

## Circular economy country profile 2024 – Estonia



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## Contents

Introduction.....	2
Estonia – facts and figures.....	3
Existing policy framework .....	7
Dedicated national and/or regional strategy, roadmap or action plan for circular economy .....	7
Dedicated local strategy, roadmap or action plan for circular economy.....	9
Circular economy policy elements included in other policies.....	10
Monitoring and targets .....	12
Assessment of circular economy performance.....	12
Circular economy monitoring frameworks and their indicators beyond the ones from Eurostat.....	13
Real time economy project. ....	13
Circular economy targets .....	13
Innovative approaches and good practices.....	13
Examples of public policy initiatives (national, regional or local) .....	13
Examples of private policy initiatives (sectoral).....	14
The way forward.....	15
Identifying and addressing barriers and challenges.....	15
Future policy plans .....	16

## Introduction

The European Commission requested the EEA to produce EU country profiles that offer an updated view of the following elements:

- what circular economy policies are being implemented at a national level with a particular focus on elements that go beyond EU mandatory elements, and
- what are best practices with a focus on policy innovation.

With the EU Circular Economy Action Plan (CEAP 2020) "the Commission [...] encourages Member States to adopt or update their national circular economy strategies, plans and measures in the light of its ambition".

These country profiles originate in the work leading to the EEA More from less report (2016)<sup>1</sup>, that presented an overview of approaches to material resource efficiency and to circular economy in thirty-two European countries. The More from Less report was followed by the 2019 EEA Report 'Resource efficiency and the circular economy in Europe 2019 – even more from less: An overview of the policies, approaches and targets of 32 European countries'<sup>2</sup>.

It presented an updated and extended assessment of approaches and identified trends, similarities and new directions taken by countries in the connected policy areas of resource efficiency and the circular economy.

These reports, comprising a compilation of extensive survey responses from countries, were accompanied by 32 country profiles.

In the second quarter of 2022 a new survey with questions and guidelines was launched. Based on information reported by the Eionet network, in particular, the Eionet Group on Circular Economy and Resource Use, and after review and editing by the European Topic Centre on Circular economy and resource use (ETC CE), the 30 2022 CE country profiles<sup>3</sup> were published alongside the EEA report 'Circular Economy policy innovation and good practice in Member States'<sup>4</sup> (2022).

These 2024 CE country profiles are an update of the 2022 ones and based on the responses of 29 countries to the survey questions and guidelines that were launched in March 2024. The information in the countries' responses was again reviewed and edited by the European Topic Centre on Circular economy and resource use. A selection of Eurostat data was made to further complement these country profiles.

The main objectives of these assessments and its updates are to: • stimulate exchange of information and share good practice examples among country experts; • support policymakers in Eionet countries, the European institutions and international organisations by providing an updated catalogue of circular economy actions being undertaken in European countries.

This circular economy country profile is based on information reported by the Eionet network and, in particular, the Eionet Group members on Resource Efficiency and Circular Economy in the second quarter of 2024. Proposals for the further development or amendment of policies represent the view of the reporting country. For Estonia, all input was provided by the Ministry of Climate (Kliimaministeerium) of Estonia. The information was reviewed and edited by the European Topic Centre on Circular economy and resource use. A selection of Eurostat data was made to further complement this country profile.

The information is current as of September 2024, when members of Eionet verified the content of this profile.

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<sup>1</sup> [More from less – material resource efficiency in Europe – European Environment Agency \(europa.eu\)](https://europea.europa.eu/en/press-communications/2016/06/16-06-2016-01)

<sup>2</sup> [Resource efficiency and the circular economy in Europe 2019 – European Environment Agency \(europa.eu\)](https://europea.europa.eu/en/press-communications/2019/06/19-06-2019-01)

<sup>3</sup> [Country profiles on Circular Economy in Europe – Eionet Portal \(europa.eu\)](https://europea.europa.eu/en/press-communications/2022/06/22-06-2022-01)

<sup>4</sup> [draft-report-for-dg-env\\_final.pdf \(europa.eu\)](https://europea.europa.eu/en/press-communications/2022/06/22-06-2022-01)

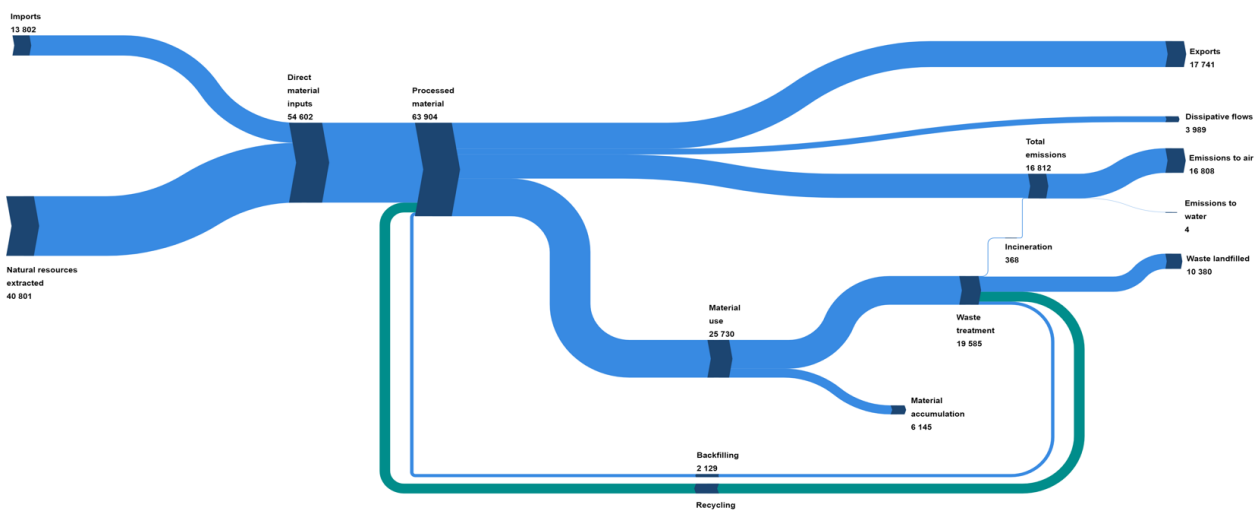
## Estonia – facts and figures

 	<b>GDP:</b> EUR 37.7 billion (0.2 % of EU27 total in 2023)
	<b>GDP per person:</b> EUR 27,590 (purchasing power standard) (81.1 % of EU27 (from 2020) total per person)
	<b>Use of materials (domestic material consumption (DMC))</b> 36.9 million tonnes DMC (0.6 % of EU27 total in 2022) 27.3 tonnes DMC/person (192.1 % of EU27 average per person in 2022)
	<b>Structure of the economy (2023):</b> Agriculture: 2.5 % Industry: 25.3 % Services: 72.3 %
	<b>Employment in circular sectors:</b> 14,152 people employed in CE sectors (0.3 % of EU total in 2021) People employed expressed as a percentage of total employment: 2.2 % (compared to 2.1 % for EU average in 2021)
<b>Surface area:</b> 45,227 square kilometres (1.1 % of EU27 total)	
<b>Population:</b> 1,365,884 (0.3 % of EU27 total in 2023)	

