Waste prevention country profile

Sweden

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European Environment Agency

Country profile: Sweden

General information

Name of the country/ region	Sweden
Geographical coverage of the waste prevention programme (national/ regional)	National
Type of programme (stand alone or integrated into waste management plan or into the circular economy strategy)	Stand-alone programme
Title of programme and link to programme	”Ett cirkulärt Sverige tänker efter – före!” (A Circular Sweden thinks ahead – before!) https://www.naturvardsverket.se/publikationer/7100/978-91-620-7170-7/
Duration of programme	2024 until 2030
Language	Swedish
Contact person in the country/region	Ida Björkefall the Swedish Environmental Protection Agency, Naturvårdsverket. Ida.bjorkefall@naturvardsverket.se
Development process of the programme/ revision	
Foreseen budget for implementation of the programme	No specific budget for the implementation of the programme is included in the programme.

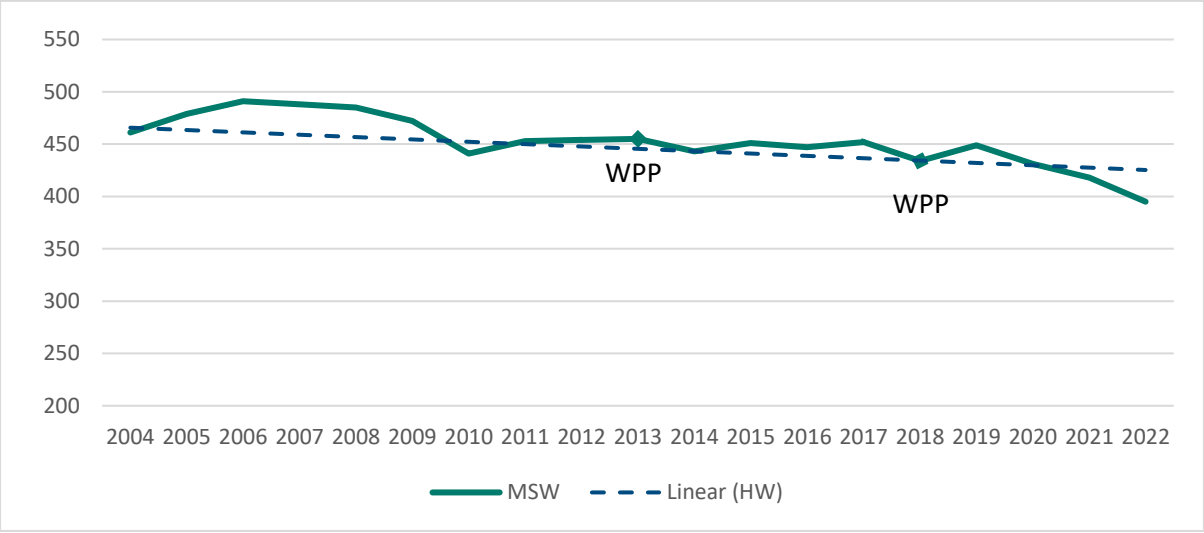
WASTE GENERATION

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

Municipal Solid Waste (MSW)

Sweden's municipal waste generation has remained rather stable in the period 2010-2019 (Figure 1). The reported amounts in 2020 and 2022 were lower but this is likely due to a comprehensive change in reporting methodology in response of the implementation of the new reporting rules introduced in the Waste Framework Directive in 2018. and further adjustments are expected, especially with respect to the generation of municipal waste from other sources than households. For example, certain waste types, such as construction waste, were excluded from the MSW classification starting in 2020. To better understand long-term trends, an alternative temporal indicator—waste from household activities—can be used, as defined by Regulation (EC) No 2150/2002 on waste statistics. Data indicates a long-term decline of 7% in household waste, despite a temporary 1% increase during the COVID-19 period (2018–2020). The pandemic likely led to an increase in household waste due to lockdown-related decluttering and home renovations, as observed by the Swedish EPA[1].
In 2022 the country generated 395 kg/cap of municipal waste, which is significantly below the estimated EU27 average of 513 kg/cap. MSW generation is closely linked to household expenditure and consumption patterns. Sweden's final household consumption expenditure per capita has steadily increased over the years except 2020, both in absolute terms and when indexed to 2010 chain-linked values[2]. This suggests a slight decoupling effect between economic growth and MSW generation.

Figure 1 MSW generation in Sweden (kg per capita), including auxiliary indicator HW (waste from household activities), 2004-2022



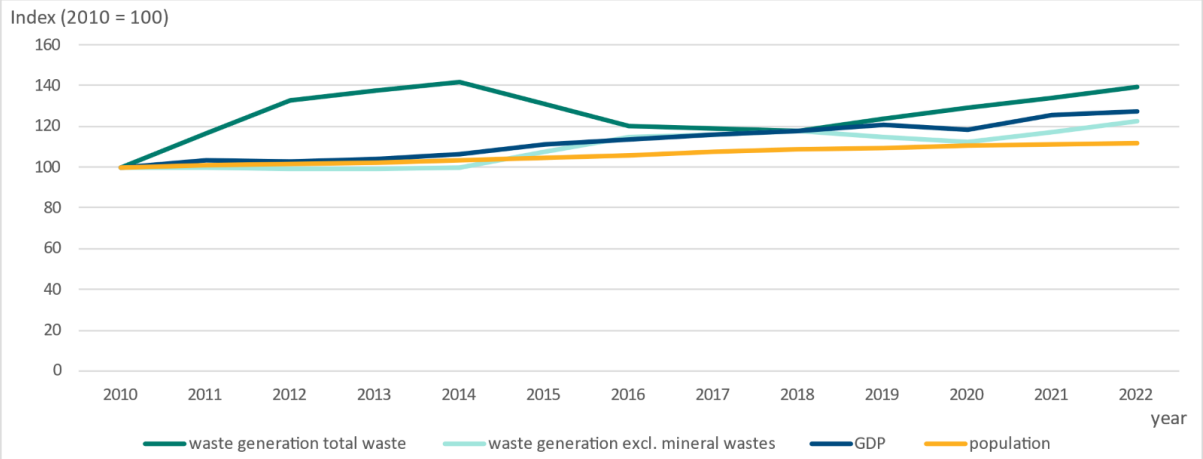
Source: Eurostat [ENV_WASMUN] and [ENV_WASGEN].
Note: As of reference year 2020, new reporting rules apply for calculating recycled municipal waste pursuant to the targets laid down in Article 11.2(c-e) of Directive 2008/98/EC. Sweden applies the new calculation rules since reference year 2020, which led to a break in series in 2020.

