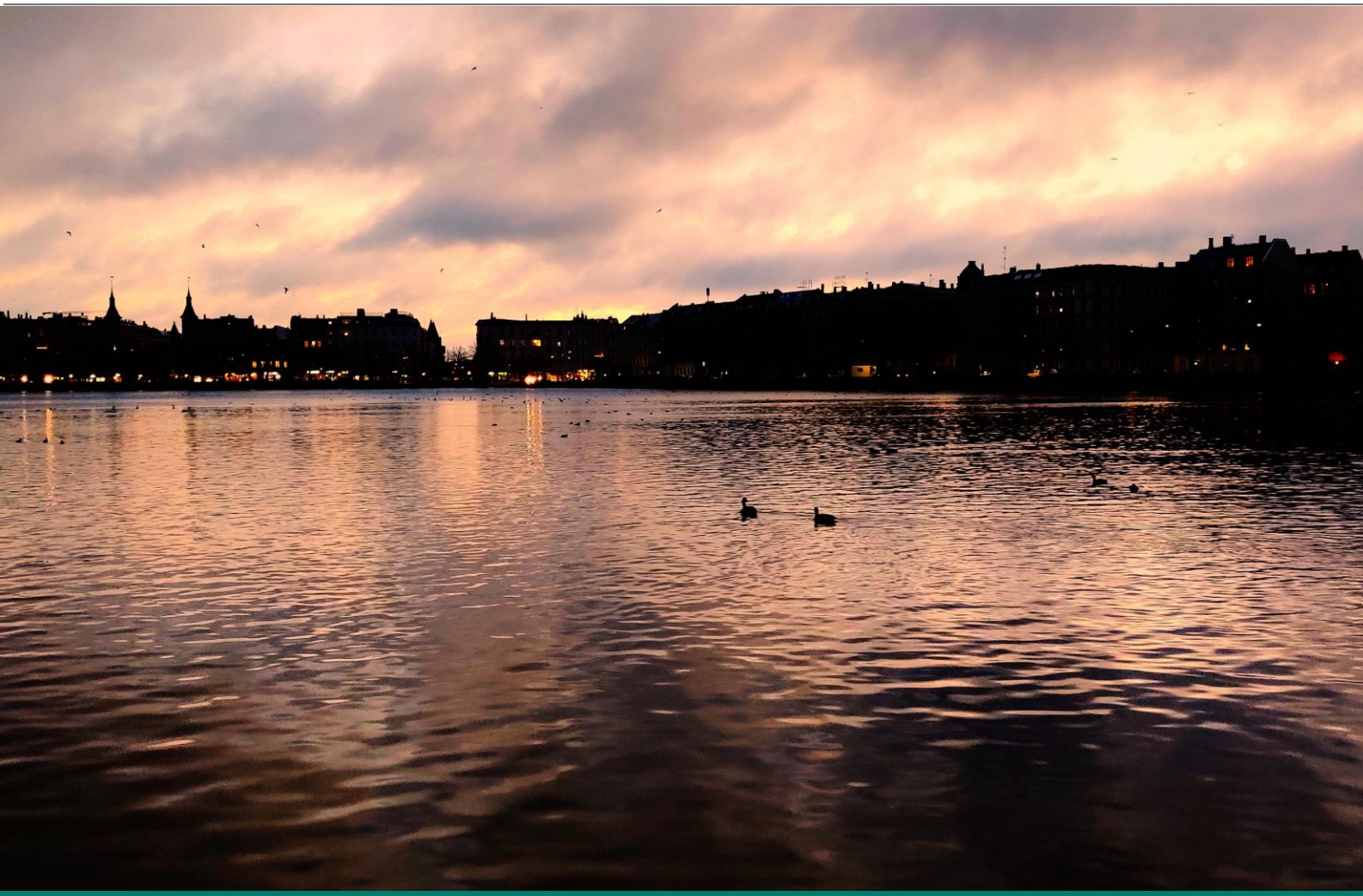
Circular economy country profile – Lithuania



European Environment Agency
European Topic Centre
Circular economy and resource use

Cover design: EEA
Cover image © Peder Jensen
Layout: ETC CE

Publication Date

EEA activity Circular economy and resource use

ETC CE coordinator: Vlaamse Instelling voor Technologisch Onderzoek (VITO)

ETC CE partners: Banson Editorial and Communications Ltd, česká informační agentura životního prostředí (CENIA), Collaborating Centre on Sustainable Consumption and Production (CSCP), Istituto Di Ricerca Sulla Crescita Economica Sostenibile, Istituto Superiore per la Protezione e la Ricerca Ambientale, IVL Swedish Environmental Research Institute, PlanMiljø, Università Degli Studi Di Ferrara (SEEDS), German Environment Agency (UBA), Teknologian Tutkimuskeskus VTT oy, Wuppertal Institut für Klima, Umwelt, Energie gGmbH, World Resources Forum Association.

