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GUIDELINES TO REDUCE FOOD WASTE - FOOD SERVICE

This chapter provides guidelines for reducing food waste in the food service sector as part of broader efforts to improve resource efficiency, embed circular economy principles, and support the transition to more sustainable and regenerative food systems.

The recommendations target food service businesses (e.g., restaurants, cafés, canteens, catering providers, and hospitality operators) as the primary actors responsible for waste generation and reduction, while the wider context is relevant for policymakers, local authorities, and stakeholders engaged in food system governance.

The guidelines build on the findings of the FOOD WASTE AUDIT D1.1.2, developed within the ECOFOODCYCLE project, and reflect the European Union (EU) policy framework specifically relevant to food service operations.

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Food service occupies a central and consumer-facing position within the food supply chain, influencing purchasing demand, shaping consumption habits, determining portioning practices, and setting expectations regarding freshness, meal aesthetics, and service speed. Several EU initiatives directly address the reduction of food waste in this sector.

The EU Guidelines on Food Donation, published by the European Commission, provide operational instructions for the safe redistribution of surplus food, addressing liability, hygiene, and labelling considerations (European Commission, 2017).

The EU Platform on Food Losses and Food Waste, supported by EU, with insights from its food service subgroup, has highlighted best practices such as menu planning optimisation, portion resizing, demand forecasting, surplus redistribution, kitchen staff engagement, consumer awareness, and waste monitoring systems.

Delegated Decision (EU) 2019/1597 establishes the harmonised EU methodology for measuring and reporting food waste levels, while the amendment to the Waste Framework Directive via Directive (EU) 2025/1892 introduces the first EU-wide legally binding food waste reduction targets, reinforcing Member States' obligations to monitor and reduce waste across all stages of the food supply chain, including food service.

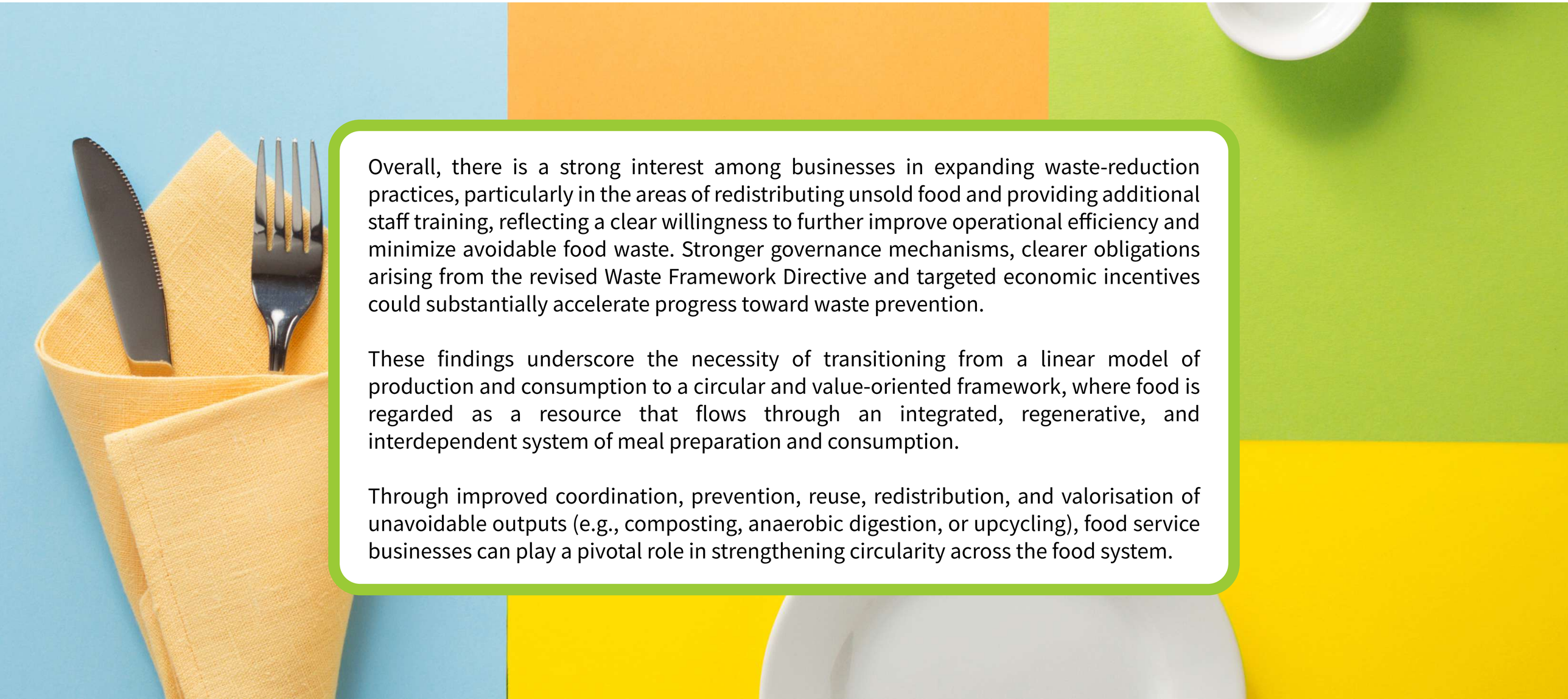
The Circular Economy Action Plan (European Commission, 2020) supports waste prevention through sustainable product policy, kitchen process streamlining, packaging minimisation, logistics improvements, and meal-flow optimisation.

