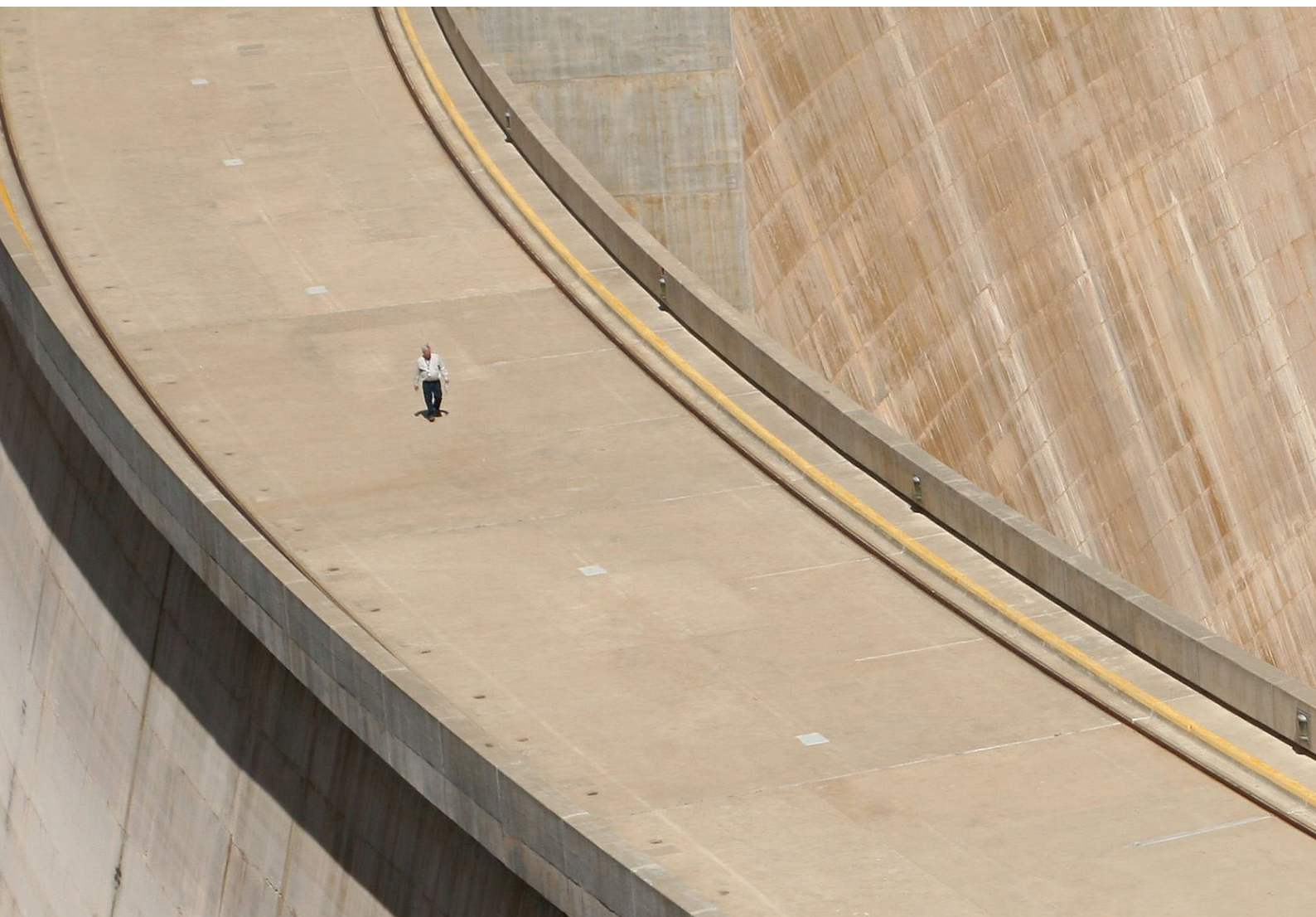


# More from less — material resource efficiency in Europe

2015 overview of policies, instruments and targets in 32 countries



**Estonia** 

May 2016

This country profile is based on information collected by Mihkel Krusberg, the Estonian Ministry of the Environment. This document should not be seen as an official list of government priorities and is not necessarily an exhaustive list of all national material resource efficiency policies, objectives, targets or activities in place. The information is current as of June 2015.

This country profile was prepared as part of the 2015 EEA review of material resource efficiency policies, that aimed to collect, analyse and disseminate information about the development and implementation of material resource efficiency policies in EEA member and cooperating countries. The work resulted in the following outcomes.



**32 short country profiles** (this document) – self assessments prepared by countries, describing the current status of material resource efficiency policies including key strategies and action plans, policy objectives, instruments, targets and indicators, and the institutional setup. Countries were also invited to share reflections on the future direction of resource efficiency policies.

**EEA report *More From Less – material resource efficiency in Europe*** – prepared by the EEA and ETC/WMGE, the report analyses trends, similarities and differences in policy responses, showcases selected policy initiatives from the countries, and offers some considerations for the development of future policies.

The EEA report *More from less – material resource efficiency in Europe* and the 32 country profiles are available at: <http://www.eea.europa.eu/resource-efficiency>


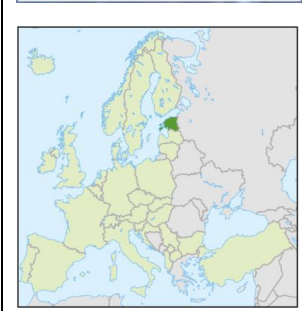
For information about trends and policies on municipal waste management in the participating countries, please visit: <http://www.eea.europa.eu/publications/managing-municipal-solid-waste>

Information about EU Member States' waste prevention programmes can be found at: <http://www.eea.europa.eu/publications/waste-prevention-in-europe-2015>