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

Contents

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 30 September 2022 (final review), when members of Eionet verified the content of this profile.

Lithuania – facts and figures

GDP: EUR 49.5 billion (0.4 % of EU27 total in 2020)

GDP per person: EUR 17 710 (purchasing power standard) (86.8 % of EU27 average per person figure in 2020)

Use of materials (domestic material consumption (DMC))
56.0 million tonnes DMC (0.9 % of EU27 total in 2020)
20.0 tonnes DMC per person (148.9 % of EU27 average per person in 2020)

Structure of the economy:
Agriculture: 3.6 %
Industry: 27.8 %
Services: 68.6 %

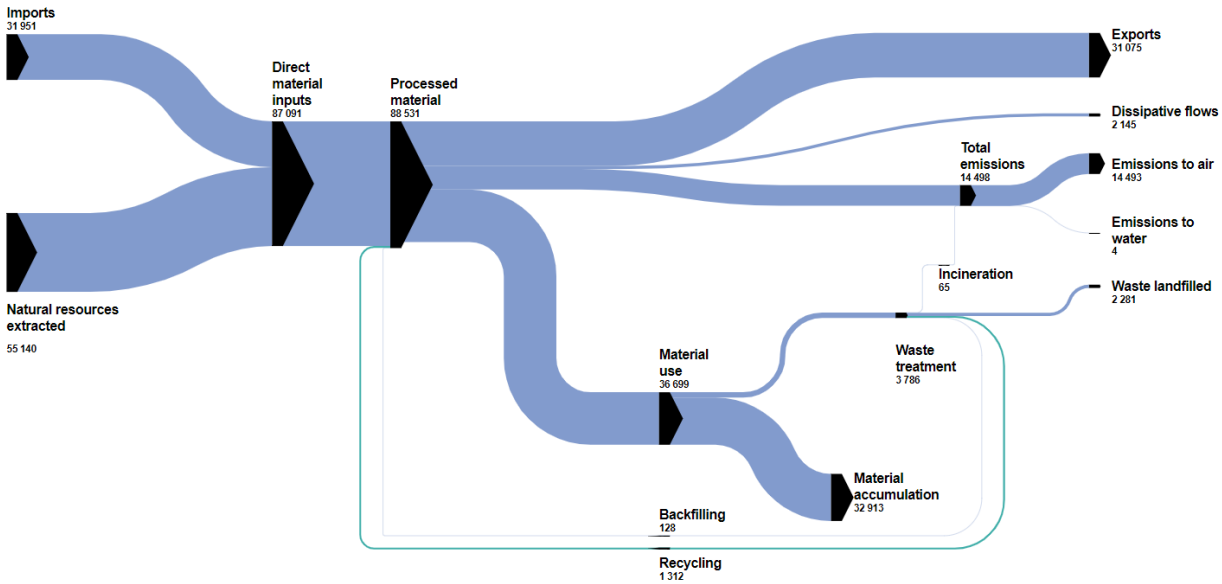
Employment in circular sectors:
37 488 people are employed in circular economy (CE) sectors (1.1 % of EU total in 2018)
People employed expressed as a percentage of total employment: 2.7 % (EU average 1.7 %)

Surface area: 65 286 square kilometres (1.5 % of EU27 total)

Population: 2 794 090 (0.6 % of EU27 total in 2020)