Note: all definitions and metadata used in this profile are taken, as shown, from Eurostat

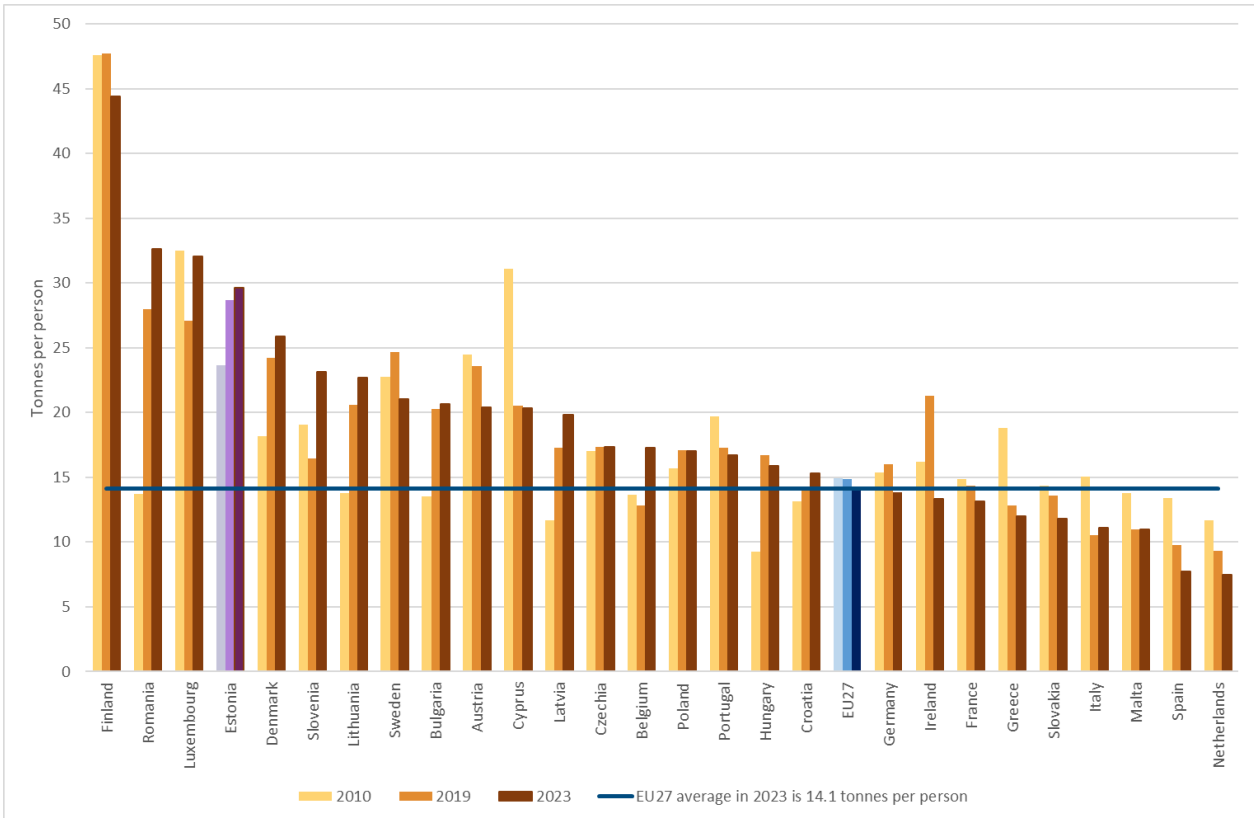
Source: Eurostat datasets, EU27 2021 EU27 2022 and EU27 2023 (accessed 21 August 2024)

**Figure 1 Material flow diagram for Estonia in 2022, thousand tonnes**



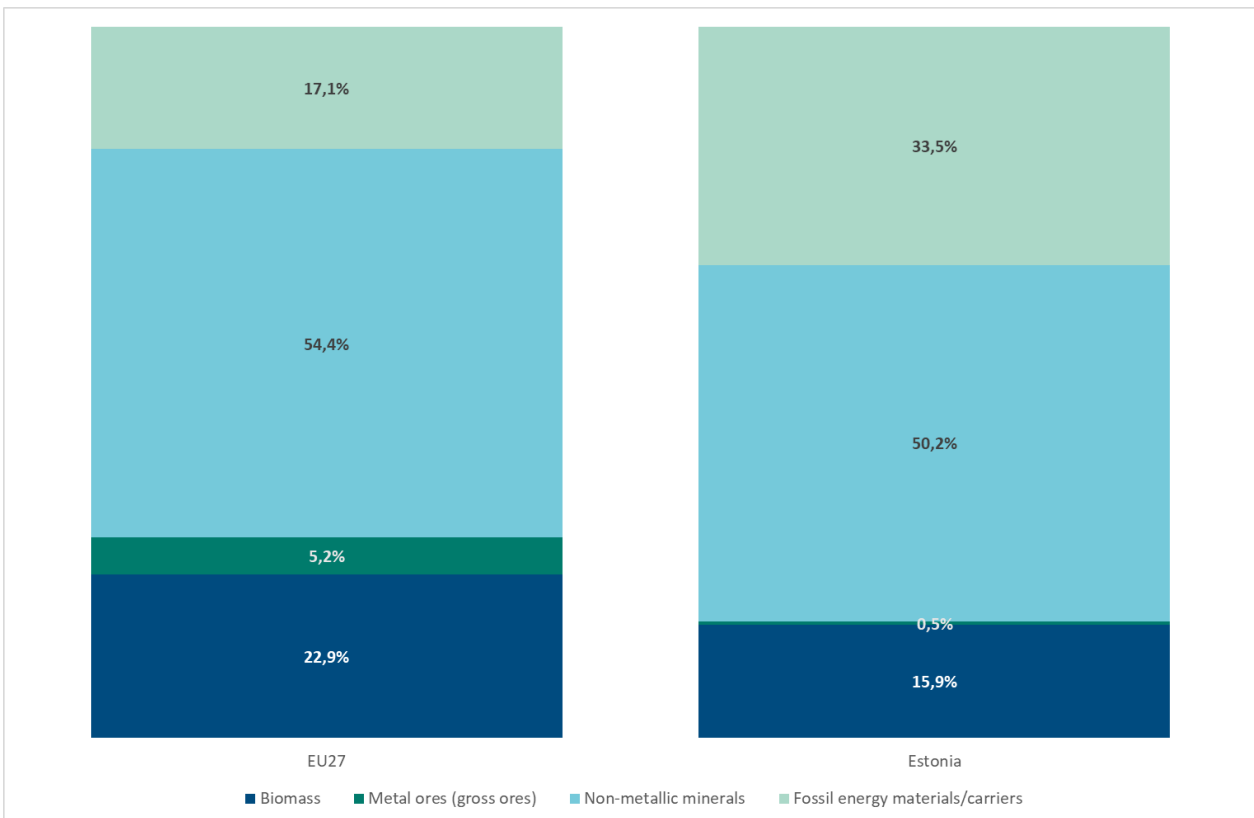
Source: Eurostat (2024) [env\_ac\_mfa], [en\_ac\_sd], [env\_wassd] (accessed 21 August 2024)

**Figure 2 Material footprint (raw material consumption), 2010, 2019 and 2023, tonnes per person**



Source: Eurostat (2024) [env\_ac\_rme] (accessed 21 August 2024)