The goals of Sustainable Development Goal 12, established under the United Nations (United Nations, 2015), are reflected in EU sustainability policies, emphasising the importance of food service operators in enabling responsible consumption, reducing plate waste, and promoting circular food management.

The FOOD WASTE AUDIT D1.1.2 shows that food waste in food service is primarily driven by customer or patient leftovers not being reused, health and safety regulations restricting food reuse and overproduction or excess inventory. These systemic drivers are reinforced by operational factors, including incorrect handling or preparation of food, changing or uncommunicated customer preferences, and lack of awareness or incentives to reduce waste, as well as smaller contributors such as raw materials expiring before use, cooking oversized portions, selective eating habits, high aesthetic standards, and non-continuous use of raw.

Behavioural and informational elements, such as insufficient training, inconsistent portioning protocols, and limited reuse practices, further exacerbate avoidable losses.

Although many food service businesses have implemented improvements in storage, inventory management, and portion control, digital waste-tracking systems remain underutilized, redistribution of unsold food is still limited, and staff training on waste reduction is not yet widespread.



Overall, there is a strong interest among businesses in expanding waste-reduction practices, particularly in the areas of redistributing unsold food and providing additional staff training, reflecting a clear willingness to further improve operational efficiency and minimize avoidable food waste. Stronger governance mechanisms, clearer obligations arising from the revised Waste Framework Directive and targeted economic incentives could substantially accelerate progress toward waste prevention.

These findings underscore the necessity of transitioning from a linear model of production and consumption to a circular and value-oriented framework, where food is regarded as a resource that flows through an integrated, regenerative, and interdependent system of meal preparation and consumption.

Through improved coordination, prevention, reuse, redistribution, and valorisation of unavoidable outputs (e.g., composting, anaerobic digestion, or upcycling), food service businesses can play a pivotal role in strengthening circularity across the food system.

Key Cause of Food Waste	Recommended Action	Expected Outcome
Operational and preparation practices	Train staff, monitor guests/meals, use portioning tools, standardised orders	Less over-prepared food, fewer cooking errors, optimised resources, smoother operations
Storage and handling issues	Temperature & hygiene control, labeling, apply FIFO, avoid over-stock	Reduced spoilage, fewer expired products, safer storage, improved stock efficiency
Service and display practices	Refill by real demand, reduce end-of-service exposure, remove decorations	Fewer unsold/exposed items discarded, major reduction in buffet/front-of-house leftovers
Rigid kitchen practices	Seasonal procurement, daily specials, optimise ingredients already in stock	Fewer ingredients discarded near expiration, reduced
Portion sizes and menu design	Offer size options, enable modular ordering, simplify menu range	Less uneaten plated food, simpler inventory, lower spoilage risk, higher demand alignment
Unpredictable consumer demand	Forecast guest flow using historical consumption & bookings	Fewer surplus meals from demand fluctuation, improved purchase and prep accuracy
Consumer preferences and behavior	Targeted communication, staff guidance, offer to-go boxes where appropriate	Higher table-consumption rates, less rejected plate components, more surplus value retained
Attitudes toward leftovers	Normalise take-home options via discrete messaging and provide packaging	More leftovers taken home instead of discarded, increased food value retained
Psychological and social factors of consumption	Smaller plates in self-service, staggered ordering, conscious-consumption messaging	Less overserving, fewer unfinished mains, fewer side dishes left behind, lower dining-room waste

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Reducing food waste in the hospitality and food service sector requires an integrated approach that combines operational improvements, behavioural engagement, and organisational commitment.

The findings presented in this chapter show that waste is generated at many stages, including menu planning, storage, preparation, service, and consumer interaction. They also show that food service operators are increasingly open to collaborative and circular solutions when supported with appropriate training, communication, and practical tools.

Aligning these efforts with the wider sustainability objectives of the EU enables the sector not only to minimise waste but also to create new value from resources that would otherwise be discarded.

By planning menus with greater care, monitoring stock effectively, engaging staff in responsible practices, and involving customers through clear communication and flexible service options, businesses strengthen their resilience and sustainability. These actions improve relationships with suppliers and communities, reduce environmental impacts, and help build a brand identity that reflects responsibility and care.

Creating a culture of sustainability is essential. When employees understand the importance of reducing food waste and feel personally involved in achieving results, they become active contributors to positive change. Training, recognition, and shared communication help transform waste reduction from a routine task into a shared goal rooted in purpose.