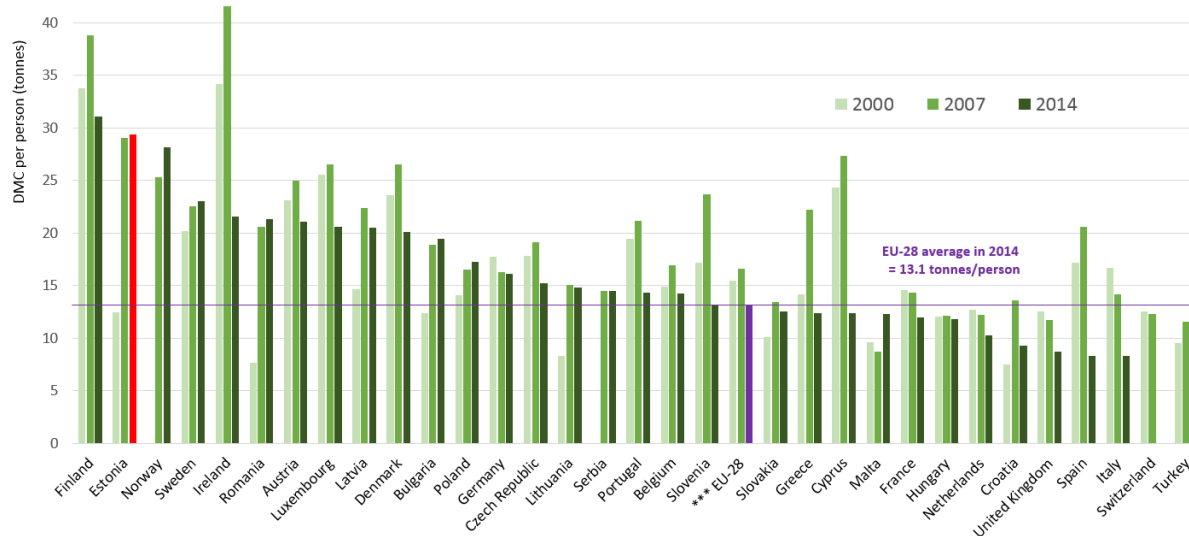
For information on climate- and energy-related policies, including those on energy efficiency, in the participating countries, please visit: <http://www.eea.europa.eu/themes/climate/ghg-country-profiles>

## Estonia, facts and figures

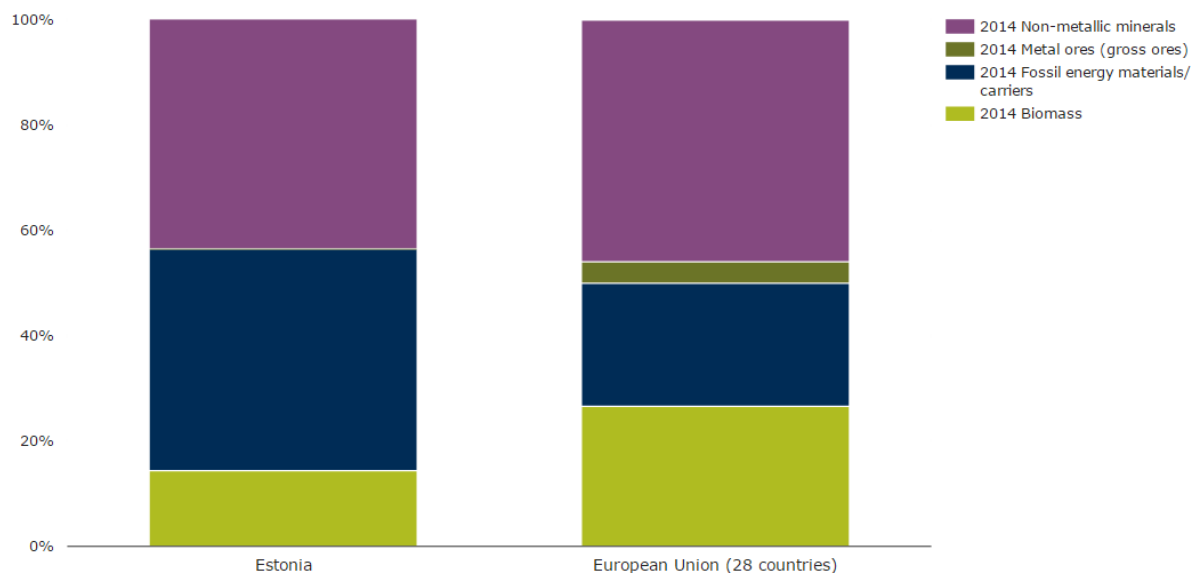
Source: Eurostat

	<p><b>GDP:</b> EUR 20 billion (0.1 % of EU-28 total in 2014)</p>
	<p><b>Per person GDP:</b> EUR 20,900 (in purchasing power standard) (76 % of EU-28 average per person in 2014)</p> <p><b>Use of materials:</b> 39 million tonnes DMC (0.6 % of EU-28 total in 2014) 29.3 tonnes DMC/person (224 % of EU-28 average in 2014) Resource productivity 0.45 EUR/kg (23 % of EU-28 average in 2014)</p> <p><b>Structure of the economy:</b> agriculture: 3.6 % industry: 29.2 % services: 67.2 % (2014 est.)</p>
	<p><b>Surface area:</b> 45,200 square kilometres (1.0 % of EU-28 total)</p> <p><b>Population:</b> 1.3 million (0.3 % of EU-28 total)</p>