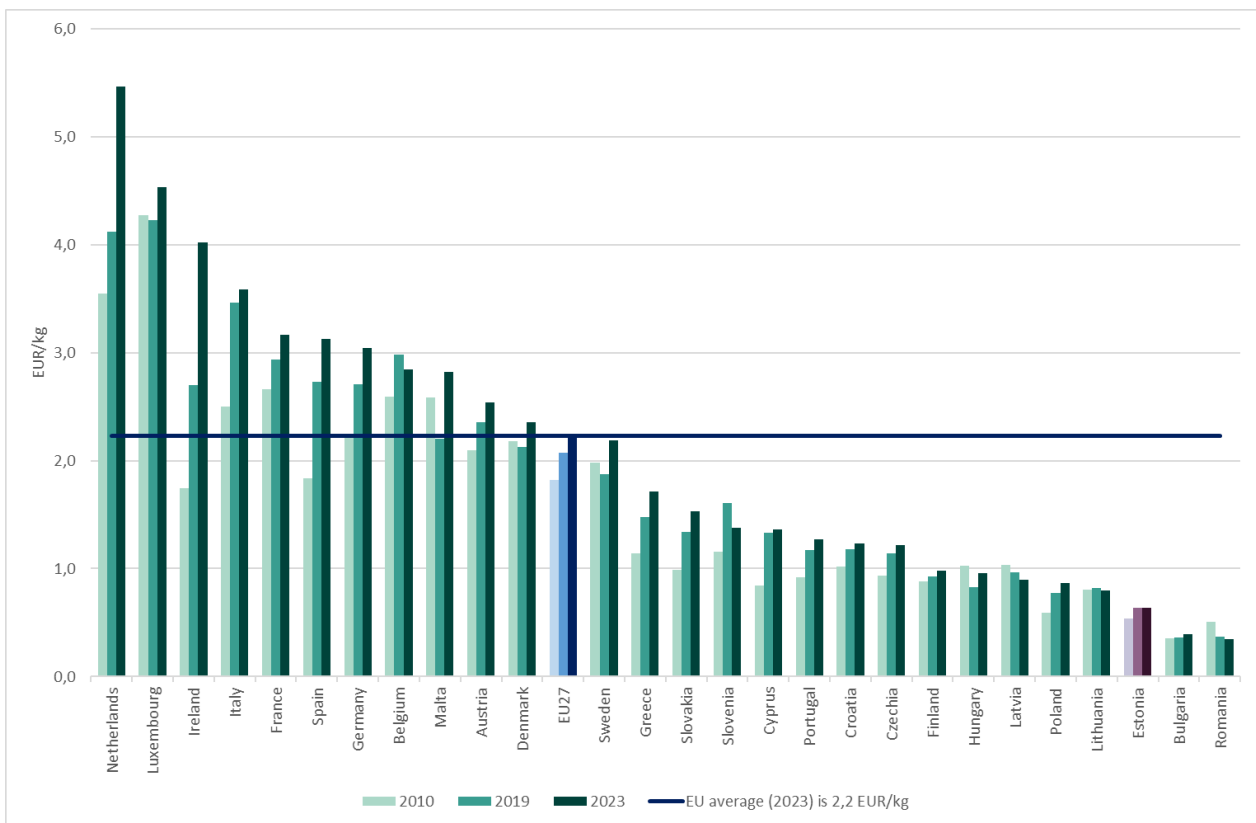
**Figure 3 Domestic material consumption by selected material category, EU and Estonia, 2023, per cent**



Note: totals may not sum to 100 % due to rounding

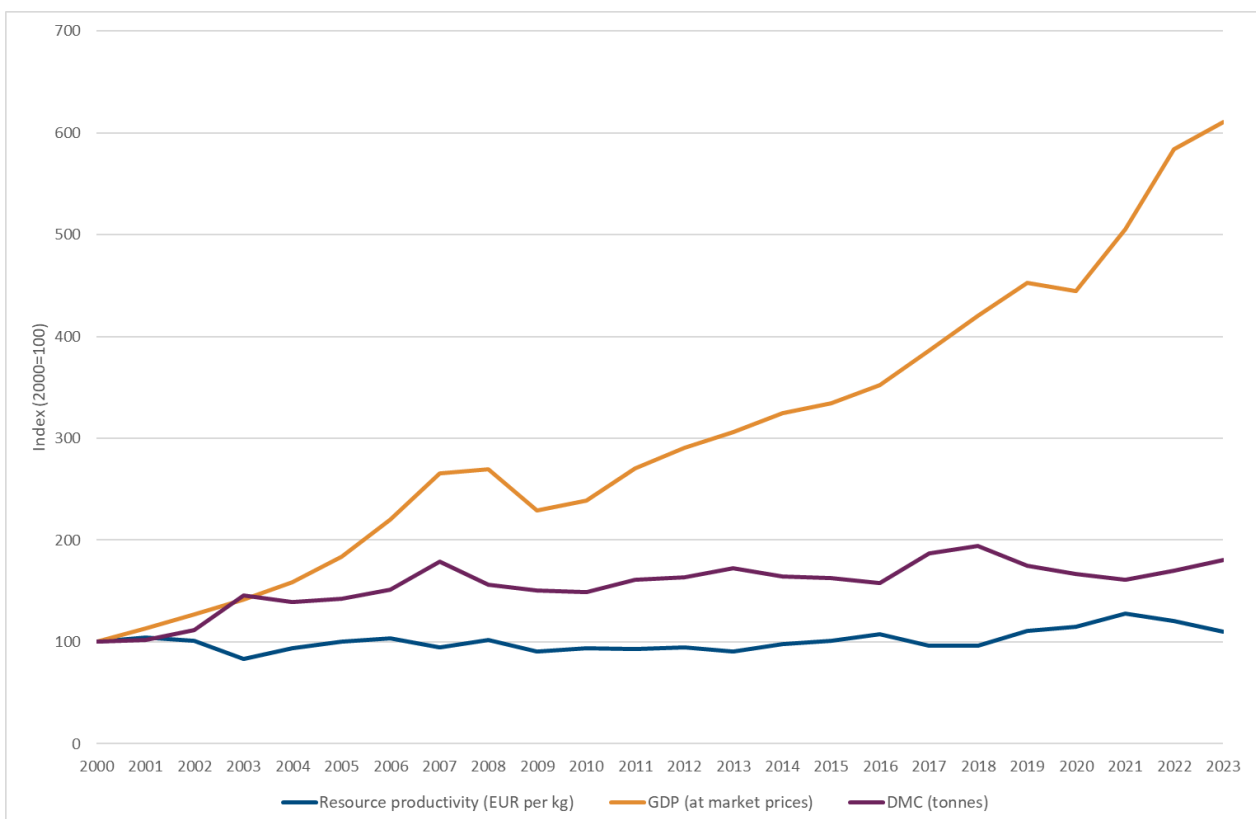
Source: Eurostat (2024) [env\_ac\_mfa] (accessed 21 August 2024)

**Figure 4 Resource productivity (gross domestic product/domestic material consumption), EU27, 2010, 2019 and 2023, EUR per kilogramme**



