

Circular economy country profile – Slovenia



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Introduction

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


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

While implementing the EU Circular Economy Action Plan (CEAP 2020), Member States are encouraged to advance circularity at a national level by adopting policies and initiatives that go beyond EU regulations, while preserving the Single Market.

This circular economy country profile is based on information reported by the Eionet network and, in particular, the Eionet Group on Circular Economy and Resource Use in the second quarter of 2022. The information was reviewed and edited by the European Topic Centre on Circular economy and resource use (ETC CE). A selection of Eurostat data was made to further complement this country profile.

The information is current as of 12 September 2022 (final review), when members of Eionet verified the content of this profile.

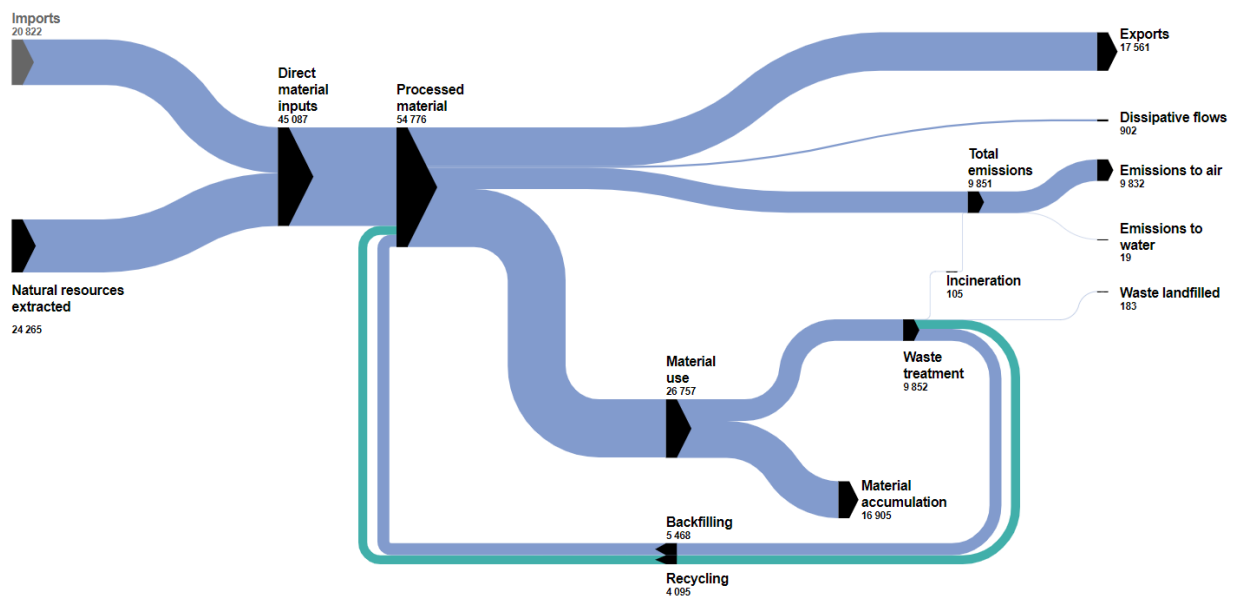
Slovenia – facts and figures

	<p>GDP: EUR 46.9 billion (0.3 % of EU27 total in 2020)</p>
	<p>GDP per person: EUR 22 310 (purchasing power standard) (88.6 % of EU27 average per person figure in 2020)</p>
	<p>Use of materials (domestic material consumption (DMC)) 27.5 million tonnes DMC (0.5 % of EU27 total in 2020) 13.1 tonnes DMC per person (97.3 % of EU27 average per person in 2020)</p>
	<p>Structure of the economy: Agriculture: 2.4 % Industry: 33.2 % Services: 64.4 %</p>
	<p>Employment in circular sectors: 20 681 people are employed in circular economy (CE) sectors (0.6 % of EU total in 2018) People employed expressed as a percentage of total employment: 2.0 % (EU average 1.7 %)</p>
<p>Surface area: 20 273 square kilometres (0.5 % of EU27 total)</p>	
<p>Population: 2 095 861 (0.5 % of EU27 total in 2020)</p>	