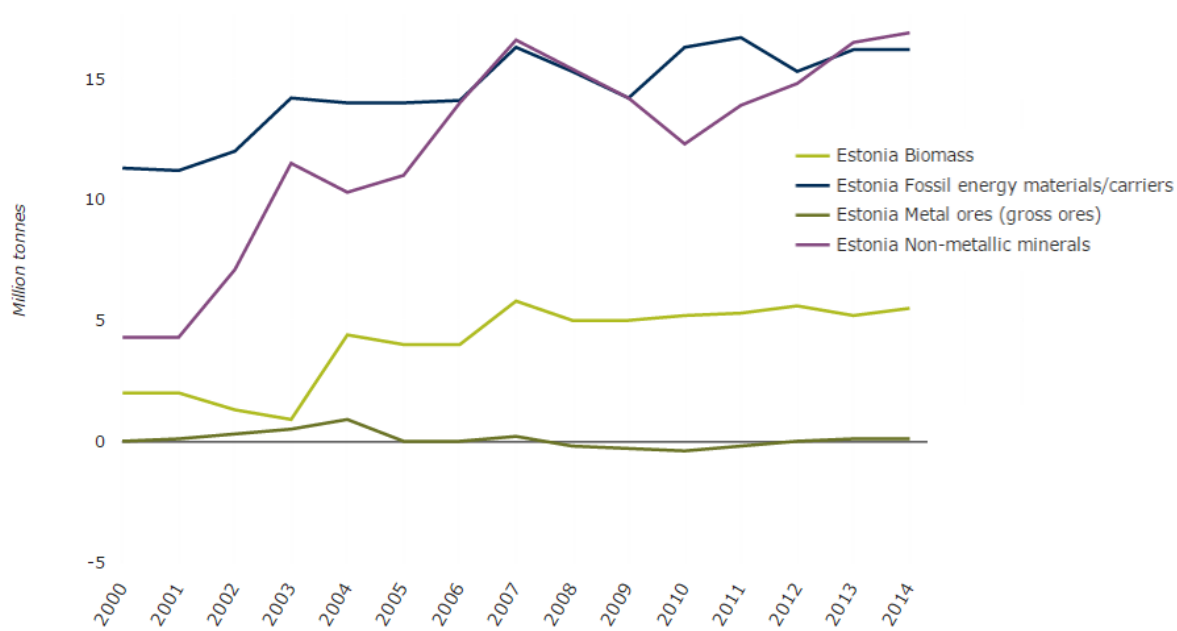
Use of materials (DMC) per person, participating countries and EU-28  
(2000, 2007 and 2014)



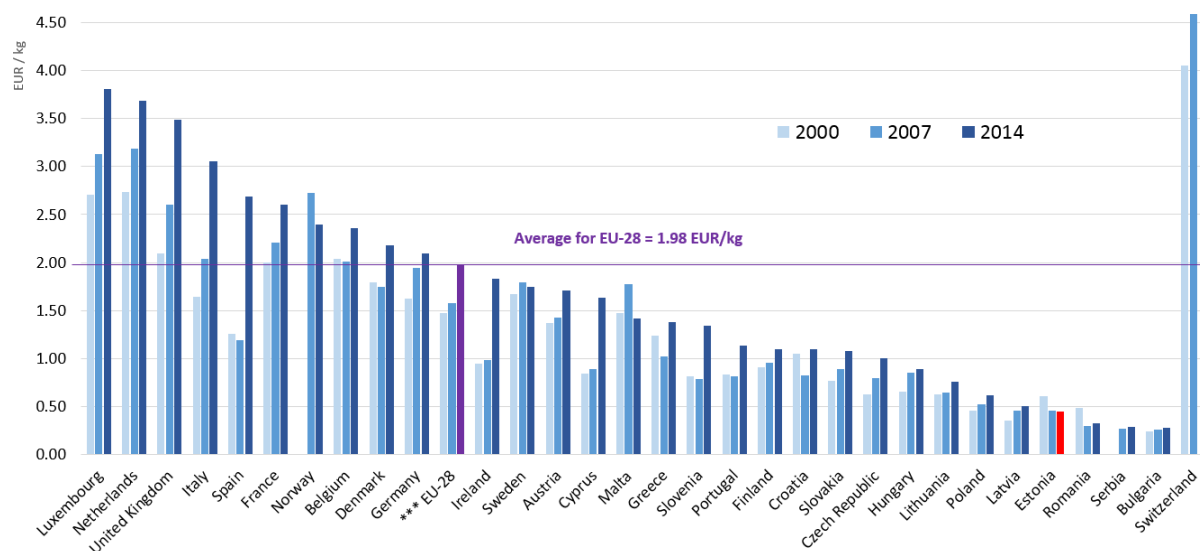
### Domestic material consumption by category, EU-28 average and Estonia (2014)



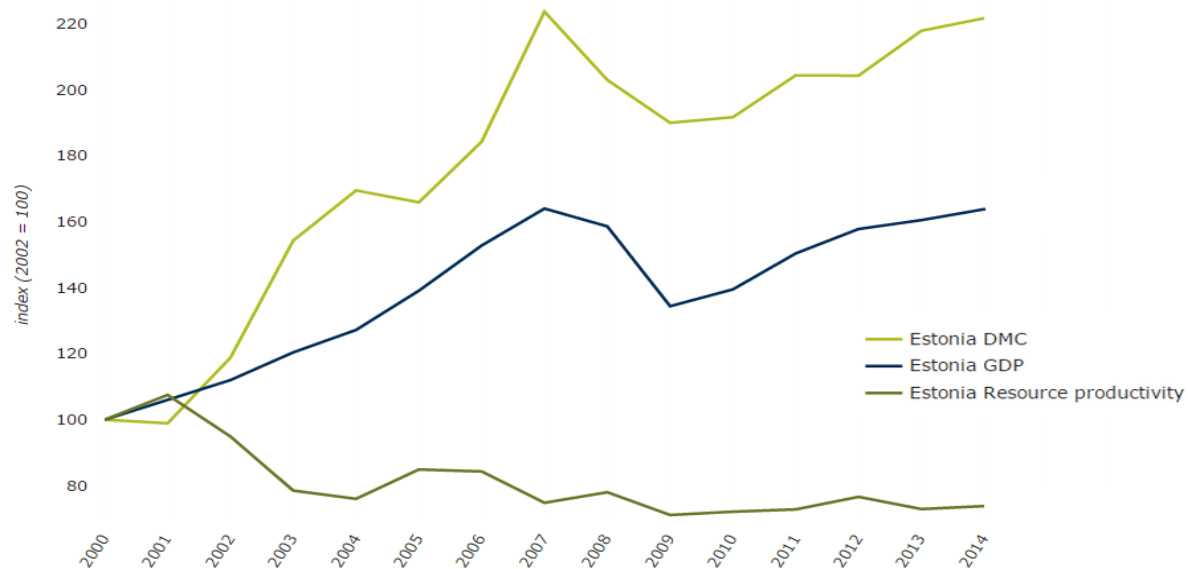
### Trends in material consumption, Estonia by category (2000–2014)



