieve joint goals; cost of the business model incurred both by the donor and the receiver to manage surplus food; communication to raise awareness on food donation; and finally cultural transformation to promote the reputation of the food supply chain and boost a change in the community as a whole. At the same time key opportunities lie in the commitment of countries to achieve SDGs, and the development of a set of tools which contribute to facilitate food donation (e.g. Circular Economy Package, EU Platform on Food Losses and Food Waste, European/national and sectorial guidelines, etc.); the definition of a clear hierarchy of actions to prevent food waste,

¹ Figures refer to the activity of 3 main networks of Food Banks in 2018: European Food Banks Federation (FEBA), Feeding America, and the Global FoodBanking Network (GFN).

² In 2018 FEBA members recovered, collected, sorted, transported, stored and redistributed food from the following sources:

- EU & National withdrawn products (agricultural products withdrawn from the market by authorities and received from producer’s organizations in the framework of EU and/or National programs): 50,583 tons;
- FEAD (food products received in the framework of the Fund for European Aid to the Most Deprived): 164,848 tons;
- Industry (food products collected/received from producers, processors, cooperatives): 117,941 tons;
- Distribution (food products collected/received from hyper/supermarkets and wholesalers): 403,297 tons;
- Food Collections (food products collected from individuals during in-store food drive, in-company food drives, schools): 56,247 tons.

³ For instance, “Every Meal Matters” jointly drafted by FoodDrinkEurope, EuroCommerce and FEBA in 2016, the “European hospitality industry guidelines to reduce food waste” drafted by HOTREC and FEBA in 2017, and the “EU guidelines on food donation” drafted by the European Commission in 2017”

giving priority to food donation rather than other options; the availability of resources to implement specific projects (e.g. LIFE programme); and finally, an increased awareness and attention to food waste, both of professionals and the general public.

Recommendations for action

Therefore, FEBA proposes the following recommendations for action to reduce food waste in the food supply chain:

Specific recommendations

- **Legislation.** To ensure a correct interpretation of existing European legislation (e.g. VAT, hygiene and food safety requirements, tax incentives, etc.) and, if needed, to promote the adoption of national legislation in order to facilitate food donation.
- **Efficiency of the value chain.** With an approach focused on circular economy and in line with the food hierarchy, to promote an increase of food donation both in quantity and quality, from retail to contract catering, from congress and banqueting services to farmers. To explore the nutritional contribution of balanced food, investigating new methods of food recovery, testing new possible solutions, and engaging all the stakeholders.
- **Impact measurement.** To better measure the impact of food donation encouraging digital transformation and sharing a standardized and consistent methodology for data collection across Food Banks with the ultimate goal of defining how to make sense of the information on impact management and measurement. An accurate data collection method would show evidence of its effectiveness and have positive impacts not only on the activity of Food Banks but also on the system as a whole in order to identify areas of potential development.
- **Innovation.** To innovate and modernize food donation with measures such as value-added processing, packaging improvements, shelf-life extension, cold chain management, etc. It is necessary to ensure financing at European/national level in next long-term EU budget 2021-2027 or partnerships with the food value chain.

Intersectoral recommendations

- **Collaboration.** To innovate the cooperation between Food Banks and other stakeholders (public authorities, food value chain, charitable organizations, academia, etc.) both in operational and relational terms. Food donation contributes to the prevention of food waste while improves the efficiency of the production system and the management of food business operators. Food Banks can leverage their network of 45,700 charitable organizations to disseminate information at the final consumer and to promote more efficient and responsible food management in households.
- **A single but multi-stakeholder business model.** It is crucial to recognize the added value of food donation as an integrated part of the food value chain. Technology could help enhancing the efficiency of the system, including traceability and data collection. As it is already foreseen for other renewable resources, appropriate European and national funding could leverage the activity of Food Banks, especially when initial investments remain an obstacle for many new and/or small organizations.
- **Communication.** As a contribution to the achievement of the SDG 12.3, to share results-based best practices, highlighting the positive impact of food donation and raising awareness about the prevention of food waste. To build a strong engagement and communication at every level is essential to making meaningful progress, creating a healthy and dynamic culture of shift, and getting our world a little closer to the achievement of the goal of halving food waste by 2030.

