NATUR VÅRDS VERKET

The Swedish EPA's roadmap for sustainable plastic use

Inspiration for action
Updated in 2025

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Foreword

Several challenges need to be overcome to achieve Sweden's long-term climate goals by 2045, to create a circular economy, and to reduce the amount of plastic in our seas and in nature. The use of plastics from fossil raw materials needs to decrease through more resource-efficient use, increased use of recycled materials, and greater utilisation of sustainable bio-based feedstocks. At the same time, plastic leakage – both litter and microplastics – must be reduced as far as possible.

Since the first version of this roadmap in 2021, a shared vision, common priorities and a unified understanding of the changes needed have laid a solid foundation for progress toward sustainable plastic use. To reflect developments since then, the roadmap has now been updated. The long-term direction remains unchanged but has been supplemented to better reflect existing legislation and to provide fresh inspiration.

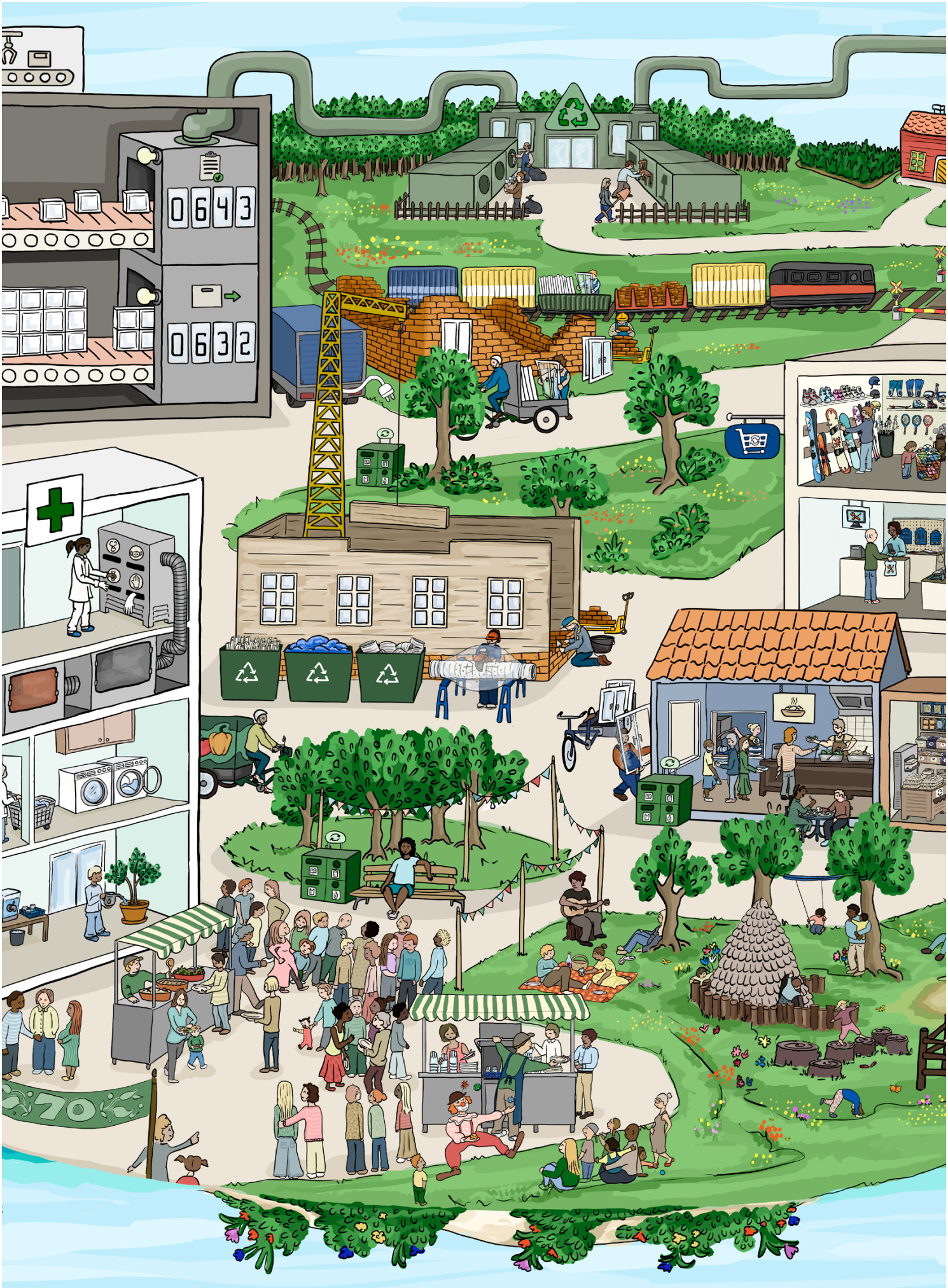
As before, the roadmap has been developed within the framework of the National Plastics Coordination, for which the Swedish Environmental Protection Agency is responsible. Experience shows that knowledge and collaboration are essential for moving this work forward. The purpose of the National Plastics Coordination is precisely to gather and disseminate knowledge, and to strengthen cooperation among actors in the plastics value chain in order to drive progress toward more sustainable plastic use.

New thinking and innovative solutions are important tools for achieving long-term positive environmental outcomes. A sustainable use of plastics also requires joint efforts. I therefore encourage all relevant stakeholders to use this roadmap as a basis for continuing to advance the work – both on a large and a small scale. One thing we have learned over the years is that everyone can truly make a difference.

Within the National Plastics Coordination, we maintain ongoing contact with dedicated actors who in various ways contribute to this transition, and I would like to thank you for your commitment.

Stockholm December 2025

Johan Kuylenstierna
Director General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Innehåll

The roadmap in brief

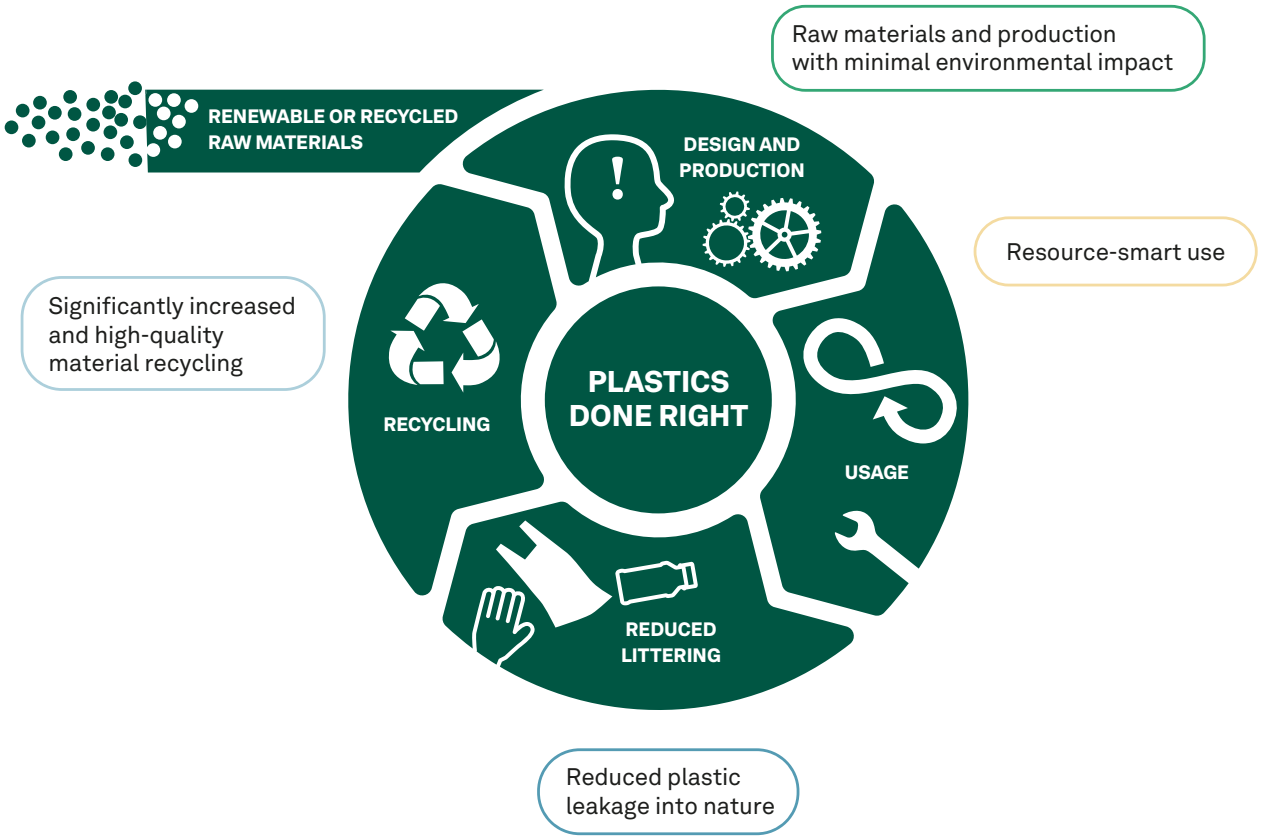
The roadmap provides an overall picture and a guide for the transition considered necessary by the Swedish Environmental Protection Agency (EPA) to achieve sustainable plastic use. Its purpose is to create a shared understanding of the shifts that need to occur and to highlight the development areas that are particularly crucial to address. The roadmap is also intended to inspire action.

This roadmap is an update of the version published in 2021[1]. Its content has been adjusted to reflect current legislation and to offer more inspiration for a variety of actors. The shifts described, as well as the overarching obstacles that underpin them, are still considered relevant and have therefore not been changed.

The roadmap is based on existing legislation, strategies and goals at the national, EU and global levels. Actors across both the private and public sectors should be able to use the roadmap as support in decisionmaking, as input for strategic activities, and in more practical ways to identify opportunities to contribute. The roadmap also encourages collaboration on issues that individual organisations cannot solve on their own.

Sustainable plastic use means that plastics are used in the right applications, within resource- and climate-efficient, non-toxic and circular flows, with negligible leakage. To achieve this, efforts are needed across four impact areas: "Raw materials and production with minimal environmental impact", "Resource-smart use", "Reduced plastic leakage into nature", and "Significantly increased and high-quality material recycling". Each area describes the shifts needed to meet the objectives, as well as the indicators that will be used for follow-up. Achieving these shifts requires development across a range of areas.

Plastics are firmly on the agenda, and much is happening in this field, not least in legislation. The roadmap is expected to serve as a guide until 2030, after which a new review will be needed.