### Resource productivity (GDP/DMC), participating countries and EU-28 (2000, 2007 and 2014)

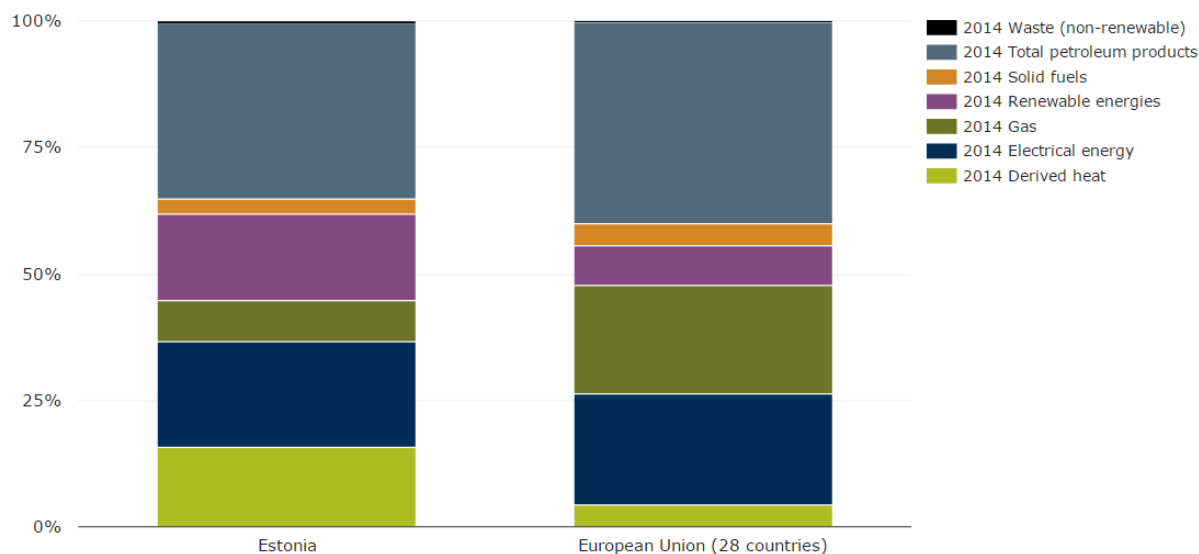


### GDP, DMC and resource productivity trends, Estonia (2000–2014)

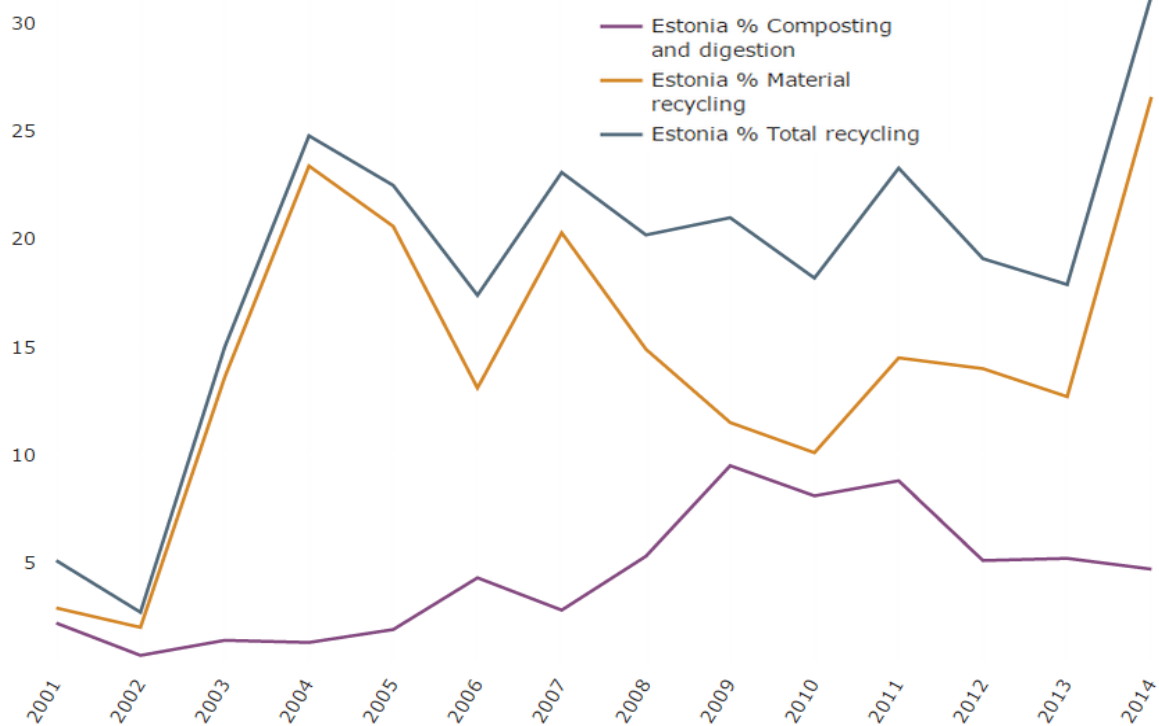




### Share of final energy consumption by fuel type, EU-28 and Estonia (2014)



### Recycling of municipal waste, Estonia (2001–2014)



NOTE: from 2014 packaging waste recycling included

## Introduction

Estonia has neither a dedicated national resource efficiency strategy nor action plan. The topic is covered in a number of other policies and strategies.

## Scope of material resource efficiency

Resource efficiency has broad meaning in “*Estonia 2020*”: achieving sustainable economic growth which means continuous development of a more resource efficient, nature conserving and competitive economy. However, the scope has not yet been defined.

## Driving forces of material resource efficiency

The main drivers for resource efficiency policies are competitiveness and economic interests as described in “*Estonia 2020*” strategy – resource productivity in Estonia has been much lower than in other European Union (EU) countries.