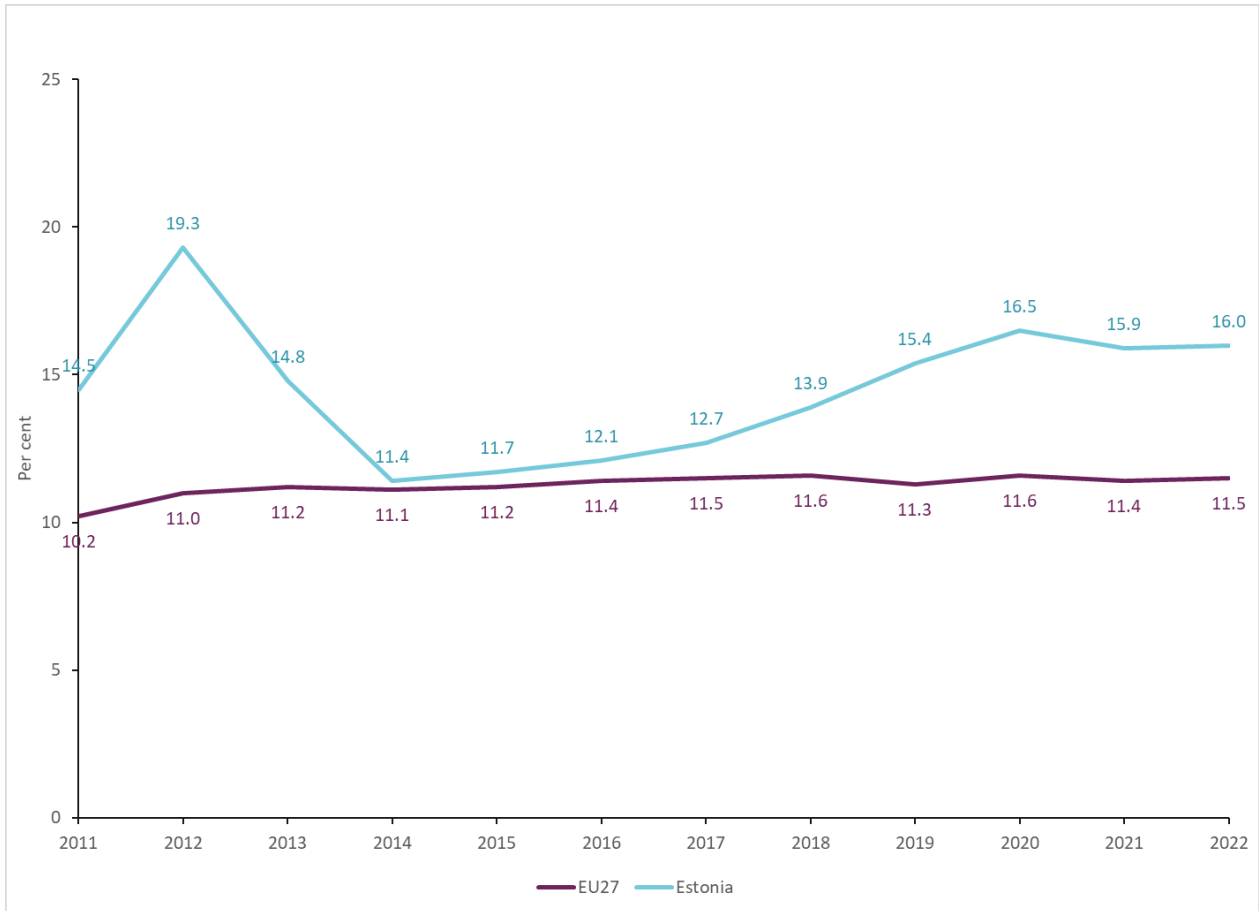
Source: Eurostat (2024) [env\_ac\_rp] (accessed 21 August 2024)

**Figure 5 Gross domestic product, domestic material consumption and resource productivity trends, Estonia, 2000–2023, index (2000=100)**



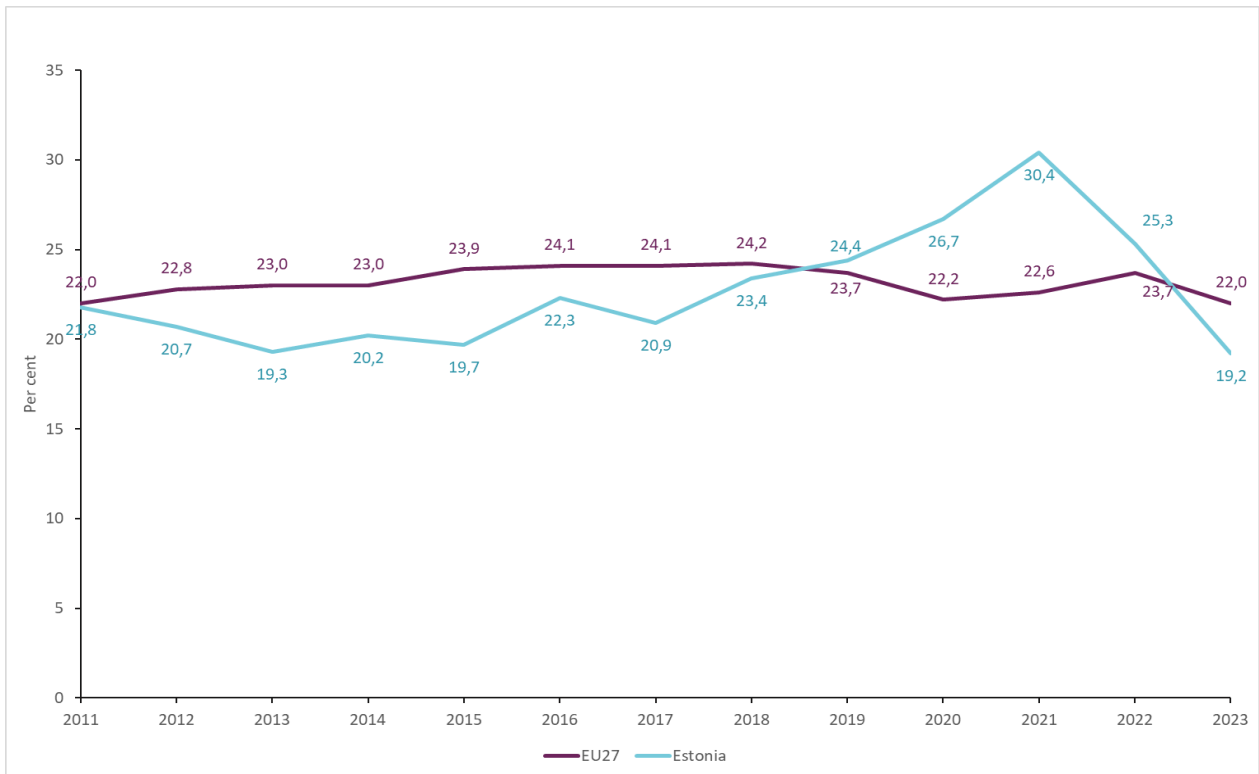
Source: Eurostat (2024) [env\_ac\_mfa], [env\_ac\_rp] & [nama\_10\_gdp] (accessed 21 August 2024)

**Figure 6 Circular material use rate in Estonia, 2011–2022, per cent**



Source: Eurostat (2024) [env\_ac\_cur] (accessed 21 August 2024)

**Figure 7 Material import dependency in Estonia, 2011-2023, per cent**



Source: Eurostat (2024) [cei\_gsr030] (accessed 21 August 2024)



## Existing policy framework

### Dedicated national and/or regional strategy, roadmap or action plan for circular economy

There is no circular economy strategy in Estonia yet but a **circular economy white paper** was drafted in 2022 <sup>(5)</sup><sup>(6)</sup>, and coordinated and approved in 2023 <sup>(7)</sup>. The circular economy white paper consolidates the vision, basic principles, and development directions agreed upon through discussions among ministries and stakeholders, which will guide further actions. The document supports various stakeholders to ensure that the circular economy becomes an overarching framework in planning, consumption, production, policies, lifestyles, culture, and values.