[1] https://www.naturvardsverket.se/4ac5db/globalassets/media/publikationer-pdf/7000/978-91-620-7048-9.pdf
[2] https://ec.europa.eu/eurostat/databrowser/view/nama_10_co3_p3__custom_13946241/default/table?lang=en

Total waste

The total amount of waste generated in Sweden increased from 2010 to 2014, then declined between 2016 and 2018, with 2022 levels returning to those observed in 2014 (Figure 1). This trend is primarily driven by the largest waste category, namely other mineral wastes (mainly from mining and quarrying activities). When excluding major mineral wastes, the trend is somewhat different, showing an increase throughout the considered time period with the exception of a slight drop in 2020. This trend is driven by the major waste category mixed wastes, while recyclable wastes only increased in 2018. Sweden's GDP showed an overall increase apart from a slight decline in 2020, most likely due to the Covid-19 outbreak. There is no clear indication that waste generation is decoupled from economic growth.

Figure 2 Generation of waste (total and excluding major mineral wastes), population and economic development, 2010-2022



Source: Eurostat [ENV_WASGEN, NAMA_10_PC, DEMO_GIND]
Note: Waste generation data for odd years are interpolated.

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)
		Sweden's waste prevention program for 2024–2030 builds on existing global and national objectives, rather than setting new specific goals for waste prevention. These objectives, closely linked to waste prevention efforts, are rooted in both environmental and climate goals, as outlined in Annex 1 of the WPP. They are based on global frameworks such as the UN Sustainable Development Goals (SDGs), Agenda 2030, and global chemical agreements, focusing on sustainable consumption, waste reduction, resource efficiency, and the prevention of hazardous substances. National objectives emphasize waste management, resource efficiency, reducing hazardous chemicals, and fostering a circular economy. Waste prevention targets linked with environmental goals, including:
		
		• **Good Built Environment**: Cities and towns should provide healthy living spaces while preserving natural and cultural values and promoting sustainable management of land, water, and resources.
		• **Toxic-Free Environment**: Substances created or extracted by society should not threaten human health or biodiversity. Levels of unnatural substances should be near zero, and their impact should be minimal.
		• **Climate Targets**: By 2030, emissions should be 63% lower than in 1990; by 2040, 75% lower.
		• **Generation goal:** aims to hand over a society free of major environmental problems to the next generation, without increasing environmental and health problems outside Sweden's borders. It includes interim quantitative targets, such as:
		
		  • **Reusability of packaging**: increase reusable packaging by 20% by 2026 and 30% by 2030.
		  • **Food waste**: Reduce food waste per capita by 20% from 2020 to 2025, and increase the proportion reaching consumers.
		  • **Food losses**: Minimize food losses and increase the proportion reaching consumers by 2025.
		  • **Hazardous chemicals**:
		  o Reduce the use of biocidal and plant protection products with hazardous properties by 2030.
		  o Map and minimize dioxin emissions from point sources by 2030.

2.	Sectors covered	The programme is not limited to specific sectors
3.	Material and product types	Municipal solid waste Food waste Building materials and construction products Plastics and microplastics Textiles Electrical and electronic equipment Furniture Packaging Batteries Vehicles Critical raw materials
4.	Target groups	The measures are set for governmental authorities, agencies such as the Swedish Environmental Protection Agency (Naturvårdsverket), the Swedish Chemicals Agency (Kemikalieinspektionen), the Public Procurement Agency (Upphandlingsmyndigheten), the Swedish Consumer Agency (Konsumentverket), educational institutions and universities, municipalities, county administrative boards, and other public administrations. WPP also targets industry stakeholders across all sectors, property owners, and consumers. For specific waste flows, even more detailed target groups are defined.

Targets, indicators and monitoring

1.	Indicators used to monitor progress	No specific indicators are listed in the Swedish WPP, but the environmental goal system forms the national foundation for Sweden's environmental work, as outlined in the goal-setting paragraph of the Environmental Code, with those related to waste prevention described in the WPP. The environmental quality goals and interim targets are followed up annually, with an in-depth evaluation conducted once per electoral period for the sitting government.

2.	Quantitative targets	Sweden's environmental policy and its environmental goal system relate to specific targets for:
		• **Reusability of packaging**: increase reusable packaging by 20% by 2026 and 30% by 2030.
		• **Food waste and losses**:
		  ○ Reduce food waste per capita by 20% from 2020 to 2025, and increase the proportion reaching consumers.
		  ○ Minimize food losses and increase the proportion reaching consumers by 2025.
		• **Hazardous chemicals**:
		  ○ Reduce the use of biocidal and plant protection products with hazardous properties by 2030.
		  ○ Map and minimize dioxin emissions from point sources by 2030.