On the other hand, the security of energy supply is a major factor as described in the National Development Plan for the Use of Oil Shale 2016-2030 – the state’s primary interest is the uninterrupted supply of electricity and heating to Estonia’s consumers.

## Priority material resources, sectors, and consumption categories

### Priority materials

Estonia has chosen oil shale, timber and construction minerals as priorities as they are the country’s main raw materials and bring social and economic benefits. On the other hand, Estonia has to ensure their use as environmentally friendly as possible, which is included in National Development Plans respectively. Estonia does not have list of critical materials.

For example, the use of oil shale as it is a strategic energy resource, contributes to the national workforce (about 1%) and generates significant amounts of waste. But thanks to the use of oil shale and the increasing use of renewable fuels, Estonia can largely meet its energy requirements, making it one of the EU countries least dependent on energy imports.

## Priority industries and economic sectors

The oil shale and mining industries use most of raw material in Estonia – about 80–90 % of domestic material consumption. These sectors are covered by the National Development Plan for the Use of Oil Shale 2016–2030 and the National Development Plan for the Use of Construction Minerals 2011–2020 respectively, which include resource efficiency principles.

According to Estonian Entrepreneurship Growth Strategy and Estonian Research and Development and Innovation Strategy, one of the priority growth areas in Estonia is the more efficient use of resources. Specific specialisation niches within this area are, for example, material science and industry, 'smart house', health-promoting food and chemical industry.

## Priority consumption categories

To increase energy efficiency of buildings, the first phase of investment in energy-efficient renovation, which has proved very popular in the private housing sector, has been completed. There are measures to support increasing energy efficiency of public sector buildings (e.g. schools), apartment buildings and private homes.

# Policy framework

## National strategies or action plans for material resource efficiency

**National Strategy on Sustainable Development** : *Sustainable Estonia 21*, which came into force 2005, has four development goals: viability of the Estonian cultural space, growth of welfare, the development of a coherent society and ecological balance. One of the components of the ecological balance goal is “*the use of natural resources in ways and quantities that ensure ecological balance*” which reflects the idea of resource efficiency. It broadly covers the country’s national resources.  
[http://www.envir.ee/sites/default/files/elfinder/article\\_files/se21\\_eng\\_web.pdf](http://www.envir.ee/sites/default/files/elfinder/article_files/se21_eng_web.pdf)

**The Estonian Environmental Strategy 2030** (2007) is a strategy for developing the sphere of the environment which builds upon the principles of “*Sustainable Estonia 21*” and serves as the basis for the preparation and revision of all sector-specific development plans within the sphere of the environment. One of the main objectives is “*sustainable use of natural resources and reduction of waste generation*”. It broadly covers the country’s national resources.  
[http://www.envir.ee/sites/default/files/keskkonnastrateegia\\_inglisek.pdf](http://www.envir.ee/sites/default/files/keskkonnastrateegia_inglisek.pdf)



A more narrow definition of “resource efficiency” is part of the **National Reform Programme Estonia 2020** (2011), which is Estonia’s strategy for achieving the EU’s Europe 2020 objectives. One priority of government policy is “*reducing the general resource and energy intensity of the economy*”. Estonia 2020 describes objectives for 2015 and 2020 established to improve competitiveness. In addition, the Programme also includes the main activities required to improve competitiveness. The two central objectives of the Programme are increasing productivity and employment in Estonia. Measures are described in the Action Plan 2015-2020.

<https://riigikantselei.ee/en/national-reform-programme-estonia-2020>

Other relevant policy documents include:

National Development Plan for the Use of Construction Minerals 2011–2020 (2011)

[http://www.envir.ee/sites/default/files/ehitusmaavarade\\_kasutamise\\_riiklik\\_arengukava\\_2011-2020.pdf](http://www.envir.ee/sites/default/files/ehitusmaavarade_kasutamise_riiklik_arengukava_2011-2020.pdf) in Estonian

Forestry Development Plan to 2020 (2011) <http://www.envir.ee/et/metsanduse-arengukava-2011-2020> in Estonian

National Waste Management Plan 2014–2020 (2014)

[http://www.envir.ee/sites/default/files/riigi\\_jaatmekava\\_2014-2020.pdf](http://www.envir.ee/sites/default/files/riigi_jaatmekava_2014-2020.pdf) in Estonian

Knowledge-Based Estonia 2014–2020 (2014)

[https://www.hm.ee/sites/default/files/estonian\\_rdi\\_strategy\\_2014-2020.pdf](https://www.hm.ee/sites/default/files/estonian_rdi_strategy_2014-2020.pdf)

One objective is for research and development to make the structure of the economy more knowledge-intensive, and the more effective use of resources is one of the three growth areas to achieve that objective.

Estonian Entrepreneurship Growth Strategy 2014–2020 (2013)

[http://kasvustrateegia.mkm.ee/index\\_eng.html](http://kasvustrateegia.mkm.ee/index_eng.html)

National Development Plan for Energy Sector until 2020 (2009)

[https://www.mkm.ee/sites/default/files/elfinder/article\\_files/energiamaajanduse\\_arengukava\\_2020.pdf](https://www.mkm.ee/sites/default/files/elfinder/article_files/energiamaajanduse_arengukava_2020.pdf) in Estonian.

Coalition Policy Agreement of the Estonian government (2015)

<https://valitsus.ee/sites/default/files/content-editors/failid/coalition-policy-agreement-may2015.pdf>

Government’s Action Programme for 2015–2019 (2015)

[https://valitsus.ee/sites/default/files/content-editors/arengukavad/uuendatud\\_vabariigi\\_valitsuse\\_tegevusprogramm\\_2015-2019\\_uuendatud\\_16.05.2016.xlsx](https://valitsus.ee/sites/default/files/content-editors/arengukavad/uuendatud_vabariigi_valitsuse_tegevusprogramm_2015-2019_uuendatud_16.05.2016.xlsx) in Estonian.