Why have a roadmap?

Plastics provide many benefits to society. It is the way we design, produce, consume and otherwise manage plastics and plastic products that causes the environmental problems associated with them. When used appropriately, plastics are important and valuable materials. It is therefore vital to address the environmental challenges connected to today's handling of plastics so that we can continue to use the material sustainably. Using materials efficiently also strengthens our competitiveness and resilience.

Through the National Plastics Coordination, the Swedish EPA is responsible for driving the transition toward sustainable plastic use in Sweden. Early dialogue with relevant stakeholders revealed that a shared roadmap would be essential for reaching this goal. This roadmap provides:

- An overall picture and a common direction for where we are headed and what we mean by sustainable plastic use.
- A shared understanding of the shifts that need to occur and the development areas that are particularly important to address.
- Joint priorities regarding what needs to be done.

In this way, the roadmap becomes a catalyst for change in the right direction.

The roadmap is intended for use by a wide range of actors – within industry, public organisations, and by decision-makers at national and local levels. It can support decision-making, serve as input for strategic efforts, and inspire research needs and concrete changes within individual organisations. The roadmap also creates opportunities for joining forces and collaborating on issues that individual organisations cannot solve on their own.

Within the National Plastics Coordination, the process of gathering and sharing knowledge and fostering collaboration continues. Ongoing and planned activities are published on the Swedish EPA's website, where decision-support documents, current legislation and inspiration can also be found.

The roadmap is based on existing legislation, strategies and goals at national, EU and global levels. Since much is happening in this field, the EPA has now updated the roadmap from 2021 so that it can continue to serve as a tool for relevant stakeholders. The update builds on new legislation and insights gained through the continuous dialogue that the National Plastics Coordination maintains with many actors in both the public sector and the business community.

What environmental problems should we solve?

The overarching goal of Swedish environmental policy – the generational goal – is to hand over to the next generation a society in which the major environmental problems have been solved. Added to this is an increasing focus on competitiveness and resilience, where responsible use of materials is a key factor. The work toward sustainable plastic use is intended to contribute to Sweden's environmental quality objectives and to the 2030 Agenda, with a focus on:

Limited climate impact. By 2045, Sweden should have no net emissions of greenhouse gases into the atmosphere and should thereafter achieve negative emissions.

Reduced leakage of plastics and microplastics into nature and reduced exposure to hazardous substances. The environmental quality objective "A Non-Toxic Environment" includes the requirement that total exposure to chemical substances from all exposure pathways should not be harmful to people or to biological diversity.

Increasing benefits and reducing the negative impacts of material and product consumption through resource-efficient use and synergies with other societal goals. Responsible management of natural resources is a key focus area in achieving the generational goal.

The work also considers the impact of the measures on the environmental quality objectives. In its circular economy strategy, the Government emphasizes that governance should aim to replace fossil raw materials with renewable resources without negatively affecting biodiversity and ecosystem services. It is therefore essential that bio-based raw materials used to replace fossil feedstocks in plastic production are sourced sustainably. Another crucial aspect is reducing the use of unnecessary plastics, thereby limiting the demand for both fossil and bio-based raw materials.

The roadmap serves as a basis for identifying how Sweden can achieve sustainable plastic use. There are many different types of plastics, consisting of a wide range of polymers and additives. Regardless of the type, plastics must be produced, used and otherwise managed in a sustainable way.

The following Sustainable Development Goals are affected:

Sweden also actively participates in efforts to reach a global agreement on plastics that will reduce and prevent marine plastic litter and microplastics in our oceans.

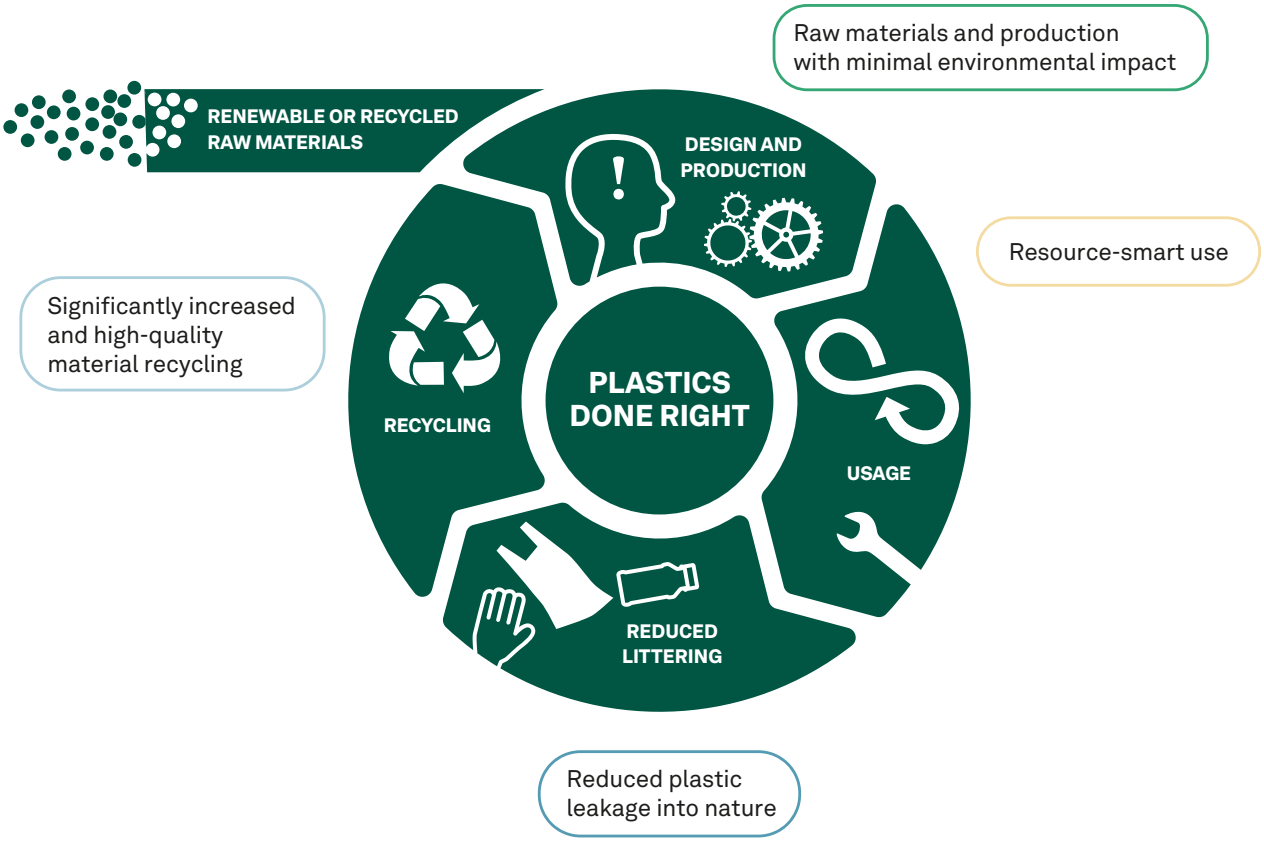
Further information on environmental impacts and current data on plastics is available on the Swedish EPA's website.

Vision for sustainable plastic use

Sustainable plastic use means that plastics are used in the right applications, within resource- and climate-efficient, non-toxic and circular flows, with negligible leakage. In this way, we achieve more efficient use of resources and reduced environmental impact, including reduced climate impact.

To achieve sustainable plastic use, the Swedish EPA sees a need for efforts within four impact areas: raw materials and production with minimal environmental impact, resource-smart use, reduced plastic leakage into nature, and significantly increased and high-quality material recycling.

These impact areas, which are closely interlinked, describe the overarching development needs for how plastics are produced, used and circulated. Measures taken within one area may also affect the others. The roadmap will be followed up using existing relevant statistics as well as the Swedish EPA's plastics mapping.



Resource-smart use

Resource-smart use means that plastics are used in a way that delivers the greatest possible benefit per amount of plastic throughout its life cycle. Starting from the function and benefit needed, and examining opportunities to achieve this as resource-efficiently as possible, is a key component.

Work in this impact area aims to support:

- Avoiding unnecessary use, meaning avoiding over-consumption of products and materials that are not needed to fulfil their intended function.
- Increased reuse, supported by efficient reuse processes and the infrastructure required to make them work.
- Optimal service life for plastic products, including reduced undesirable wear and therefore reduced microplastic leakage.
- Using less material to achieve the same function, need or benefit, for example by reducing the amount of material required for a given function, or by enabling a product to be shared by more users so that it is used more effectively over its lifetime.

Follow-up indicators

- Use of certain single-use products.
- Plastic use in Sweden, broken down by plastic stream.
- Plastic waste in Sweden, broken down by plastic stream.

Follow-up also uses targets set in existing legislation and in the environmental objectives system, including:

- For packaging placed on the Swedish market for the first time, the share that is reusable must increase by at least 20% by weight from 2022 to 2026, and by at least 30% from 2022 to 2030. Specific targets for different types of packaging are also found in the EU Packaging Regulation, directed at economic operators who use or supply packaging.[2, 3]
- By 2025, preparation for reuse and recycling of municipal waste must have increased to at least 55% by weight, by 2030 to at least 60%, and by 2035 to at least 65%.[4]
- Member States must reduce packaging waste (compared with 2028) by 5% by 2030, 10% by 2035, and 15% by 2040.[3]
- The number of lightweight plastic carrier bags must not exceed 40 bags per person per year from 31 December 2025.[5]
- The number of single-use plastic cups and single-use plastic food containers must be reduced by 50% by weight between 2022 and 2026.[5]

Unless otherwise indicated, the targets apply to the total waste stream, not specifically to plastics.

The need for change

A necessary shift involves moving from short-lived products and linear consumption patterns to solutions based on long service life, sharing, repair and reuse. For both businesses and private individuals, it must become easier and more cost-effective to choose these alternatives. The shift also means maximising the benefits of materials and products already in use, while minimising unnecessary use and the generation of waste.

