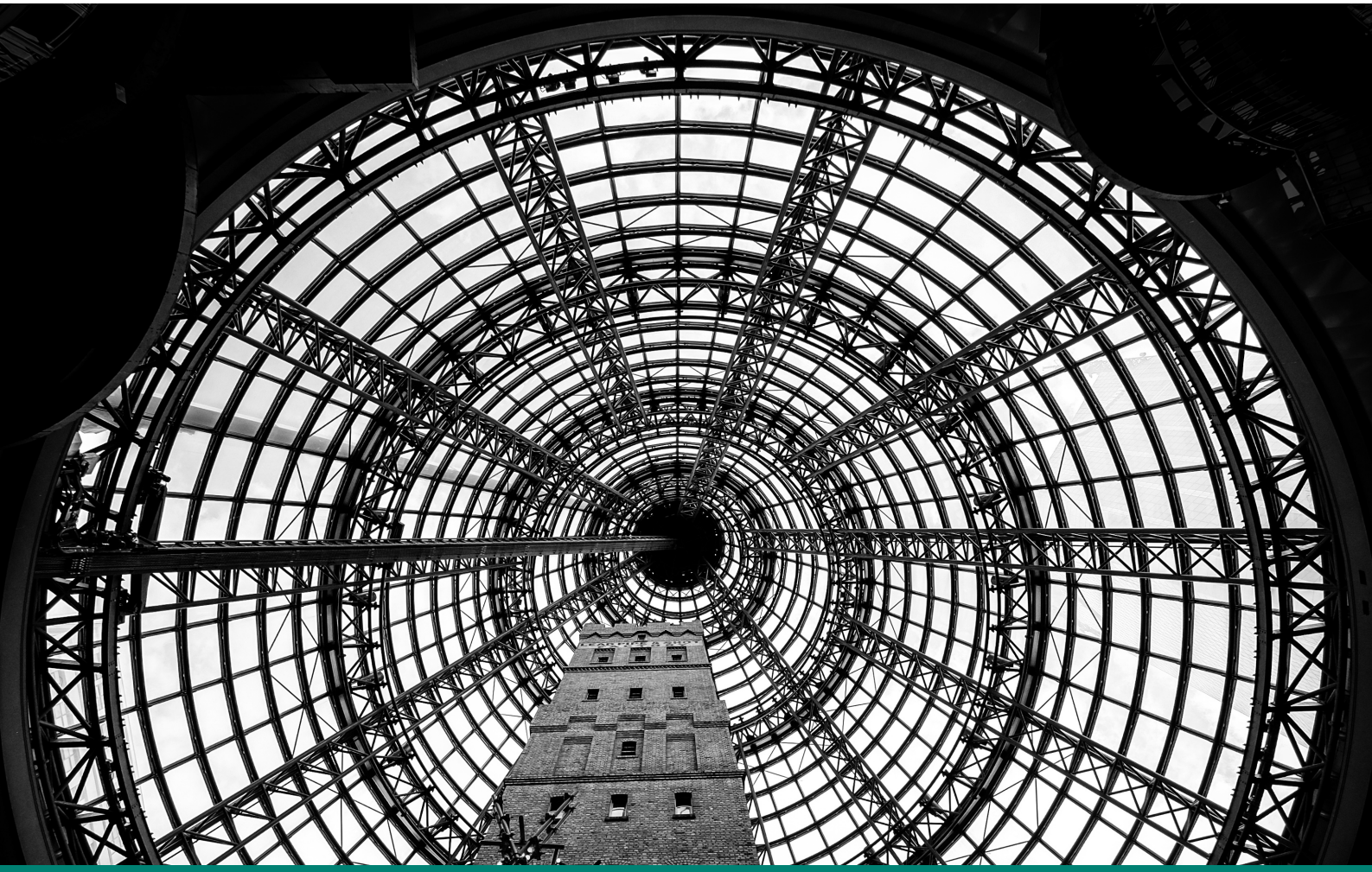
Resource efficiency and circular economy in Europe – even more from less

An overview of policies, approaches and targets of Liechtenstein in 2018

July 2019



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This country profile was prepared as part of the 2019 EEA review of material resource efficiency, circular economy and raw material supply policies, which aimed to collect, analyse, and disseminate information about experience with the development and implementation of these policies in EEA member and cooperating countries.

At the time of writing, a summary report is being finalised. The report reflects on trends, similarities and differences in policy responses, showcases selected policy initiatives from member countries and identifies possible considerations for the development of future policies.

These country profiles were compiled and finalised by members from the European Topic Centre on Waste and Materials in a Green Economy, namely Bart Ullstein, Bettina Bahn-Walkowiak, Jeroen Gillabel, Margareta Wahlström, Jutta-Laine Ylijoki, Dirk Nelen, Theo Geerken, Veronique Van Hoof and Evelien Dils. The responsible EEA project managers for the work were Pawel Kazmierczyk and Daniel Montalvo.

Liechtenstein, facts and figures

Note: data in this section was sourced from Eurostat databases (April 2019), except where noted otherwise

GDP: EUR 5.5 billion

GDP per capita: EUR 144,700 (purchasing power standard)

Use of materials (domestic material consumption (DMC))
Data not available

Structure of the economy:
agriculture: 8 %
industry: 37 %
services: 55 % (2012 estimate)

Surface area: 160 square kilometres (km^2)

Population: 38,000 (2017)

Policy framework

Driving forces for material resource efficiency and circular economy

In Liechtenstein the main needs and motivations which drive the development and implementation of policies related to material resource efficiency, circular economy and raw materials supply are:

- saving of landfill capacity;
- increase independence (renewable energy, waste disposal) from foreign countries;
- Savings in the use of natural resources such as water, gravel and phosphorus;
- Closing material loops: building a stationary soil washing plant; use of recycled construction materials such as concrete in road surfaces; recovery of phosphorus in wastewater treatment; voluntary International Organization for Standardization (ISO) certification in the industrial sector.