Estonian Rural Development Plan (ERDP) for 2014–2020 (2015) <http://agri.ee/en/objectives-activities/estonian-rural-development-plan-erd-2014-2020>

National Development Plan for Energy Sector until 2030 is under development (scheduled in 2016) [https://www.mkm.ee/sites/default/files/elfinder/article\\_files/energiamaajanduse\\_arengukava\\_2030.pdf](https://www.mkm.ee/sites/default/files/elfinder/article_files/energiamaajanduse_arengukava_2030.pdf) proposal in Estonian.

National Development Plan for the Use of Oil Shale 2016–2030 is under development (scheduled in 2016) <http://www.envir.ee/et/polevkivi-kasutamise-riikliku-arengukava-2016-2030-koostamine> process described in Estonian.

Water Management Plans for 3 watersheds (East-Estonian, West-Estonian and Koiva watersheds) and sub-basins 2015–2021 (2015). <http://www.envir.ee/en/water-management-plans>

### The circular economy and closing material loops

The overall policy approach – the development task of Estonia for the coming decades is difficult and in a way paradoxical – is to catch up with the EU quality of life, while preserving the Estonian cultural space, significantly increasing the coherence of its society and ensuring an ecological balance. This is possible, but not through the continuation of the current development model but through a paradigm shift – a conclusion from “*Sustainable Estonia 21*” which refers the change of the current linear business model.

Policy action is driven by national priorities rather than by EU requirements.

Resource efficiency and waste policies are linked in National Waste Management Plan 2014–2020, which focuses more on waste prevention. It also focuses on modern product design, clean resource-saving production and the recycling of already produced materials.

### General policy objectives for material resource efficiency

- **Increase the efficiency of extraction and use of construction minerals and the use of possible alternative building materials** (National Development Plan for the Use of Construction Minerals 2011–2020).
- **Ensure productivity and vitality and the diverse and efficient use of forests** (Forestry Development Plan to 2020).
- **Focus on modern product design, clean resource-saving production and the recycling of already produced materials** (National Waste Management Plan 2014–2020).
- **Ensure continuous power supply to the Estonian population, more sustainable power supply and energy consumption, and ensuring justifiably priced power supply to consumers** (National Development Plan for Energy Sector until 2020).
- **Ensure supply security, energy savings in all areas, diversification of energy sources, development of self-sufficient renewable energy regions and continued creation of energy connections with EU countries** (National Development Plan for Energy Sector Until 2030).
- **Ensure the use of oil shale as efficiently and in as environmentally friendly a way as possible** with the state’s primary interest being the uninterrupted supply of electricity and

heating to Estonia's consumers meaning that the best available technology must be applied in the mining and processing stages (National Development Plan for the Use of Oil Shale 2016-2030).

- **To achieve a good condition of surface water**, including coastal water and groundwater, and to maintain water bodies whose condition is good or very good (The Estonian Environmental Strategy 2030).
- **Environmentally sustainable extraction of mineral resources**, which is sustainable in terms of water, landscapes and air, and the efficient exploitation of mineral resources with minimum losses and waste (The Estonian Environmental Strategy 2030).
- **Balanced meeting of ecological, social, cultural and economic needs** in the course of utilisation of forests over a longer period than the 25 years discussed in the Strategy (The Estonian Environmental Strategy 2030).
- To ensure the **good condition of fish populations, diversity of fish species and avoid the indirect negative impact of fishing on the ecosystem** (The Estonian Environmental Strategy 2030).
- **Environmentally sustainable utilisation of soil** (The Estonian Environmental Strategy 2030).
- **Functionality and sustainable utilisation of natural and cultivated landscapes** (The Estonian Environmental Strategy 2030).
- To ensure the **diversity of the species of game** and the viability of their populations (The Estonian Environmental Strategy 2030).
- **Estonian companies produce products and services with high added value efficiently and in a resource-saving manner** (Estonian Entrepreneurship Growth Strategy 2014–2020).
- **Promoting resource efficiency and supporting the transition to a low carbon dioxide emission and climate resilient economy in agriculture, food and forestry sectors** (Estonian Rural Development Plan (ERDP) for 2014–2020).

## Institutional setup and stakeholder involvement

### Institutional set up for material resource efficiency policies

Sector-specific strategies and action plans are prepared in close cooperation with all relevant ministries and institutions. The two main ministries that are responsible for the development and implementation of resource policies in Estonia are the Ministry of the Environment and the Ministry of Economic Affairs and Communications. Energy is covered separately from resource efficiency.

## Process to ensure stakeholder participation

Respective stakeholders – non-governmental organisations (NGOs), organisations and others – are involved as Estonia has guidelines for the development of legislative policy. The main guidelines for the involvement of stakeholders are:

1. discussing the main solutions of the draft with those affected by the regulation is necessary for both identifying all impacts of the draft and adhering to the principles of democracy;
2. both the intent of developing the draft, the concept of the draft and the draft itself shall be submitted for discussion;
3. involvement is efficient only provided it is carried out by clearly formalised rules of procedure. The government has developed and laid down a procedure, which applies to all governmental authorities, for submitting draft acts for public discussion and the results of the discussion to the *Riigikogu* (Estonia's parliament).

When the policy is more promotional in nature, Estonia has handbook for stakeholder involvement, where guidelines for their participation are recommended – these guidelines apply to legislative policy as well! Guidelines for engagement in Estonia, good practice of involvement and areas of application, can be found at <https://riigikantselei.ee/en/supporting-government/engagement-practices> These include:

Public engagement is used in developing policy initiatives that are likely to have a considerable impact on interest groups or society as a whole. The main principle is that the larger the expected impact, the greater the opportunity to participate should be. The need for and the extent of public engagement is decided during an impact assessment and public engagement is encouraged when preparing a draft decision likely to have a significant impact or interest.

If a draft is accompanied by an impact analysis report, this is also submitted along with the draft for public consultation.

The **Good Practice of Involvement** is also use in forming government positions on EU issues.

Decision makers must be notified of the results of the consultation with interest groups. A government authority prepares a summary about the consultation results, which sets out interest groups who were invited to participate, presents the proposals and comments made, explains consideration of the proposals or comments and provides a justification if they were not adopted by the government authority preparing the decision.