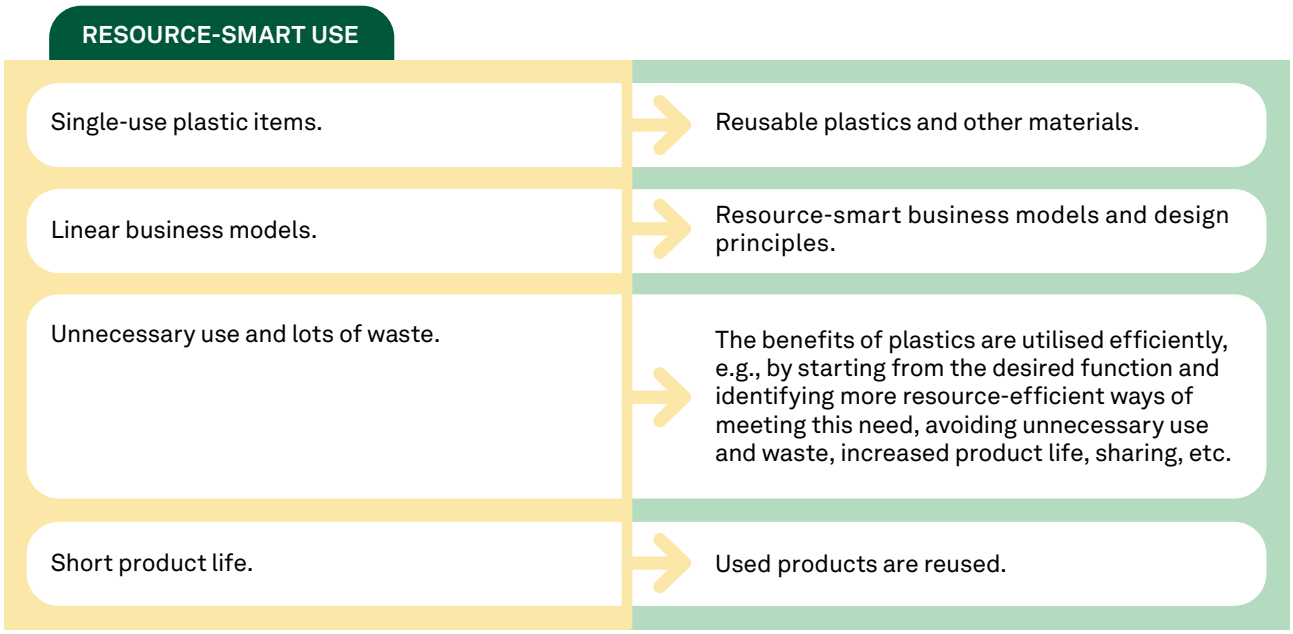
Examples of legislation

Within the EU, increasing requirements are being placed on product design. For example, the EU Packaging and Packaging Waste Regulation (PPWR) includes bans on excessive empty space in packaging and bans on over-packaging. Requirements under the EU Ecodesign for Sustainable Products Regulation (ESPR) contribute to improved traceability.

Other relevant legislation includes the Single-Use Plastics Directive, which contains bans on certain products and reduction targets for others; the REACH restriction on intentionally added microplastics; and Euro 7, which regulates tyre abrasion performance.

In addition, municipalities have a responsibility under the Swedish Environmental Code to provide information on waste-prevention measures, such as reuse.

Under the Swedish Planning and Building Act, a control plan is required for most construction, demolition and land-related measures that require a permit or notification. The control plan must include information on which building products can be reused and how they will be handled.



Raw materials and production with minimal environmental impact

Achieving national climate targets and other environmental objectives requires minimising the environmental impact of raw materials and production, viewed through a full life-cycle perspective. This entails designing products with consideration for their environmental impact during production, use and waste management. Factors such as the risk of plastic leakage, recyclability and potential effects on issues such as food waste and fuel consumption must also be taken into account.

Work in this impact area aims to support:

- Minimising the climate impact of producing plastic raw materials and plastic products, including reducing the amount of primary fossil-based plastics. Developing resource-efficient production processes is a key component of this transition.
- Reducing the life-cycle environmental impact of plastics, for example by increasing the share of recycled and bio-based raw materials, and by designing products for high-quality recycling and reuse. This also involves considering how raw-material composition (such as mixed materials and additives) affects recyclability, and working to reduce emissions associated with the incineration of plastics.
- Shifting to materials and technologies with lower environmental burdens, such as reusable or recyclable solutions and more wear-resistant plastics and rubber in product groups that account for significant leakage of plastic and microplastics into the environment.
- Phasing out substances of very high concern* and substituting hazardous substances in plastics, and designing products to support non-toxic and resource-efficient circular material flows.

Follow-up indicators

- Territorial greenhouse gas emissions from the incineration of waste, including plastics, in the electricity and district heating sector.
- Estimated microplastic leakage in Sweden (tonnes per year, broken down by source and pathway).

Progress is also monitored through targets set out in existing legislation and in the national environmental objectives, including:

- Requirements for recycled content in plastic packaging, with similar requirements forthcoming for vehicles and likely for other product groups.[3]
- A material recycling rate for plastic packaging of

*Substances of very high concern are chemicals with properties that can cause long-term harm to human health or the environment, and whose use should be phased out as far as possible under the environmental quality objective "A Non-Toxic Environment". Their hazardous properties largely correspond to the criteria set out in EU legislation (Article 57 of the REACH Regulation). The difference is that the environmental quality objective explicitly highlights endocrine-disrupting substances and strongly allergenic substances as priority concerns.

at least 50% by weight by 2025, rising to at least 55% by 2030.[6]

- Annual collection of at least 65% by weight of the electrical and electronic equipment placed on the market. Recycling targets vary depending on the equipment category.[7]
- For end-of-life vehicles, at least 95% of the vehicle's weight must be reused or recovered (including energy recovery), and at least 85% must be reused or materially recycled.[8]
- Preparation for reuse and material recycling of municipal waste must increase to at least 55% by weight by 2025, to at least 60% by 2030, and to at least 65% by 2035.[2, 4]

Unless otherwise indicated, the targets apply to the total waste stream, not specifically to plastics.

The need for change

A major shift is required: from plastics largely made from fossil feedstocks, characterised by limited transparency, short-sighted design choices and the use of hazardous substances, to products made from recycled and bio-based materials, with clear information, free from substances of very high concern and designed for circularity. This shift also requires that the environmental and climate costs of plastics are made visible, and that plastics are used appropriately so that their total life-cycle impact is minimised.

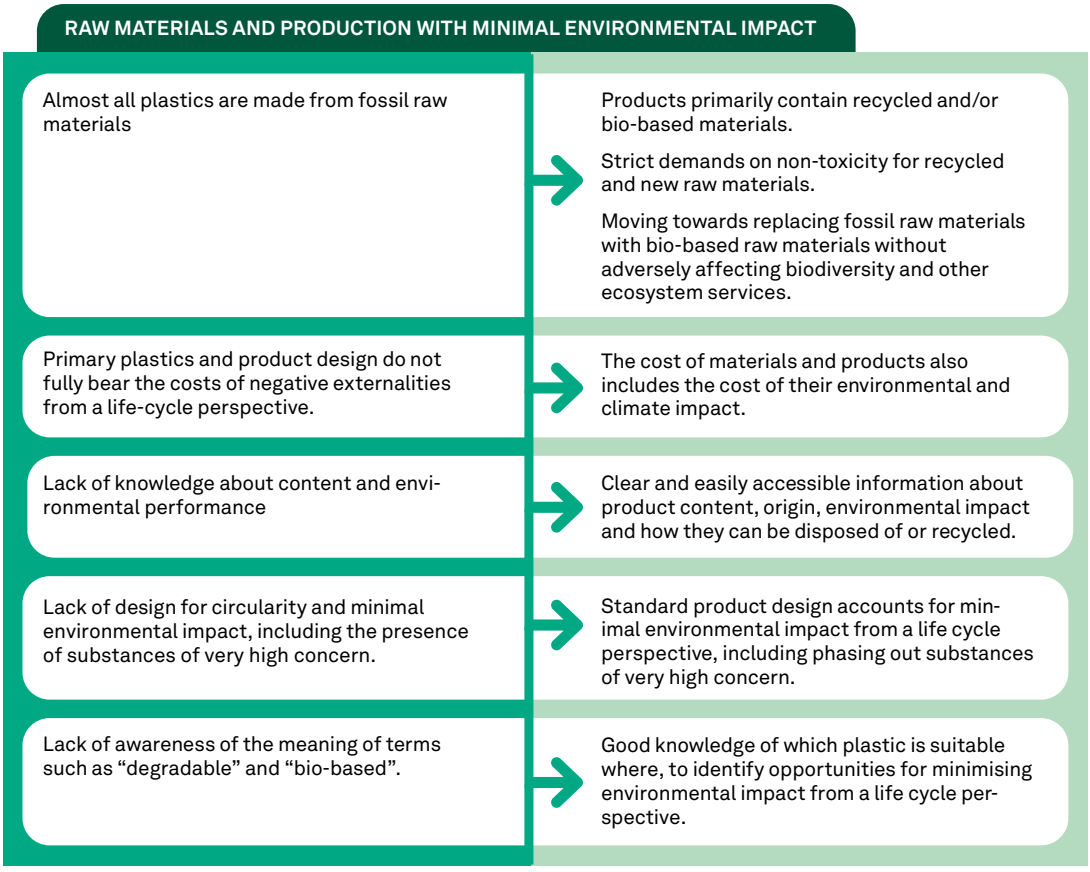
Examples of legislation

Legislation is essential to drive this transition particularly to close the cost gap between primary fossil-based plastics and recycled or bio-based alternatives.

At EU level, product legislation has advanced significantly, including the Ecodesign for Sustainable Products Regulation (ESPR), the EU Packaging Regulation, the forthcoming End-of-Life Vehicles Regulation and the EU Taxonomy. These frameworks introduce requirements for recycled content and, in some cases, bio-based content.

Regulation limiting the use of substances of very high concern in materials and products is also crucial. For example, PFAS will be restricted across the EU. The product passports being developed under the ESPR are intended to strengthen traceability.

Further EU work includes sustainability criteria for bio-based plastic feedstocks and the development of life-cycle-based environmental footprint methods at both organisational and product level (OEF/PEF).



Significantly increased and high-quality material recycling

A significant increase in high-quality material recycling is essential to reducing the climate impact associated with the production and incineration of plastic raw materials. It is also a key component in achieving resource-efficient use of both fossil and bio-based materials, thereby reducing negative impacts on biodiversity and other environmental objectives. Closing the loop requires action throughout the value chain – from product design and collection to improved sorting and stronger demand for recycled raw materials. This applies to both mechanical recycling and various forms of chemical recycling.

Work in this impact area aims to support:

- A higher proportion of plastics being collected for material recycling.
- A greater share of products being designed to be materially recyclable, including avoiding substances that hinder material recycling.
- An increased proportion of plastics being recycled through efficient and economically viable processes. Expanded recycling capacity will be needed. To ensure that products made from recycled material comply with product and chemicals legislation, knowledge of and control over hazardous substances throughout the value chain are required.
- Reduced illegal waste management.