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

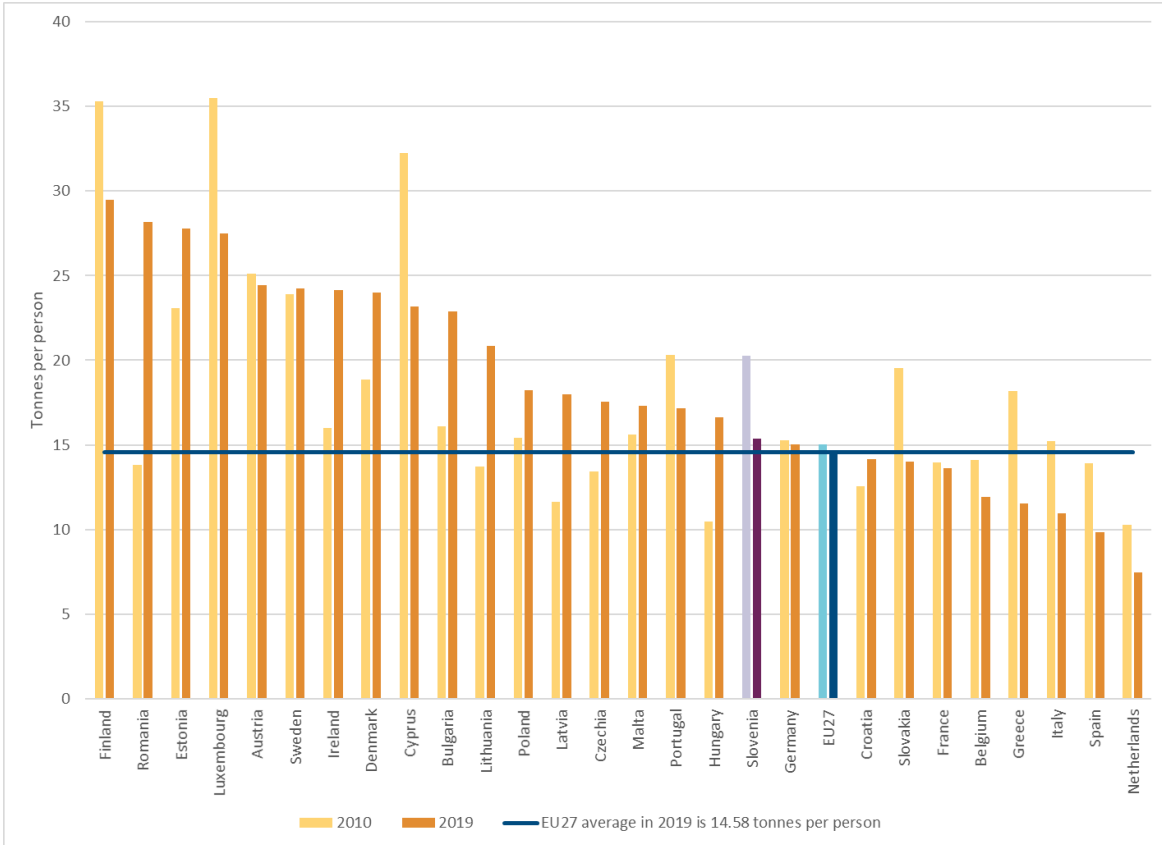
Source: Eurostat datasets, EU27 2020 (accessed 20 June 2022)