Annex – Table with recommendations for action

WHO	WHAT	HOW	WHEN
Sectorial specific recommendations			
European/national authorities in collaboration with Food Banks and food value chain	To ensure a correct interpretation of existing European legislation and, if needed, to promote the adoption of national legislation in order to facilitate food donation	To disseminate existing European/national and sectorial guidelines through stakeholders' dialogues at European and national level.	
National authorities in collaboration with Food Banks and food value chain		To foster the adoption of national legislation facilitating food donation, including measures to promote the processing of food (fruit, vegetables, fish, meat, etc.).	
Food Banks in collaboration with national authorities		To adopt clear national guidelines of good practices for charitable organizations (Article 8 of Regulation (EC) No 852/2004).	
Food Banks in collaboration with national authorities and food value chain		To address barriers where needed, leveraging the experience of other MS.	
Food Banks in collaboration with food value chain	To promote an increase of food donation both in quantity and quality.	To identify new sources of supply, from retail to contract catering, from congress and banqueting services to farmers.	
Food Banks in collaboration with European/national authorities and food value chain		To share knowledge and best practice, leveraging the experience of other MS.	

Food Banks in collaboration with European/national authorities and food value chain		To analyse and put in place systems that allow for the rapid reworking of products, such as fruit, vegetables, fish and meat, in order to make them far easier to store and preserve while ensuring the nutritional value.	
Food Banks in collaboration with food value chain		To analyze the impact of food donation on the efficiency of the food value chain and the prevention of food waste.	
Food Banks in collaboration with food value chain		To leverage food donation as an integral part of the food value chain and of a company's corporate social responsibility.	
Food Banks in collaboration with European/national authorities and food value chain	To better assess the impact of food donation.	To develop and share standardized methodology to assess impact of food donation supported by digital tools, taking into consideration the economic, environmental, nutritional, and social impacts.	
Food Banks in collaboration with European/national authorities and food value chain	To innovate and modernize food donation.	To ensure financing for the innovation and modernization of the system. Amongst other possible funding sources, the Single Market Programme could be a new EU funding source in future.	
Food Banks in collaboration with and food value chain		To establish stable partnerships between Food Banks the food value chain with a holistic	

		approach (e.g. food donation, financial support, sharing of expertise, involvement of employees, etc.).	
Food Banks in collaboration with European/national authorities and food value chain		To share knowledge and best practice, leveraging the experience of other MS.	
Intersectoral recommendations			
Food Banks, food value chain and academia	To recognize the added value of food donation as an integrated part of the food value chain and innovate the cooperation between Food Banks and other stakeholders both in operational and relational terms.	To analyse the logistical challenge to food donation, both for the donor and the receiver, in order to recognize the added value of food donation as an integrated part of the food value chain, not an option, and to increase the potential of food recovery.	
Food Banks, food value chain and academia		To analyse the positive (economic, environmental, nutritional, and social) impacts of food donation on the food supply chain.	
Food Banks and food value chain		To enhance the efficiency of the system through the use of technology, including traceability and data collection.	
Food Banks and food value chain		To establish stable partnerships between Food Banks the food value chain with a holistic approach (e.g. food donation, financial support, sharing of	

		expertise, involvement of employees, etc.).	
European/national authorities, Food Banks and food value chain		As it is already foreseen for other renewable resources, appropriate European and national funding could leverage the activity of Food Banks, especially when initial investments remain an obstacle for many new and/or small organizations.	
European/national authorities, Food Banks and food value chain		To promote campaigns and joint actions aimed at raising awareness about the reduction of food waste, highlighting the positive impact of food donation on business reputation, and targeting all the players of the food value chain.	
European/national authorities, Food Banks and food value chain	To share results-based positive best practices.	To strengthen and relaunch the collaboration between all the stakeholders who are contributing to the reduction of food waste, with the creation of a stable coalition (e.g. Champions 12.3) at European level, with a strong commitment, common actions, and high visibility.	