Follow-up indicators

- Material recycling rates, by plastic stream.
- Recycled content in packaging (and in other product groups as legislation evolves).
- Territorial greenhouse gas emissions from the incineration of waste, including plastics, in the electricity and district heating sectors.

Monitoring also takes place through targets set in existing legislation and the national environmental objectives system, including:

- For plastic packaging, the material recycling rate must be at least 50% by weight until the end of 2025, and at least 55% by 2030.[6]
- Deposit-return bottles must be collected at a rate of at least 90% by weight.[6]
- At least 65% by weight of electrical and electronic equipment placed on the market must be collected annually. Recycling targets vary depending on the product category.[7]
- For end-of-life vehicles, at least 95% of the vehicle's weight must be reused or recovered (including energy recovery), and at least 85% must be reused or materially recycled.[8]
- By 2025, preparation for reuse and material recycling of municipal waste must increase to at least 55% by weight, to at least 60% by 2030, and to at least 65% by 2035.[2,4]

Unless otherwise indicated, the targets apply to the total waste stream, not specifically to plastics.

The need for change

A fundamental shift is required: from a situation in which most plastics are incinerated, recycling rates are low, and collection systems are geared towards volume and mixed streams, to a system in which plastics are collected and recycled into high-quality materials that can be used again. Recycled raw materials must be able to meet the quality demanded by the market. This transition requires well-defined plastic streams suitable for material recycling, while substances of very high concern are phased out across the entire value chain. For this to function effectively, well-developed logistics and smart circular loops are essential.

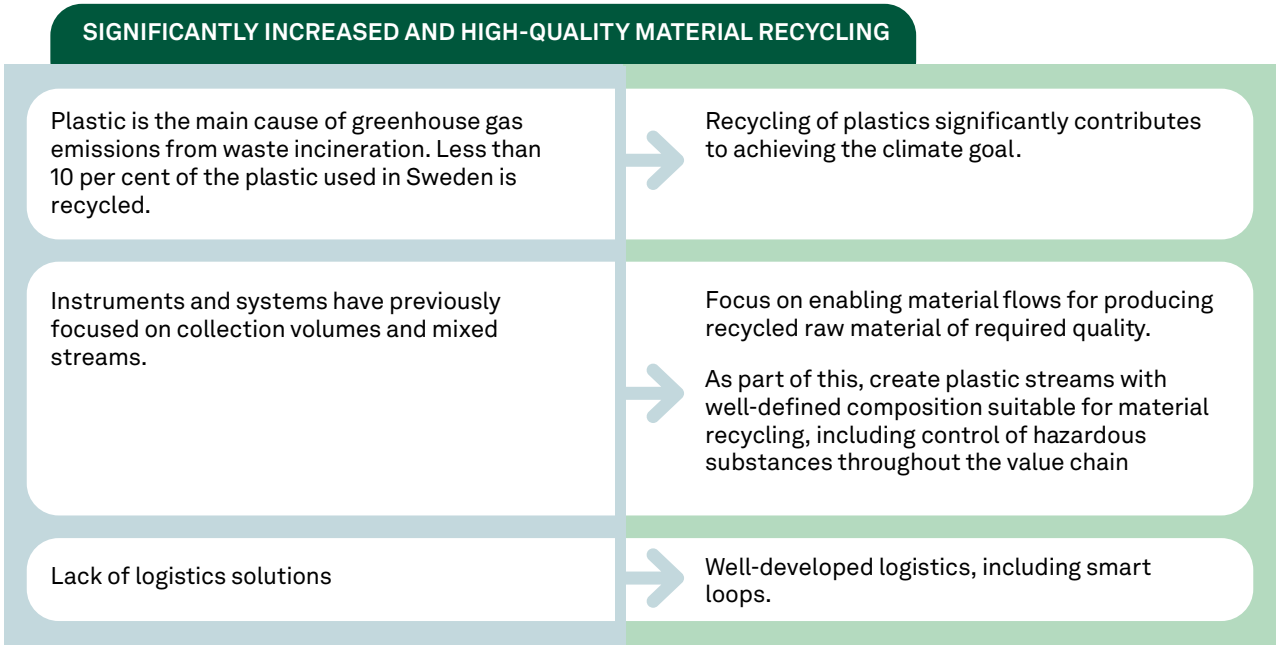
Examples of legislation

From 2030, all packaging placed on the EU market must be fully recyclable as materials. Complementary systems for monitoring and traceability will also need to be developed. Since 2020, the EU has applied a calculation method for Member State contributions whereby 800 euros per tonne of non-recycled plastic packaging waste must be paid annually.

Under the Swedish Waste Ordinance, plastic waste from construction and demolition must be sorted into at least one separate fraction (in addition to plastic packaging). From 2028, the same requirement will apply to bulky municipal waste. In addition, household packaging waste must be collected close to the point of residence by 2027.

Waste sorted for material recycling may not be sent directly for incineration under the Waste Ordinance.

At EU level, efforts are also underway to develop end-of-waste criteria for plastics.



Reduced plastic leakage into nature

Plastic leakage includes both plastic litter and microplastics that enter the natural environment, either through deliberate littering or through unintentional releases such as wear and tear. It also covers illegal waste management.

Addressing the problem requires action both to tackle the sources of leakage and to limit the pathways through which it spreads, as well as efforts to clean up litter that has already entered the environment.

Work in this focus area aims to support:

- Designing products that may become litter or contribute to microplastic leakage in ways that minimise plastic loss to the environment.
- Reduced littering, both by preventing direct littering and by collecting existing litter.
- Reduced microplastic leakage. In the short term, substantial improvements can be achieved by prioritising measures with low implementation costs. By seeking synergies with other environmental objectives, the cost-effectiveness of measures can be further improved.

Follow-up indicators

- Litter containing plastic (weight/year, broken down by product category).
- Estimated total microplastic leakage in Sweden (weight/year, broken down by source and pathway).

Monitoring also takes place through targets set in existing legislation and the national environmental objectives system, including:

- The EU aims to reduce plastic litter entering the sea by 50% and microplastics released into the environment by 30% by 2030, compared with 2021 levels.[9]
- The EU Marine Strategy Framework Directive includes targets for reducing marine litter. Sweden has set threshold values for beach litter, specifying that the total number of litter items must not exceed 20 per 100 meters of shoreline. For seabed litter in the Skagerrak and Kattegat, the target is that the number of items should not exceed 191 per square kilometer by 2030.[10]

The need for change

A fundamental shift is required: from a situation in which plastics leak and accumulate in the sea and on land, where knowledge of flows and impacts is limited and where plastics are often handled in an uncontrolled manner, to a systematic, global effort that prevents leakage, including illegal waste management. This transition requires established methods for measurement and analysis, a strong knowledge base enabling risk assessment and evaluation of the effectiveness of measures, and the implementation of concrete actions to address microplastic leakage and littering.

Examples of legislation

Littering in outdoor areas accessible or visible to the public is prohibited under the Swedish Environmental Code.

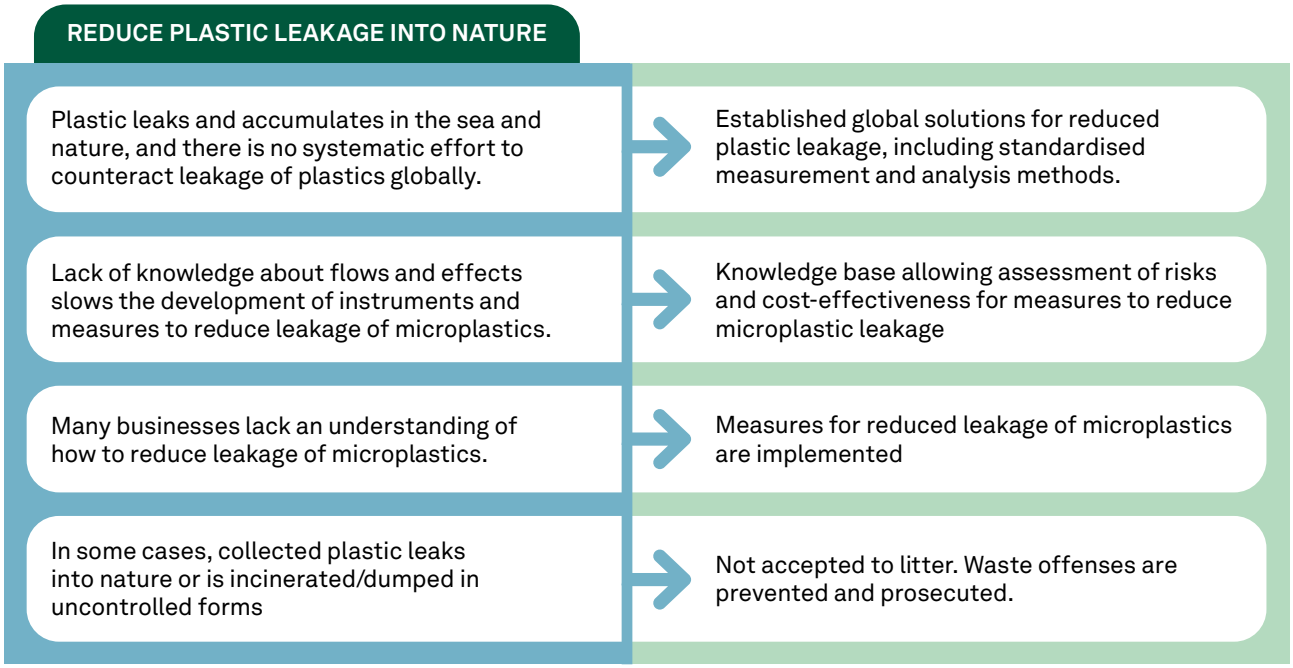
The EU Single-Use Plastics Directive introduces producer responsibility for balloons, tobacco products and fishing gear. This means that producers must cover the costs of awareness-raising measures, collection in public systems and clean-up of litter. The directive also requires caps and lids to remain attached to beverage containers. Municipalities, in turn, are responsible for including measures to reduce littering in their municipal waste management plans.

Under REACH, restrictions apply to intentionally added microplastics. Releases of microplastics are also regulated under the Urban Waste Water Treatment Directive, the Regulation on plastic pellets and the Industrial Emissions Directive.