Figure 1 Material flow diagram for Slovenia in 2020, '000 tonnes



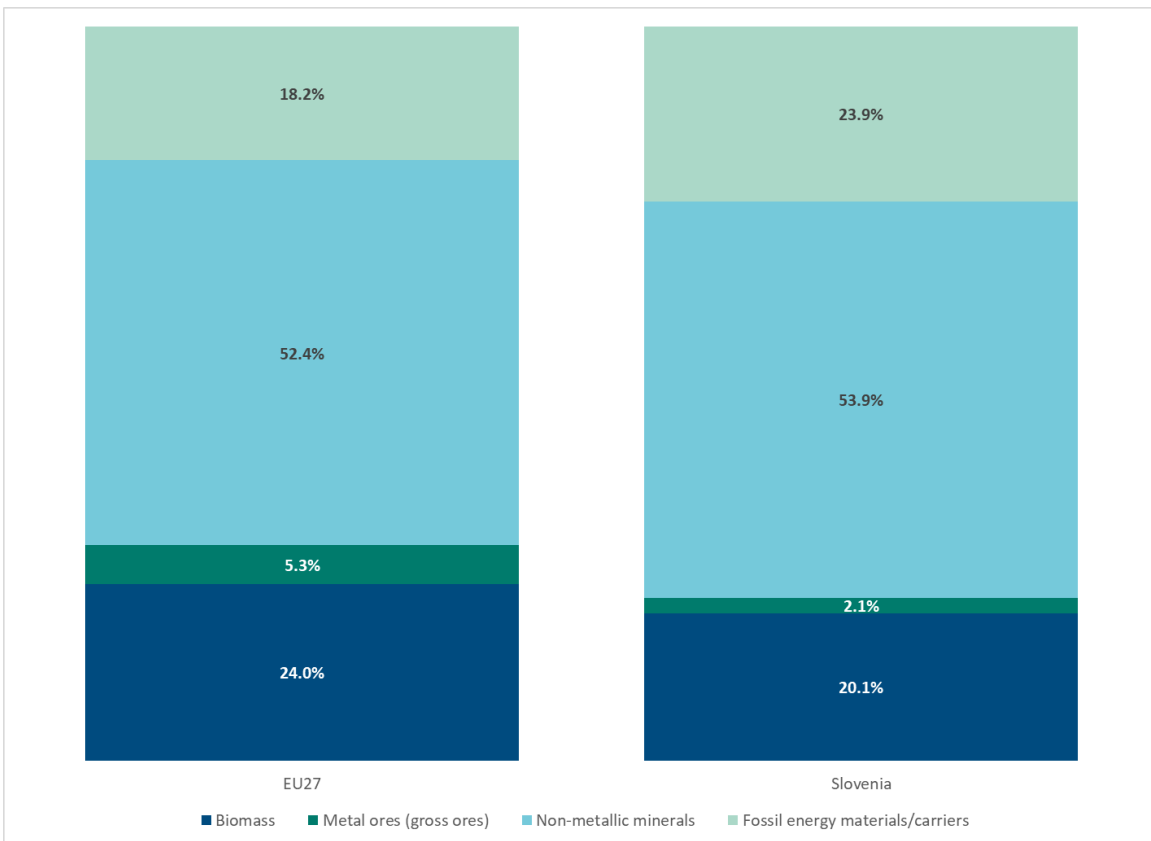
Source: Eurostat (2022) [env_ac_mfa], [en_ac_sd], [env_wassd] (accessed 20 June 2022)

Figure 2 Material footprint (raw material consumption), EU27, 2010 and 2019, tonnes per person



Source: Eurostat (2020) [env_ac_rme] (accessed 4 July 2020)

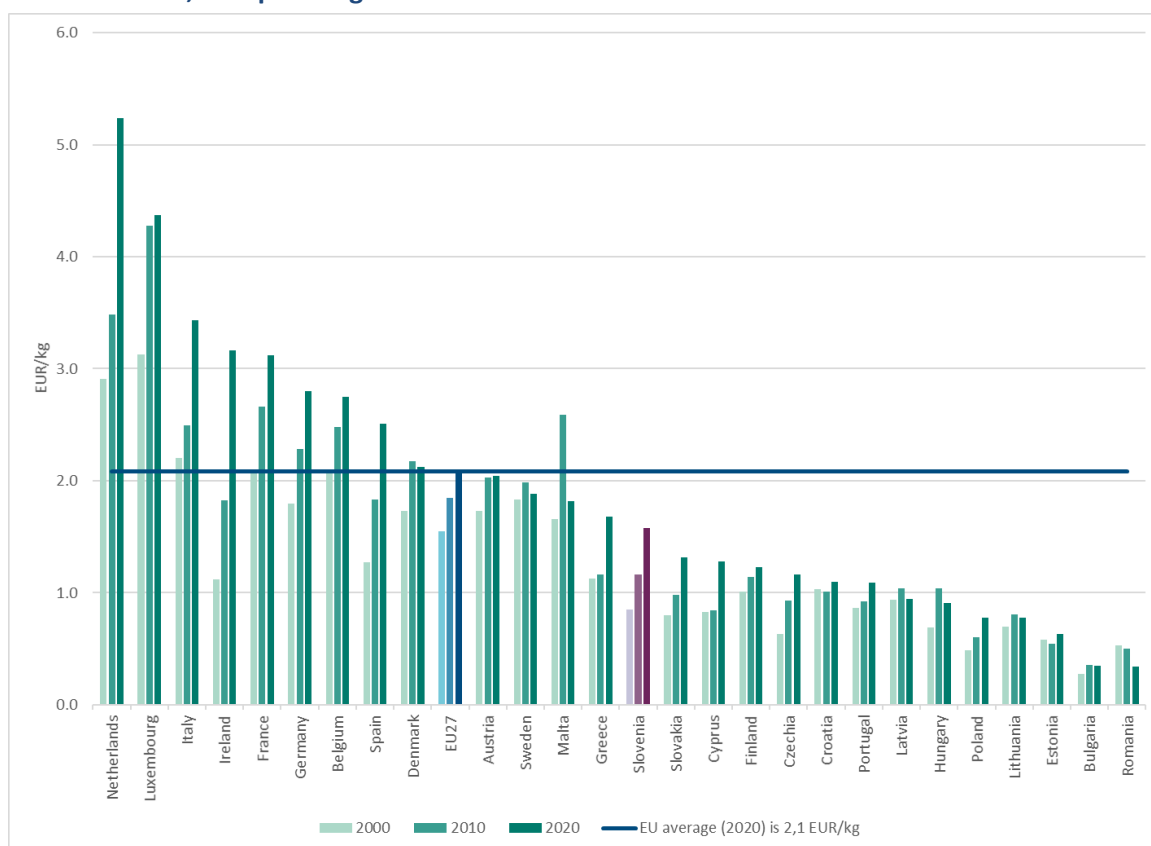
Figure 3 Domestic material consumption by selected material category, EU27 and Slovenia, 2020, per cent