Following the white paper, there will be a circular economy action plan outlining activities and metrics across different sectors. To ensure that efforts undertaken separately and collectively by various societal members are aligned and contribute to the effective functioning of the circular economy in Estonia, it is crucial to adhere to a unified vision.

**Prioritised development directions and strategic choices** outlined in the white paper:

1. Resources are used responsibly and according to demand, with resource usage carefully considered and waste generation minimized.
  - Preference for and promotion of environmentally friendly products and services
  - Implementation of environmentally friendly public procurement
  - Ensuring safe material circulation
  - Adoption of the best possible approach
  - Promotion of the sharing economy
2. Estonian business models are sustainable and oriented towards the circular economy.
  - Increasing the collaboration capability of supply chains
  - Involving science in the creation of circular economy solutions
  - Encouraging partnerships between companies and between companies and research institutions
  - Facilitating cooperation between entrepreneurs and the state
3. Estonia has the necessary expertise and experts for implementing the circular economy, as well as effective cooperation between different sectors and industries.
  - Ensuring the availability of expertise and necessary skills for succession
  - Ensuring the possibility of using qualified labour, including foreign labour
  - Promoting interdisciplinary cooperation, including participation in international cooperation networks
4. Functional digital IT solutions are created to support the circular economy, and high-quality data is ensured for monitoring the situation.
  - Implementation of sharing and collaboration platforms
  - Ensuring the possibility of using qualified labour, including foreign labour
  - Implementation of innovative digital solutions, including those using artificial intelligence
5. The circular economy is well-coordinated at the national level, and a legal and economic environment supportive of the circular economy is established.
  - Modernization of the legal landscape
  - Clear definition of the roles, functions, and responsibilities of various stakeholders
  - Establishment of principles for gathering and creating standards for collecting and monitoring information necessary for organizing and monitoring the circular economy
  - Creation of digital platforms for collecting, analysing, and exchanging information

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<sup>5</sup> <https://ringmajandus.envir.ee/en/creating-strategy-and-action-plan-circular-economy-estonia>

<sup>6</sup> <https://ringmajandus.envir.ee/sites/default/files/2023-02/Ringmajanduse%20valge%20raamat.pdf> (in Estonian)

<sup>7</sup> <https://ringmajandus.envir.ee/sites/default/files/2022-09/Kuj.%20circular%20economy%20white%20paper%20koopia.pdf> (Summary)

- Environmental legislation for public procurement
6. An environmentally conscious mindset and environmentally friendly behaviour are ingrained.
- Increasing environmental awareness among all stakeholders
  - Guiding market participants, including consumer behaviour
  - Implementation of environmental management measures

In addition, in 2023, a **national circular bioeconomy roadmap** <sup>(8)</sup> was developed. The circular economy roadmap provides an overview of the agreements made in the field of the circular economy, deadlines, and monitors their progress according to the target groups outlined in the white paper. The circular economy roadmap is primarily aimed at increasing awareness among the public (local governments, entrepreneurs, citizens, as well as other government agencies) about the changing requirements and ongoing support measures, projects, and other initiatives. The roadmap directs interested parties to more detailed information.

The “**Estonia 2035**” strategy <sup>(9)</sup><sup>(10)</sup> sets out five long-term strategic goals that are based on the base principles. The goals were agreed upon at discussions that took place across Estonia over a period of two years, and on the basis of opinion gathering (almost 17,000 people have contributed). Strategic goals are value-based goals that are the basis for making the country’s strategic choices and to the implementation of which all Estonian strategic development documents contribute. They are also taken into account in the state budget strategy and in the preparation of the government’s action programme. In order to reach the goals, it is necessary to take into account Estonia’s development needs, global trends, the policy framework of the European Union, and the global objectives of sustainable development.

The strategy, inter alia, introduces **principles of the circular economy**. In order to increase the recycling of materials and the use of secondary raw materials, we will encourage the introduction of sustainable production and consumption patterns. Enterprises need to improve resource efficiency, including energy efficiency, for example, through industrial symbiosis, digitisation and support for more resource-efficient technologies. We are reorganising waste management based on the waste hierarchy and introducing innovative solutions to reduce waste generation and increase material recycling and separate waste collection.

In Estonia 2035 the following targets have been set for 2035:

- net greenhouse gas emissions – 8 million tonnes of CO<sub>2</sub> equivalent;
- circular material use rate – 30% <sup>(11)</sup>;
- sustainable development in Estonia, world ranking in the global SDGs Index – top 10;
- resource productivity – EUR 0.9 per kilogram.

The various metrics of Estonia 2035 are visually presented on the following website <sup>(12)</sup>.

### *Institutional setting*

**On July 1, 2023, the Estonian Ministry of Environment was replaced by a new ministry, the Ministry of Climate.** The Ministry of Climate incorporated the responsibilities related to environmental and nature conservation management previously under the Ministry of Environment (excluding fisheries and land issues). Additionally, some responsibilities that were previously under the Ministry of Economic Affairs and Communications were transferred to the Ministry of Climate. The ministry is responsible for the comprehensive implementation of green reforms and climate policy coordination.

<sup>8</sup> <https://agri.ee/sites/default/files/documents/2023-08/teekaart-ringbiomajandus-2023-eng.pdf>

<sup>9</sup> [Estonia 2035 strategy](#) (in Estonian); [Estonia 2035 Action Plan](#);

<sup>10</sup> <https://valitsus.ee/en/estonia-2035-development-strategy/necessary-changes/economy-and-climate>

<sup>11</sup> <https://tamm.stat.ee/tulemusvaldkonnad/keskkond/indikaatorid/204?lang=en>

<sup>12</sup> <https://tamm.stat.ee/?lang=en>

The Ministry of Climate's responsibilities include:

1. Coordination of norms, practices, public processes, and national supervision related to buildings, construction activities, and construction products. This includes maintaining and developing e-construction platforms and building registries, as well as developing policies, strategies, and development plans for the construction and housing sector.
2. Development and implementation of national development plans for fuel and energy efficiency, competitiveness, and environmental sustainability, as well as monitoring their effectiveness. This includes managing and forming the state's strategic energy reserves and preparing drafts of regulations governing the sector.
3. Participation in the development and implementation of national development plans related to civil aviation, aviation security, aircraft technical condition, aviation entrepreneurship, and airports. This also includes preparing drafts of regulations governing the sector.
4. Development and implementation of development plans and programs related to the use and mapping of mineral resources. This includes organizing research on the management and utilization of mineral resources, ensuring national geological competence, and preparing drafts of regulations governing the sector.
5. Participation in the development and implementation of national development plans related to maritime and inland navigation, safety and environmental protection, international competitiveness of maritime transport corridors, technical condition of vessels, commercial maritime shipping, and port operations. This also includes preparing drafts of regulations governing the sector and promoting the registration of ships under the Estonian flag.
6. Participation in the development and implementation of national development plans related to road infrastructure, freight and passenger transport, railway infrastructure, railway passenger and freight transport, technical requirements for vehicles and rolling stock, road and rail traffic, and traffic safety. This includes preparing drafts of regulations governing the sector.
7. Development of comprehensive transport policies, monitoring their implementation and effectiveness, planning European Union structural funds and national budget resources for the transport sector, participating in the development of transport development plans and programs, including those funded by foreign aid, and preparing drafts of regulations governing the sector.