Dedicated national strategies or roadmaps for material resource efficiency and a circular economy

There is no dedicated national resource efficiency strategy or action plan in Liechtenstein.

Liechtenstein is too small to establish its own national circular economy. However, it is part of the Swiss waste economy and has therefore adopted the relevant Swiss waste legislation and shares the same key waste management objectives. The circular economy is a major issue in Swiss legislation. And as a member of the European Economic Area (EEA) and the European Free Trade Association (EFTA), Liechtenstein is also required to follow European Union (EU) environmental regulations.

Overview of dedicated national or sectoral strategies for raw materials

Liechtenstein only has a few natural resources such as gravel, wood and water. A small amount of resources such as energy and food are produced in Liechtenstein. However, most are imported – mainly from Switzerland. Liechtenstein therefore follows the Swiss strategy for raw materials.

Policies which include elements of material resource efficiency

Liechtenstein itself is too small to establish its own national circular economy. However, it follows the Swiss waste economy due to the custom treaty with Switzerland and has therefore adopted the relevant Swiss waste legislation.

In September 2010 a working group adopted an Action Plan on the use of recycled construction material for public buildings (Einsatz von Recyclingbaustoffen bei öffentlichen Bauten[1]).

The key objectives of the Action Plan are:

- increased use of recycled construction materials in public tenders;
- information and further education and training opportunities;
- an increase in the landfill tax;
- improvements in the fraction of recycled materials used in road surfaces.

The following information in the next sections relate to this specific Action Plan.

Liechtenstein is developing a Waste Management Plan including a Waste Prevention Plan, to be finalised by the end of the 2018.

[1] http://www.llv.li/files/au/pf-llv-au-umsetzungskonzept_recyclingbaustoffe_juni2010_endversion.pdf (German)

Institutional setup and stakeholder engagement

The government of Liechtenstein is responsible for the development of the Waste Management Plan together with the communities. Due to the customs treaty (Zollvertrag) with Switzerland, Liechtenstein also focuses on implementing Swiss environmental legislation.

The stakeholders are the communities, construction industry, recycling companies, engineers, architects and national authorities. There is no special organisation between these stakeholders.

Approaches to resource efficiency and circular economy policy evaluation

Impacts and effectiveness of policies for a resource-efficient circular economy are evaluated in Liechtenstein by the recycling rates of municipal and construction waste.

Monitoring and targets

Targets for resource efficiency and circular economy

Liechtenstein has no targets adopted for a resource-efficient circular economy.

Indicators to monitor progress towards a resource-efficient circular economy

The Office for Statistics publishes an annual report on indicators of sustainable development (Indikatoren Nachhaltige Entwicklung)[2], including built-up areas; the ecological quality of forests; drinking water consumption; ecological compensation areas in agricultural zones; concentration of nitrite in the ground water; a range of air pollutants; and waste recycling rates.

Resource efficiency, circular economy and the 2030 Sustainable Development Goals

Currently there are no national examples of concrete initiatives where resource efficiency/circular economy are used in Liechtenstein as a way to achieve the UN Sustainable Development Goals (SDGs) for the year 2030.

Analysis of the SDGs showed that there is no need for action on SDG 8.4: Global Resource Efficiency in Consumption and Production and SDG 12.2: Sustainable Management and Efficient Use of Natural Resources.

Examples of innovative approaches and good practice

Examples of good practice and innovative approaches

Liechtenstein itself is too small to establish its own national circular economy. However, as part of the Swiss waste economy it has adopted the relevant Swiss waste legislation. Examples of Liechtenstein's innovations and trends include the construction of a stationary soil washing plant in Liechtenstein; the use of recycled construction materials such as concrete in road surfaces; and the planned recovery of phosphorus in the wastewater treatment plant.

[2] https://www.llv.li/#/11744 (German)

Resource efficiency and circular economy policy initiatives from subnational to local level

See section 'Dedicated national strategies or roadmaps for material resource efficiency and a circular economy': Liechtenstein itself is too small to establish its own national circular economy. However, as Liechtenstein follows the Swiss waste economy, it has adopted the relevant Swiss waste legislation.

The way forward

Reflections on future directions of policies on resource efficiency and circular economy

Challenges include the bad reputation of recycled materials such as concrete and the recovery of phosphorus from sewage sludge. Recycled materials are still considered to be waste and thus of lower quality.

Another problem is the price difference between raw and recycled materials. Raw materials such as gravel are much more cheaply available, for example from Austria, than recycled materials from Liechtenstein.

Waste landfill costs are still quite low in Liechtenstein. The disposal of construction waste is, therefore, cheaper than its treatment as recycled construction waste, making it difficult for the recycling company to recycle materials in a financially sustainable way. The government and communities are endeavouring to improve the situation by gradually increasing disposal costs.

A major challenge is also the conflict between economic and ecological interests in business. With eco-design, for example, the economic goal of a company – for more profit – can oppose the ecological interests of longevity and recyclability.

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