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

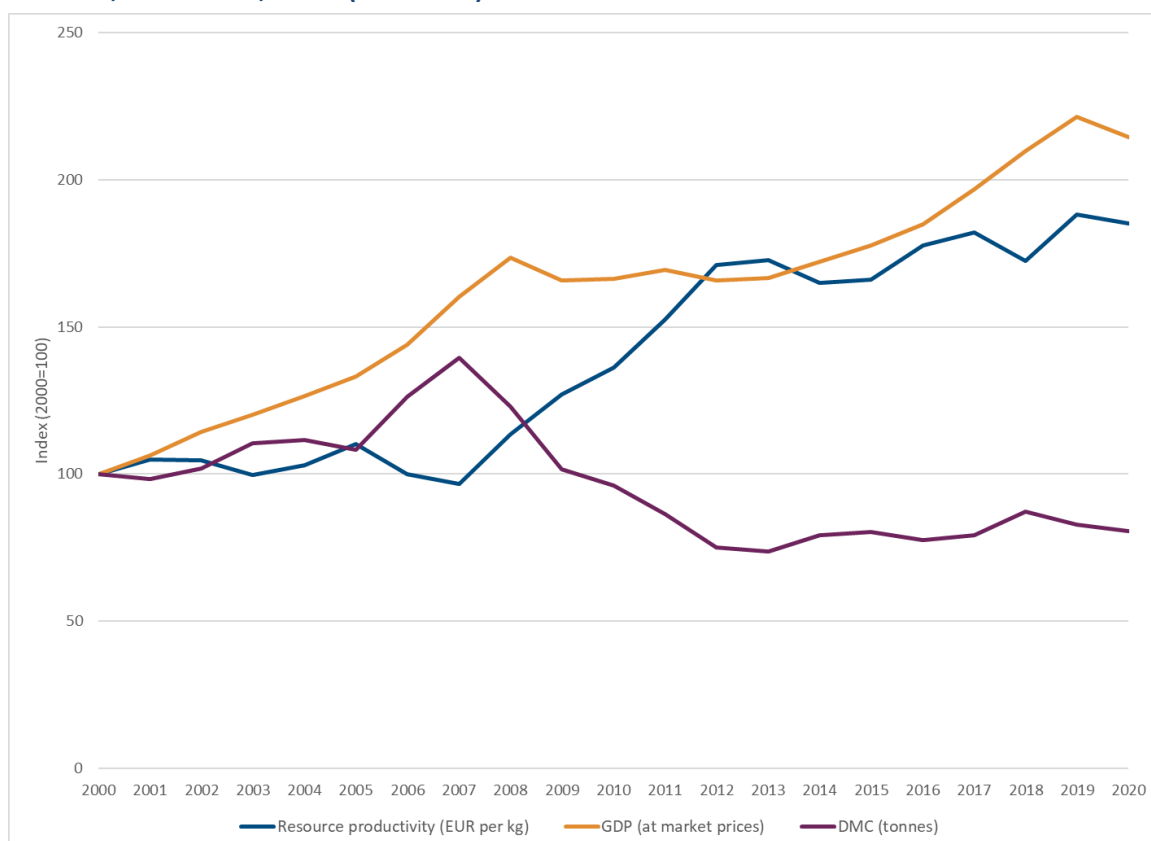
Source: Eurostat (2022) [env_ac_mfa] (accessed 20 June 2022)