3.	Monitoring mechanism of the programme	The environmental quality goals and interim targets are followed up annually, with an in-depth evaluation conducted once per electoral period for the sitting government.
4.	Evaluation of the programme	The previous waste management plan and waste prevention programme[3] have been evaluated and summarized in the report *"Möjligheter och utmaningar med avfallsplan och avfallsförebyggande program"*[4]. The evaluation highlighted a limited governing impact on waste prevention but identified some value in its role as a reference guide for municipalities and private actors seeking clearer strategies to achieve the outlined goals. The current WPP also describes the status in relation to specific environmental targets and goals related to the waste prevention. The *Generation Goal* is not expected to be fully achieved by 2030, with key areas continuing to show negative trends. For the *Toxic-Free Environment* goal, conditions have improved, but full achievement remains unlikely in the short term. The *Good Built Environment* goal has not been achieved and is unlikely to be by 2030. The target to *reduce food waste* by 20% by 2025 is uncertain, as only a 3% decrease has been observed so far. *Hazardous chemicals* interim targets for hazardous chemicals and

[3] Swedish EPA, 2021. Att göra mer med mindre: Nationell avfallsplan och avfallsförebyggande program 2018-2023 Reviderad 2020.
[4] IVL, 2022. Möjligheter och utmaningar med avfallsplan och avfallsförebyggande program

	reusable packaging have not been met. *Climate targets* are unlikely to be met with current policies, though emissions have slightly decreased. *Agenda 2030 Goal 12* on sustainable consumption shows progress in some areas, such as reducing antibiotics in food production. The *Global Chemical Framework*, adopted in 2023, requires full implementation by 2030.

Prevention measures

Implemented prevention measures according to Article 9	Appendix 3 of the Swedish WPP lists a compilation of examples of existing policy instruments and implemented measures based on Annex IV of the WFD and Article 29. (Bilaga 3 Befintliga styrmedel och genomförda åtgärder).

The Swedish Waste Prevention Program (WPP) does not include proposals for fully evaluated policy instruments, as these are addressed in separate assignments. For example, a 2024 government inquiry (Fi:2022:14) examined areas such as material flows, product groups, and services for the application of economic instruments. The inquiry concluded that a combination of policy measures is essential to address market and policy failures throughout the lifecycle of materials and products, with solutions tailored to the specific challenges of each area.

An extended summary of potential measures is included in the WPP, covering both the Swedish National Waste Management Plan and the WPP. These measures are categorized by stakeholder groups and include overarching measures as well as those targeting specific material and waste flows. The goal of provided list is to inspire and encourage stakeholders to take proactive steps.

The measures listed in the WPP have been classified according to Article 9 of the WFD and allocated to the most relevant categories in Table 1. Actions pertaining solely to the National Waste Management Plan have been excluded.

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

Promote and support sustainable consumption models	*Authorities* • Develop proposals and implement policy instruments to promote a sustainable circular economy. • Collaborate with other authorities and stakeholders to accelerate the transition toward a more sustainable and circular economy. *Municipalities and public administration* • Engage private and civil sector partners to promote new business models, waste prevention, and reuse. • Integrate waste prevention into governance tools, procurement, usage, and disposal processes. • Lead by example in procurement, emphasizing functional needs and setting environmental, climate, and chemical standards. • Prioritize sustainable procurement (e.g., reused, rental, and recycled-material products). • Create consumption-free spaces.

	• Facilitate the establishment and operation of actors in waste prevention. • Enable sharing, borrowing, and renting by establishing lending locations for items like tools, clothing, and equipment. *Industry actors across all sectors* • Collaborate with stakeholders to share knowledge on waste prevention, circular business models, and sustainable products. *Property Owners (Housing/Workplaces)* • Establish swap rooms in residential areas/buildings/workplaces. *Consumers* • Evaluate the need for new purchases; consider borrowing, renting, or upgrading existing products. • Share through rental and sharing services (e.g., garden tools and equipment). • Choose eco-labeled products verified across the value chain. *<u>Sector-specific measures: textiles</u>* - *Textile Industry*: develop sustainable and competitive circular business models; promote long product lifespans through repair and upgrades; handle textile waste according to the waste hierarchy, such as repurposing. - *Consumers:* Opt for eco-labeled products such as Svanen, EU Ecolabel, Bra Miljöval, or GOTS; Choose furniture with eco-labels reflecting lifecycle perspectives; *<u>Sector-specific measures: electronics</u>* - *Electronics Manufacturers/Importers*: develop sustainable circular business models to prevent e-waste; research and innovate to extend product lifespans. *<u>Sector-specific measures: furniture</u>* -*Swedish EPA*: share lifecycle information about furniture to support sustainable practices. - *Furniture industry actors*: Offer circular business models like rental, leasing, repair, upgrading, and take-back systems; provide spare parts and manuals for repairs.