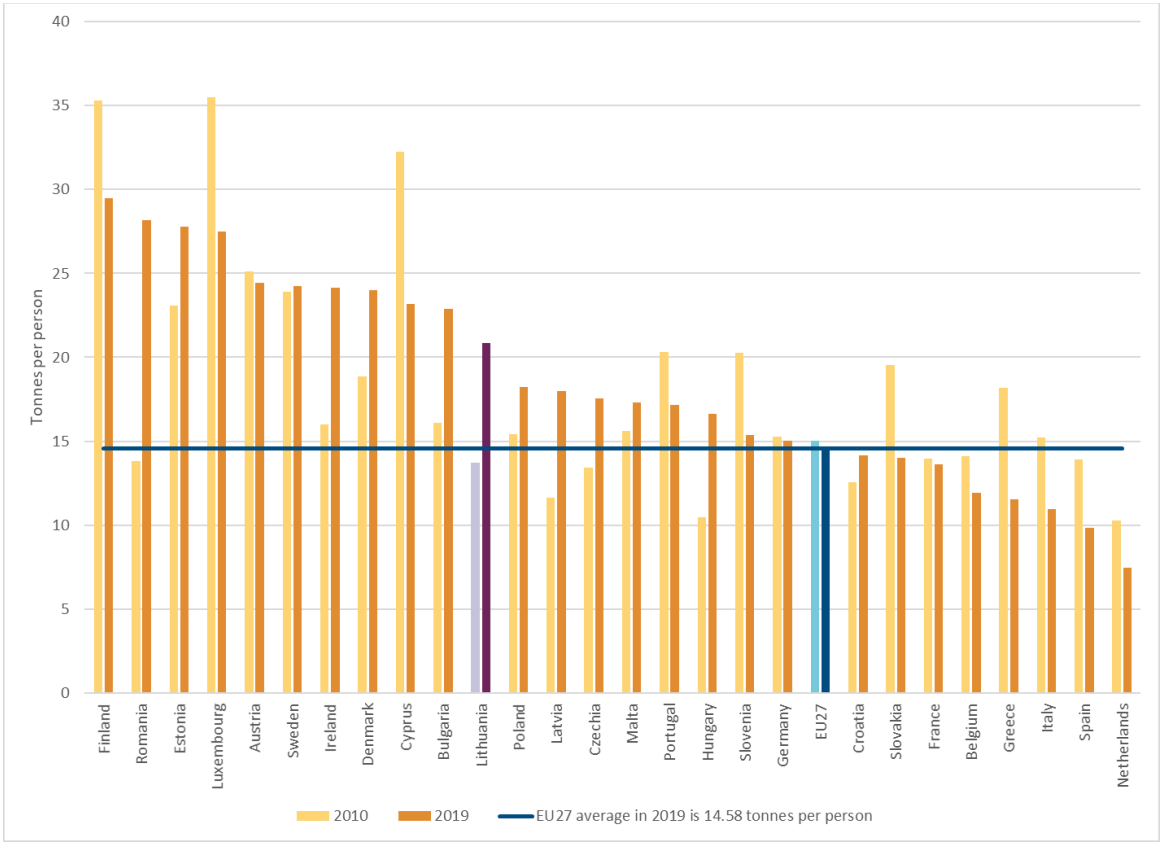
Note: all definitions and metadata used in this profile are taken, as shown, from Eurostat
Source: Eurostat datasets, EU27 2020 (accessed 20 June 2022)

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



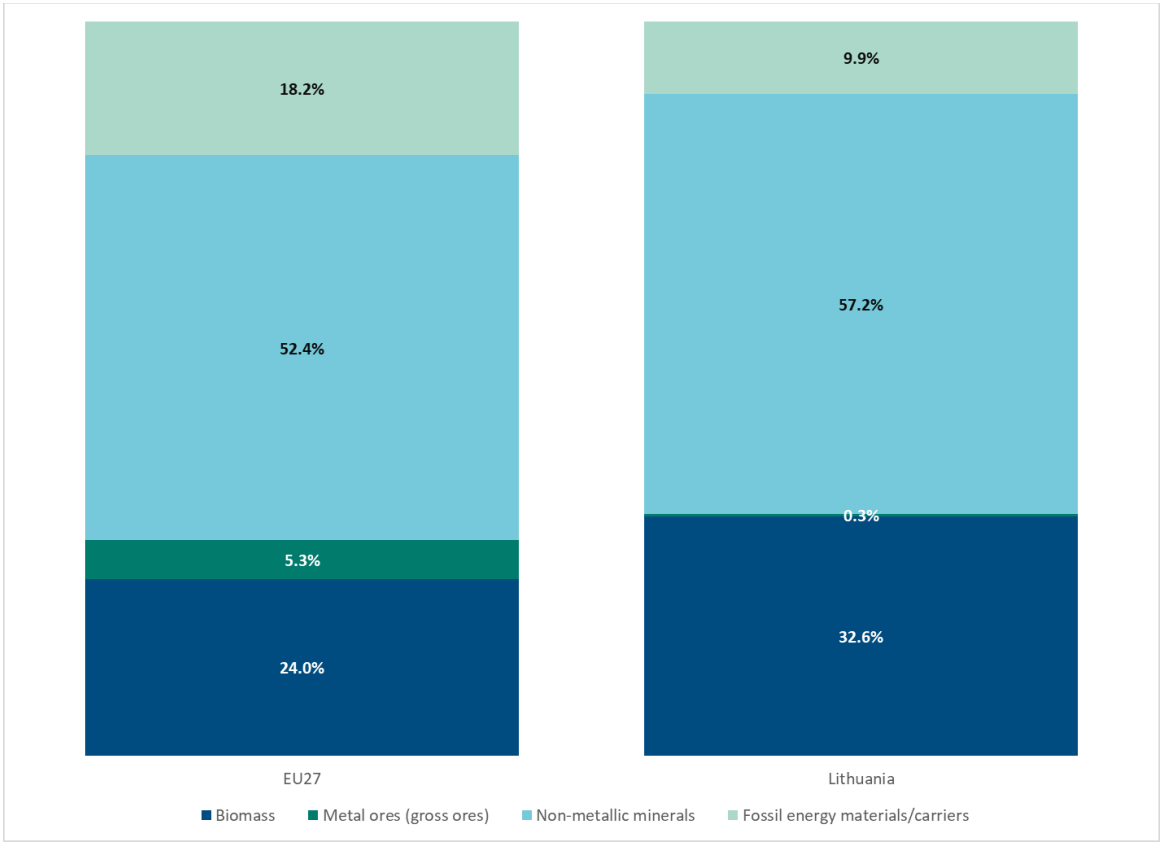
Source: Eurostat (2022) [env_ac_mfa], [en_ac_sd], [env_wassd] (accessed 20 June 2022)

