ENERGY POLICY OF LATVIA FROM PERSPECTIVE OF ITS IMPACT ON THE ENVIRONMENT

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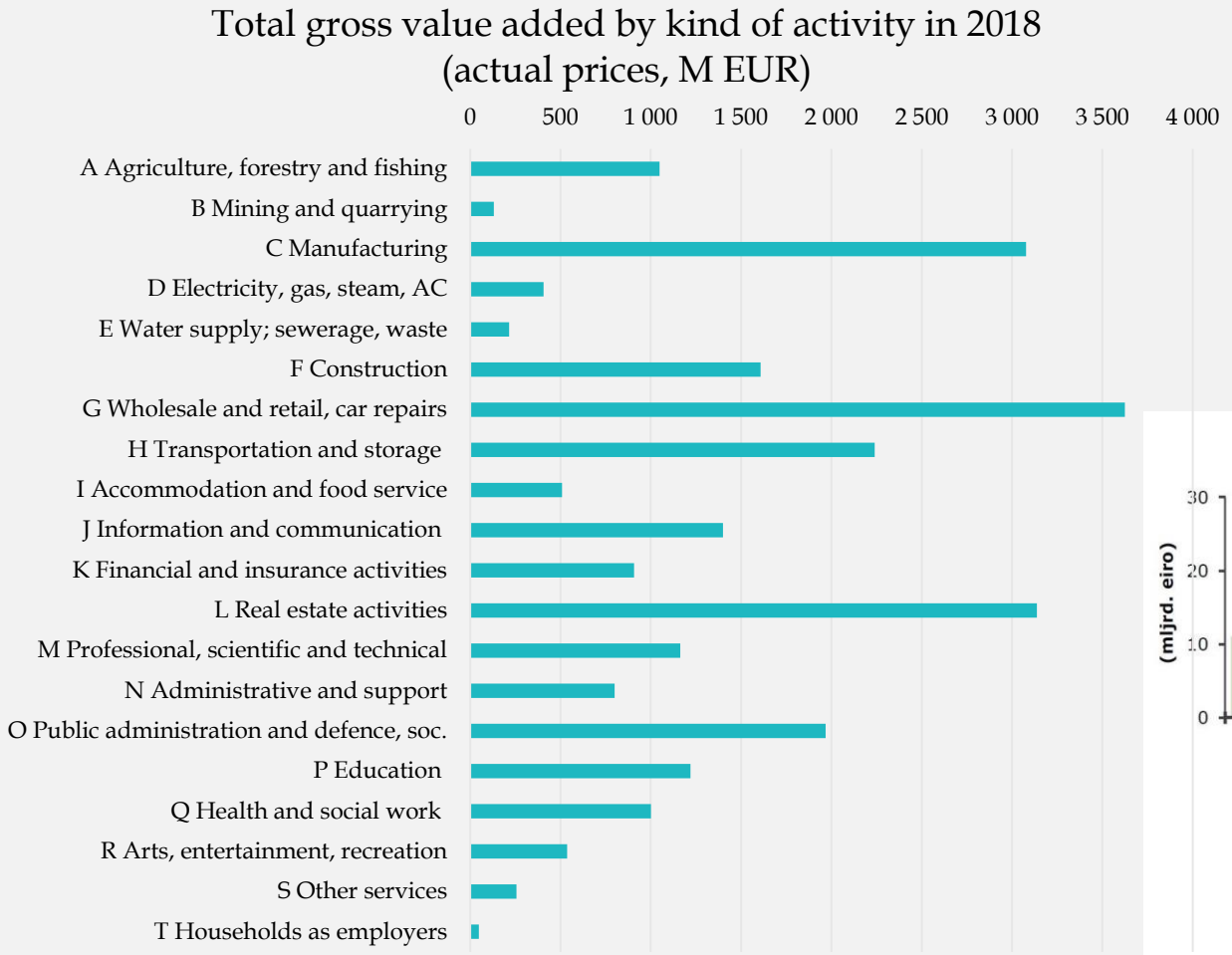
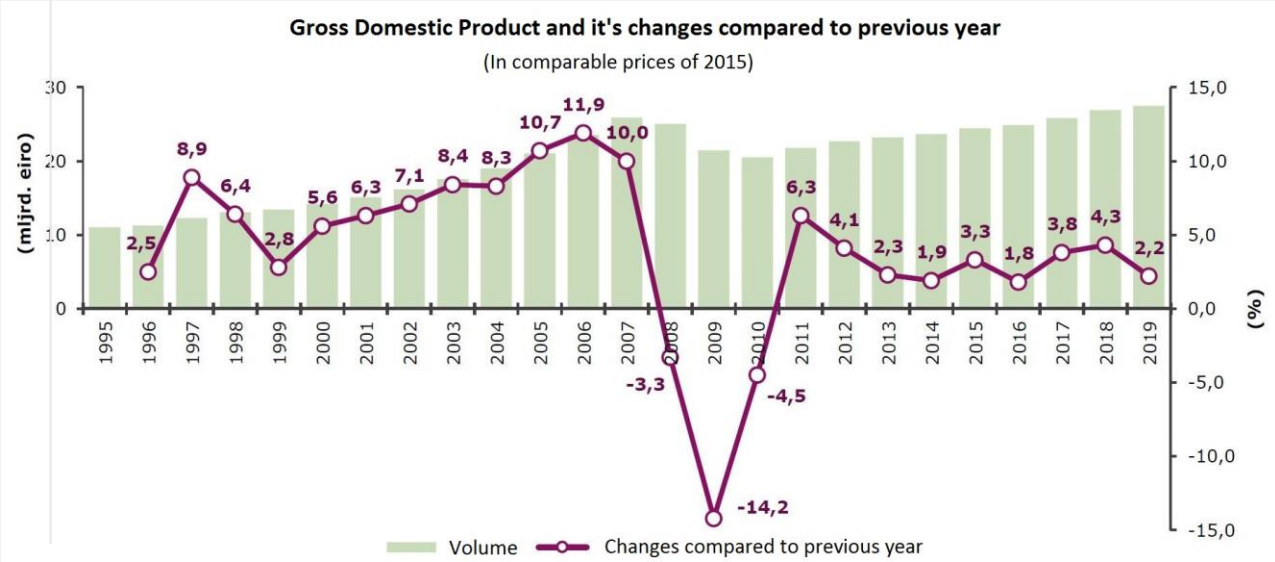
CCSW
ERAF Project Nr.1.1.1.1/19/A/013
Development of novel carbon capture technology for thermochemical processing of municipal solid waste
Carbon Capture and Storage from Waste