In the same way, involving customers through portion flexibility and responsible service helps to make dining experiences both enjoyable and respectful of natural resources.

Reducing food waste also supports innovation and creativity. Repurposing surplus ingredients, rethinking buffet service, and adopting circular approaches such as composting and energy recovery can turn potential waste into new value. These practices contribute to environmental goals and strengthen the competitiveness and long term stability of the hospitality sector.

Ultimately, the reduction of food waste requires a rethinking of the entire food system so that it becomes more intelligent, more equitable, and more sustainable. Every kilogram of food that is saved reduces costs, honours the work of those who produce and prepare food, and protects the environment that supports us.

Through continuous cooperation between institutions, businesses, and consumers, the hospitality and food service sector can guide the transition to a future in which food is valued and not wasted. By embracing this approach, food service operators can demonstrate that sustainability is not a barrier but an opportunity to innovate, to build trust, and to create long term prosperity for people, businesses, and the planet.

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- Simone De La Feld. The EU is wasting more and more food. 132 kilograms of food per inhabitant thrown away in 2022, Eunews (September 2024). https://www.eunews.it/2024/09/03/ue-spreco-cibo-statistiche-eurostat/
- European Commission. Food waste and food waste prevention – estimates (10 september 2025). https://food.ec.europa.eu/safety/food-waste/food-waste-and-food-waste-prevention_en
- Eurostat. Food Waste and Food Waste Prevention, Statistics Explained (2025 edition). https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Food_waste_and_food_waste_prevention
- Mecalux. FIFO and FEFO in warehouse management, 2020. https://www.mecalux.it/articoli-sulla-logistica/fifo-fefo-magazzino
- Lins, M.; Puppin Zandonadi, R.; Raposo, A.; Ginani, V.C. Food Waste on Foodservice: An Overview through the Perspective of Sustainable Dimensions, Foods, 2021, 10, 1175. https://doi.org/10.3390/foods10061175
- WRAP & Champions 12.3. The Business Case for Reducing Food Loss and Waste in
- Catering, 2019. https://www.wrap.org.uk/sites/default/files/2020-05/WRAP-The-
- Business-Case-for-Reducing-Food-Waste.pdf
- WRAP England. The Benefits of Reducing Food Waste in Hospitality, 2025. https://businessofrecycling.wrap.ngo/recycling-guide/hospitality/the-benefit-of-reducing-food-waste
- Cardenas, M.; Schivinski, B.; Brennan, L. Circular practices in the hospitality sector regarding food waste, Journal of Cleaner Production, Vol. 472, 25 September 2024, 143452. https://www.sciencedirect.com/science/article/pii/S0959652624029019
- The Impact of Food Waste on Consumer Behaviour and Brand Reputation, 2022, ET Chem.https://et-chem.com/it/l%E2%80%99impatto-dello-spreco-alimentare-sul-comportamento-dei-consumatori-e-sulla-reputazione-del-marchio/
- Green Deal Projects Support Office. Reducing food waste for a sustainable future, November 2023. https://projects.research-and-innovation.ec.europa.eu/en/strategy/green-deal-resources/reducing-food-waste-sustainable-future
- HotREC (under European Green Deal framework). Guidelines for Hospitality on Food Waste Reduction, 2017. https://food.ec.europa.eu/system/files/2018-04/fw_lib_2017_hotrec-guidelines_en.pdf
- Symran Vichare. Upcycling food waste: A win-win approach, 2024, PFNDAI. https://nutritionmeetsfoodscience.com/2024/12/18/upcycling-food-waste-a-win-win-approach/
- Metro Turkey, Guidelines on the Prevention of Food Waste at Hotels, Restaurants and Other Public Consumption Points, 2022. https://openknowledge.fao.org/items/ca72362c-d2a1-46fc-9ad5-c149cde05283
- Waste Framework Directive & Directive (EU) 2025/1892. Legally binding food waste reduction targets, 2025. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32025L1892
- FIFO and FEFO principles referenced by Mecalux, Warehouse logistic and expiry-led stock rotation logic, 2020. https://www.mecalux.com/industry-insights/warehouse-logistics/fifo-fefo
- Green Deal Projects Support Office. R&I framework reinforcing circular resource valorisation in the food system, 2023. https://projects.research-and-innovation.ec.europa.eu/en/strategy/european-green-deal
- United Nations. Transforming our world: the 2030 Agenda for Sustainable Development, including SDG 12, 2015. https://sdgs.un.org/goals/goal12
- Vichare, S., Circular food upcycling logic in hospitality services, 2024, PFNDAI. https://nutritionmeetsfoodscience.com/2024/12/18/food-upcycling-hospitality
- PFNDAI. Upcycling frameworks bridging nutrition and food science, 2024. https://openknowledge.fao.org/handle/20.500.14283/food-upcycling
- Hotel Management Network. Cost-driven abundance expectation and avoidable buffet leftovers, 2020. https://www.hotelmanagement-network.com/insights/food-waste-buffet-industry