### Suggestions for international support mechanisms to exchange experience

Estonia finds that most useful mechanism for exchanging experience and sharing lessons learnt is through online tools. However, occasional workshops with experts provide good results as well. Good practice from other countries could be very useful for policy making.

For Estonia, the main information gap is the risk of investment in resource efficiency solutions, because there are few examples of good practice and companies do not believe in its effectiveness. Another information gap is that most of the examples of good practice are in energy efficiency improvement and therefore, because discussion is usually on familiar topics, resource efficiency is sometimes left behind.

## Policy instruments

### Policy instruments commonly used for material resource efficiency

To determine the optimal mix of policy instruments, it is important to implement obligatory and voluntary instruments together.

The most important policy instruments to improve material resource efficiency are **economic/financial instruments** – charges and financial support schemes; and information-based instruments – education and technical support schemes. Also voluntary agreements have impact on resource efficiency.

**Environmental charges**– natural resource charges and the pollution charges – were established and imposed based on the need for environmental protection and the economic and social situation of the state. They also put the price of the sustainable use of the environment.

Natural resource charges include a mineral resources extraction charge, a water abstraction charge, a fishing charge, a forest stand cutting charge, and a hunting charge.

**Pollution charges** are imposed in the event of emission of pollutants into ambient air, groundwater or soil, and on waste disposal.

**Financial support schemes** <http://www.envir.ee/et/eesmargid-tegevused/keskkonnakorraldus/ressursitohusus> , in Estonian.

In the context of the Multiannual Financial Framework 2014–2020, Estonia decided to support EUR 111 million **investment for more resource-efficient solutions mainly in small- and medium-sized enterprises (SMEs) and mainly in manufacturing industry**. Financial support schemes are under in preparation and are scheduled in 2016.

Activities include **raising awareness of companies, training resource specialists/auditors**, supporting resource audits and investments in resource efficient solutions.

Voluntary agreements <http://www.envir.ee/et/vaba-tahte-lepingud> , in Estonian

**Voluntary agreements** (VA) related to environmental issues have been in use since 1999. As a rule, such an agreement is a contract between public administration and industry in which the firm agrees to achieve certain environmental and/or energy efficiency objectives. The main goal has been environmental protection together with making resource use more efficient. The agreements are bilateral – between one firm (or group of firms) and the Ministry of the Environment. To date voluntary agreements have not included any subsidies or other financial elements from the administration side.

Under a voluntary agreement, the company usually takes an obligation to reduce its polluting emissions by implementing environmental management systems, the best available technology, and sustainable consumption and production techniques. The ministry takes on an obligation to provide the company with information related to its activities and involve it in the process of developing relevant legislation.

**Packaging excise duty** <http://www.emta.ee/?id=3018>

Packaging excise duty, together with a packaging deposit, was implemented to increase the packaging and packaging waste collection and recovery. Excise duty must only be paid if the recovery of packaging waste does not meet the target indicators established by state.

## Examples of good practice

### Environmental charges

<https://www.riigiteataja.ee/en/eli/505022015011/consolide>

Revenue from environmental charges is invested in protection and restoration of natural resources, and greening the economy. Proceeds from the use of renewable natural resources are directed at restocking and protection of those resources.

The environmental charges are imposed by the state and the charges are divided into two types: charges for the right to use natural resources and pollution charges. The former are intended as payment for the use of natural resources and the latter as compensation for pollution – both types of charge concern us all both indirectly and directly.

The mineral resource extraction charge is paid for the extraction, use or rendering unusable of mineral resource reserves belonging to the state. The following minerals are subject to the mineral resources extraction charge: dolomite, phosphatic rock, crystalline building stone, gravel, sand, limestone, oil shale, clay and peat.



The water abstraction charge is paid for the right to abstract water from a water body or aquifer pursuant to the procedure for water abstraction, except for generation of hydro energy, for irrigation of agricultural land, including greenhouses and for fish farming purposes.

The fishing charge is paid for the right to fish and collect aquatic plants. The nature of the fishing charge is dependent on the type of fishing activity – recreational fishing, commercial fishing or special purpose fishing.

The forest stand cutting charge is paid for the right to engage in regeneration cutting in a forest that belongs to the state.

The hunting charge is paid for the right to hunt.

The pollution charge is imposed if pollutants are emitted into ambient air from a stationary source of pollution. These include sulphur dioxide, carbon monoxide and dioxide, volatile organic compounds, heavy metals and other pollutants.

The pollution charge is imposed if pollutants are emitted into water bodies, groundwater or soil. These include organic matter, sulphates, monophenols, oil, oil products, waste water with a pH value > 9.0 (alkaline) or < 6.0 (acidic) and other pollutants.

The pollution charge is imposed on waste disposal for the purposes of the Waste Act, except upon activities described in law – for example preparation for the discharge of waste into the environment.

The Environmental Charges Act stipulates the amount of the charges and the relevant Regulation of the Minister of the Environment provides guidelines for the use of the funds received from the charges. The amounts distributed as grants through the Environmental Investment Centre (EIC) bear the common title of the Environmental Programme, which consists of ten areas: fishery, water management, waste management, nature conservation, forestry, environmental management, marine environment, earth's crust, atmospheric air protection and environmental awareness. A part of the environmental charges received by EIC are allocated for granting *ad hoc* loans for the implementation of environmental projects.

#### **Green Investment Scheme** (<http://www.kik.ee/en/green-investment-scheme>)

In terms of the Ambient Air Protection Act, the Green Investment Scheme is a financing mechanism through which finances that come from the trading of country's carbon dioxide quotas under the Kyoto Protocol Article 17 are channelled to environmentally friendly projects and programmes. In July 2010, the Ministry of Environment and EIC signed an administration agreement, which gives EIC the rights to trade with the carbon dioxide units and implement the Green Investment Scheme in Estonia by allocating grants from the income.