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



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

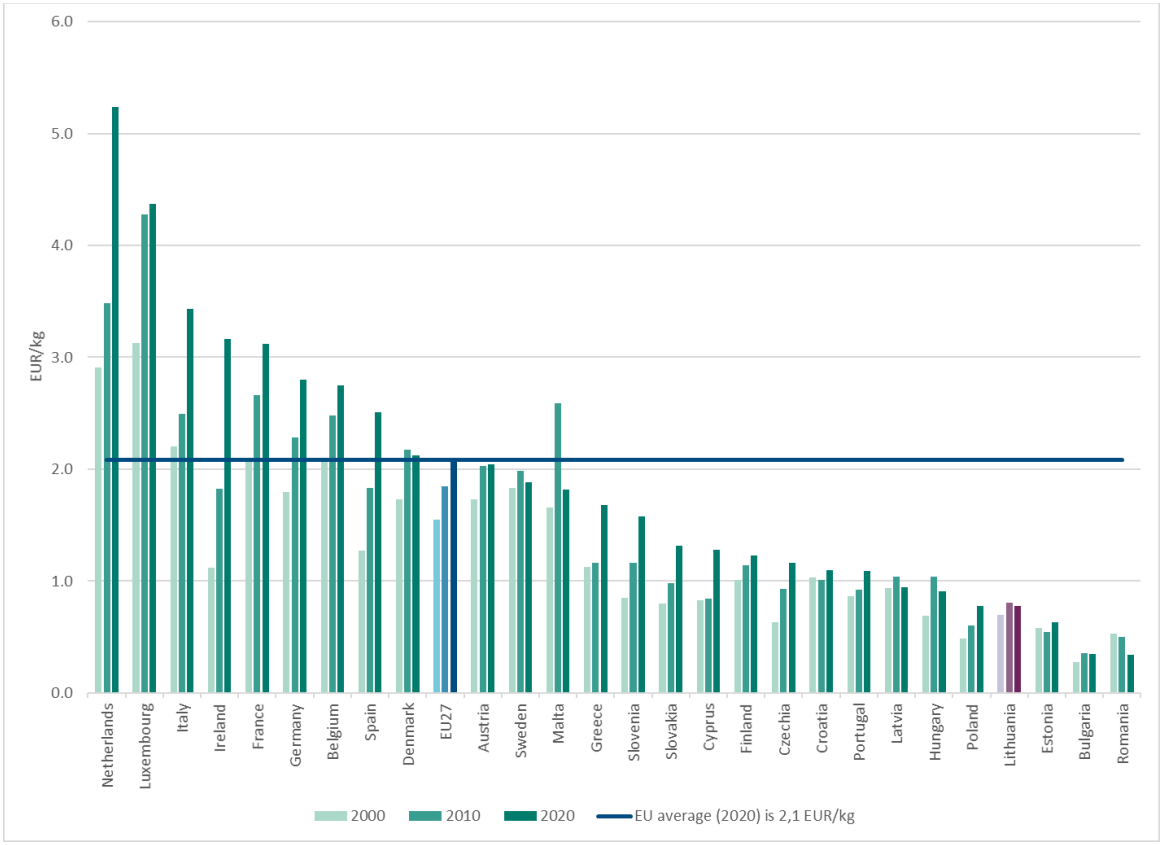
Figure 3 Domestic material consumption by selected material category, EU27 and Lithuania, 2020, per cent