Within the ESPR process, the European Commission has signalled the possibility of using design requirements to reduce microplastic emissions from textiles and paints by minimising abrasive wear.

The Basel Convention regulates the trade in plastic waste to prevent exports to countries that lack the capacity to manage such waste.

Within the work of the IMO and the regional marine conventions HELCOM and OSPAR, regional action plans are being developed to reduce marine litter.



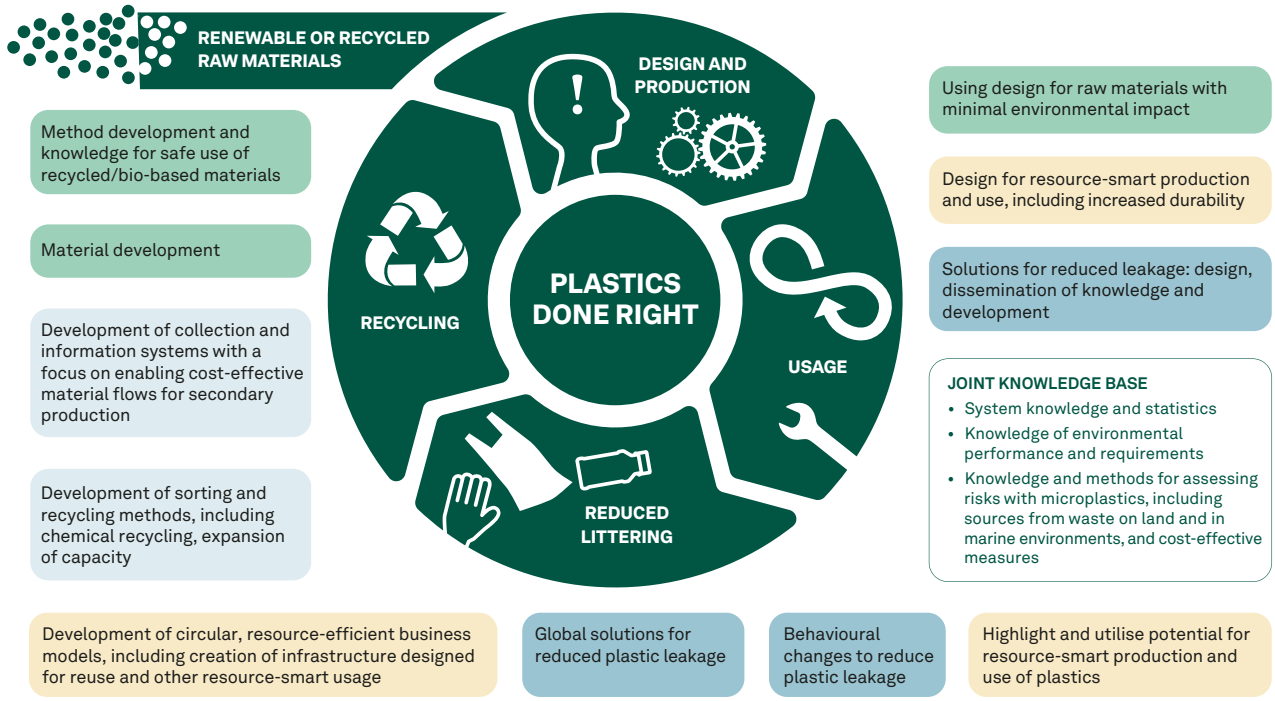
Need for development and opportunities for supporting sustainable plastic use

Significant changes are still required to achieve the necessary progress in the plastics sector:

- New partnerships must be established and existing ones strengthened. No single actor can succeed alone. Greater collaboration is needed to develop the systemic solutions required for sustainable plastic use in the future, including collaboration across the value chain and in the generation and utilisation of new knowledge and solutions.
- Major changes are necessary. For example, recycling needs to increase from current levels so that more than half of all plastic consumed is recycled into new raw materials, which implies even larger increases for the streams that are easier to recycle. We also need to completely rethink the design phase of many products and modify existing business models.

By combining multiple types of solutions and policy instruments across different impact areas for sustainable plastic use, progress can be achieved more cost-effectively. For instance, both resource-efficient use and increased collection for material recycling are important for reducing plastic leakage.

The figure below provides an overview of priority development areas for continued efforts to achieve sustainable plastic use. The three development areas in the box on the right form a cross-cutting knowledge base for this work. Areas highlighted in yellow relate to the impact area "Resource-smart use", those in blue to "Reduced plastic leakage", those in green to "Raw materials and production with minimal environmental impact" and those in light blue to "Significantly increased and high-quality material recycling".



The development areas are based on significant obstacles identified as bottlenecks to progress. For a more detailed description of the obstacles deemed significant by the Swedish EPA, see the background report to the roadmap, "Conditions for Sustainable Plastic Use".[11]

There are many opportunities for organisations to contribute to sustainable plastic use. Key elements include increasing knowledge and expertise, developing and testing new solutions, designing policy instruments, making investments, setting product requirements, responsible procurement, smarter use – including behavioural changes – and establishing routines to avoid unnecessary consumption.

Some of the shifts described in the target scenario above have already begun in certain areas, but remain to be implemented in others. Some are more challenging and require long-term effort. Several shifts are not specific to plastics, creating opportunities for significant synergies with the development of sustainable material use and the circular economy more broadly.

Each development area is briefly outlined below, and the tables provide inspiration for actors who can contribute in various ways to sustainable plastic use.

A shared knowledge base

Systems knowledge and statistics

In general, a deeper understanding of material flows is needed including information on the content of hazardous substances. Knowledge is also needed about how different choices affect various areas of the plastics value chain. This supports decision-making in the development of infrastructure, investments and policy instruments

To support this goal, the Swedish EPA has regularly mapped plastic flows and, resources permitting, will continue to develop statistics, monitor indicators, assess knowledge gaps, and identify other barriers, with the aim of determining where additional measures are required beyond existing policy instruments.

Understanding environmental performance and setting requirements

Making well-informed, sustainable choices from a life-cycle perspective should be as simple as possible. Understanding environmental performance and how to define requirements is therefore a key area for developing sustainable plastic use. Insights into how material choices affect the life cycle also need to be gathered and shared.

Through the National Plastics Coordination, the Swedish EPA provides guidance and information on tools that support sustainable decision-making. Collaboration with other actors in the plastics value chain is a crucial part of these efforts, as is contributing to relevant EU initiatives and legislative developments in the field.

Understanding and assessing microplastic risks, including sources from land and marine waste, and cost-effective measures

Limited knowledge, including the lack of harmonised measurement and analysis methods, is a significant bottleneck for assessing risks and the cost-effectiveness of measures to mitigate the effects of microplastic leakage.

The Swedish EPA has developed a research agenda for microplastics, providing a detailed overview of knowledge gaps in the field. Developing harmonised methodologies is essential, and international collaboration plays a key role.

Resource-smart use

Highlight and harness the potential for resource-efficient production and use of plastics

A resource-smart use of plastics should be as natural as efficient energy use. Achieving this behavioural shift requires understanding existing barriers and showcasing the benefits of more resource-efficient practices. Reliable data and statistics – both at company and national levels – are essential, along with visible examples of positive practices.

The Swedish EPA, in collaboration with relevant authorities and other stakeholders, works to produce, gather and disseminate knowledge and examples that facilitate this, as well as to develop relevant legislation.

Designing for resource-smart production and use, including increased durability

Design has a major influence on the environmental impact of a product throughout its life cycle. Up to 80 percent of a product's environmental impact can be determined during the design phase. The EU has therefore, as part of the Circular Economy Action Plan, carried out significant work on developing product policy. The aim is to adapt products to a climate-neutral, resource-efficient and circular economy, reduce waste and ensure that the performance of the most sustainable products gradually becomes the norm. By being at the forefront of work on products with improved environmental performance, the Swedish business community can be well placed to meet upcoming sustainability requirements and compete in the market of the future. Design for resource-smart use can in some cases be done in such a way as to achieve synergies with reduced littering (for example, by designing for multiple use) and reduced leakage of microplastics (by designing for increased durability).

The Swedish EPA, together with other authorities, is involved in the EU's work on implementing and developing product policy with ecodesign requirements. The Swedish EPA also works to produce and disseminate knowledge to facilitate the design process.

Developing circular, resource-efficient business models, including building infrastructure designed for reuse and other resource-smart practices

Achieving resource-smart use requires the development and broader uptake of resource-efficient concepts and business models. While such approaches already exist in some product streams, efforts need to be scaled up so that they become the default choice. A key example is reuse, which also requires the development of supporting infrastructure.

The Swedish EPA works to promote reuse and collaboration around infrastructure development and resource-efficient logistics. Gathering and disseminating information, supporting municipalities in their mandate to communicate about waste-prevention measures, implementing the EU Single-Use Plastics Directive and the Packaging Regulation, and contributing to other EU initiatives – such as the development of product information systems – are all major aspects of these efforts.

Raw materials and production with minimal environmental impact

Using and designing for raw materials with minimal environmental impact

Design is of great importance for a product's environmental impact throughout its life cycle, and the choice of raw materials is part of this. From a life cycle perspective, the use of raw materials with minimal environmental impact includes, in addition to raw material selection, also design choices that enable a long product life where relevant, and material recycling of the raw material. Choosing recycled or bio-based raw materials where possible reduces the product's environmental impact. This also includes not using hazardous substances or additives that make recycling more difficult.

The Swedish EPA works on developing long-term economic instruments based on the polluter pays principle. In addition, an important part of the work is the collaboration with, among others, SIS on the development of standards. The Swedish EPA is also working to develop and compile knowledge bases to enable better choices of raw materials. Collaboration with research funders is important to contribute to knowledge development, as is collaboration with the Swedish Chemicals Agency on non-toxic cycles.

Method development and knowledge building for safe use of recycled and bio-based materials

Anyone choosing to use a product made from recycled raw materials must be confident that it is just as safe for health and the environment in its intended use as a product made from primary raw materials. Bio-based raw materials must also be produced sustainably. Achieving this requires method development and knowledge building.

A key part of the Swedish EPA's work in this area is participating in EU initiatives aimed at increasing the recycled content of products while ensuring their performance and safety, as well as EU initiatives related to bio-based plastics. Collaboration with the Swedish Chemicals Agency on non-toxic and resource-efficient cycles is another key component. Additionally, the EPA contributes to the development of concepts through standardisation, the creation of mass balance calculations, the establishment of sustainability criteria for biobased raw materials and other related efforts.