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.	*Municipalities, county administrative boards, and public administration* - Prioritize sustainable procurement, including reused, rental, and recycled products. - Specify durability, washability, reparability, recyclability, and reduced single-use items. - Investigate if existing unused items can meet needs before purchasing new ones. - Reuse discarded items wherever possible. *Industry actors across all sectors* - Partner to identify needs and opportunities for sustainable products. - Develop circular business models to promote sustainable cycles. - Design products with long lifespans, repairability, and recyclability. - Map supply chains for eco-design criteria and product passports. - Report unsold goods management and use recycled materials in products and packaging. *Property owners of multi-family housing, associations, housing cooperatives, and workplaces* - Reduce purchases of peripheral equipment by opting for reused items. - Prioritize repairs over buying new items. - Ensure procurements require maintainable, repairable, and recyclable products. - Choose high-quality, long-lasting products containing recycled materials. *Consumers* - Buy only what is necessary; prioritize second-hand or refurbished products. - Choose repairs over replacements. - Ask about product manufacturing and exercise warranty rights. - Opt for quality products with long lifespans and repairability. *Manufacturers of construction products* - Design resource-efficient materials with long lifespans, free of hazardous substances. - Use circular raw materials and supply reusable by-products to other industries. - Provide data on new and previously produced materials for lifecycle assessments. - Supply reusable products for construction with quality details. *Developers, clients, designers, and construction material manufacturers* - Include material reuse assessments in pre-demolition surveys. - Require construction contracts to align with material inventories and reuse targets. - Monitor compliance with procurement requirements. - Consider retaining or reusing existing building materials. - Optimize resources by upgrading or transferring reusable materials. - Promote flexible building designs and prevent littering risks. - Appoint waste prevention managers and develop incentives for reuse.

	Sector-specific measures: plastics - *Industry*: increase reuse and extend the lifespan of plastic products, minimize microplastic leakage and reduce material use for the same function; substitute environmentally harmful plastics with sustainable alternatives. - *Producers and designers*: Focus on functional design rather than creating new products. *Sector-specific measures: textiles* - *Industry*: design textiles for longevity, repairability, and recyclability; implement measures to reduce microplastic spread throughout the value chain. - *Consumers*: use tax deductions (RUT) for clothing and textile care; extend textile lifespans through reuse and maintenance. *Sector-specific measures: packaging* - *Private actors*: minimize material use and unnecessary packaging. - *Producers*: ensure packaging is reusable and recyclable. - *Municipalities and regions*: procure sustainably based on functionality and need, engage suppliers to extend product longevity. *Sector-specific measures: furniture* - *Industry actors*: manufacture durable, repairable, and easily recyclable products; provide eco-labeled furniture reflecting lifecycle perspectives. - C*onsumers*: opt for high-quality, eco-labeled furniture; repair and maintain furniture to extend its lifespan.
Target products containing critical raw materials to prevent that those materials become waste.	Measures concerning EEE and WEEE: *Swedish EPA* Develop material-specific statistics, such as data on plastic in e-waste and the lifespan of electronic products. *Public procurement agency* • Support procurement of reused, refurbished, or long-lifespan IT equipment. *Consumers* • Extend the lifespan of electronic equipment through careful handling, repair, upgrading, and reuse. • Reduce waste generation by choosing durable and repairable electronics.

	Electronics manufacturers and importers • Produce durable, repairable, and upgradeable EEE. • Offer take-back programs for WEEE and ensure collected items are sent to approved producer responsibility organizations (PROs). • Comply with eco-design requirements to facilitate easier recycling and extended lifespans. *Associations, housing cooperatives, and workplaces* • Prolong the lifespan of EEE through proper handling, repair, and upgrading. • Ensure workplace WEEE is managed by the seller or delivered to a PRO or treatment facility. *Supervisory authorities* • Emphasize resource efficiency and prevention as part of the Environmental Code's provisions, ensuring compliance with EEE and WEEE regulations. *Municipalities and regions* • Partner with organizations to refurbish and reuse replaced EEE; • Include refurbished items in procurement processes; • Extend the use of electronic equipment by avoiding premature replacements.
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.	*Municipalities, county administrative boards, public authorities, and public procurement agency* • *Public procurement*: prioritize sustainable products and services, including reused, rented, and recycled materials; consider durability, washability, reparability, recyclability, and reducing single-use items; partner with organizations to refurbish and reuse replaced products; share best practices for increasing usage rates of reused, repaired, refurbished, and remanufactured products. • *Public awareness and services*: inform the public about reuse opportunities; develop services for repairing, sharing, and borrowing (e.g., tool libraries, workshops); create spaces for reuse and sharing, including facilities at recycling centers. *Sector-specific measures: construction* • *National board of housing, building, and planning:* promote circular economy practices by mapping reuse and recycling, developing indicators, and providing guidance. • *Municipalities and county administrative boards*: incorporate waste prevention into construction planning (e.g., reusing materials, adapting to topography); establish reuse centers for construction materials: promote circular practices for reusing construction materials and soil masses; provide guidance on reuse and recycling for construction and demolition waste.

	• *Industry organizations:* update guidelines for waste prevention and reuse; share best practices and lessons learned from circular projects; disseminate actionable measures from "Resource and Waste Guidelines for Construction and Demolition." *Sector-specific measures: packaging and textiles* • *Municipalities:* procure reusable packaging and encourage systems to reduce single-use plastics. • *Consumers:* opt for reusable packaging and second-hand clothing or textiles; donate or sell clean, unused clothing. • *Producer responsibility organizations:* provide waste prevention information and promote durable products. *Sector-specific measures: furniture* • *Public procurement agency*: support procurement of reused/refurbished furniture and furniture made from recycled materials; collaborate with organizations to refurbish or remanufacture furniture. • *Municipalities and public authorities*: introduce furniture reuse systems at recycling centers or through collection services; prioritize repairing, renting, or procuring reused furniture; establish internal reuse systems within organizations. • *Consumers (households and organizations)*: choose reused, refurbished, or remanufactured furniture; repair and maintain furniture to extend its lifespan; sell or donate unwanted furniture.
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.	*Industry actors across all sectors* • Provide spare parts and manuals to facilitate repairs. • Increase the use of recycled materials in products and packaging. *Swedish consumer agency (Konsumentverket)* • Inform consumers and businesses about rights under the Consumer Purchase Act, including warranties, returns, and guarantees for clothing, footwear, furniture, and home decor (new and second-hand). • Educate consumers on online purchase regulations for companies within Sweden, the EU, and non-EU countries. • Provide guidance on warranties and requirements for reused electronic products. *Municipalities and county administrative boards* • Set procurement requirements for sustainable textiles, focusing on washability, reparability, recyclability, and reuse. • Track and prioritize the use of existing textiles before purchasing new ones.