UNIVERSITY OF LATVIA

Latvia - country specifics

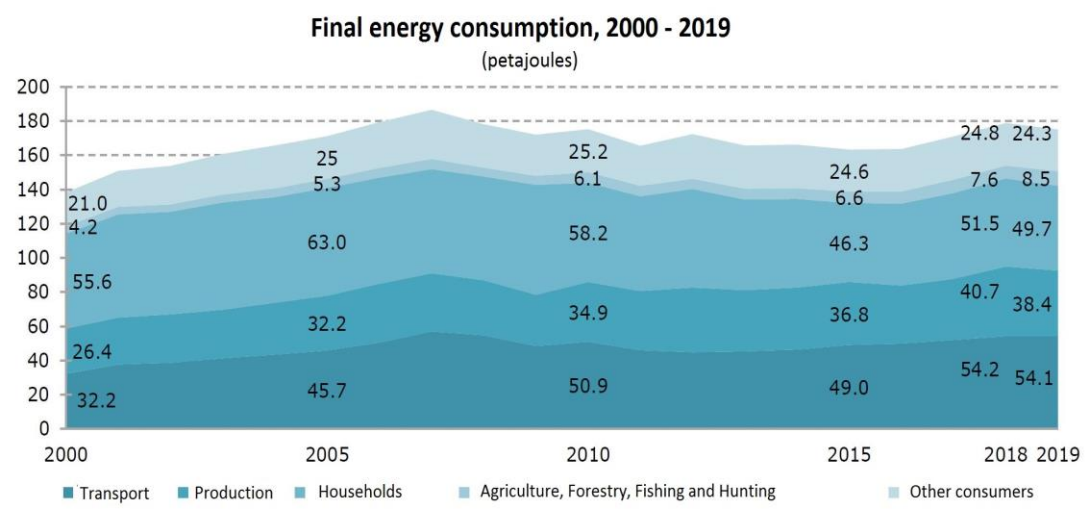


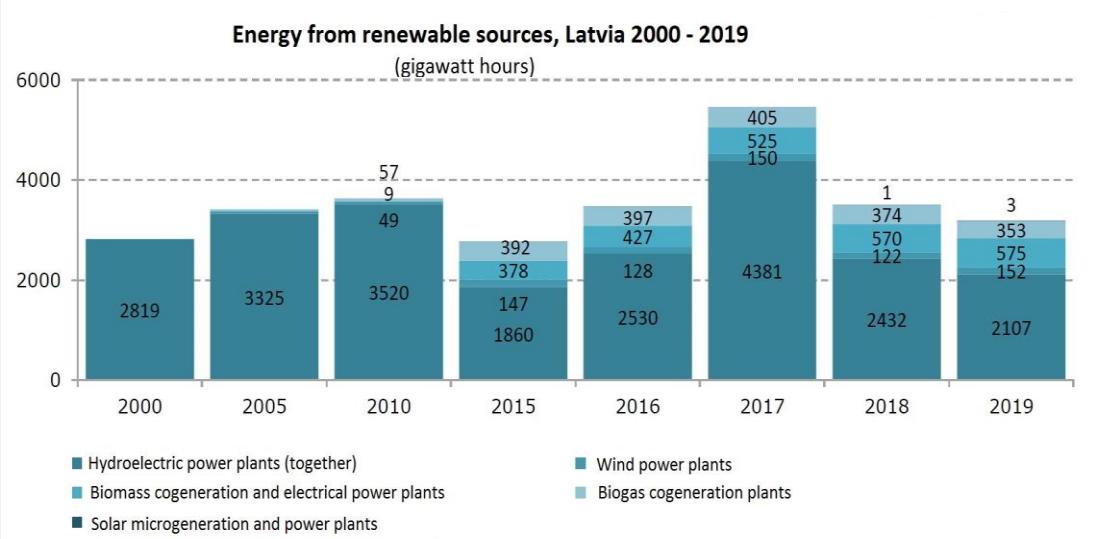
- Manufacturing and several service sectors dominate in economy
- Country was hit by crisis of 2008, but recovers gradually