In summary, it can be said that the Ministry of Climate is an Estonian ministry whose activities are directed towards balanced development of natural resource use and environmental protection, economy, and social sphere, ensuring the establishment of a well-functioning system necessary for achieving this, and purposeful and thoughtful use of resources allocated for environmental protection within this framework, circular economy principles are applied more extensively across various work processes.

The Ministry of Climate is currently in the process of drafting a **climate law**, which is likely to include elements of the circular economy. The climate law will provide assurance to the people of Estonia, businesses, organizations, and the public sector that coordinated and clear steps to mitigate climate change will be implemented. The **Climate Council** independently oversees the development of the climate law.

### Dedicated local strategy, roadmap or action plan for circular economy

In 2023, the project “**Enhancing Circular Economy Capacity in Local Governments**” was carried out with the aim of contributing to the promotion of the circular economy and enhancing sectoral capacity in local governments.

The **central focus** of the project was to conduct preliminary work and prepare **individual circular economy roadmaps for all municipalities in Estonia**. The municipalities, in collaboration with the TalTech research group, largely prepared the circular economy roadmaps themselves. Regional workshops and a series of online meetings were conducted to gather input, reaching each local government. The municipalities were

supported by individual circular economy worksheets, which collected information about the current situation, objectives, priorities, and action plans.

The topics and activities of the roadmaps are divided into two main thematic blocks: the environmental sector and the business and cooperation model sector.

- The **environmental sector** includes the use of environmentally friendly public procurement in municipalities and subordinate institutions, circular economy awareness activities, promotion of waste management, implementation of environmental management systems, and assessment of environmental footprints in municipalities and subordinate institutions.
- **Business and cooperation models** encompass support for circular entrepreneurship, promotion of waste recycling, promotion of environmentally friendly public procurement, implementation of environmental management systems, promotion of cooperation networks, awareness activities, resource efficiency, and more.

As a result of the project, **79 roadmaps** were **prepared** for Estonian municipalities <sup>(13)</sup>. It was financed by Iceland Liechtenstein Norway grants. The project was carried out by Estonian Environmental Agency. Some local governments that did not contribute were given a road map based on publicly available information. Implementation is not monitored. The road maps are informative.

### Circular economy policy elements included in other policies

Circular economy policy element	Included in policy
Sustainable production and consumption, promotion of waste prevention and reuse, increasing material circulation, reduction of the impacts of waste management	<a href="#">National Waste Management Plan 2023-2028</a> (in Estonian)
Food waste prevention	<a href="#">Food Waste Prevention Plan</a> (in Estonian)
Agricultural sector, mitigate impact of climate change, reduce dependence on non-renewables, renewables	<a href="#">Circular Bioeconomy Roadmap</a>
GPP criteria for product groups: furniture, IT, etc.	<a href="#">Public Procurement</a> (in Estonian)
GPP criteria for road vehicles	<a href="#">Public Procurement</a> (in Estonian)

On December 20, 2023, the **National Waste Management Plan for 2023-2028** was approved. According to the Waste Framework Directive, the national waste management plan must be updated every six years and must comply with the requirements set out in Articles 28-30 of the directive. The Government of the Republic of Estonia decided on February 25, 2021, to extend the “National Waste Management Plan 2014-2020” retroactively until the new waste management plan is established. The extension of the national waste management plan was necessary to fulfil the obligation arising from the Waste Framework Directive for Member States to establish a national waste management plan and set a strategic approach to waste management in line with the transition to a circular economy. The establishment of the new national waste management plan has taken longer than planned, and in order to reflect the real situation, the validity period of the national waste management plan title has also been clarified - "National Waste Management Plan 2023–2028".

The new national waste management plan has three main pillars/strategic objectives:

1. Sustainable and informed production and consumption, as well as promotion of waste prevention and reuse;
2. Increasing safe material circulation;

<sup>13</sup> <https://keskkonnaportaal.ee/et/ringmajanduse-voimekuse-tostmine#KOVideteekaardid> (in Estonian)

3. Consideration and reduction of the impacts of waste management on both human and natural environments as a whole.

**Estonia is implementing waste reform**, and a draft plan for amending the Waste Act and other laws has been developed. The development of the draft plan is based on previous activities aimed at implementing waste reform, including the World Bank's comprehensive analysis of the waste sector and the **National Waste Management Plan 2023-2028**. Feedback from stakeholders has also been taken into account in the development of the draft plan. The proposed changes in the draft plan are aimed at significant stages of the circular economy:

- By changing the packaging tax, producers are encouraged to introduce fewer and more recyclable packaging materials to the market.
- To increase the collection of sorted waste, municipalities are given specific targets, and waste fees may be charged to achieve these targets. Collection of packaging waste will largely transition to point of generation collection.
- Priority is given to recycling in the handling of collected waste. To achieve this, landfill fees will be increased, an incineration fee will be introduced, and waste incineration will be integrated into the EU emissions trading system.
- Successful organization of all these stages requires reliable, high-quality, and up-to-date data. Therefore, the draft plan also includes changes related to the digitalization of waste data.
- Waste reform creates conditions for innovation and additional competition in waste collection, treatment, and packaging production sectors. A greater number of providers improve the quality of services and price levels.

As of the beginning of 2024, five companies provide organised waste collection services in a total of 93 collection areas (larger municipalities are divided into multiple collection areas).

In 2020, the Ministry of the Environment initiated the development of a **Food Waste Prevention Plan** <sup>(14)</sup> in collaboration with other ministries and stakeholders. The aim of the Estonian food waste prevention plan is to reduce food waste and losses throughout the entire food supply chain. This ensures conservation of natural resources, economic savings, and alleviation of burdens on the social system.

Ministry of Regional Affairs and Agriculture developed a **Circular Bioeconomy Roadmap** <sup>(15)</sup> in 2023. Bioeconomy covers almost all industrial and economic sectors. Mostly, however, it is based on agriculture, fisheries and forestry, as well as related industries, which produce, manage, or otherwise exploit biological resources (for example, food, feed, fibre, paper, power, chemical, biotechnology industry). The purpose of the development of the field is to mitigate the impact of climate change on the agricultural sector and help the sector to adapt to climate change, increase the share of renewable energy in energy supply, implement energy-saving measures and reduce the environmental impact of energy production.