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

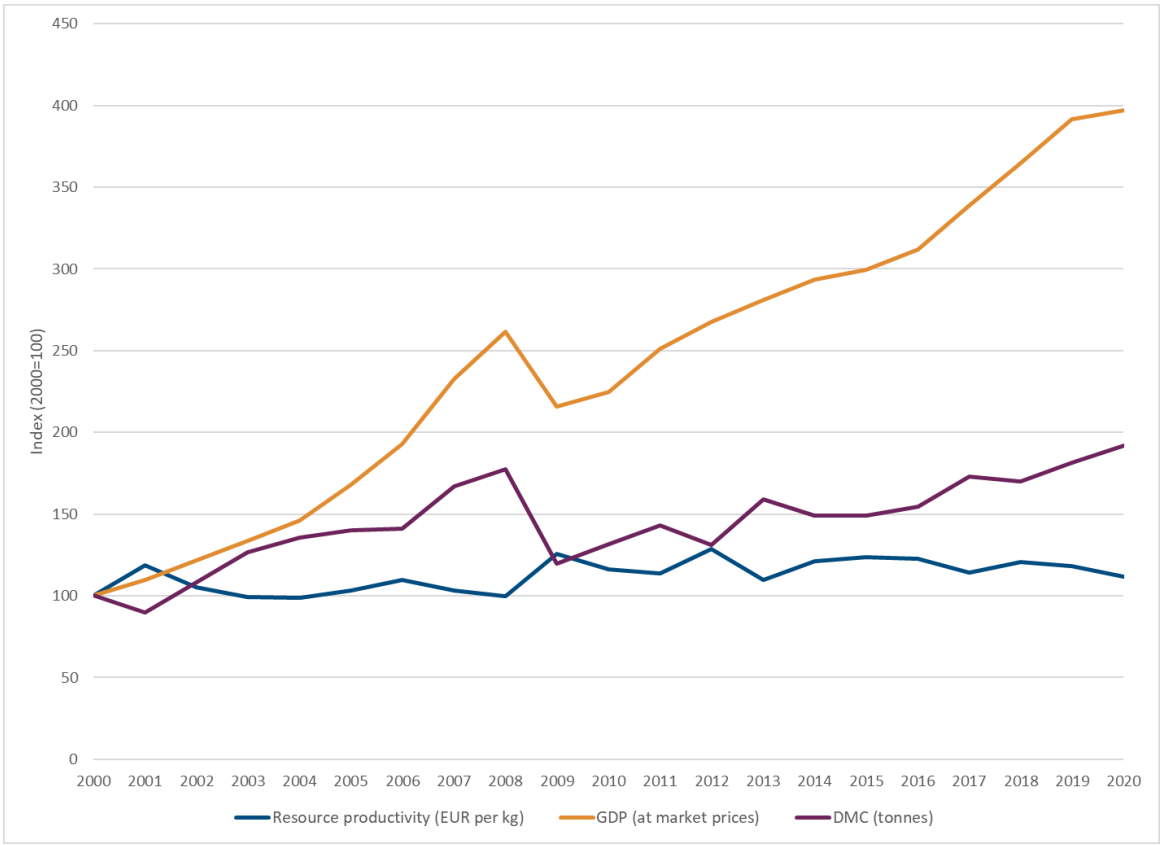
Source: Eurostat (2022) [env_ac_mfa] (accessed 20 June 2022)

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



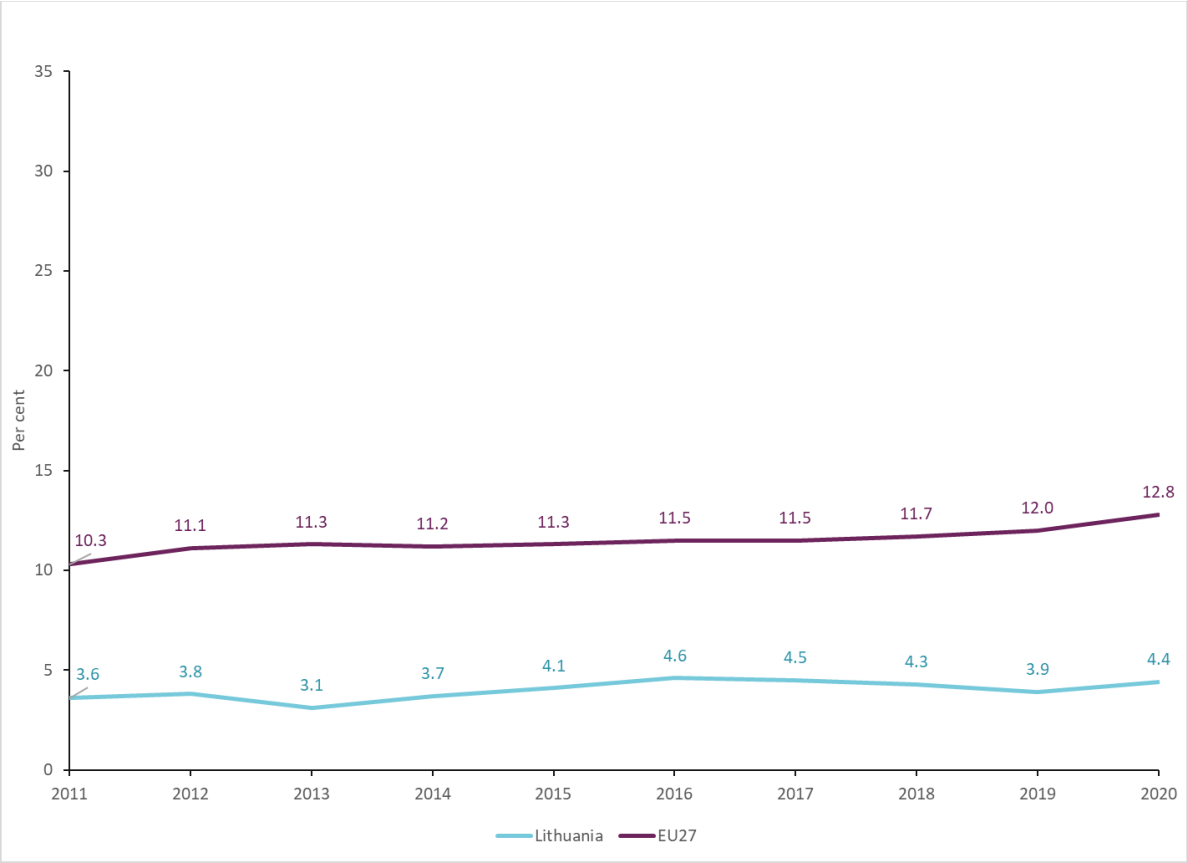
Source: Eurostat (2022) [env_ac_rp] (accessed 20 June 2022)