Material development

Materials with satisfactory properties and significantly lower environmental impact than primary fossil-based plastics are lacking for certain applications.

Important aspects of the Swedish EPA's efforts in this development area include providing knowledge that supports well-informed choices and contributing to EU work on product policy, including eco-design. Collaboration with research funders is also crucial to promote progress in this field.

Significantly increased and high-quality material recycling

Developing collection and information systems focused on enabling cost- and climate-effective material streams for secondary production

Achieving a substantial increase in high-quality material recycling requires a stronger focus on

facilitating material flows for the production of recycled raw materials of the desired quality. This includes creating plastic flows with a well-defined composition suitable for recycling. The development of logistics solutions is also necessary, including the establishment of "smart loops".

Waste legislation, including producer responsibility, is a vital policy instrument in this area, with the Swedish EPA responsible for supervision and guidance across various waste streams. The EPA also contributes to the revision and implementation of relevant EU legislation. Collaboration on initiatives to increase collection, including logistics solutions and material recycling, is central, as is cooperation around knowledge building.

Developing sorting and recycling methods, including chemical recycling and expansion of capacity

Climate- and cost-effective material recycling requires appropriate sorting and treatment, whether mechanical or chemical. Technological development is needed to enable increased recycling across both approaches. In addition, capacity must be expanded at various stages of the recycling process.

New partnerships are also essential to ensure larger material flows are directed towards recycling. There is a need to improve understanding of how different parts of the value chain can contribute to optimal conditions for material recycling, particularly in the case of chemical recycling. These considerations, alongside the requirements for various types of mechanical and chemical recycling, should inform the development of future system solutions for significantly increased and high-quality material recycling.

Collaboration around initiatives to increase material recycling across different plastic streams is critical. The Swedish EPA supports climate investments through Klimatklivet, monitors activities within Industriklivet and collaborates with Vinnova on targeted funding calls. It also contributes to EU initiatives on product information and other measures to promote significantly increased and high-quality material recycling, while participating in standardisation activities related to recycling.

Reduced plastic leakage into nature

Solutions for reduced leakage: Design, knowledge dissemination and development

The EU Single-Use Plastics Directive introduced extended producer responsibility for certain product groups in 2023. This requires producers to cover the costs of awareness-raising activities, collection through public systems and litter-cleaning measures.

Key elements of the Swedish EPA's work in this area include implementing the Single-Use Plastics Directive, contributing to EU product-policy initiatives – such as the development of eco-design requirements and other microplastics-related legislation, including the pellet regulation – and following the Swedish Chemicals Agency's work on the REACH restriction. The EPA is also developing guidance for supervision and permitting. The agency works with other stakeholders to collect and disseminate knowledge, including on how microplastic leakage can be reduced. Particular emphasis is placed on measures with low implementation costs and/or those that generate synergies with other environmental objectives. Close collaboration with the Swedish Agency for Marine and Water Management is essential in these efforts.

Behavioural changes for reducing leakage

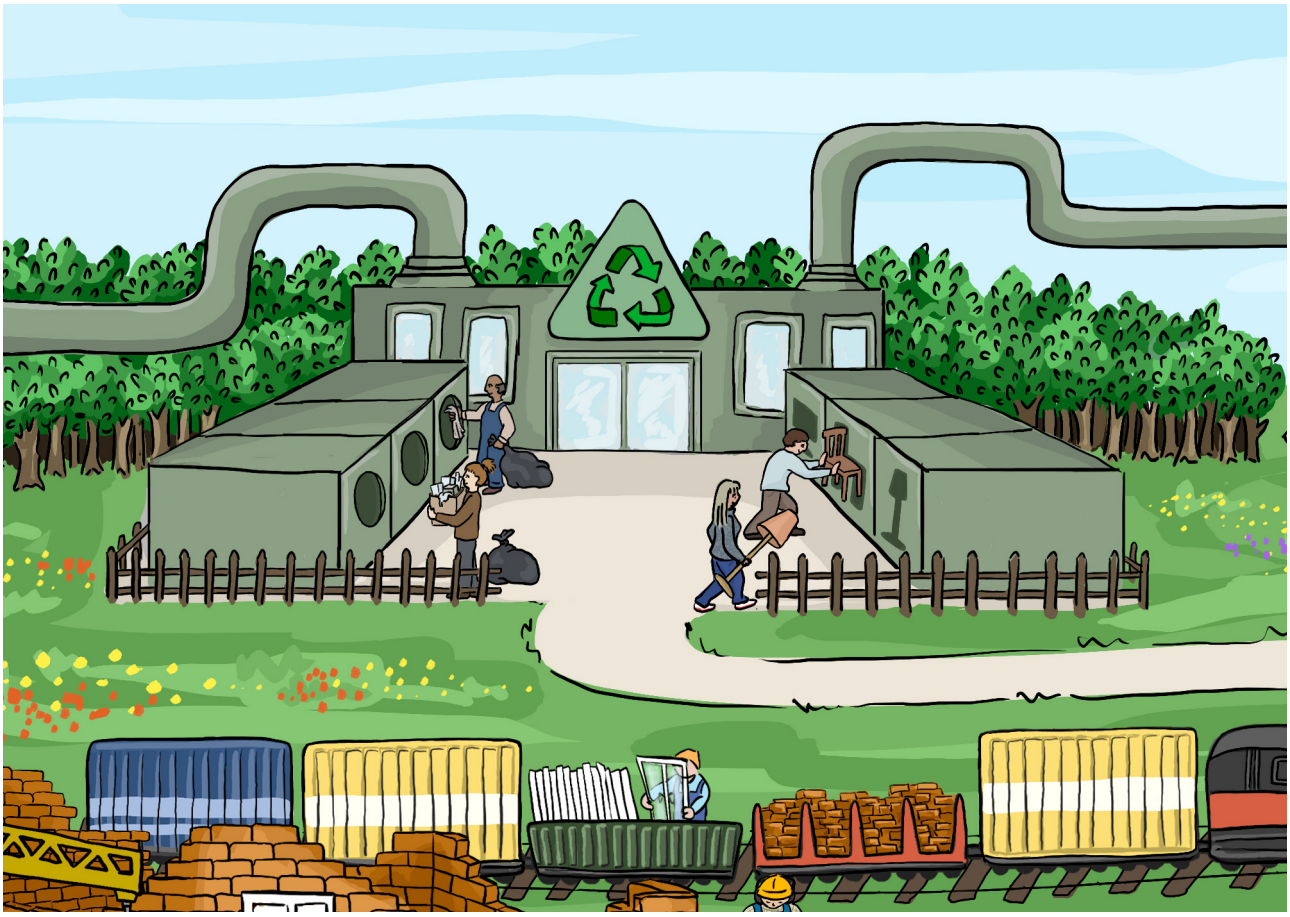
The use of single-use plastic products and plastic fishing gear is a major source of plastic leakage into the environment. Social norms play an important role here, and targeted efforts are needed to create and maintain a culture where littering is socially unacceptable.

Important aspects of the Swedish EPA's work in this area include implementing the Single-Use Plastics Directive, promoting increased reuse – such as of packaging – collecting and disseminating knowledge on ways to support behavioural changes that reduce littering, providing supervisory guidance, and cooperating with other public authorities and stakeholders.

International and EU collaboration for reduced plastic leakage

Plastic littering occurs worldwide, and plastic pollution crosses borders – for example, through air and water transport. For this reason, the challenges associated with plastics cannot be addressed by national action alone; international cooperation is essential. At present, there is no global mechanism or forum that deals comprehensively with marine plastic litter and microplastic pollution. The Swedish Government is therefore working towards a global plastics agreement that would prevent the release of plastic waste and microplastics into the oceans and cover the entire life cycle of plastics. The aim is to contribute to the global objective of eliminating all plastic pollution in the oceans in the long term. The private sector also has an important role to play– through product design, business model development and other measures – in reducing global plastic leakage.

Beyond the work towards a global agreement, the Swedish EPA participates in a range of international initiatives to reduce plastic pollution. These include the Basel Convention and other environmental agreements under the UN Environment Programme (UNEP), as well as the regional marine conventions HELCOM and OSPAR, among others. EU-related efforts include supervising compliance with the Waste Shipment Regulation and collecting and disseminating knowledge on how actors can contribute to reducing littering at the global level.



Who can do what? Examples of measures for sustainable plastic use.

Actors in the plastics value chain

Area	Examples of measures for different actors in the plastics value chain, from producers to retailers and recyclers.
SHARED KNOWLEDGE BASE	• Contribute to a shared knowledge base by providing statistics and insights from your own mapping and analyses, and make information needs clear throughout both the supplier and customer sides of the value chain. • Develop environmental information linked to products and materials. • Set requirements for, and provide information on, environmental performance – for example through standards such as Environmental Product Declarations (EPDs). • Develop traceability and other systems that provide access to relevant product information. • Create tools and support that enable well-informed choices of products with minimal environmental impact. • Apply a life-cycle perspective in assessments, including for aspects such as plastic leakage, which are seldom captured in life-cycle analyses. • Contribute to improved knowledge and methodologies for assessing microplastic-related risks and for evaluating the cost-effectiveness of measures, for example by providing data on emissions and the occurrence of microplastics in operations, and by applying established methods for risk assessments and forecasting as part of environmental efforts. • Promote the development of common definitions, as well as the standardisation and harmonisation of data.
RESOURCE-SMART USE	• Highlight and strengthen resource-efficient use by mapping the current situation in your organisation and identifying improvement opportunities (e.g. avoiding unnecessary use, phasing out single-use products, improving maintenance, reviewing product ranges). • Build knowledge on optimal service life, function and performance, and analyse whether better solutions exist on the market to support circularity. • Identify opportunities for reuse and second-life applications for products such as packaging and furniture. • Design for resource efficiency so that plastics deliver greater value during their service life and waste is minimised. Develop solutions that enable longer use, shared use among multiple users, and take-back systems for remanufacturing or material recycling. Design choices should also help reduce littering. • Aim to exceed existing environmental and eco-design requirements, and communicate opportunities for higher standards to customers and procurement bodies. • Develop resource-smart business models that enable products to create more value over their lifespan through reuse, sharing or other circular solutions. • Contribute to the development of information systems that make reuse safe and convenient.
RAW MATERIALS & PRODUCTION WITH MINIMAL ENVIRONMENTAL IMPACT	• Review possibilities for substituting hazardous substances, for example with support from the Substitution Centre and the Swedish Chemicals Agency (KemI). • Choose certified products, such as textiles with the Nordic Swan ecolabel. • Set requirements that enable high-quality material recycling, including recyclability of products and the use of recycled raw materials. • Contribute to the development of standards and clear definitions of recyclability. • Use and support the development of verification methods and labelling for the share of recycled or bio-based raw materials. • Provide clear information on the proportion of recycled and/or bio-based material in products. Consider communication carefully – terms such as “bio-based” or “plastic-free” are easily misunderstood and may create false impressions. • Demand Swedish or European recycled raw materials. • Collaborate with actors across the value chain to facilitate access to recycled plastics of the right quality. • Invest in material development, including the development of processes for producing recycled raw materials of the required quality. • Contribute to the development of new bio-based and recyclable material solutions that meet barrier-property requirements, including for food-contact applications. • Support the development and use of additives that improve the environmental performance and quality of mechanically recycled materials.