	• Develop and expand collection systems and services to increase textile reuse. • Include textile reuse and recycling goals in municipal waste plans. • Assess unused textiles within organizations for reuse or repurposing before recycling. *Organizations and businesses* • Create opportunities for textile reuse through systems and services. *Consumers* • Exercise your right to claim warranties for prematurely failing textile products. • Choose durable, reused, or refurbished textiles to reduce waste.
Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques.	*Municipalities, county administrative boards, and public administration* • Raise awareness during inspections about resource efficiency and waste prevention using best available techniques. • Collaborate with organizations to refurbish or remanufacture discarded items, such as furniture, from recycling centers. • Coordinate measures across administrative boundaries and inspection areas to enhance waste prevention. *Industry actors across all sectors* • Share best practices for applying a comprehensive approach to product value chains to prevent waste generation. *Property owners, Associations, housing cooperatives, and workplaces* • Opt for refurbished and remanufactured products; • Implement conscious efforts to reduce waste within organizations. *Sector specific measures: construction sector* • *Public procurement agency*: support procurement practices in construction and civil engineering that promote waste prevention, reuse, and recycling. • *Developers/clients/designers/material manufacturers*: set waste generation targets (e.g., max 20 kg/sqm); use circular raw materials for new construction products and supply by-products to other sectors; recover materials and products for reuse when on-site upgrading is not possible; investigate economic incentives to stimulate circular practices; require transparency on material content to avoid hazardous substances and facilitate recycling; develop resource-efficient materials and products for better circulation.

	Sector-specific measures: textiles • *Textile industry:* map supply chains to prepare for eco-design criteria and product passports; minimize overproduction, textile waste, and unsold stock; publish information on unsold items and prohibit their destruction. *Sector-specific measures: packaging* • *Supervisory Authorities*: highlight waste prevention requirements for businesses and producers; conduct risk-based supervision to ensure compliance with extended producer responsibility regulations.
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.	• *All actors in the food chain*: Follow Sweden's "More Do More" action plan to reduce food waste, including 42 measures aimed at reducing food waste by 2030 for primary production, food industries, retailers, restaurants, and households (see further in the section tilted "Food waste"). • *Swedish food agency*: Lead food waste reduction efforts under the food strategy; support profitability for businesses through waste prevention; explore how food control authorities can map residual flows for reuse. • *Public authorities and research institutions*: Provide guidance, enhance policy instruments, and contribute to innovation for food waste prevention. • *Businesses*: Reduce food waste by improving purchasing routines, offering discounts, or donating surplus food; adapt food production to meet demand in schools and elderly care facilities. • *Consumers*: Manage organic waste effectively and prevent its generation; reduce food waste at the household level.
Encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and the reprocessing into non-food products.	• *Businesses*: Reduce food waste by improving purchasing routines, offering discounts, or donating surplus food; adapt food production to meet demand in schools and elderly care facilities.

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.	*Authorities* • Set ambitious environmental, climate, and chemical requirements in procurement processes, and evaluate outcomes. *Industry Actors Across All Sectors* • Phase out hazardous substances beyond legal requirements. *Consumers* • Use tools like the "Kemikalieappen" app to access information on hazardous chemicals in products. *Flow-specific measures: plastics* • *Producers and designers*: design plastic products free of hazardous substances, repairable, and reusable for circular economy goals; substitute hazardous substances in plastics to enable non-toxic, resource-efficient cycles; monitor and phase out substances likely to face future restrictions using tools like the Swedish Chemicals Agency's PRIO tool. • *Swedish chemicals agency (Kemikalieinspektionen*): collaborate with Naturvårdsverket on sustainable textile value chains, focusing on environmental and chemical issues; contribute to EU regulatory efforts to limit hazardous substances and improve transparency on textile content. *Flow-specific measures: electronics* • *Electronics manufacturers and importers:* phase out hazardous substances beyond legal requirements; improve transparency on hazardous substances in components and materials throughout the supply chain, as required by the Producer Responsibility Ordinance for Electronic Equipment (2022:1276). • *Swedish chemicals agency*: Advocate for aligning the RoHS Directive with non-toxic, circular economy objectives. *Flow-specific measures: batteries* • *Swedish chemicals agency*: Support ECHA in identifying hazardous substances in batteries and advocate for restrictions under the Battery Directive. • *Producers and designers*: Avoid hazardous substances in battery design to promote circular economy practices. *Flow-specific measures: packaging* • *Swedish chemicals agency*: Contribute to ECHA efforts to identify and restrict hazardous substances in packaging, especially in food-related materials. • *Private Actors:* Ensure products are free of unnecessary additives and hazardous substances.