A circular bioeconomy specifically focuses on biological resources and aims to sustainably manage and utilize these resources within a circular framework. The objectives of developing the circular bioeconomy are:

- Reduce dependence on non-renewable and imported resources with a large environmental footprint,
- Ensure self-sufficiency in food and raw materials and food security,
- Increase resource efficiency, material circulation and the use of by-products and residues as raw materials,
- Strengthen R&D and innovation competences, the development, deployment and acceptance of new technologies in society,
- Leveraging the emergence of innovative initiatives and forms of cooperation (e.g., clusters, cooperative business models, industrial symbiosis, international cooperation, etc.) that support

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<sup>14</sup> [Food Waste Prevention Plan](#)

<sup>15</sup> <https://www.agri.ee/sites/default/files/documents/2023-08/teekaart-ringbiomajandus-2023-eng.pdf>

the export capacity of companies and foreign investment in the circular bioeconomy, which support the growth of the added value of the circular bioeconomy.

These agreed principles and objectives support the implementation of the circular economy more widely.

In Estonia, the development of the sectors related to bioeconomy belongs to various areas of government of the Ministry of Regional Affairs and Agriculture, the Ministry of Climate, and the Ministry of Economic Affairs and Communications.

### **Green Public Procurement**

As of January 1, 2022, the Minister of the Environment's regulation "Criteria for environmentally friendly products and services comprising the subject matter of procurement contracts and the conditions set forth in procurement documents" entered into force, making it mandatory to use environmentally friendly criteria in four product groups (furniture, cleaning products and services, office IT equipment, and copy and drawing paper) in public procurements.

On February 24, 2023, Minister of the Environment Regulation No. 6 "Environmental criteria and conditions for the procurement of road vehicles comprising the subject matter of the procurement contract in procurement documents" entered into force, which sets out the conditions for procuring environmentally friendly light vehicles, trucks, and buses.

## **Monitoring and targets**

### **Assessment of circular economy performance**

The European Commission has set up a [monitoring framework](#) to keep track of progress towards a circular economy. This framework provides a holistic view as it:

- measures direct and indirect benefits of 'becoming circular' and
- values the contribution of a circular economy in living well within the limits of the planet
- addresses energy and material supply risks.

It consists of **5 thematic sections** with a total of **11 statistical indicators**, some of which have additional sub-indicators. In some cases, policy targets exist which should be achieved in the future, and the indicators monitor progress towards these targets. The current monitoring framework is a revision of the original framework which was set up in 2018.

This section elaborates on the assessment of Estonia's progress in terms of observed trends over the last 5 years and what country characteristics or policy actions may explain differences between the country its performance and the average EU performance.

We have made some **progress**. For example, Estonia's resource productivity continues to be one of the lowest in Europe (only ahead of Romania and Bulgaria), but in the period 2013-2022 it has increased by 32%. With this result, we are second only to Ireland in Europe. We believe that the implementation of the waste reform, which was discussed in the previous question, will provide a great leap forward in the improvement of various metrics.

Monitoring the eco-innovation metric in the Estonian context may not be appropriate. Estonia is a small country and country-based **patents** related to waste management and recycling (number and number per million inhabitant) is low. The purpose of a patent is to protect business interests. With a patent, information about an innovative solution is released to the market, which may not be used without permission. Therefore domestically, it is more common to apply a trade secret.



Lower **resource productivity** is result from the use of oil shale in energy. Its increase may also result from a decrease in the use of oil shale. Oil shale use in energy also contributes a lot to waste generation and in higher material footprint.

## Circular economy monitoring frameworks and their indicators beyond the ones from Eurostat

Estonia does not have specific circular economy monitoring framework. All monitoring activities are connected with National Waste Management Plan such as waste generation per person, reuse, recycling and secondary material use, etc and the “Estonia 2035” strategy.

Most important indicators are Circular material use rate, net greenhouse gas emissions, recycling of municipal waste.

The indicators are publicly available in the **Tree of Truth** <sup>(16)</sup>.

## Real time economy project

In 2026, it is planned to launch a new national waste reporting service, with which the waste data collected by the state will become significantly more up-to-date and the waste movement chain will become more traceable. More reliable and transparent data give companies a better opportunity for fair and transparent competition than before. We hope that people's motivation to separate their waste will increase if they see that their separately collected waste is used to make new products or for other useful purposes. We also hope that the transition to the circular economy will accelerate, and the competitiveness of companies will improve.

## Circular economy targets

All specific targets are connected to national waste management plan. The **National Waste Management Plan 2023-2028** was adopted 2022. There has been some improvement but still recycling of municipal waste, for example, has not increased as fast as was hoped for.

Estonia is implementing a waste reform and a draft plan for amending the Waste Act and other laws has been developed. The development of the draft plan is based on previous activities aimed at implementing waste reform, including the World Bank's comprehensive analysis of the waste sector and the **National Waste Management Plan 2023-2028** <sup>(17)</sup>. Feedback from stakeholders has also been taken into account in the development of the draft plan. But there is no legal target set for the circular material use rate.

## Innovative approaches and good practices

### Examples of public policy initiatives (national, regional or local)

- ➔ *Good practice example: Product-related policies, including on the R-strategies (repair, reuse, remanufacturing, etc)*

**Tallinn Circular Economy** pilot project <sup>(18)</sup>. The purpose of the project is to **promote the repair** of broken items and the re-use of usable items. As a result of the project, various opportunities have been created for the residents of the city to recycle their decent items and repair broken items (e.g., bicycle, furniture,

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<sup>16</sup> <https://tamm.stat.ee/tulemusvaldkonnad/keskkond/indikaatorid/105?lang=en>

<sup>17</sup> <https://kliimaministeerium.ee/jaatmekava> (in Estonian)

<sup>18</sup> <https://www.tallinn.ee/et/jaatmekeskus/ringmajanduse-pilootprojekt> (in Estonian)

doors-windows, clothes) instead of throwing them away. In the course of these activities, contributions are made to reducing overconsumption, increasing reuse and thus reducing the environmental burden.

→ *Good practice example: Institutional and regulatory arrangements to support the transition towards a resource-efficient circular economy*

Various support measures for the circular economy <sup>(19)</sup>.

- Circular economy-based **production and consumption models** <sup>(20)</sup> (about to open). This grant includes **repair centres** (4,5 M€).
- Support of **resource efficiency in business production** (implemented – 34,5M€) <sup>(21)</sup>.
- Development of separate **waste collection infrastructure** (about to open – 35M€) <sup>(22)</sup>
- Reducing waste generation and the amount of **packaging** (about to open – 10M€) <sup>(23)</sup>.
- Waste **recycling and preparation** (about to open – 22M€) <sup>(24)</sup>.

→ *Good practice example: Research & innovation*

Through the LIFE IP program, the European Union funds projects for environment and climate action. **LIFE IP BuildEST project** <sup>(25)</sup> goal is pursuing Estonian national climate ambition through **smart and resilient renovation**. During the project, long-term renovation strategy of Estonian buildings (LTRS) will be updated and BuildEST has a crucial role implementing the strategy.

→ *Good practice example: Spatial planning and urban policy*

The second biggest city in Estonia, **Tartu** city is doing **circular renovation** <sup>(26)</sup>.

