Waste prevention country profile

Finland

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European Environment Agency

Country profile: Finland

General information

Name of the country/ region	Finland
Coverage of the waste prevention programme (national/ regional)	National (excluding the Åland Islands)
Type of programme (stand alone or integrated into waste management plan)	Integrated
Title of programme and link to programme	Kierrätyksestä kiertotalouteen: Valtakunnallinen jätesuunnitelma vuoteen 2027 (Finnish): http://urn.fi/URN:ISBN:978-952-361-266-2 Från återvinning till cirkulär ekonomi : Riksomfattande avfallsplan fram till 2027 (Swedish): http://urn.fi/URN:ISBN:978-952-361-270-9 *English translation of the title: From recycling to circular economy, National waste plan to 2027.*
Duration of programme	2022 until 2027
Language	Finnish, Swedish
Contact person in the country/region	Sirje Stén, ministerial adviser, Ministry of the Environment Sirje.Sten@gov.fi
Development process of the programme/ revision	The recent national waste plan was published 6th April 2022.
Foreseen budget for implementation of the project	No specific budget for the implementation of the programme is included in the programme.

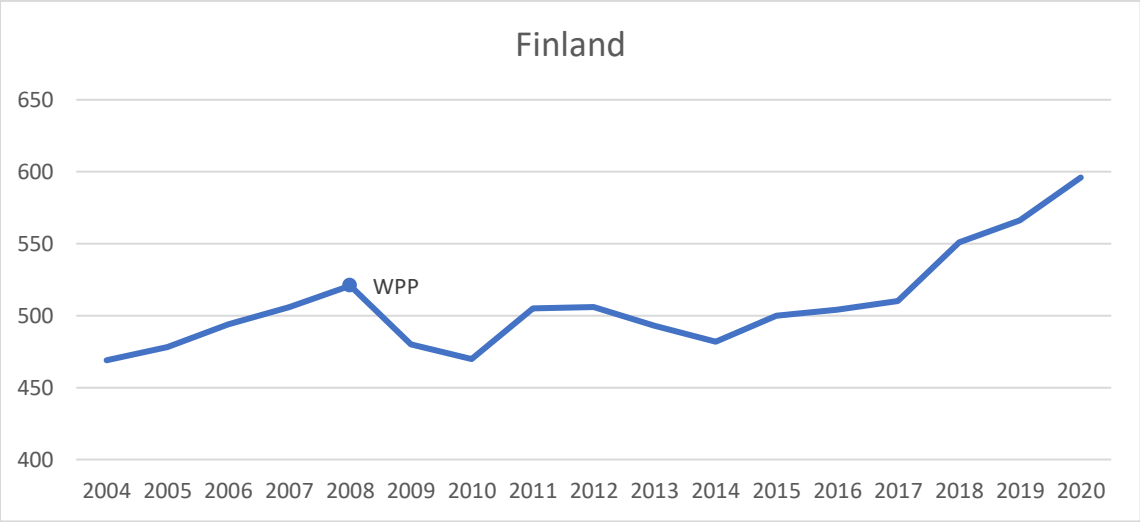
WASTE GENERATION

The following figures illustrate the progress towards waste prevention and decoupling of waste generation from economic growth in Finland:

MSW

- The generation of municipal waste per capita (see Figure 1) has increased overall between 2004 to 2020, with some fluctuations. After a first increase 2004-2008, generation per capita decreased for two sequential years. However, this positive trend changed again after 2010 and the generation of MSW started increasing. Between 2011-2017 waste generation stayed approximately on the same level, 480-500 kg/capita and year. The last three years, 2017-2020, waste generation took a rather steep growing trend and reached its highest value of 595 kg/capita in 2020.
- Municipal waste generation per capita in Finland is above the European average, which was 517 kg[1] per capita in 2020.
- The decrease in waste generation after 2008 coincided with the implementation of Finland's first waste prevention program. MSW generation is though influenced by many factors, e.g. household expenditure, which also dropped sharply in 2008[2] as a consequence of the global financial crisis.