Figure 4 Resource productivity (gross domestic product/domestic material consumption), EU27, 2000, 2010 and 2020, EUR per kilogram



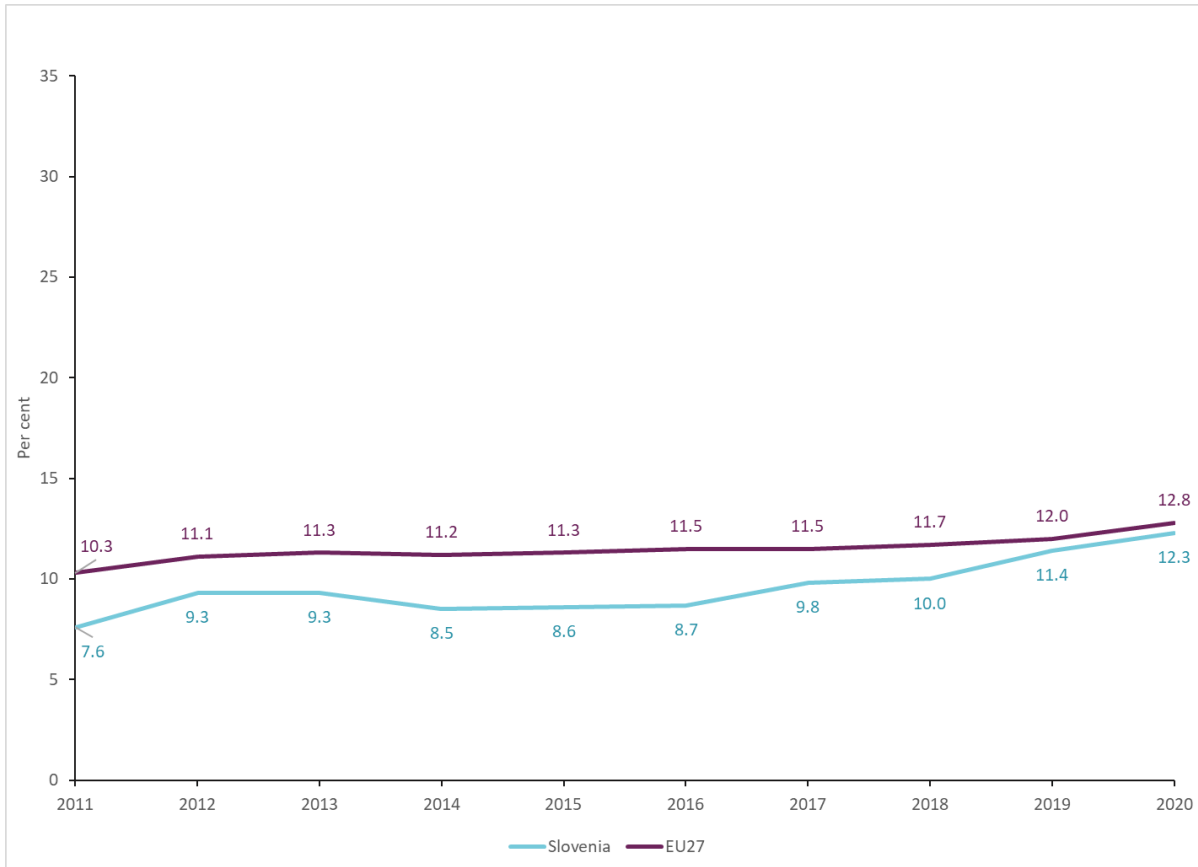
Source: Eurostat (2022) [env_ac_rp] (accessed 20 June 2022)

Figure 5 Gross domestic product, domestic material consumption and resource productivity trends, Slovenia, 2000–2020, index (2000=100)



Source: Eurostat [env_ac_mfa], [env_ac_rp] & [nama_10_gdp] (accessed 4 July 2022)

Figure 6 Circular material use rate in Slovenia, 2011–2020, per cent



Source: Eurostat (2022) [env_ac_cur] (accessed 20 June 2022)

Existing policy framework

Dedicated strategy, roadmap or action plan for circular economy

The Slovenian government adopted the **Roadmap towards the circular economy** ⁽¹⁾ in 2018. The Roadmap is understood as a process, rather than a one-off, finite document. It was designed with the aim of setting guidelines for Slovenia to allow for a controlled and expedient systemic transition into a CE. In the narrowest sense, it is directed at the Slovenian government, but in a broader sense, it is also aimed at all the interested stakeholders who have proven themselves invaluable co-creators in the process of creating this document. They hold numerous examples of good practices that often go unnoticed or unsupported.

