Regional analyses and benchmarking, Lithuania

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Main legal documents

- National Strategy for Sustainable Development (Nacionalinė darnaus vystymosi strategija, 2011)
- National Energy Independence Strategy (Nacionalinė energetinės nepriklausomybės strategija, 2018)
- National Air Pollution Reduction Plan (Nacionalinis oro taršos mažinimo planas, 2019)
- and etc.
PP3 Policy Instrument-
OPERATIONAL PROGRAMME 2014-2020

➢ Priority axis 5. Environment, sustainable use of natural resources and adaptation to climate change

➢ Investments are expected to: minimise the damage made by intensive economic activities; support more active monitoring and impact assessment.
Smart specialization/R&I priority areas

1. Agro-innovation and food technologies
2. Energy and sustainable environment
3. Health technologies and biotechnology
4. Inclusive and creative society
5. Novel production processes, materials and technologies
6. Transport, logistics and information and communication technologies

Smart specialization
678.9 mEur

MINISTRY OF ECONOMY
326 mEur

353 mEur
MINISTRY OF EDUCATION, SCIENCE, AND SPORT
OF THE REPUBLIC OF LITHUANIA
Lithuania: general facts

**Economy:**

- Lithuania is the biggest economy of the Baltic region, accounting for almost half (47%) of the Baltic region's GDP.
- 5th fastest growing economy in the EU over the last 5 years (GDP grew by 15%). Fastest growing economy of the Baltic region.
- GDP per capita – 21 600 EUR (based on purchasing power standard).
Lithuania as the EU unicorn of R&I

- According to the European innovation scoreboard 2018 (EIS 2018), Lithuania is the most rapidly growing country among the EU members in the field of R&I in the time period from 2010 to 2017.

Change in R&I index between 2010 and 2017:
- Lithuania + 20.1%
- EU average + 5.8%
- Latvia + 11.2%
- Estonia - 3.2%

Data source: European innovation scoreboard 2018.
Manufacturing

- The **food processing** industry is one of the primary Lithuanian sectors, which accounts for 11% of their total exports.
- There are about 979 food processing companies registered in Lithuania that produce a wide range of products, including dairy products, meat, fish, vegetables and fruits, baked goods and grains, spices, and herbs.
- The food and beverage sector accounts for over 4.5% of the Lithuania’s GDP and employ 4.6% of the total workforce.
- Another significant manufacturing activity in Lithuania is a **chemical product** which accounts for over 12.5% of its total export. Over 80% of the chemicals produced in Lithuania are exported.
- The furniture production sector employs over 50,000 individuals in Lithuania, with the biggest firms in this industry working together with IKEA.
Lithuanian manufacturing is very diverse

Structure of manufacturing production, 2016, %

Source: Lithuanian Statistics Department
Agriculture

- Farming in Lithuania dates back to the Neolithic era, and it has been one of the most crucial occupations in the country for centuries.
- The accession to the EU in 2004 resulted in the introduction of a new agricultural era.
- The European Union pursues very high standards of food purity and safety.
- The Lithuanian parliament passed a production safety law in 1999 and a law on food in 2000.
- The agricultural reforms in Lithuania were based on these two laws.
- The farm sector has employed over 8% of the country’s workforce and supplies raw materials to most of the Lithuanian food processing companies.
Other Industries

- The ICT (information and communication technologies) is one of the main sub-sectors in the country that has employed over 37,000 people.
- There are over 2,000 ICT firms in Lithuania. Lithuania is home to 13 out of the 20 biggest IT firms in the Baltic region.
- The country exported €128 million worth of ICT services during the second quarter of 2018.
- Some of the most promising subsectors in Lithuania include business process outsourcing and shared services.
- Some of the international companies that have outsourced some of their operations to Lithuania include Western Union, Yara international, and Barclays among others.
Production structure in Lithuania
LCM Experience

Our regional experience on LCM:
- Cleaner production;
- Bio energy;
- Resource and energy efficiency;
- Renewable energy sources (solar, etc.);
- Sustainable transport policy (electric vehicles);
- Industrial innovation (substitution of hazardous substances and etc.);
- Industrial innovation policies for plastics (packaging);

Some issues already are under discussions:
- Public procurement and green purchasing;

The Life cycle tools have been employed in most of the above mentioned areas:

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1. LCA for resource efficiency

**Case 1.** Comparative Life Cycle Assessment of Waterbased and Solvent-based Primer Paints for Steel Plate Priming

**Case 2.** Comparative environmental life cycle assessment of electric and conventional vehicles in Lithuania

**Case 3.** Environmental impact assessment of renovated multi-apartment building using LCA – A case study from Lithuania

**Case 4.** Assessment of properties and life cycle of biosynthetic oil
2. LCA for waste and material flow

Since 2016 in LT: PET, glass, metal

Manufacturers and importers

The manufacturers and the importers supply beverages for the consumers which pay both the price for the product and the deposit for the packaging.

1. Container deposit scheme

Consumer pays retailer the price of the product plus the deposit for the packaging.

2. Retailer

Manufacturer pays USAD the price for the packaging.

3. Consumer returns the packaging to retailer, and retailer reimburses the deposit to consumer.

4. Retailer returns reusable packaging, USAD calculates it, and then reimburses the deposit for retailer accordingly.

5. Consumer pays retailer the price of the product plus the deposit for the packaging.

1,990,814,226 Number of packages returned:

Gražinti verta+
Car/bike Sharing systems

**CARSHARING BENEFITS FOR COMPANY**

- Web-based reservation system
- Car lock/unlock via phone call
- Trip limits for users and user groups
- Reservation system notifications
- Vehicle usage reports
- Administration system and tools
- Compatible with BCE Fleet management system
3. LCA in public procurements

- Public procurement constitutes an important part of the Lithuanian economy.
- The total amount spent through these procedures is one tenth of the country’s gross domestic product, or one third of Lithuania’s national budget.
- Such procurement volumes show that public procurement is and will be a driving force behind the country’s entire economy; therefore, the objective of the Ministry of the Economy and Innovation as the authority shaping public procurement policy is to continuously improve the legal regulation of public procurement in order to ensure that public procurement is carried out by using funds allocated for this purpose in a transparent and rational manner.
- However, still we haven't a green procurement regulation in place!
Training and capacity building

- In Lithuania in the field of life cycle assessment and management, experts of Kaunas University of Technology, Institute of Environmental engineering have been working in cooperation with industry, authorities, carrying-out research in various international projects, providing consultancy, giving trainings, publishing scientific articles. Recently KTU is one of the partners in several projects related the Life cycle assessment, Environmental impact assessment, etc.

- KTU experts are certified after taking the courses:
  - "Advanced LCA with SimaPro" instructed by Pre Consultants (The Netherlands);
  - „Advanced LCA-Consequential Modeling, EIO-LCA, iLUC and Social LCA“ instructed by Aalborg University (Denmark);
  - “Managing the LCIA (Impact assessment) phase of LCA” instructed by LCA academy, Barcelona (Spain);

- KTU lecturers is delivering lectures for MSc students on "Life cycle assessment" and for PhD students “Life cycle assessment”.
PP3 – Lithuania –
Expected improvements

The Lithuanian ROP or other policy instruments still can be significantly improved in 2 different ways:

- 1st by allowing the implementation of projects combining different investment priorities
- 2nd by introducing the LCA for new innovations or revising the scope of supported activities of currently planned measures

How do we envisage the improvement of this policy instrument?

The focal points for the improvement of the policy instrument are through:

- Structural change
- Improved governance
- New projects supported
Thank you!

Questions welcome

www.interregeurope.eu/LCA4Regions