Figure 5 Gross domestic product, domestic material consumption and resource productivity trends, Lithuania, 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 Lithuania, 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 transition to CE and achieving ambitious climate neutrality and sustainable development goals, ensuring economic development and safe environment are being increasingly recognized as important topics in Lithuania.
A working group has been convened to prepare the National Action Plan for the Circular Economy for 2023–2035 and the draft plan will be ready in October 2022. It will cover the circularity of industry, the bioeconomy, transport, construction, consumption, and new business models.

The transition to CE requires a new approach to the use of raw materials and the consumption of products – eco-design should be used more widely to produce high quality, easily repairable, recyclable products. There is, however, still a lot of work to do: Lithuania's circular material use (CMU) rate is quite low at about 4,4 %, whereas the EU average is almost 13 %.

Lithuania's main goals and ambitions for the waste sector are to expand separate collection of biowaste, textile waste and waste furniture; financial support for innovation and recycling, preparation for recycling and recycling taxologies; and enhancing the use of secondary raw materials to reach EU's average rate.

A roadmap for Lithuania's industrial transition to a circular economy has already been completed and will form the backbone of the National Action Plan for the Circular Economy.

Circular economy policy elements included in other policies

Solutions for the transition to a CE were set up in the National Waste Prevention and Management Plan (NWPMP) ([1]) for 2021–2027 which will be integrated into National Action Plan for the Circular Economy. The NWPMP was approved on 1 July 2022 by the Government Resolution No 573.

Circular economy policy element	Included in policy
The NWPMP contains a list of measures for a circular economy.	NWPMP Annex 2, Measure 1.4 (No English version)
Conditions for the sustainable transformation of small and medium-sized industrial enterprises (SMEs): to promote the development, demonstration and implementation of innovative and environmentally friendly technologies.	NWPMP Annex 2, Measure 1.4.1, 2022–2027
Life cycle modelling methodology for buildings.	NWPMP Annex 2, Measure 1.4.2, 2023–2024
Financial support from the national budget for technological solutions of companies that ensure the more economical use of resources, less primary material us but more secondary raw materials in production.	NWPMP Annex 2, Measure 1.4.3, 2023–2027
Advertising campaigns to promote reusable products and reuse.	NWPMP Annex 2, Measure 1.1.3, 2023–2027
Analytical study for finding solutions for measures to encourage the use of reusable packaging, such as jars, and amend legislation if necessary.	NWPMP Annex 2, Measure 1.1.2, 2023–2024
Promotion and financing the trade in secondhand goods and the development of a small business providing repair services.	NWPMP Annex 2, Measure 1.1.1, 2023–2025

1 https://e-seimas.lrs.lt (in Lituanian)

Circular economy policy element	Included in policy
Provide funding instruments to promote support charity food sharing or food donation initiatives (National regulation).	NWPMP Annex 2, Measure 1.3.6, 2023
Financing of food-saving initiatives in canteens in schools, kindergartens and workplaces promoting buffet-based catering.	NWPMP Annex 2, Measure 1.3.3, 2023–2027
Publicity measures promoting the prevention and reduction of food waste, as well development of food consumption skills of the population.	NWPMP Annex 2, Measure 1.3.4, 2023–2027
Promoting and financing short food-supply chains.	NWPMP Annex 2, Measure 1.3.5, 2022–2027
Requirements for large supermarket-chains, catering establishments and food production companies to donate food suitable for people in accordance with best practice in other countries.	NWPMP Annex 2, Measure 1.3.6, 2023
Approve end-of-life criteria for electronics, furniture and textiles and strengthen control.	NWPMP Annex 2, Measure 3.1.1, 2023–2027
Analytical study to find ways of returning unused residues of materials – construction materials, furniture, textiles and others – for sharing.	NWPMP Annex 2, Measure 3.1.4, 2023–2024
Extension of share points for exchanging and sharing used secondhand household goods – clothes, furniture, diches, electronic, books, toys, etc. Seventy-five already exist, another 35 are planned for the near future, owned by municipalities (regional waste management centres). The share points carry out social projects by training young people from poor families. State finance is planned for repair services of these used items.	NWPMP Annex 2, Measure 3.1.3, 2023–2025
Setting up EPR schemes and tasks for textiles and furniture. Responsibilities and tasks for other products – construction materials, toys, hazardous household chemicals and hygiene products under consideration.	NWPMP Annex 2, Measure 4.1.5, 2024–2026
Promoting waste recycling (preparing for recycling and recycling taxologies) and enhancing the use of secondary raw materials. Cooperation between science and business.	NWPMP Annex 2, Measure 4.1.1