Figure 1: Municipal waste generation in Finland (kg per capita), 2006-2020



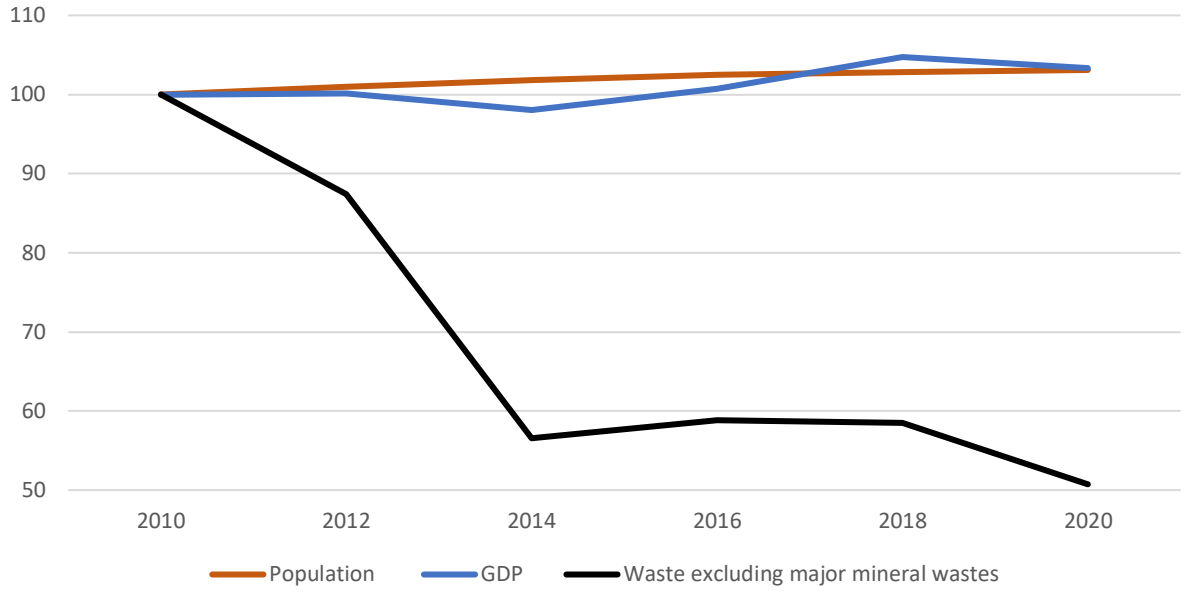
Source: Eurostat [ENV_WASMUN]

Total waste

- Finland´s waste generation (excluding major mineral waste) decreased steadily from 2010 until 2014 and remained steady on the lower level for the years after (see Figure 2). The net decrease is quite significant, at 49%. During the same period 2010 – 2020, Finland's GDP grew but only slightly by 5% until 2018 but in 2020 dropped by 2% from the 2018 level.
- Although it needs a longer time period to draw solid conclusion, since 2010, Finland seems to be on track to decouple total waste generation from economic growth.
- Finland's population grew only slightly during the same period, and thus a link between total waste generation and population growth, cannot be observed.

[1] Based on data collected from Eurostat in September 2022.
[2] https://data.worldbank.org/indicator/NE.CON.PRVT.KD?end=2019&locations=FI&start=2006

Figure 2: Growth rate of waste (excluding major mineral wastes), GDP (main GDP aggregates, chain linked), and population, 2010-2020, (2010=100).



Source: Eurostat [ENV_WASGEN, NAMA_10_PC, DEMO_GIND]

WASTE PREVENTION PROGRAMME

Objectives and priorities

1.	Waste prevention objectives of the Programme - quantitative objectives (waste reduction) - qualitative objectives (reduction of hazardous substances/ environmental impacts)	• Relative decoupling of GDP from municipal waste generation • Increased reuse of packaging • Permanent decrease of single use plastics • Halving food waste generation by 2030 • Increase reuse of electrical and electronic equipment and decrease its content in municipal waste. Reduce hazardous components in the product • Decrease waste from construction
2.	Sectors covered	• mining and mineral sector • other industrial sectors • households • energy sector • agriculture, fishery and forestry • private service activities, hospitality • public services
3.	Priority waste types	• household/municipal waste • packaging • single use plastics • biodegradable waste • construction and demolition waste • waste electrical and electronic equipment /batteries
4.	Target groups	The new programme addresses actions in public institutes, households and the industry.