The **goals** of the Roadmap are to:

- a. outline the potential of establishing Slovenia as the leader of the transition to a CE in central and eastern Europe;
- b. involve stakeholders in identifying and connecting circular practices;
- c. create recommendations to the government for facilitating a more efficient transition;
- d. identify circular opportunities to strengthen Slovenia's international economic competitiveness and improve all its citizens' quality of life.

Recognised **priority areas** in the Roadmap are: the food system, forest-based value chains, manufacturing industry and mobility.

Circular economy policy elements included in other policies

Circular economy policy element	Included in policy
Decarbonisation through the CE.	A comprehensive strategic project of decarbonisation through the transition to a CE. The project is systemic in nature and focusses on all areas that are crucial for the transition to a low-carbon CE. The project is being prepared in partnership with the leading European institutions in this field. So Slovenia transferred the most up-to-date European knowledge for the transition to a low-carbon CE, and connected it with domestic knowledge and upgrade.
The CE model is based on maintaining the value of materials and products for as long as possible, replacing products with services, the transition from ownership to sharing and the use of digitisation.	Slovenian Industrial Strategy 2021-2030 (in Slovene)
Material productivity, innovation, renewable energy systems (RES), mobility, spatial planning for the design of low-carbon CE hubs and the development solutions at regional and local levels.	Slovenian development strategy (in Slovene)
Changing waste into resources: <ul style="list-style-type: none">• sustainable resource management;• green products, green public procurement;• sustainable building construction;• green jobs.	The Operational Programme for the Implementation of the EU Cohesion Policy 2014–2020 (in Slovene)
Material resource efficiency – wood, metal and construction materials.	The Slovenian Industrial Policy, 2013 (in Slovene)

¹ <https://www.circularchange.com/projects-1/2018/11/8/roadmap-towards-the-circular-economy-in-slovenia>

Monitoring and targets

Assessment of circular economy performance

The **State of Environment report** will be published in a few months (in Slovene only) and will cover assessments of some parts of the CE – consumption, waste management, etc. The previous State of Environment Report was published in 2017 ⁽²⁾.

Sub-indicators for green development are specified in the **Slovenian industrial strategy** ⁽³⁾:

I. “Green development” area

In green development, the key indicator is resource productivity, measured by the ratio between GDP and consumed raw materials and other materials. This is also the indicator of success in carrying out Goal 8 of Slovenia’s Development Strategy 2030, transfer to a low-carbon circular economy.

	Slovenia, latest known data	EU, latest known data	2030, objective
Resource productivity (PPS/kg) ⁽⁴⁾ (UMAR, PoR 2020)	1.9 (2018)	2.2 (2018)	3.50
Circular (secondary) consumption of material*	10.4 (2019)	11.9 (2019)	EU average in 2030
Proportion of employees in the circular economy, considering the total number of employees, in %*	2.02 % (2018)	1.71 % (2018)	3.5%
% of SMEs offering green products or services**	23 % (2017)	24 % (2017)	Above EU average in 2030
% of SMEs adopting the measures for efficient use of resources**	52 % (2017)	57 % (2017)	EU average in 2030
% of SMEs adopting the measures for efficient use of energy**	47 % (2017)	63 % (2017)	EU average in 2030
Total greenhouse gas emissions (NEPN)	No goal in 2020 with regard to 1990	–20 % in 2020 compared to 1990	–36 % compared to 2005
Share of energy from renewable resources (Eurostat)	22 % (2019)	19.7 % (2019)	27 %
Eco-innovation index	94 (2019)	100	110
Emission productivity, SKM/million kg of carbon dioxide (UMAR; PoR, 2020)	3.2 (2018)	3.4 (2017)	EU average in 2030
Number of environmental certificates ISO 14001 per million people (UMAR, PoR 2020)	209 (2018)	172.5 (2018)	250 in 2030
Quantity of processed round wood in Slovenia for non-energy consumption, cubic metres	1.82 million in 2019	/	3 million

Sources: NEPN, Eurostat, SURS, UMAR, Eco-Innovation Scoreboard.