Area	Examples of measures for different actors in the plastics value chain, from producers to retailers and recyclers.
SIGNIFICANTLY INCREASED & HIGH-QUALITY MATERIAL RECYCLING	• Collaborate with actors from other parts of the value chain to increase material recycling. • Review possibilities for separate collection of different plastic waste fractions and create favourable conditions for achieving high recycling rates. Maintain dialogue with recycling companies to enable this and request feedback on recycling rates and the quality of recycled output. • Participate in developing system solutions and smart loops that make plastic waste streams more homogeneous and value-creating, and work together to direct larger material flows towards material recycling. • Demand and use products made from recycled raw materials in your own procurement. • Set requirements for product recyclability and work to reduce the number of materials and polymers in plastic flows to facilitate recycling. • Invest in recycling capacity with good climate performance (both mechanical and chemical recycling). • Test and implement new sorting technologies, washing systems and drying processes to enable the use of new and more sustainable materials.
REDUCED PLASTIC LEAKAGE INTO NATURE	• Identify whether and how your operations contribute to plastic and/or microplastic leakage. Identify leakage and littering points and direct measures accordingly. • Develop design solutions that reduce littering, increase durability and minimise microplastic leakage. • Aim to exceed current environmental and eco-design requirements and maintain dialogue on opportunities to raise standards further. • Collaborate on system solutions for collecting used products in order to reduce littering. • Develop business models that create incentives for collection. • Develop action plans to reduce microplastic leakage and implement concrete measures. • Contribute to and draw on increased knowledge about sources of leakage from different activities, such as fishing gear. • Work across the entire value chain to drive behavioural change, including through nudging, design that reduces littering and the provision of reusable alternatives. • Reduce single-use consumption at your own events and communicate clearly that items such as balloons and confetti constitute litter. • Set requirements for proper handling of plastics and clean-up measures at for example construction sites, in ports and in aquatic environments. • Inform staff about the risks associated with microplastic dispersion and how these can be reduced within your specific operations. • Participate in collaborative initiatives such as Operation Clean Sweep. • Implement and test new microplastic-mitigation technologies and contribute to the dissemination of best practices.

Research, innovation environments and knowledge centres

Area	Examples of measures
SHARED KNOWLEDGE BASE	• Develop methods and models to map plastic flows and hazardous substances. • Develop indicators and scenarios for sustainable plastic use, and build open databases that enable knowledge sharing among actors. • Deepen research on the environmental performance of plastics from a life-cycle perspective, including how materials and design can prevent microplastic leakage. • Disseminate knowledge about what terms such as bio-based and biodegradable plastics mean in practice. • Develop harmonised methods for the measurement and analysis of microplastics and nanoplastics. • Improve knowledge of occurrence, concentration levels, toxicity and thresholds for negative effects. • Increase knowledge about sources of microplastics, including sea-based litter, and about the effects of clean-up measures. • Develop criteria for classifying littered areas and methods for risk assessment that can be used by public authorities, businesses, and civil society. • Develop mitigation technologies and best practices for different stages of the plastic life cycle. • Evaluate the cost-effectiveness of measures to reduce microplastic leakage.
RESOURCE-SMART USE	• Build and disseminate knowledge about materials, products, and system solutions that enable increased resource efficiency, and about how lifespan, function and performance can be optimised in different contexts. • Develop methods to measure and monitor resource efficiency. • Develop design criteria for resource-smart use and material recycling. • Promote circular and resource-smart business models by producing and sharing knowledge on logistics and infrastructure that facilitate reuse. This also includes testing and analysing new business models that enable longer product lifetimes, sharing services and refurbishment, as well as developing systems for information exchange and traceability between actors. • Ensure that research results are applied in practice, for example by participating in collaborative projects.
RAW MATERIALS & PRODUCTION WITH MINIMAL ENVIRONMENTAL IMPACT	• Increase knowledge about material content, manufacturing processes and design choices that make it possible to select sustainable raw materials from the outset. This includes designing for recyclability and reduced environmental impact, including substituting hazardous substances. • Develop standards and apply common definitions that support traceability, recyclability and circularity. • Contribute to the development of verification methods for the share of recycled or bio-based raw material, as well as to the development of mass-balance methods. • Establish sustainability criteria for bio-based feedstock used in bio-based plastics. • Develop bio-based and recyclable material solutions that meet requirements for barrier properties and quality. This includes developing material innovations that reduce the use of hazardous substances and contribute to lower microplastic leakage. • Develop and test resource-smart manufacturing processes for bio-based plastics and plastics produced using carbon dioxide as a feedstock. • Develop quality-assurance methods for recycled raw materials.
SIGNIFICANTLY INCREASED & HIGH-QUALITY MATERIAL RECYCLING	• Develop information infrastructure and traceability systems for plastic flows of different compositions. • Develop system solutions that are both climate- and cost-effective, and develop smart loops and technologies that create homogeneous, high-value material flows. • Develop methods for post-sorting, washing and drying processes, and flake production that enable higher volumes and higher-quality plastic recycling. • Develop recycling methods – including chemical recycling – that meet climate- and cost-efficiency requirements. • Provide general knowledge support for the development of system solutions that enable a major increase in high-quality material recycling, including studies of opportunities and implications related to chemical recycling.

Area	Examples of measures
REDUCED PLASTIC LEAKAGE INTO NATURE	• Develop new solutions, materials and design principles to reduce plastic and microplastic leakage. • Increase knowledge about system solutions that can reduce microplastic leakage in both the short and long term, as well as about the cost-effectiveness of different measures to reduce microplastic emissions. • Improve understanding of health and environmental risks associated with micro-plastics and nanoplastics in different environments, such as air, soil, freshwater, and marine environments. • Increase knowledge about the occurrence and pathways of microplastics, including how they spread via stormwater, air, snow removal and wastewater treatment plants, and how specific sources contribute (e.g., road wear, tyres, textiles, paint, artificial turf). • Develop purification solutions, such as filtration technologies, microplastic removal from sludge and improved stormwater management. • Increase knowledge about textile fibre properties and textile reuse, and how these factors influence microplastic emissions. • Identify locations and environments with particularly high concentrations of microplastic emissions to enable targeted measures. • Improve knowledge about behaviours and which measures are most effective in preventing littering and microplastic leakage. • Analyse the effects of deposit-return systems, reuse alternatives, and clean-up campaigns from both environmental and societal perspectives. • Develop reuse and material recycling systems that can be scaled globally and contribute to long-term reductions in plastic leakage. • Develop common standards and standardised methods for measuring microplastics and nanoplastics in different environments. • Provide scientific support for limit values, labelling and regulation of microplastics in products.

Consumers and civil society

Area	Examples of measures
SHARED KNOWLEDGE BASE	• Participate in citizen science and local mapping of plastic use, littering and microplastics in nature. • Report observations through apps or campaigns, share results and help highlight the need for better data and statistics. • Request clear information on product durability, reusability and recyclability. • Use ecolabels and existing tools to make informed choices. • Demand transparency from companies and authorities regarding microplastics and how different sources affect nature and health.
RESOURCE-SMART USE	• Avoid unnecessary plastic use, especially single-use products. • Use resources wisely by sharing, reusing and repairing existing products. • Choose products with long lifespans, robust construction and clear labelling for reuse and material recycling. Prioritise repair over new purchases. • Support companies and organisations that offer resource-smart alternatives, including those developing design solutions that extend product lifetimes and facilitate reuse and recycling. • Share experiences and inspire others by highlighting everyday solutions that demonstrate resource-smart use. • Contribute actively to circular solutions, for example by sharing or renting instead of owning.
RAW MATERIALS & PRODUCTION WITH MINIMAL ENVIRONMENTAL IMPACT	• Request products with clear labelling and verified information on raw material content and recyclability. • Support actors who strive for transparency and quality assurance of raw material flows. • Request products based on materials with lower environmental impact than fossil plastics, such as biobased or recycled materials. • Participate in trials and initiatives that test new material solutions. • Help increase the acceptance of products based on new, more sustainable materials by using and sharing examples that have proven effective in practice. • Share knowledge with others – for example about differences between recycled, biobased and biodegradable materials – to avoid misunderstandings.
SIGNIFICANTLY INCREASED & HIGH- QUALITY MATERIAL RECYCLING	• Sort plastic waste and follow the local collection systems in place. • Request clear information and transparency on where plastic waste goes and how much is actually recycled. • Support actors and initiatives that are working to develop more effective and transparent recycling solutions. • Communicate about how material recycling works and how it can become more efficient. • Request products that contain recycled material and that can be sorted for recycling. • Support actors and initiatives that invest in new sorting and recycling solutions, for example by choosing their products or services. Increased demand for recycled materials helps expand capacity and reduce reliance on primary raw materials.
REDUCED PLASTIC LEAKAGE INTO NATURE	• Request products designed to minimise littering and microplastic leakage. • Support actors who develop solutions for improved plastic management. • Participate in educational campaigns and information efforts that raise awareness of the environmental and health impacts of plastics. • Engage in local clean-up efforts and campaigns to reduce plastic in nature. • Avoid littering and make daily choices that reduce leakage, for example by choosing textiles with less plastic content), avoiding single-use items and using filters or washing bags that capture microplastics from laundry. • Make everyday choices that reduce microplastic emissions, such as using brushing stations and emptying shoes of granulate after using artificial turf fields, reducing car use, choosing lighter car models, selecting non-studded tyres, checking tyre pressure, and ensuring correct wheel alignment and balancing. Encourage others to do the same. • Request and participate in initiatives that promote new norms and habits for reduced plastic use and littering, such as deposit-return systems and reusable alternatives. • Engage in campaigns and collection and recycling initiatives that reduce plastic pollution globally.