Targets, indicators and monitoring

1.	Indicators proposed	The national waste management draft contains general indicators and indicators for specific waste streams. Indicators relating to waste prevention are: • generation of total waste per industrial sector • generation of hazardous waste in per industrial sector • municipal waste generation (kton/a) and generation per capita (kg/capita and year) • development of municipal waste generation in relation to the development of GDP • total waste generation in construction • reuse of electrical equipment • reuse of specific product groups – indicator to be developed based on the guidance by the European Commission
2.	Quantitative targets	• Halving food waste generation until 2030
3.	Monitoring of programme	• The progress of the measures will be mapped both midway in 2024 and at the end of programme in 2027 • Quantitative Indicators will be collected on yearly basis
4.	Evaluation of the programme	The implementation of the programme will be evaluated in the end of the period 2027. The mid-term review in 2024 will summarize possible actions that have not yet been launched. It will also look at the progress of digitalization and data quality through indicators to be decided at a later stage, such as the development of system availability, the number of data interfaces used or the number of deployments of the digital system for environmental permits and surveillance in municipalities.

Prevention measures

Implemented prevention measures according to Article 9

Table 1: Specific waste prevention measures structured according to Art 9 WFD

Promote and support sustainable consumption models	• The *Keino* competence network for sustainable innovative procurement, implemented by the Finnish Government, (www.hankintakeino.fi), supports public procurers in making sustainable procurements by training, demonstrations etc., Product group-specific criteria are developed in co-operation between *Keino*, procurement units and companies. • Public procurement units are encouraged to implement the Procurement Finland strategy and the objectives and measures for ecologically sustainable procurement. • Several organizations, e.g. the Finnish Consumer and competition agency, the Consumers Union, the Finnish Innovation Fund Sitra have developed training and education material for sustainable consumption directed to consumers.
Encourage the design, manufacturing and use of products that are resource-efficient, durable (including in terms of life span and absence of planned obsolence), reparable, re-usable and upgradable.	• Public organizations to stop the procurement and use of single use plastics containing dishes. Prepare a report on the obstacles and opportunities for reusing packaging, as well as a proposal for actions to strengthen re-use in key packaging groups Implement a voluntary agreement to reduce the unit consumption of plastic disposable food packaging and drinking cups and to reduce the amount of plastic contained in the packaging in use in the grocery and restaurant and cafe sectors, as well as in the food industry. Quantitative reduction targets are set in the agreement. The agreement aims to replace plastic single-use packaging with reusable or plastic-free single-use packaging. Consumers can also be charged a separate fee for the use of single-use plastic packaging. If the contract - after evalution - needs be terminated in the middle of the contract period, the Ministry of the Environment will start preparing legislation to reduce the consumption of plastic disposable food packaging and cups.

Target products containing critical raw materials to prevent that those materials become waste.	• Finland will support the development of Circular electronics initiative included in Europe's Circular Economy action plan on the EU level. • Increase governmental development and demonstration support to keep critical raw materials in the loop. • Operational guidelines for waste collectors will be created to better enable re-use and prepare of reuse of electrical and electronic equipment. Equipment should be handled with care during collection, storage and transport
Encourage the re-use of products and the setting up of systems promoting repair and re-use activities, including in particular for electrical and electronic equipment, textiles and furniture, as well as packaging and construction materials and products.	• Prepare guidelines for zoners to take into account the regional needs of the circular economy so that reuse, recycling and other recovery are as close as possible to where the material is generated and used. Adequate areas should be reserved in agglomerations for regional re-use and recycling points for residents. • Analysis on economic policy instruments to diminish waste generation, increase reuse and repair services and sharing economy services in large will be carried out. • The upcoming new period of food industry material efficiency commitment to include increased substitution of single use packaging • The government to promote experiments on new services enabling more reuse especially in sparsely populated areas. • Producer organizations to define new basis for levies on producers in such a way that they, among others, encourage product re-use. They are also to develop operating models that enable and promote reuse and form regionally comprehensive network with actors providing re-use services. • Collection of electronic products will be improved in order to support reuse • Support to pilots and research on promoting reuse over recycling of EEE including e.g. investigation in how leasing activities can impact the lifecycle of EEE. • Develop national demonstration practices for the reuse of demolition materials building on a previous project, which investigated the safety of demolition materials in various applications. The aim is to promote product approval practices for key demolition material fractions and building components. • Develop the reuse value chain in renovation projects by the municipalities and enhance the delivery of usable construction products and parts for reuse in collaboration with e.g. recycling centers and/or workshops. Employ digital tools to increase network between and sales channels of recycling centers.