Reduce the generation of waste, in particular waste that is not suitable for preparing for re-use or recycling.	*Consumers* • Avoid single-use products altogether. For example, request reusable plates instead of disposables. • Avoid unnecessary use, such as overconsumption of products and materials that do not fulfill essential functions. Reduce the use of single-use products. • Reduce new purchases of clothing and shoes by maintaining, repairing, altering, and retaining them longer. • Reflect before purchasing—do you really need the item? • Choose higher-quality clothing that lasts longer. The longer you use an item, the better it is for the environment. • Opt for clothing you will wear frequently.
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.	*Swedish* EPA • Coordinate actions under the Environmental Code and the Street Cleaning and Signage Act to ensure property owners and businesses take responsibility for cleaning. *Producers* and designers • Replace plastic with environmentally preferable materials; • Design products to minimize littering risks and reduce microplastic leakage. *Municipalities* and regions • Require suppliers to minimize packaging and prioritize reusable alternatives; • Reduce single-use plastic usage by switching to reusable options and avoiding unnecessary purchases; • Request environmentally preferable alternatives to plastic and reduce unnecessary use of plastic bags; • Inform businesses about legislation on banned plastic products and reusable alternatives. *Consumers* • Avoid single-use plastic products and choose reusable options. *Businesses and operators* • Avoid or replace products that contribute to littering. *Businesses* and producers • Design products to prevent littering and replace litter-prone items. *Municipalities* • Include litter prevention goals in municipal waste management plans; • Inspect compliance with cleaning responsibilities under the Environmental Code and Street Cleaning Act; • Conduct litter mapping to identify sources, assess types, and develop targeted measures; • Implement anti-littering activities such as placing sorting facilities, increasing trash bin availability, using nudging techniques, organizing school and community campaigns, and conducting litter-picking events.

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.	*Swedish agency for marine and water management* • Prevent the loss of new fishing gear and promote sustainable collection and reception systems for lost gear; • Collaborate with Swedish EPA on a national information campaign about common marine litter, its impact, and links to consumer behavior; • Support product, material, and labeling improvements for fishing gear; • Facilitate and support beach cleanups in heavily affected areas. *Swedish EPA* • Lead Action 22 on marine litter under the marine environment action program; • Collaborate with Swedish Marine and Water Management on reducing marine litter. *Businesses and producers* • Ensure waste management systems prevent environmental waste dispersion; • Minimize fishing gear losses and contribute to achieving litter reduction targets. *Municipalities* • Include marine litter reduction goals in waste management plans and identify actionable solutions; • Inventory litter problems, monitor litter reduction efforts, and clarify municipal roles in prevention and cleanup coordination; • Promote collaboration between municipalities to address cross-border litter issues and share best practices; • Establish land-based facilities for recreational boaters and inform them about proper waste management; • Educate the public on the environmental impact and costs of littering; • Develop and implement measures to reduce littering, including identifying waterborne litter pathways. *Individuals and property owners* • Avoid littering in public spaces such as nature areas, beaches, and urban environments; • Maintain cleanliness around properties and participate in litter-picking activities; • Reduce single-use items and unnecessary packaging.

Develop and support information campaigns to raise awareness about waste prevention and littering.	*Swedish EPA* • Prioritize communication about the national waste plan and prevention program through regular updates, best practices, and tools; • Develop and share knowledge on designing long-lasting, repairable, and upgradeable products; • Provide information on sustainable textile consumption, focusing on environmental and health impacts; • Disseminate findings from national plastic coordination efforts and promote packaging prevention; • Launch awareness campaigns on the lifecycle impacts of textiles and promote sustainable consumption. • Share national coordination findings and tools to prevent packaging waste. *Municipalities* • Guide consumers on waste prevention, including repair, reuse, and where to access second-hand sales or donation centers; • Use waste management fees to fund public education on waste prevention for households and businesses; • Educate on preventing e-waste through maintenance, repair, and reuse campaigns; • Promote resource-efficient use of plastics and inform about reused plastic products; • Provide information on the environmental benefits of textile reuse and proper handling of textile waste. • Require reused plastic products in procurement and educate citizens on resource-efficient plastic use. • Educate households on e-waste prevention, including repair, reuse, and maintenance practices; • Inform about local reuse opportunities for electronics *Industry actors across all Sectors* • Educate consumers on maintaining, repairing, and upgrading products to extend their lifespan; • Use nudging techniques to reduce waste and promote sustainable consumer behavior. *Property owners of multi-family housing, associations, housing cooperatives, and workplaces* • Prevent waste generation through conscious organizational efforts; • Educate residents, staff, and members on sustainable behaviors. *Textile industry* • Prevent user-generated waste by educating consumers on maintaining and repairing textile products;

	• Promote sustainable textile consumption through awareness campaigns and lifecycle education.
Additional prevention measures, not covered by Article 9	*Authorities* • Actively participate in revising and developing new legislation, driving Swedish positions in EU negotiations to ensure effective national governance aligned with EU market regulations. *Swedish EPA* • Collaborate with relevant authorities to accelerate the transition to a sustainable and circular economy; • Prioritize funding for environmental research on the circular economy and resource efficiency, incorporating human health perspectives; • Provide supervisory guidance based on the waste hierarchy for new regulations and targets, emphasizing waste as a key supervisory area under the Environmental Code; • Lead Nordic-level waste prevention initiatives to foster consensus and advance knowledge; • Share insights on the environmental and health impacts of products across life cycles to promote sustainable value chains. *Municipalities, county administrative boards, and other public administration* • Foster collaboration among municipalities, administrative boards, and public entities to identify synergies benefiting citizens; • Support municipalities with inspection guidance and regional campaigns; • Aid in developing and revising municipal waste management plans. *Flow-specific: construction products* *Swedish EPA* • Collaborate with relevant agencies, including Boverket and the Public Procurement Agency, to share and disseminate legislative updates; • Provide enhanced inspection guidance on mass management, complementing existing waste-related frameworks. *Flow-Specific: plastics* *Swedish EPA* • Continue national plastics coordination to foster sustainable, fossil-free plastic use; • Disseminate findings from national coordination efforts, including insights on plastic packaging and its applicability to other materials.