→ *Good practice example: Education and awareness-raising*

PACKGDEPO – raising awareness about deposit packaging and creating a strategic approach to harmonizing the Estonian-Latvian **deposit packaging systems**. <sup>(27)</sup>

A **circular economy webpage** <sup>(28)</sup> that collects good business examples and shows off products that have eco-label or who have successfully upgraded their production resource efficiency. The webpage is updated by the ministry.

## Examples of private policy initiatives (sectoral)

→ *Good practice example: New business models*

A **construction store** <sup>(29)</sup> in Harjumaa receives remaining building materials from construction and sells them below the market price to new customers. The team saw an opportunity to bring together builders who are looking for affordable building materials and those who want to get rid of materials left over from construction.

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<sup>19</sup> <https://kik.ee/en/toetatavad-tegevused>

<sup>20</sup> <https://kik.ee/en/grants/circular-economy-based-production-and-consumption-models>

<sup>21</sup> <https://kik.ee/en/toetavad-tegevused/ettevotete-ressursitohusus>

<sup>22</sup> <https://kik.ee/en/grants/development-separate-waste-collection-infrastructure>

<sup>23</sup> <https://kik.ee/en/grants/reducing-waste-generation-and-amount-packaging>

<sup>24</sup> <https://kik.ee/en/toetavad-tegevused/jaatmete-ringlussevott-ja-ettevalmistamine>

<sup>25</sup> <https://kliimaministeerium.ee/en/buildest>

<sup>26</sup> <https://www.tartu.ee/en/circularrenovation>

<sup>27</sup> <https://ringmajandus.envir.ee/et/packgdepo> and <https://old.estlat.eu/en/estlat-results/packgdepo.html>

<sup>28</sup> <https://ringmajandus.envir.ee/en/edulood>

<sup>29</sup> <https://www.negavatt.ee/bautlet> (in Estonian)



A **platform** <sup>(30)</sup> provides information on what to do with things that need repair, how to dispose of waste correctly or where is the nearest circular packaging point. The platform offers simple instructions on what to do with items that have become redundant or need repair. The information in the application comes from producer responsibility organizations, municipalities, cooperation partners and volunteers. In order to ensure that the information is up-to-date, they cooperate with organizations in the field and invite users to participate. For example, if you enter “jacket” in the search and select “repair”, the platform will offer you different tailor service locations.

The repair sector has a major role to play in the circular economy. **Repair shops** <sup>(31)</sup> have teachers who teach how to fix things and conduct workshops. We have few repair workshops and new ones are being created.

→ *Good practice example for packaging*

Textile waste is repurposed into novel, **eco-friendly packaging material** <sup>(32)</sup> that provides a viable and earth-conscious alternative to conventional cardboard. Another company produces 100% compostable and protective **packaging** <sup>(33)</sup> to substitute single use plastic packaging.

→ *Good practice example for food waste prevention*

There has been a rise of **food sharing and food donation**. We have “toidupank”, in English “Foodbank” for many years and it works rather fine. In addition, recent years local food sharing initiatives have emerged. For example, there is network of street refrigerators that are regularly filled with products donated by stores if product is close to “best before” date. There also are business models that sell “best before” products with big discount for example <sup>(34)</sup>.

→ *Good practice example for other sector/value chain*

A 100% private equity-based company focused on creating **sustainable biomaterials** <sup>(35)</sup>. They offer novel products from a renewable source to open up new frontiers for many industries. They produce sustainable biomaterials from renewable secondary use biomass that create novel value chains that don’t just replace but redefine.

## The way forward

### Identifying and addressing barriers and challenges

There is a **low level of environmental awareness and knowledge** of the circular economy in society. The issue is a low awareness and interest among companies in redirecting production residues and by-products into circulation. Circular economy is not mainstreamed.

Regulatory measures need to be introduced to create **demand for secondary raw materials**. This is especially important in the construction sector. With the emergence of demand, supply will also arise. Also, green procurement mandatory criteria could be efficient measure to increase circular economy solutions. It is probably necessary to fairly price the primary raw material as well.

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<sup>30</sup> <https://kuhuviaa.ee/en>

<sup>31</sup> <https://paranda.ee/en/> and <https://www.tallinn.ee/et/jaatmekeskus/kopli-93-parandustookoda> (in Estonian)

<sup>32</sup> <https://kiud.io/>

<sup>33</sup> <https://raiku.co/>

<sup>34</sup> <https://sumena.ee/> (in Estonian)

<sup>35</sup> <https://fibenol.com/technology> and <https://fibenol.com/>

## Future policy plans

There are circular economy related activities in the national recovery and resilience plan.

### Supporting the digital revolution of the economy

- Development of the company's digitisation strategy and based on it.
- Investment support for digitisation and automation of companies. In addition, automation of data exchange in the supply chain is supported.
- Development of e-construction, including the development of national services of the construction platform, digital solutions prototyping and development support measure for companies, standard creation and implementation: creating prerequisites for spatial planning, design and construction processes (incl. standardisation, digitisation, automation, factory production, application of artificial intelligence) for efficiency and quality improvement.
- Development of e-waybill service - eCMR (virtual international freight standard contract) creation of data exchange service and transport and logistics companies interfacing with the eCMR service.

### Adoption of resource-efficient green technologies

The investment supports increasing the resource efficiency of companies, including energy efficiency focusing in particular on valorisation of under-utilised bioresources, production technology to innovation and product development. An important part of the investment is R&D and in increasing innovation capacity to contribute to more resource's monetisation and the development and implementation of green technologies. The measure focuses on the promotion of resource-efficient green technologies of industrial enterprises and exploitation of bioresources. For companies, including agriculture, forestry, fishing, support is given to aquaculture and food industry companies and research and development institutions for investments in production technology renewal, product development and bioresources (incl. by-products and residues) for valorisation and innovative resource-efficient and high for the development of value-added products.

### Development of skills supporting the green revolution

Modernisation of green skills of employees with new technologies through further training and retraining for deployment in order to prepare for broader green economy knowledge and skilled workforce.

### Promoting the deployment of complete hydrogen technologies

The creation of complete green hydrogen chains is supported, which includes the production of green hydrogen, delivery solution (including infrastructure if necessary) and final consumption. Used for hydrogen production electricity must be produced from renewable energy sources and green hydrogen consumption must to take place in Estonia.

### Increasing the energy efficiency of apartment buildings and small houses

Support scheme for increasing the energy efficiency of apartment buildings and small houses. Main aim is to reduce carbon dioxide emissions in the housing sector and to increase the energy efficiency of small houses and apartment buildings, while achieving in old ones healthy a indoor climate in buildings. The support measure has an immediate positive effect on residents whose living conditions will improve with reconstruction works. Reducing energy consumption, to improve healthy indoor climate and living conditions, comprehensive support is provided for reconstruction. Energy efficiency is measured during the complete reconstruction on the basis of energy consumption data (EPC) before and after the reconstruction works. The fully reconstructed apartment building must meet at least energy label for energy efficiency class C.

European Topic Centre on  
Circular economy and resource use  
<https://www.eionet.europa.eu/etcs/etc-ce>

The European Topic Centre on Circular economy and  
resource use (ETC-CE) is a consortium of European  
institutes under contract of the European  
Environment Agency.