Encourage, as appropriate and without prejudice to intellectual property rights , the availability of spare parts, instruction manuals, technical information, or other instruments, equipment or software enabling the repair and re-use of products without compromising their quality and safety.	• Create guidelines for re-use operators to support how the re-use operator can manage complex legislation on e.g. electrical equipment repair, warranty and having necessary operation permits. Where possible, quality classification or standards should be developed for reusable equipment. Guidance on legislation and practices in re-use should be compiled. In the same context, the need for a professional qualification in dismantling, repair and re-use of WEEE will be clarified. • A repair day for electrical and electronic equipment to be potentially organized and managed by authorized repairers and waste management organizations.
Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques.	• A detailed study to be carried on different approaches to reduce the amount of waste generated by mining and to enhance the recovery of valuable materials from extractive waste. • Develop measures to promote the circular economy of extractive waste and support related pilot projects. • Several initiatives on the reduction of construction and demolition waste.
Reduce the generation of food waste in primary production, in processing and manufacturing, in retail and other distribution of food, in restaurants and food services as well as in households as a contribution to the United Nations Sustainable Development Goal to reduce by 50 % per capita global food waste at the retail and consumer levels and to reduce food losses along production and supply chains by 2030.	• The national road map on food waste prevention, published 2021, will be implemented and further developed. • Various education and awareness raising through e.g., the web site developed in partnerships between public institutes. Saa syödä! (May eat!) www.saasyoda.fi contains versatile information and guidance to decrease food waste directed to consumers, schools, etc. Moreover, guidelines for minimizing waste in professional food catering and restaurants are published on the roadmap's web pages.
Encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and the reprocessing into non-food products.	• Unsold food in retail shops is directed primarily to organizations that distribute food aid for human consumption. The food aid guide by Finnish Food Safety has clarified the practices and made it easier to direct food to charity. • Many stores have agreed to work with charities in their area to provide unsold food to those in need. In all, the retails sector has hundreds of partners in food distribution.

Promote the reduction of the content of hazardous substances in materials and products, without prejudice to harmonised legal requirements concerning those materials and products laid down at Union level, and ensure that any supplier of an article as defined in point 33 of Article 3 of Regulation (EC) No. 1907/2006 of the European Parliament and of the Council provides the information pursuant to article 33(1) of that regulation to the European Chemicals Agency as from 5 January 2021.	• Update guidelines on contaminants in sealants and provide guidance on taking these substances into account in contaminant surveys in demolition to better enable reuse and recycling of construction products and material (Short Chain Chlorinated Paraffin (SCCP), Persistent Organic Pollutants (POP) etc.) • Increase research and demonstration funding for the removal of harmful substances from the cycle especially for electrical and electronic equipment
Reduce the generation of waste, in particular waste that is not suitable for preparing for re-use or recycling.	• Design plans for significant demolition waste fractions that currently are not much utilized do to risk of contamination by hazardous substances. Such fractions are wood, gypsum boards, windows and mineral wool.
Identify products that are the main sources of littering, notably in natural and marine environments, and take appropriate measures to prevent and reduce litter from such products, where Member States decide to implement this obligation through market restrictions, they shall ensure that such restrictions are proportionate and non-discriminatory.	• The plastic road map of Finland approved in 2019 includes 10 key actions and several measures to reduce, replace and increase the reuse of plastic. The roadmap was updated 2022 with more targeted actions. • Cities and municipalities, event organizers and other agents are challenged to introduce solutions that reduce littering and unnecessary consumption, including improving waste collection and the instructions on this, ensuring anti-littering and good recycling practices in public events, or restricting smoking on public beaches • The EU Single Use Plastics Directive will be implemented.
Aim to halt the generation of marine litter as a contribution towards the United Nations Sustainable Development Goal to prevent and significantly reduce marine pollution of all kinds.	• The action program of Finland's marine management plan for the years 2022–2027 presents 11 measures to prevent marine littering. Measures are presented e.g. to accelerate the management of abandoned fiberglass boats, to reduce the littering of coastal areas commonly used for recreation through education and appropriate waste containers, to develop waste and sewage management in marinas and boating, to reduce plastic discharge by artificial turf, road traffic and agricultural plastics. • The plastic road map of Finland includes measures to reduce, replace and increase the reuse of plastic. • Specific single use plastic products are banned. The implementation of the SUP directive took place 2022 and the relevant amendment to the Waste Act and the Maritime Environmental Protection Act will enter into force from 2023 on. •