Flow-Specific: microplastics

Operators and Industry

- Develop solutions to reduce microplastic leakage from paint and synthetic fibers in textiles;
- Prepare for regulations on tire wear for road vehicles and transition to sustainable alternatives for rubber granulate in artificial turf;
- Design products to reduce littering risks.

Municipalities

- Inform the public about plastic confetti bans;
- Limit artificial turf use and implement measures to contain granulate spread, such as granulate traps, fences, and cleaning stations;
- Require operators to create and report action plans for reducing environmental impacts from artificial turf fields;
- Actively combat littering through street cleaning and designated snow collection zones.

Flow-Specific: Textiles and Textile Waste

Swedish EPA

- Collaborate with the Swedish Chemicals Agency on sustainable textile value chain initiatives;
- Lead Nordic discussions on textile issues to establish consensus and develop new knowledge;
- Participate in research projects to highlight lifecycle environmental and health impacts of textiles;
- Update and share statistics on textile flows.

FOOD WASTE PREVENTION

Food waste generation

In 2022, approximately 1,420,000 tonnes of food waste were generated in Sweden corresponding to 135 kg per person.

Table 2. Generated food waste in Sweden in 2018 and 2020-2022 (rounded numbers)[5]

Stage of the food value chain	**2018**	**2020**	**2021**	**2022**
Agriculture and fisheries	10	10	10	9
Food industry	4	29	29	29
Food stores	10	10	9	9
Wholesale and e-stores	-	2	2	1
Restaurants and hotels	7	6	6	10
Large-scale catering establishments	7	3	3	4
Households, total	68	61	59	56
*Households: edible food parts**	*19*	*17*	*15*	*15*
Households: inedible food parts	*49*	*44*	*44*	*41*
Total solid food waste	**106**	**121**	**118**	**117**
Households: Liquid food waste down the drain**	*26*	18	18	18
Total solid and liquid food waste	132	138	136	135

* Measurements on which parts of the food waste that are inedible or edible parts have only been conducted in households.
**The amounts of food and drink poured down the drain are displayed separately for households, but from restaurants and stores, these amounts are unknown.

[5] https://www.naturvardsverket.se/49501f/globalassets/media/publikationer-pdf/8900/978-91-620-8908-5.pdf

Measures to prevent food waste

In 2020, the National Food Administration, the Swedish Board of Agriculture and the Swedish Environmental Protection Agency received a new joint and six-year government assignment to reduce food waste. The government's mission is part of the national food strategy and the authorities must work together to reduce food waste throughout the food chain, in line with the action plan to reduce food waste "More do more! Action plan for reduced food waste 2030" ("Fler gör mer! Handlingsplan för minskat matsvinn 2030"). This involves actions in all parts of the farm to fork chain. Implemented actions will be yearly reported.
A newly updated action plan will be published in March 2025. Following the review of the Waste Directive's the requirements related to the Food waste Prevention Programme, the upcoming action plan was reduced in its scope pending the adoption of the new EU requirements. The upcoming action plan focuses mainly on what authorities can do to reduce food waste and losses.

Table 3. Summary of measures listed in the Swedish food waste reduction action plan

Measures led by the Swedish food agency, Board of agriculture, and Swedish EPA

- Develop national food waste targets aligned with Agenda 2030 Goal 12.3.
- Establish methods for measuring and tracking food waste across the food chain.
- Collaborate with stakeholders to advance food waste reduction efforts.
- Promote digitalization to improve efficiency and accountability in the food chain.
- Launch recurring consumer campaigns to raise awareness and change behaviors.
- Increase knowledge on reducing food waste in public services, e.g., schools and healthcare.
- Support export markets for surplus products and redirect food to animal feed where applicable.

Driven by other actors or shared responsibility

- Conduct regular food waste follow-ups across the supply chain.
- Establish formalized industry cooperation to address waste.
- Introduce common regulations on price campaigns and product phase-outs.
- Promote public debate on food waste.

Food industry actors, restaurants, and retail

- Inform consumers about reducing waste and making waste-smart purchases.
- Train staff on waste reduction and environmental impacts.
- Increase marketability for Class II products like imperfect fruits and vegetables.
- Optimize logistics and invest in better equipment to reduce damage and waste.

Municipalities

- Share information with citizens on reducing food waste.
- Provide guidance and support for local waste prevention measures.

Education and public meal services

- Improve dining conditions in schools, healthcare, and elderly care to minimize waste.
- Integrate food waste topics into school curriculums and public procurement.
- Train procurement staff on waste prevention practices.

Standards and labeling

- Restrict “Use By” labels to highly perishable items.
- Apply waste-reducing practices to date labeling and product shelf-life requirements.
- Label chilled products with optimal storage temperatures.

Support through research and innovation, focusing on

- Mapping food waste and analyzing regulatory impacts.
- Innovating the reuse of by-products (e.g., slaughter waste, unused produce).
- Improving logistics, handling, and packaging to reduce waste.
- Researching consumer behavior and developing tools to encourage waste reduction.

The National Food Administration has co-financed a voluntary agreement in the food industry “Cooperation for reduced food waste,”, which was launched in 2020. The food industry will together with public authorities develop measurement methods and measures to reduce food waste. Developed measurement methods will provide needed knowledge to choose the right measures to reduce food waste.