Monitoring and targets

Assessment of circular economy performance

No information available.

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

As well as the targets determined by EU Waste Directives, Lithuania has set targets for recycling of combined packaging, 25 %; polyethylene terephthalate (PET) packaging, 50 %; and other packaging, 45 %; and, since 2016, tyres, 80 %; oil or petrol and air filters for internal combustion engines, 80 %; and hydraulic shock absorbers for motor vehicles, 80 %.
Additional targets are:

- glass packaging – 65 % by 2016, 66 % by 2018, and 70% by 2020;
- metal packaging – 54 % from 2016 to 2020
- wood packaging – 45 % reused and 35 % recycled; from 2016 to 2020
- other packaging – 45% reused and 22 % recycled. from 2016 to 2020

Recycling tasks for packages under deposit schemes			
2016	Glass packaging plastics, including PET, and metal	Collecting and recycling	55 %
2017			70 %
2018			80 %
2019			85 %
2020			90 %

Sustainable development measures, of which resource efficiency is an important element
These cover, for example, groundwater consumption, waste recycling and final energy consumption in branches of the economy per unit of GDP.

Targets for the reuse and recycling of municipal waste were set at 50 % in 2020, 55 % by 2025, and 57 % for 2027 and 60 % for 2030.

The Circular Economy, the implementation of sustainable development goals and other measures to increase resource efficiency
The National Progress Plan for Lithuania set a target the reaching EU average of circularity rates by 2025. Lithuania's circularity rate was about 4.4 % in 2020 whereas EU's average was almost 12.8 %.

Another ambitious goal is to reduce landfilling. By 2030, no more than 5 % of waste will be disposed of in landfills.

In 2021, new targets were approved by government resolution ([23]).

Circular economy targets

Implementing the strategic goal of the National Progress Plan for 2021–2030 to increase the use of recovered raw materials (circularity index) from 4.4 % in 2020 to the EU average of 12.8 % by 2025. The objectives of the National Waste Prevention and Management Plans are to promote the preparation of waste for recycling, an increase of its processing and the use of secondary raw materials to produce other products. Financing for this modernisation and development is planned. Priority is given to the recycling

2 https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/5308ab16e46c11eb866fe2e083228059 (In Lithuanian)
3 https://ec.europa.eu/info/sites/default/files/lt_sp2022_29042022_lt.pdf (In Lithuanian)

of food, other kitchen and green waste, textiles and plastics, as well as composite packaging, plant protection packaging and other waste. In addition, the administrative burden of recycling activities that do not have a significant impact on the environment and on achieving the objectives of the circular economy will be reduced by waiving permit requirements.
To ensure the proper recycling of waste, it is planned to **strengthen extended producer responsibility** in the fields of oil, end-of-life vehicles, waste electrical and electronic equipment (WEEE), and waste tyres.

The main future goals and ambitions in the waste sector are to expand separate collection of biowaste in 2024, textiles in 2025 and furniture in 2026); provide financial support for innovation and recycling; set producer responsibility and recycling targets for textiles, furniture and finally reach the EU's average circularity rate by 2025.

To promote the substitution of natural raw materials with secondary raw materials, the NWPMP provides funding for technology that increases the use of secondary raw materials in products and expands the range of green procurement criteria to include durability, repairability, reusability, recyclability and use of secondary raw materials in specific products.

It is noteworthy that in 2022 50 % of all public procurement in Lithuania is GPP. From 2023 all public procurement will have been carried out in accordance with GPP requirements.

The NWPMP addresses the issue of the use of non-reusable and recyclable waste for energy purposes, with the aim of minimising amount of such waste by recycling and using it as a secondary raw material.

To ensure proper waste prevention and management, the NWPMP aims to strengthen the control system for it, to increase the competence of officials of the control authorities, and to continuously improve waste accounting systems and digital accounting of the implementation of recycling and CE targets.

Innovative approaches and good practice

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

➔ *Good practice example: change in consumption patterns and consumer behaviour*

Lithuania has success stories such as the online swapping of clothes and other used goods on Vinted, the wardrobe exchange platform ([4]).