- Indicators marked with * refer to methodology arising from monitoring the implementation of the EU 2015 Action Plan for Circular Economy⁵.
- Indicators marked with ** refer to Flash Eurobarometer 456: Small and medium-sized enterprises (SMEs), resource efficiency and green markets, Fieldwork September 2017, Publication January 2018.

² https://www.gov.si/assets/ministrstva/MOP/Dokumenti/porocilo_o_okolju_2017.pdf (in Slovene)

³ <https://www.gov.si/en/news/2022-05-03-slovenian-industrial-strategy-2021-2030/>

⁴ The indicated goal arises from SDS 2030. Resource productivity is gross domestic product (GDP) divided by domestic material consumption (DMC).

⁵ [Eurostat - Circular Economy Indicators](#) and [Eurostat - Circular Economy Indicators - Monitoring framework](#).

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

- a) A CE monitoring framework, as such, has not yet been established. It might be developed through a EIT Climate KIC Deep demonstration project Slovenia: Systems Innovation for the Transition to a Circular, Regenerative and Low-carbon Economy ⁽⁶⁾.
- b) Slovenia uses the following sets of indicators: sustainable consumption and waste and material flows and some indicators from mobility, energy, agriculture, forestry and environmental management systems, published in the environmental indicator system ⁽⁷⁾.

Some examples:

- general health status based on type of food consumed and by household income ⁽⁸⁾;
- ecotourism ⁽⁹⁾.

Some indicators related to CE are also published on the website of the Statistical Office ⁽¹⁰⁾.

Circular economy targets

No specific CE targets have yet been set.

⁶ <https://www.climate-kic.org/circularslovenia>

⁷ <http://kazalci.arso.gov.si/en>

⁸ <http://kazalci.arso.gov.si/en/content/general-health-status-based-type-food-consumed-and-household-income>

⁹ <http://kazalci.arso.gov.si/en/content/eco-tourism-0>

¹⁰ <https://www.stat.si/StatWeb/news/Index/9406> (in Slovene)

Innovative approaches and good practice

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

- *Good practice example: financial support programme, education (consultancy and training), spatial planning and urban policy*

As part of **LIFE IP CARE4CLIMATE** ⁽¹¹⁾ a tender was published in 2019 by two non-governmental organisations (NGOs), Umanotera and Focus, to include municipalities in a programme of support in the implementation of sustainable community resource management projects – the programme was called Enough for all (*Dovolj za vse*) ⁽¹²⁾. Municipalities at any stage of the project idea, which connects the local community and contributes to climate change mitigation, were invited to apply. Priority areas are the supply of renewable energy, energy efficiency, sustainable mobility, sustainable consumption and the local CE, food supply, and sustainable tourism.

The programme will be tailored to each municipality, and its purpose is to equip the municipalities with skills for the sustainable management of community resources and the participatory management of processes in the municipality. Partners have prepared the guide Enough for All – Community Management of Living Resources. The guide also includes descriptions of domestic and foreign practices in the areas of

- (1) spatial planning;
- (2) food self-sufficiency;
- (3) energy efficiency and supply from local renewable sources; and
- (4) local circular economy and sustainable consumption.

They offer concrete activities to support municipalities in the implementation of projects of sustainable management of community resources. These activities are:

- an analysis of the situation and a detailed plan of the work programme are prepared with the municipality. It depends on the needs of the municipality and the level of its project idea and is carried out within a maximum of 18 months. Municipalities apply to participate in the programme through a public call while it is current.
- support for municipalities in the implementation of demonstration projects: this support is intended for municipalities that already have a project ready but need help to implement it.
- training for community project coordinators: as part of the project, training for community project coordinators will be carried out in Ljubljana, Murska Sobota and Koper or online in the event of an unfavourable epidemiological conditions. Each training will include two workshops and mentoring hours.

The programme is expected to be implemented in four municipalities, Črna na Koroškem, Vipava, Kočevje and Maribor, which have a great potential for reducing greenhouse gas emissions according to their applications. Those four will join the municipalities of Loški Potok, Hrastnik, Postojna and Kranj, where the support programme is already underway, while in the municipalities of Škofja Loka and Ptuj it has already been completed.

The preparation of detailed cooperation programmes is in progress and cooperation will begin in the coming months.

Examples of a sectoral policy initiatives

The area of mobility in the Roadmap towards the circular economy includes all systems that relate to the movement of people and freight – different modes of transport, ranging from public to private, infrastructure, mobility-related habits, etc. The Roadmap puts an emphasis on the mobility of people.