Develop and support information campaigns to raise awareness about waste prevention and littering.	• Awareness raising both to businesses and consumers is strongly emphasized in the updated plastic roadmap. This includes e.g., training company personnel and communicate for consumers of plastic single-use dose packages environmental effects and their alternative solutions to reduce consumption and environmental harm • The use of Finnish tap water instead of bottled water is promoted e.g. by encouraging cities, hotels and restaurants to visibly offer tap water. •

Additional implemented prevention measures, not covered by Article 9

FOOD WASTE PREVENTION

Food waste generation

About 400–500 million kg of food are lost in Finland every year. The amount represents ca 15 % of the edible food. Of this ca 107–137 million kg is generated in households, equivalent to ca 20–25 kg per capita and year.

Measures to prevent food waste

At the beginning of 2021, the Finnish food waste roadmap https://ruokahavikkitiekartta.fi/was published, which is a plan for reducing food waste in Finland. The food waste roadmap makes part of the national waste management plan. The roadmap actions are grouped under the following six headings: 1) Effective policy instruments, 2) Education and knowledge towards a more sustainable society, 3) Increasing sustainability by transforming practices, 4) Technology for smartness, new products & business models, 5) Research and development and monitoring of losses, 6) Together more.
The Natural Resources Institute Finland and Ministry of Agriculture and Forestry are responsible for promoting and monitoring the food waste roadmap. The actions are directed towards all actors in the food chain

For instance, food donation in the retail sector has been boosted by widening networks. In Vantaa city, the centralized distribution of food for waste has been developed in co-operation with the city, the parish association, shops and industry. Food is collected daily from nearby shops to a common terminal, where products can be quickly distributed to organizations. This saves resources for small organizations, often based on volunteering, while avoiding unnecessary driving.

Kuluttaja (Consumer Association) together with the Ministry of Agriculture and Forestry and organize an annual nationwide ‘Hävikkiviikko’ (Food waste week) communication campaign, the purpose of which is to raise the appreciation of food, bring the effects of food waste into view and give tips on how to reduce waste, especially in households. https://havikkiviikko.fi/

REUSE OF PRODUCTS

Data

With regard to the Commission Implementing Decision (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.010.01.0001.01.ENG&toc=OJ%3AL%3A2021%3A010%3ATOC), this section will be updated by the EEA accordingly.

Measures to support ReUse

Various measures to support reuse are already included in the new Finnish waste prevention programme draft, e.g. the support for local reuse centres or guidelines for public procurement based on second-hand products.

The safety and health of demolition materials in various applications has been investigated and the work will continue in order to promote product approval practices for key demolition material fractions and building components. This will include developing national demonstration practices for the re-use of demolition materials. Moreover, the Ministry of the Environment published three guidebooks on increasing the effectiveness of the reuse and recycling of demolition materials and removing harmful substances from circulation.
The plan also includes developing high-quality reusable wooden and plastic packaging and enhance cooperation between consumers, distributors, restaurants and shops in widening reuse systems.
The project CircHubs[3] by the Finnish Environmental centre analysed reuse in Finland and reuse-related business opportunities in Finland Particular challenges are attitudes towards used goods, logistics, economic viability and high labour costs. Various new business models relating e.g. to sharing economy was estimated to make the purchase of used products easier, cheaper or more fashionable than previously. Based on the analysis, recommendations for enhanced networks were made.

Reusable textiles are currently recycled in Finland by a range of private charities and clothes shops. These organisations have set up bring sites to collect clothes, shoes and other textiles to be sold second hand or donated in Finland or abroad. Collection sites are mostly managed by three organisations UFF, Fida and the Finnish Red Cross, which have an extensive network of collection points sites across the country. Publicly organised regional collection and recycling of waste textiles is planned to start in 2023, two years earlier than the Waste Directive requires. Additionally, a large waste textile refinery is planned to be in operation in Finland by 2023.

Bring sites for reusable textiles are relatively evenly distributed across the country. Three charities/textile reuse organisations have their own bring sites in many municipalities.
The bring sites for reusable textiles are mainly located in population centres, easily accessible by foot or on bike. Some 50 % of Finns live within one kilometre of the closest textile bring site.

A national network of Reuse organisations and companies (RENET) has been established in 2022. The aim of the network is to support nationwide sustainable consumption and the work of actors operating in the reuse field.

