

OPERATIONALIZING REGIONAL CIRCULARITY:  
BEST PRACTICES FROM TURKU

# SUPPORTING CIRCULAR FOOD SYSTEMS THROUGH PUBLIC PROCUREMENT



City-owned assets and public procurement are powerful levers to influence a market-shift towards a more circular management of resources. Through its strategic procurement department, the city of Turku is currently working on decreasing the lifecycle carbon impacts of its food contracts. Along with a tool to track GHG emissions that is applied to contractors, the city is also setting goals for food waste reduction and vegetarian meals.

## CONTEXT

As part of Turku's Carbon Neutrality Plan, the city must address the environmental impacts of its investments and acquisitions and promote the use of circular economy solutions to reduce demand for natural resources.

The city of Turku procures goods and services for both residents' needs and the service sector of the city group. The city issues public tenders for all procurements for goods and services with a value exceeding the national threshold value, therefore being subject

to competitive tendering in accordance with the Finnish Procurement Act. In total, the annual value of contracts starting in 2020 in Turku is 420 million euro, making public tenders a key lever for circularity in the region.

## KEY ACTORS

In Turku, tenders are managed by the strategic procurement department, which collaborates with the climate department in order to implement the carbon neutrality plan. A special working group is responsible for coordinating the city's food service areas.

In total, the city awards thirteen food contracts to three different service providers. Turku's nearly 140 different types of kitchen facilities cater to a wide range of customers. Meals are provided in various educational and care institutions and facilities, such as kindergartens, schools, elderly homes, care services for disabled, child protection units etc. In total, 3,4 million meals are delivered to care facilities and 5,4 million to the educational sector.



## ACTION

To contribute to the city's carbon neutrality goal and decrease the lifecycle emissions of food services in the city group, the strategic procurement department set the following objectives, which would allow of 25 percent reduction of GHG emissions of food services by 2029:

- Reducing food loss from 12 percent to 6 percent
- Doubling the proportion of vegetarian meals from 24 percent to 48 percent

In order to understand what drives the carbon emissions of Turku's food services, how they can be reduced and how progress can be tracked, the strategic procurement department has been involved in a project implemented

by the Finnish Environment Institute (SYKE) and funded by Sitra. To determine the factors affecting the carbon load of food services in Turku, the project analyzed two food service areas in the education sector.

The project mapped out all the major factors influencing the carbon footprint of Turku's food services, such as heating the buildings, kitchen equipment, electricity consumption, transportation, the share of vegetarian food and food loss. The impact of foodstuff and raw materials was studied by reviewing the service providers' menus for basic and vegetarian diets throughout a week.

According to the project, the main sources of greenhouse gas emissions in the food service industry in Turku are the production of ordinary mixed food (84 percent of the total

emissions) and food waste (10 percent of the total emissions). After food, the next biggest share of emission is caused by the energy consumption of kitchens (6 percent).

The GHG monitoring tool has been applied to all 13 food service contracts of the city. It is estimated that each meal generates on average 1424 gCO<sub>2</sub>-eq throughout its lifecycle, from food production to disposal.

The calculator identifies different aspects of food services that would help to reduce their carbon footprint. In the future, the calculator can be used to align the provision of various meal options and plan the kitchen network, as well as for the setting and monitoring of emission reduction targets.



As one immediate measure for doubling the proportion of vegetarian meals, from 2020 onwards, the amount of vegetarian meals within the educational division will increase from one vegetarian meal per week to eight vegetarian meals in a six-week period. Measures also include a gradual reduction of beef in meals in favor of menus including plant-based proteins. Planned measures also include energy and water efficiency criteria within food service contracts.

In care institutions, vegetarian foods suitable for the elderly are being developed to achieve a similar change as in the education division.

## SUCCESS FACTORS

- **Lifecycle assessment:** Tracking drivers of GHG emissions from production to waste has allowed to gain a clear understanding of where mitigation measures can be implemented.
- **Using tenders as a lever:** Engaging contractors on common goals creates incentives for long-term change and a momentum service providers can use to impact the supply chain.
- **Early childhood education** has been recognized in Turku as the most important target group to ensure residents get accustomed to vegetarian meals.

## IMPACTS

- The project has **attracted interest nationally** and the meal-specific CO2 calculator has been used by nation-wide food companies.
- Thanks to the calculations the amount of **food waste and the consumption of vegetarian food will be closely monitored** and further plans will be made, in cooperation with the education industry and service providers, to minimize waste and promote vegetarian eating.
- While still at an early stage, the project holds great **GHG emission reduction potential**. In one year, between 2019 and 2020, the GHG emissions produced by the food services have already decreased by 4 % per meal.. Measures planned for 2020 will further accelerate the emission reduction.



## NEXT STEPS

The strategic procurement department plans to monitor progress annually, to improve the monitoring of the consumption of vegetarian food. To facilitate monitoring, the department is envisioning to develop an electronic tool for calculating emissions from the different food services in an automatic manner. Currently, data on food consumption from the welfare and educational sector need to be manually collected.

The city is also interested in working further with service providers to systematically assess the carbon footprint of their menus, in close partnerships with the producers they work with.

Looking beyond food contracts, the city's strategic procurement department is also preparing a sustainable procurement guide, with specific guidelines for small-scale procurement, and working towards better integration of lifecycle indicators into the city's tenders.