The rules for the sale of Assigned Amount Units (AAUs) state that all the money from the trading must be channelled to environmentally friendly projects that lower the emission of carbon dioxide and other greenhouse gases. Which areas will be financed is decided by the quota buyers. The sale of carbon dioxide emission units or AAUs is possible thanks to the Kyoto Protocol that allows countries to sell their excess carbon dioxide units on an open interstate market of greenhouse gas emissions. Estonia has excess emissions of about 91.5 million tonnes of carbon dioxide equivalent, or 18.3 million tonnes of carbon dioxide equivalent per year. Estonia gained the excess units thanks to

the thorough rearrangement of its economy when modern technology and alternative ways of producing energy were introduced, more renewable energy sources were introduced, and saving measures were established in energy production.

Estonia has been very successful in arranging excess-emission quota sales and using the acquired finance through the Green Investment Scheme. Twenty-one deals have been concluded to sell 72.6 million AAUs for EUR 388 million. The deals have been concluded with the Austria, Spain, the Grand Luxembourg, and Japanese corporations.

Some examples:

- establishment of nation-wide quick-charging network for electric cars (168 quick chargers); provision of electric cars to social and other state workers, electric car purchase-support scheme for private individuals and organisations (about 500 grants).
- procurement of energy-efficient lighting equipment and environmentally friendly buses for Estonian theatres.
- increasing the proportion of renewable electricity (3 wind farms) and economical buses for county lines (120 buses).

**The packaging deposit system** <http://eestipandipakend.ee/en/>

The packaging deposit system is an Estonia success story. The system for glass, metal and plastic bottles was established 2005. Every customer, who buys a carbonized drink, beer, some other low-alcohol beverage, juice, juice concentrate or nectar, also pays a deposit, which is indicated separately on the label. There are over 1 000 collection points over the country. The packaging return rate in general is approx. 80 % for plastic and 86 % for glass in 2014.

It is important to add that the system not only focuses on environmental protection but also on helping children. Since 2011, many packaging-return machines offer the consumer a choice to donate the deposit. The charity fund uses the donation money to provide cultural experiences for underprivileged children – visiting the theatre, buying books for children in hospital, etc. Over the years the donation collected is more than EUR 200 000.

## Targets and indicators

### Targets for material resource efficiency

Increased productivity per employed person to 73 % and 80 % compared to the EU average by 2015 and 2020 respectively (Estonia 2020).

Estonia, together with other EU Member States, has set the goal of achieving more environmentally sound energy production and a more diversified energy portfolio. To that end, Estonia intend to bring the proportion of renewable energy in final consumption up to 25 % by 2020, and simultaneously achieving a 10 % share of renewable energy in the transport sector's final consumption volumes, not exceeding the 2010 level of final energy consumption, and maintaining

greenhouse gas emission to the atmosphere to + 11 % of 2005 levels (national commitments have been set for sectors that are not part of the trading system (buildings, transport, agriculture, waste, etc.), National Development Plan of the Energy Sector Until 2020).

By 2030 waste disposed to landfills will decrease by 30 % compared to 2005, and the harmfulness of waste generated will have been reduced significantly (The Estonian Environmental Strategy 2030).

There are several targets for waste for 2020. Municipal waste recycling levels have been set at 50 %, in line with EU legislation, and biodegradable waste recycling at 13 % of total municipal waste generation. Packaging waste recycling is expected to be 60 % of total packaging waste generated. Demolition and construction waste recovery rates are expected to be 75 %. The waste electrical and electronic waste (WEEE) collection rate for equipment put on a market in previous three years is set at 65 % of total share of WEEE waste generated (National Waste Management Plan 2014–2020).

The collection rate of 45 % for portable batteries and accumulators has to be achieved by 2016 (National Waste Management Plan 2014-2020).

The share of biodegradable waste landfilled municipal waste is not to exceed 20 % by 2020 (National Waste Management Plan 2014-2020).

By 2019, increase resource productivity (GDP/DMC) by 10 % (to EUR 0.46/kg) from the 2015 level, as per Coalition Agreement of the Estonian government 2015-2019.

These targets are mainly mandatory. Aspirational targets are: biodegradable waste recycling level, 13 % by 2020; demolition and construction waste recovery rate, mandatory only 70 %, not 75 %, by 2020; and waste disposed to landfills, 30% by 2030.

When setting targets, Estonia takes its own individual approach, but also awaits the outcome of EU-led discussions on targets.

#### Indicators to monitor use of materials and resource efficiency:

Estonia uses resource productivity as measure of resource efficiency. It is the ratio of the volume of gross domestic product (GDP) over domestic material consumption (DMC) and is regularly produced and published by Eurostat.

Sustainable development (SD) indicators are used for monitoring the progress in sustainable development. The last indicator-based progress report was published in March 2015. The publication included 69 indicators of sustainable development that reflect the progress in key domains in Estonia (<http://www.stat.ee/151235>).

## Optional questions

### Recent policy developments concerning natural resources in the broader sense of the term

Estonia finds that it is important to use its own strengths as it has oil shale. In the new National Development Plan, it plans to use it as environmentally friendly ways as possible. On the other hand, Estonia must keep its energy supply independence. Therefore, it is very important to find an ecological balance – a fair price for the use of resource and minimal impacts on environment.

### Which way should resource efficiency go in the future?

Resource efficiency should focus more on the materials phase rather than on waste, because waste prevention relies on the efficient use of raw materials – the secondary raw materials market, quality sorting, etc.

The main obstacle is the shift in focus from waste policies to resource policies to influence consumption patterns.

### Reflections on the country's trends in the use of materials and resource efficiency

Estonia's material resource use (DMC) is high, because it uses a lot of domestic natural resources - minerals and oil shale. At the same time, oil shale gives the country energy independence. Through economic growth DMC increased remarkably in 2002–2007, but has been more balanced since, 2007–2012. However, resource productivity for 2002–2012 does not show the impact of efficiency as economic growth in Estonia has overshadowed productivity growth.

In Estonia, renewable energy sources like wood chips, peat and biogas are used as fuel in combined heat and power (CHP) plants.

In 2012, Estonia started to use municipal waste for energy recovery. That has decreased the amount of municipal waste disposed to landfill significantly.