For a base line in food losses taking place in the first part of the farm to fork chain, a national method for monitoring food losses has been developed. The national method is based on eight product flows: beef, pork, milk, fish, wheat, potatoes, carrots and strawberries. The follow-up method is also expected to add increased knowledge about food waste and other waste from food production, as the methods will evaluate how the food losses were used when not reaching human consumption. This method is complementary to the food waste monitoring methodology.[6]

Moreover, on-going work includes e.g. to increase exports of animal products that are not in demand in Sweden and developing innovations aiming to increase the utilisation rate of food material (e.g. broccoli plants, sexing eggs to avoid hatching of rooster eggs, processing of food side streams).

Something that may also help reduce food losses in the future is a new legislation introduced in 2021 banning late cancellations of food orders to the producer.

REUSE OF PRODUCTS

Data

According to 2021 data reported to the EEA according to Commission Implementing Decision (EU) 2021/19 (EEA, 2024), Sweden re-used:

- 4 213 tonnes of textiles;
- 2 695 tonnes of electrical and electronic devices;
- 2 726 tonnes of furniture.

It should be noted that this data has been reported for the first time. More information about the interpretation and limitations of the data set are available (EEA, 2024).

[6] Lindow K. (2021). Livsmedelsförluster i Sverige. Jordbruksverkets rapport 2:2021. 96 p. (Food losses in Sweden Swedish Board of Agriculture Report 2:2021)

Measures to support reuse

Various measures to support reuse are included in the Swedish waste management plan and its circular economy strategy:

Sweden is a driving actor in the EU product policy framework for circular economy

- Sweden will work to ensure that the regulations within the EU will aim for non-toxic material cycles, further and broader requirements for product design that contribute to circular economy, and that circular business models for reuse, remanufacturing and recycling are supported and made possible. The European Commission intends to propose common rules at EU level for this in 2021.

Widened deduction for activities aiming for reuse ("RUT" deduction)

- The government has in its budget bill for 2021 proposed that the RUT deduction (cleaning, maintenance) to be extended to include the transport of household goods to second-hand shops, flea markets and alike where household goods can come for reuse.

Tax deduction for increased reuse

- The government intends to introduce a so-called hyper-deduction as well as the opportunity for zero-tax free for renting out movables such as car, clothes, tools or furniture (valid up to a certain amount)

Circular public procurement

- The Government has commissioned the Procurement Authority to review in 2020 how strategic procurement can promote a circular economy throughout the procurement process. An important aspect of the work is how the degree of reuse can increase

Improved management of used cars

- The Government sees great potential in being the driving force behind the review of the Directive of on end-of-life vehicles to promote a circular economy through additional requirements for phasing out of particularly dangerous substances, design for reuse and circularity etc. The European Commission will present a proposal to the revised Directive in 2021.

The government has decided to raise the targets for preparation for reuse and material recycling of municipal waste gradually until 2035. EU targets for municipal waste have been introduced in Sweden as a new milestone target in the environmental goal system.

Several publicly funded research projects on reuse are on-going, funded by the *Industry leap* and *Re:source* programmes. Projects relate to Reuse of ashes, gypsum boards, plastics, electronics, composites etc. (https://resource-sip.se/projektdatabas-engelska/).

Best practice examples

Reduced VAT

Sweden supports the repair of certain goods by allowing a lower VAT for such activities. The aim of the VAT deduction is to support reuse and longer life cycles. The VAT is 12 % for the repair of shoes, bicycles, leather goods, clothing and household linnen. The reduced VAT came into force 1.1.2017.

Circular Gothenburg –repair shops and complete guidelines and toolboxes for waste prevention

Gothenburgh City has developed the *Fixotek* repair shop concept for its citizens. Fixotek is a meeting place, where the public can repair, borrow and construct to increase the life cycle of goods and materials. A fixotek handbook for organisations and private people is available at Gothenburg's web site.

Gothenburg city has created hands-on guidelines and for how to prevent waste generation in a wide area of activities and how to set up activities specifically aimed at increasing the life spa and utility

degree of goods. A number of guidelines, designed as e-booklets are available on e.g., waste prevention in offices, elderly care, schools, conference bookings, product library activities and reuse: https://goteborg.se/wps/portal/start/foretag/tillstand-och-regler/avfall-och-atervinning/regler-ansvar/forebygg-avfall-i-goteborgs-stad (in Swedish).

Pop -up reuse centres in Stockholm
Stockholm's utility Water and Waste organises pop-up reuse centers, to which the resident can bring items they themselves do not longer want to keep and can be reused. Pop-up recycling centers circulates around the inner and outer city on a defined published schedule on weekends though-out the year.

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 Swedish waste prevention programme.

Topic	Addressed in the programme	Comments
Eco-design	Yes	The responsibility is moving from the Sweden's national Energy Agency to coordination between three different ministries, thus taking a wider national approach and responsibility.
Repair, refurbishment and remanufacture	Yes	VAT deduction for repair etc.
Recycling	No	
Economic incentives and finance	Yes	The ministry is supporting the industry's move towards circularity (The Industry Leap-Industriklivet)
Circular business models	Yes	The ministry is supporting the industry's move towards circularity (The Industry Leap-Industriklivet)
Eco-innovation	Yes	The innovation fond Vinnova – has a strong Circular Economy focus in its funding programme.
Governance, skills and knowledge	Yes	involvement of several ministries and public agencies Sweden's National Circular Economy Action Plan (2021) contain's over 100 actions in various sector.A significant number of these actions relate directly to waste prevention.