Government authorities and decision-makers

Area	Examples of measures
SHARED KNOWLEDGE BASE	• Contribute to the development of indicators for measuring progress towards sustainable plastic use and carry out regular plastic mapping exercises. • Contribute to the development of policy instruments that increase traceability without undermining Sweden's competitiveness. • Continuously develop tools and aids that facilitate well-informed choices in procurement and specification of requirements, and that support the substitution of hazardous substances. • Drive the development of common definitions as well as the standardisation and harmonisation of data types. • Require and support the collection of better data on microplastic concentrations. • Help develop methodologies for risk assessments and forecasting of microplastics that can be used by different stakeholders.
RESOURCE-SMART USE	• Highlight the potential of resource-smart use by mapping the current situation within your own organisation and identifying opportunities for improvement (avoiding unnecessary use, phasing out single-use products, improving maintenance). • Formulate a vision and policy for resource-smart use at local, regional and national levels. • Stimulate development by setting requirements in procurement, with support from stakeholders like the National Agency for Public Procurement. Be prepared to question the need, specify functional requirements instead of product requirements, and prioritise reuse and circular solutions. • Help develop metrics and indicators that reveal the potential and benefits of resource-smart use. • Facilitate resource-smart use, for example by installing drinking water taps offering free tap water in shared spaces. • Carry out supervision to ensure that the waste hierarchy is implemented in practice – particularly increased reuse, preparation for reuse and material recycling. • Contribute to the development of design criteria for circular and resource-smart design and disseminate knowledge to market actors. • Create incentive systems that drive circular and resource-smart design, including increased durability and reduced wear. • Create conditions and incentives for collaboration between actors in the plastics value chain.
RAW MATERIALS & PRODUCTION WITH MINIMAL ENVIRONMENTAL IMPACT	• Where possible, set requirements for recycled content and for material recyclability in products, including in procurement. • Develop and provide tools and resources for specifying requirements and facilitating well-informed decisions. • Set requirements for and support the substitution of hazardous substances. • Support the development of standards for terminology and verification methods for recycled and biobased raw materials as well as recyclability. • Contribute to frameworks for the quality assurance of recycled raw materials, including requirements for traceability, product declarations and screening methods. • Contribute to the development and application of sustainability criteria for biobased raw materials. • Support Swedish and European recycling industries. • Support the development and establishment of processes that produce recycled raw materials of appropriate quality. • Support test environments and pilot projects for materials with lower environmental impact.

Area	Examples of measures
SIGNIFICANTLY INCREASED & HIGH- QUALITY MATERIAL RECYCLING	• Support the development and expansion of infrastructure and logistics for climate- and cost-effective material recycling. • Promote collaboration between stakeholders to increase both the volume and the quality of recycling, for example cooperation between producers, waste contractors and recyclers concerning sorting and traceability. • Set requirements and create incentives for separate collection and higher levels of material recycling. • Create policy instruments that make recycled raw materials more competitive compared with cheap primary fossil feedstocks. • Drive standardisation and the establishment of methods for the quality assurance of recycled raw materials, and where possible set requirements for recyclability and recycled content in public procurement. • Support investments in high-quality material recycling capacity (e.g. pre-sorting as well as mechanical and chemical recycling).
REDUCED PLASTIC LEAKAGE INTO NATURE	• Create incentives for companies to work on design and system solutions that reduce leakage. • Facilitate the development and dissemination of system solutions for the collection and return of products, for example by promoting initiatives such as deposit–return systems, reuse systems and nudging that influence both producers and consumers. • Support and disseminate knowledge about the causes of microplastic leakage, and develop tools and guidelines to prevent it. • Initiate and support training initiatives, guidance and campaigns for better management of plastics (e.g. fishing gear and artificial turf). • Support clean-up campaigns and other measures that are locally or globally relevant. • Develop policy instruments and regulatory frameworks that make it more profitable and attractive to collect and properly manage plastic waste, both nationally and internationally. • Ensure that responsibilities for measures and interventions addressing litter and microplastics are clearly defined. • Be an active participant in regional and global initiatives. • Fund research into the effects, distribution and occurrence of microplastics, as well as how their release can be prevented.

Continued efforts for sustainable plastic use

The Swedish EPA continuously advances the work on sustainable plastics through the National Plastics Coordination initiative. This effort spans several plastic streams and development areas, with a focus on identifying needs, opportunities and measures that can support the transition. All relevant organisations, value chains and industries are encouraged to explore how they can contribute to the shared vision and to develop concrete action plans or targeted measures for their own operations.

Collaboration for the development of sustainable plastics use

A sustainable plastics system requires contributions from all parts of the value chain. Collaboration is essential for identifying, from a holistic perspective, where further measures are needed and what opportunities exist. Many solutions for sustainable plastics use are systemic in nature, involving several steps in the value chain or requiring coordination to ensure effective implementation.

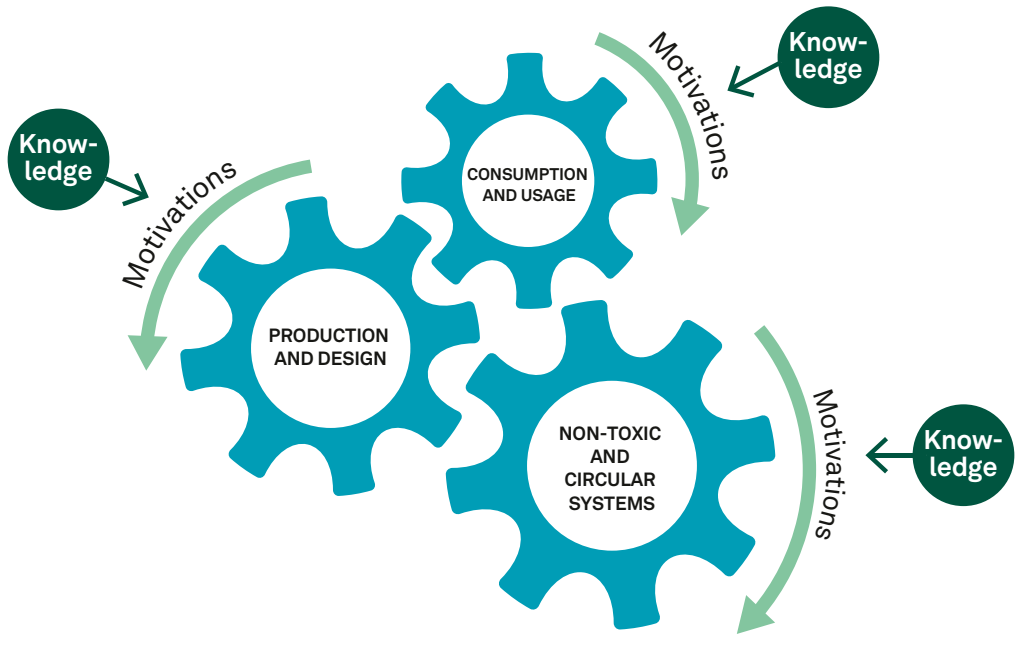
National Plastics Coordination serves as a platform for knowledge exchange and dialogue on development needs and potential solutions, helping chart the way towards sustainable plastics use. This roadmap provides the foundation for that work. Close cooperation with other authorities and actors is a central part of the way forward. It is also important to learn from initiatives already undertaken by different stakeholders and to build on ongoing frontrunner efforts. For this reason, the National Plastics Coordination invests in sharing good practices.

Continuous planning to strengthen action for sustainable plastics use

Drawing on follow-up activities and ongoing dialogue with relevant stakeholders, new actions and initiatives are continuously developed to accelerate progress.

Current and planned activities are presented on the Swedish EPA's website.

DEVELOPMENT OF A SUSTAINABLE PLASTIC USE



Annex 1. Reference group for preparing the first version of the roadmap

The first version of this roadmap was developed in close collaboration with a reference group made up of the organisations listed below. For this update, we did not convene a dedicated consultation process. Instead, the revisions build on the continuous dialogue and input that the National Plastics Coordination team receives from these and other organisations as part of its ongoing work.

Participating organisations in the reference group

Organisation	Organisation	Government authorities
AR-packaging	Swedish Society for Nature Conservation	Swedish Energy Agency
Avfall Sverige	Novoplast	Swedish Agency for Marine and Water Management
Avfall Sverige	Orkla	Swedish Chemicals Agency
Axfood	Perstorp	Swedish Consumer Agency
Axfood	Prezero	Swedish Meteorological and Hydrological Institute (SMHI)
Axfoundation	Ragnsells	Swedish Transport Administration
Billerud korsnäs	Renova	National Agency for Public Procurement
Borealis	RISE	
Båtunionen	Sandmaster	
Chalmers	Scania	
Chalmers	SDAB	
Duni	Stena Metall	
Electrolux	Stockholm Exergi	
Energiföretagen	Stockholm Vatten och Avfall	
FTI	City of Stockholm	
City of Gothenburg	Region Stockholm	
University of Gothenburg	Swedish Trade Federation	
Keep Sweden Tidy Foundation	Swedish Plastic Recycling	
Hållbar Kemi 2030	Tarkett	
Hållbar Kemi 2030	Tekniska verken i Linköping	
IVL Swedish Environmental Research Institute	Trioplast	
JM	Uppsala Municipality	
Karlstad Municipality	Visita	
KEMI	VTI	
Lidköping Municipality	Västkuststiftelsen	
Swedish Food Foundation	Region Västra Götaland	
Luleå University of Technology	Återvinningsindustrierna	
Lund University		
Mälarplast		

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The Swedish Environmental Protection's roadmap for sustainable plastic use

The roadmap provides a comprehensive overview and a guiding framework for where we are headed and what we mean by sustainable plastics use. It is also intended to serve as an inspiration for action. The aim is to create a shared understanding of the transitions that need to occur and the priority areas for development. Stakeholders should be able to use the roadmap as support for decision-making, as a basis for strategic work, and in more practical terms to identify opportunities to contribute. It also offers the possibility to join forces and collaborate on issues that individual organizations cannot solve on their own.

Sustainable plastic use means that plastics are used in the right applications, within resource- and climate-efficient, non-toxic and circular flows, with negligible leakage. To achieve this, efforts are needed across four impact areas: "Raw materials and production with minimal environmental impact", "Resource-smart use", "Reduced plastic leakage into nature", and "Significantly increased and high-quality material recycling". Each area describes the shifts needed to meet the objectives, as well as the indicators that will be used for follow-up.

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