Why is it a priority? Mobility is also one of the essential social functions and a field which, due to the specificity of Slovenia's dispersed settlements, presents one of the key challenges for the transition to a

¹¹ <https://www.care4climate.si/en>

¹² <https://dovoljazavse.si/> (in Slovene)

CE. Slovenia as a transit country also faces the challenges of finding a solution to freight transport and the corresponding development of its infrastructure. Potential: due to its geographical location and manageable size, Slovenia can become a reference laboratory for green mobility and the leading country in the demonstration and transfer of green mobility technologies to international markets. In addition to the strong representation of export companies, i.e., mainly suppliers to large German and other automotive companies, there is a strong potential for innovation in the field of the development of electric vehicles and support infrastructure, as well as already established models of the distribution economy in mobility – from renting bicycles to electric cars and transport services.

In 2016, a fifth of the companies in Slovenia operated in the maintenance and repair of motor vehicles. The highest value added in Slovenia is generated by manufacturing companies ⁽¹³⁾.

Transforming wood value chains is foreseen in the frame of EIT Climate KIC project as well as providing an innovation boost to, for example, construction-related industry and low-carbon food production ⁽¹⁴⁾.

The Strategic Research and Innovation Partnership (SRIP) – Circular economy networks for the transition to a CE connects Slovenian businesses, educational and research institutions, NGOs and other interested parties with the state, in new value chains according to the economic principles of closed material flows. The vision of the SRIP – CE is to sustainably increase the efficiency and competitiveness of the domestic economy in the transition to a CE. The focus is on different areas, such as functional materials ⁽¹⁵⁾.

¹³ <http://ipmmp.um.si/wp-content/uploads/2018/02/SPO2017-monografija> (in Slovene)

¹⁴ <https://www.climate-kic.org/news/slovenia-takes-a-pivotal-turn-towards-circularity/>


¹⁵ <https://srp-circular-economy.eu/srip-circular-economy/focus-areas/functional-materials/>

The way forward

Addressing barriers and challenges

No information available.

Ranking types of barrier

High barrier	Institutional challenge to develop policy for a complex cross-sectoral issue
	Companies' ability to grasp opportunities
	Market barriers for recycled resources
	Consumer behaviour and awareness
Low barrier	Good indicators and targets

Future policy plans

The transition to a low-carbon CE is one of the key factors in ensuring the long-term productivity of economic entities and the strengthening of societal resilience. Slovenia's **Recovery and Resilience Plan (RRP)** will also contribute to attaining the goals of the **National Energy and Climate Plan (NECP)** and the commitment to achieving climate neutrality by supporting reforms and investment in energy efficiency, the use of renewable energy sources and sustainable mobility. In light of the fact that the transition from linear to circular business models can significantly contribute to realising climate goals, support will also be allocated to establishing systemic conditions for such a transformation of the economy. Slovenia's RRP will also support measures for adapting to the inevitable consequences of climate change and improving the quality of public services in the fields of drinking water supply and wastewater discharge and treatment.

COMPONENT 5 of the Recovery and Resilience Plan: Circular Economy – Resource Efficiency Objective: This component aims to contribute to the decarbonisation of society through the transition to a CE, in particular by establishing a strategic framework for the transition and the conditions for more efficient financing of it. Slovenia thus strives to create systemic conditions that support the transformation in companies and value chains, including the forest-wood chain. Renewing the programme for waste prevention and efficient waste management will also contribute to the transition to a CE.

Reforms:

- Slovenia's Long-term Climate Strategy to 2050 (2021);
- Slovenia's Industrial Strategy 2021–2030 (2021);
- renewing the waste management and the waste prevention programmes (2021);
- adoption of the legislative framework for the transition to a CE – Environmental Protection Act, Decree on the Management of Packaging and Packaging Waste and the Decree on Waste (2022);
- establishment of a one-stop shop ⁽¹⁶⁾ for the CE (2022);
- definition and establishment of conditions for more efficient financing of the transition to a low-carbon CE: green budgetary planning (2023).

¹⁶ The Centre for Circular Economy and Society will be a focal point for supporting the systemic transition of Slovenia to a CE, as it will provide a space for meeting different stakeholders and establishing dialogue with decision makers. In the Centre, knowledge and information on good practice will be collected for interested stakeholders. It will be a place of continuous learning. In cooperation with EIC Climate KIC, the European Institute of Innovation and Technology (EIT), RawMaterials and EU's Joint Research Centre (JRC), the centre will provide a variety of services and products.

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