In Lithuania, 75 sharing points for used items ([5]) have been set up: *Mainukai, Dėkui, TikoTiks, Dalinkimės and Daiktų kiemas* offering different sorts of repair services.

One successful story is *Textale* – a Lithuanian circular fashion platform for buying, selling, donating, repairing, renewing and remodelling used clothes ([6]).

➔ *Good practice example: waste reduction and increased recycling*

The deposit refund system for single use beverage packaging in Lithuania is a successful example that ensures a high return rate of pure, high level secondary raw materials.

The prohibition of the disposal of certain waste and untreated waste in landfills will reduce the landfilled waste to 5 % of all waste by 2030.

Other measures are new regulations for reuse, recycling or recovery, application of product and waste management standards and restrictions on placing products containing certain hazardous substances on the market.

➔ *Good practice example: economic measures*

Economic measures include charges and payments for municipal waste management; different taxes on recyclable, non-recyclable packaging and chargeable goods, and subsidies and grants for waste management.

➔ *Good practice example: education*

The large-scale Sustainable House project, supported by the EU, is a house on wheels that went from the capital's Town Hall Square on a tour of all Lithuania´s 60 municipalities. The whole interior is made of old reused items. One of the main goals of the project is to spread information about the principles of the circular economy, the environment, responsible consumption, the benefits of waste recycling and encourage people to change their habits and perceptions.

Examples of private policy initiatives (sectoral)

➔ *Good practice example: new circular business models*

There are several businesses that use sharing as a main concept in their business model. There is a car sharing platform mobile app. that make it possible to reserve and rent/borrow a car. One shared car can replace up to 12 private cars that are not used most of the time stand still and just fill neighborhoods and streets ([7]). There are sharing platforms that provide electric cars ([8]).

4 https://www.vinted.lt/
5 https://www.stoteledekui.lt/
6 https://textale.lt/ (in Lithuanian)
7 https://citybee.lt/en/
8 https://spark.lt/en/

There are companies that use reused materials. One company, for example, produces inorganic thermal insulating material from milled glass mixed with blowing agents which is then melted down in extremely high temperature and transformed into granules of various diameters ([9]).

➔ *Good practice example: renewable energy from bio waste*

Renewable energy companies, developing biogas and large scale and business-to-business (B2B) solar projects. Biogas is produced form biowaste – food waste, animal by-products and manure. Biogas is used for electricity and heating, with the residues from its production used as compost for soil improvement on farms.

There are 11 biogas power plants in Lithuania with a total electricity generation capacity of more than 10.8 megawatts. In addition, biogas power plants have been installed by several meat producers, water treatment companies, farmers, also at some landfills.

Containers for textiles and biowaste are provided by the state waste prevention and management programme. The municipalities buy the containers and supply them to households to enable them to sort these wastes.

In the near future, the NWPMP will support waste recycling facilities which require the following volumes:

- 20 000 tonnes of textiles
- 300 000 tonnes and furniture and wood to produce secondary raw material for furniture;
- 120 000 tonnes for construction waste;
- 120 000 tonnes for modernization of current facilities providing it with washing and optical separation equipment.

There is a need for changes to the law to allow the recycling and reuse of electronics, ICT and end-of-life vehicles. Additionally, a study is being carried out into the use of construction waste as a raw material.

9 https://stikloporas.com/

The way forward

Addressing barriers and challenges

No information provided.

Ranking types of barrier

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

The biggest barrier is that the internal market is too small for the development of sustainable products in the CE, there is too little domestic purchasing power and too little competitiveness in foreign markets.

There is also a high dependence on imports and competition from EU Member States and third countries on Lithuania's borders.

Insufficient ecological awareness among consumers and high levels of consumerism make the reorientation to longevity, repairing products and secondhand items difficult. These barriers are exacerbated by insufficient sorting skills.

Difficulties in the reuse of items are caused by the import of secondhand/waste items from other Member States, including more than 70 000 tonnes of secondhand textiles per year. This is also the case for electronics, end-of-life vehicles and furniture. Most of this is disposed, incinerated or exported to third countries. This is clearly at odds with the goals of implementing a CE.

Equipment for recycling waste needs support and improvement. Due to the significant lack of modern waste recycling capacity, the production of secondary raw materials is poorly developed, and, as a result, not enough is used. That is why Lithuania's circularity rate, currently only 4.4 %, is far behind the EU average.

Because of the lack of national recycling capacity, separately collected waste would ideally be exported to other countries, preferably EU Member States, for treatment. which would, at least, retain the secondary raw materials within the EU.

The rest, mostly unsorted waste, is used for energy generation, the lowest step in the CE hierarchy, which discourages the search for more modern ways of recycling waste.

Future policy plans

No information provided.

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.

European Environment Agency
European Topic Centre
Circular economy and resource use