Best practice example

The Reuse Center in Helsinki Area

The Helsinki Metropolitan Area Reuse Center is a social enterprise founded in 1990 with the aim to reduce resource consumption, increase environmental awareness and increase opportunities for participation and employment.

[3] https://circhubs.fi/in-english/

The reuse center has nine reuse stores in the Helsinki metropolitan area and a nationwide online store. It offers a wide range of environmental training and consulting for residents of the Helsinki metropolitan area, professional educators, and companies and communities.

The reuse stores sell used goods donated by the townspeople, on site remanufactured or recycled products and handicraft materials, warranty-serviced household appliances, bicycles and electrical and electronic equipment. The centres' activities include service and repair of donated electrical equipment and bicycle and remanufacturing of clothing, accessories and furniture.
The center also borrows trailers and transport wheels and provide pick-up services for bulky items. Twice a year trucks circulate in the city on a specific schedule and citizens can bring used, still functioning items to the truck. The center also provides environmental education for children and education professionals as well as companies and communities. Social impact is also created by offering unemployed jobseekers fixed-term jobs and support for further employment.
The center participates in a number of waste preventive publicly funded projects of which recent were Export of know-how in environmental education to China and Business cooperation model for reuse.
https://www.kierratyskeskus.fi/in_english

Reuse of excavated soil from several construction sites

The removal of soils is common practice within the construction industry and soil makes a significant fraction of the waste generated in construction. Reuse requires assurance of the absence of hazardous components and coordination between construction sites to match real time supply with demand.

A new green outdoor park was built in Helsinki to replace a non-habitable residential area built on top of an old landfill with insufficient isolation structures. Considerable volumes of soil were needed for the construction and after coordination between various construction projects the demand could be with recycled soil: 60,000 m^3 of surplus aggregates in landscaping, 35,000 m^3 of mass-stabilised dredging spoil was brought from a coastal residential area expansion site for terrain design. 25,000 m^3 of topsoil was collected from other construction projects in Helsinki and utilised as fertile earth for growing plants. This also utilised the soils' own seed bank. Moreover, crushed concrete from demolition sites and some of the area's own soil was utilised to build the area, too. The benefits of soil reuse included 3.8 M€ monetary savings, 400,000 litres of fuel and 1,000 tonnes of CO_2 compared to if the soil material had been delivered to external recipients and the topsoil procured from different suppliers.[4]

Links to circular economy

Waste prevention is an integral part of the comprehensive transformation towards a circular economy. It reduces the input of natural resources into the economy as well as the necessary efforts to collect and recycle waste.

Approaches for improving circularity are often highly interlinked with successful waste prevention. The following table shows which circular strategies are explicitly integrated into the Finland's waste prevention programme.

Topic	Addressed in the programme	Comments
Eco-design	Yes	Support and impact supporting EU eco-design regulation Also, the Plastic Roadmap identifies measures to – among others- improve the recovery, recycling and *product design* of plastics.

[4] https://www.materiaalitkiertoon.fi/en-US

Repair, refurbishment and remanufacture	Yes	Several initiatives that focus on extending the use phase of products.
Recycling	YesNo	Recycling is covered in Finland's waste management law and the recycling rate is an elementary part of the national waste management plan.
Economic incentives and finance	Yes	Inter alia by assessing how economic policy instrument can act as incentives for repair and reuse (fiscal instruments).
Circular business models	Yes	Supporting sharing economy and facilitated reuse of especially construction products and food/catering packages are some of the programme initiatives.
Eco-innovation	Yes	The plastic road map emphasises the need to develop innovation to decrease plastic waste. Support to innovations is also seen necessary to diminish construction waste and single use plastics packaging.
Governance, skills and knowledge	Yes	E.g. by training public procurers in green procurement.

In connection of Government resolution on the Strategic Programme for Circular Economy 8.4.2021 one new suggested measure to promote circular economy was to a establish a 'national competence network' to support the work of municipalities and regional ecosystems in promoting a carbon-neutral circular economy society. This 'Kiertotalous-Suomi' (Circular Economy Finland) is a hub of know-how and knowledge that connects operators looking for solutions and their providers. The network supports different actors in finding their own circular economy path. Motiva Oy and the Finnish Environment Institute SYKE coordinate the activities of 'Kiertotalous-Suomi' and it is financed by the Ministry of the Environment. This is not in Waste prevention programme but belongs to palette of specific measures of Finnish government to promote circular economy.
https://kiertotaloussuomi.fi/ (only in Finnish at the moment)