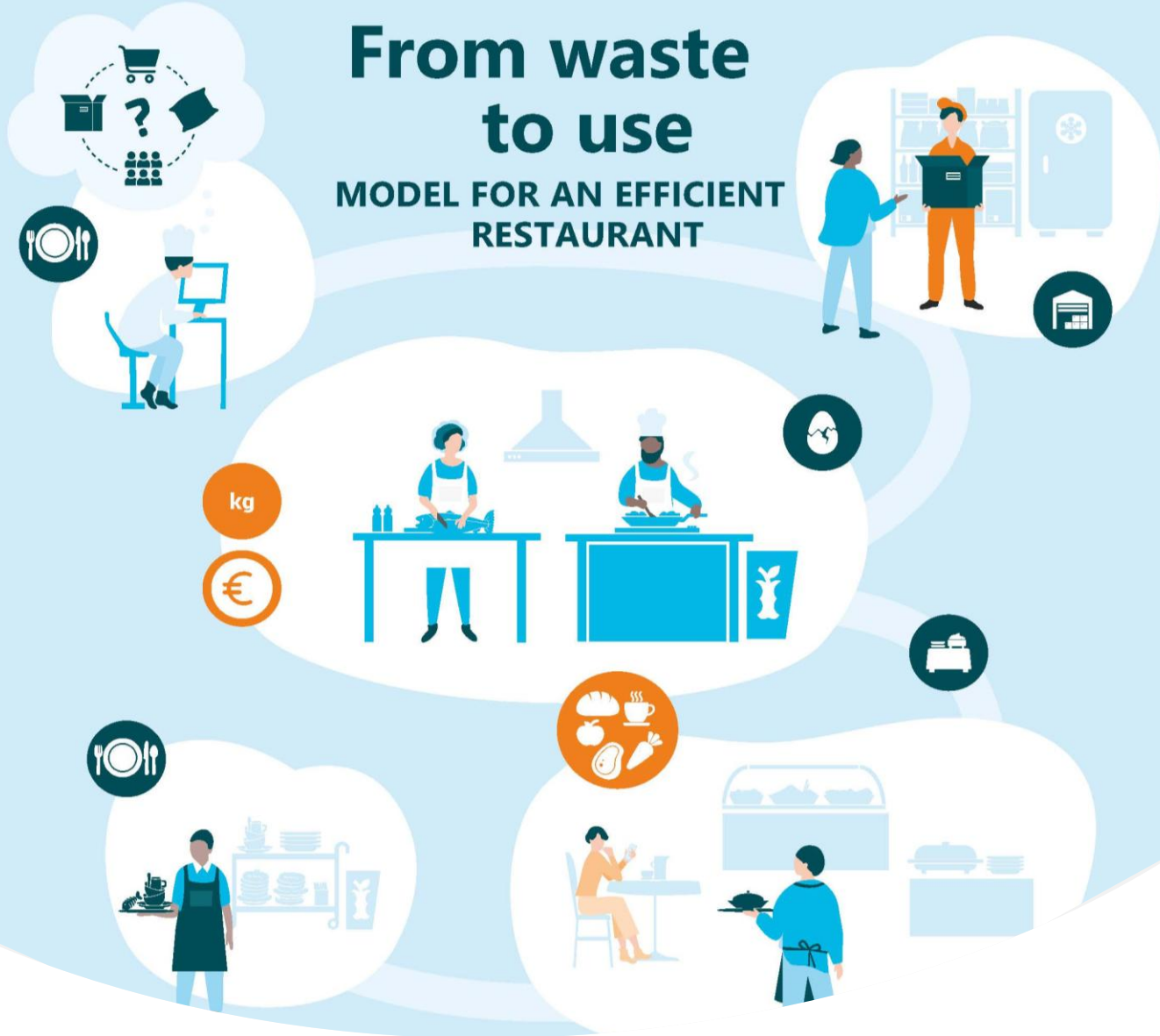


From waste to use

MODEL FOR AN EFFICIENT RESTAURANT



Food waste monitoring model for hospitality & food services

A matrix-based model for measuring and managing food waste.

Project Food Waste Ecosystem 2024-2026

Food waste (FW) monitoring model for hospitality and food service operators

Monitored output	Content	Required data
Food amount, prepared or ordered	Absolute quantity	Prepared / ordered food, kg
Prepared food quality	Service type: buffet or portion; combination	Served items or menu; food categories/product groups
Inedible FW amount (aka unavoidable)	Absolute quantity	kg total; g/customer; % of prepared food, etc. indices
Edible FW amount (aka avoidable)	Absolute quantity	kg total; g/customer; % of prepared food, etc. indices
Food waste quality	Food preparation stage (i.e. when FW is generated); food type	Kitchen waste (= preparation & storage waste), serving waste, plate waste, kitchen biowaste; food categories/product groups
Cost	Monetary cost for production and FW	Cost per customer, cost per kg; more precisely e.g. cost per dish, or per category
Area	Location and scale	Address
Standard Industrial Classification (FIN: TOL 2025; EU: NACE)	Food service subsectors (restaurants, cafés; education, health care etc.)	Outlet's TOL/NACE class; unusual catering formats: outdoors or passenger meals; festive catering
Operational scale	Number of outlets and customers; staffing input	Number of outlets, customers; staff working hours, or work years, full-time equivalent
Time scale	FW measurement length, seasonality	Dates: calendar, local events, weather data etc. factors affecting food provision and waste
Redistributed food: discounted sales, donations to food aid, used at staff dining, etc.	Edible surplus food redistributed for human consumption	Redistributed food after service: amounts, quality (categories) and value

- **Monitored output:** the part of food waste management for which information is required
- **Content and required data:** specifications essential for effective food waste management
- **Additional information:** <https://projects.luke.fi/ravintolafoorumi/food-waste-ecosystem-hanke/materiaalit-fwe/>



Food Waste Monitoring Model for Food Service Operations (continued)

Monitored output	Content	Required data
Other impacts of food waste	Environmental impacts (e.g. LCA); nutritional loss	Ingredient information: environmental impacts (CO ₂ etc.); nutritional values
Empathetic leadership: behaviour, values, attitudes and emotions	Behavioural settings that influence how FW is generated or evoked by FW. Organisational culture and people-oriented management practices: jointly tackling FW and setting targets, encouragement. Staff fears, shame, etc. arising from FW and customer service.	Narratives, descriptions, adjectives; obtained from polls, interviews, development discussions, etc.

Applying into operational management

Task	Responsibility	Suggested schedule
Implementing regular FW monitoring	Restaurant management	Continuous; adjusting follow-up e.g. biannually, or seasonally
Linking FW results with management and planning	Restaurant management; contracting department (in public food services)	Continuous
Food-category-based analysis	Restaurant	Per measurement period
Redistribution practises: piloting and routinising	Food services / restaurant chains + food aid organisations	0.5–2 years
Harmonising FW terminology and monitoring methodology	Restaurant management; contracting department (in public food services); led by research and national FW coordinator (FIN: LUKE)	Immediately / next contract period

- **Lisätiedot:** <https://projects.luke.fi/ravintolafoorumi/food-waste-ecosystem-hanke/materiaalit-fwe/>