Data source: Central Statistical Bureau of Latvia

Latvia - energy consumption and RES usage

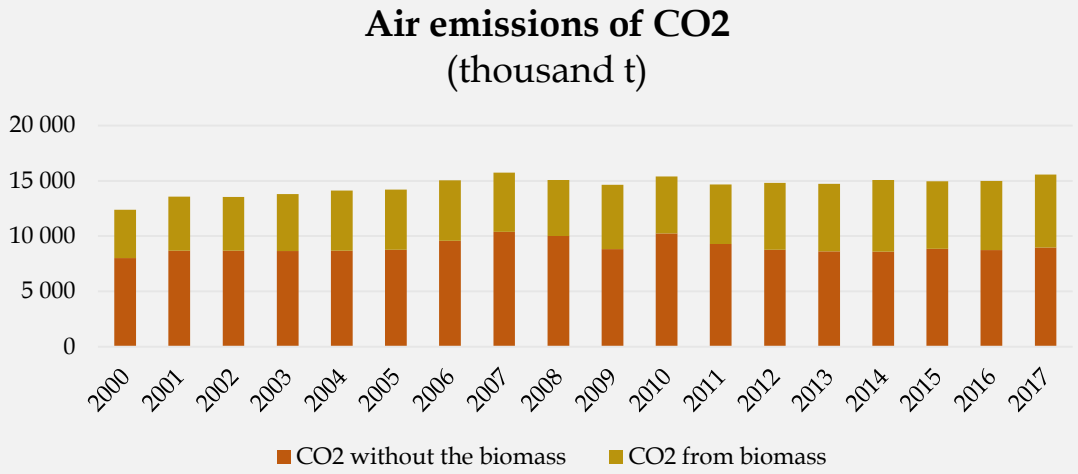




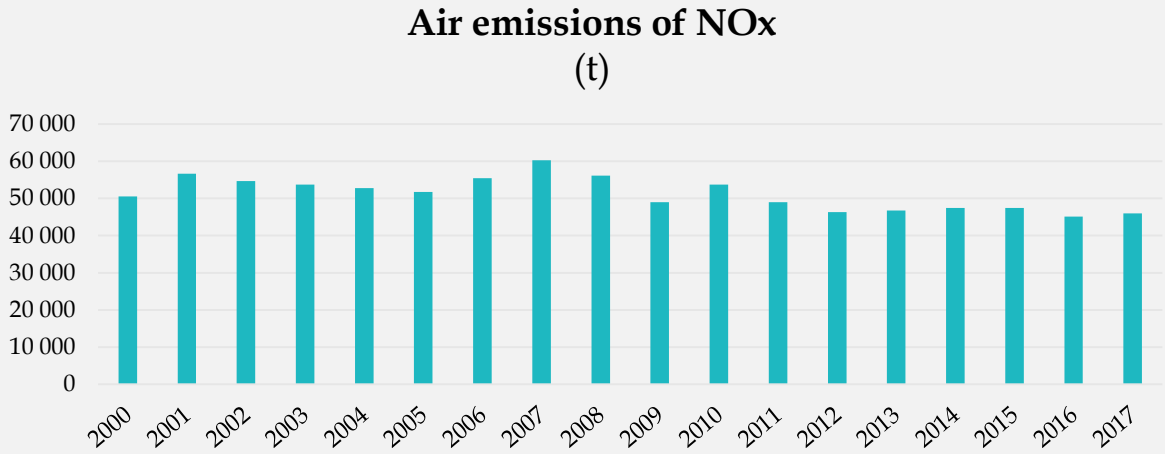
- **The aim of the study is to analyze Latvia's readiness to implement the European Green Deal and transform the economy into an environmentally friendly one**
- The key facts on energy are as follows:
  - The most energy-intensive sectors of the economy are transport, manufacturing and households
  - Energy consumption is relatively even - a gradual shift in technologies to more efficient ones happens
  - Energy production from RES fluctuates significantly
    - Hydro Power plant generation depends on climate and demand of international markets
    - Production intensity of other RES is affected by state policy and subsidies

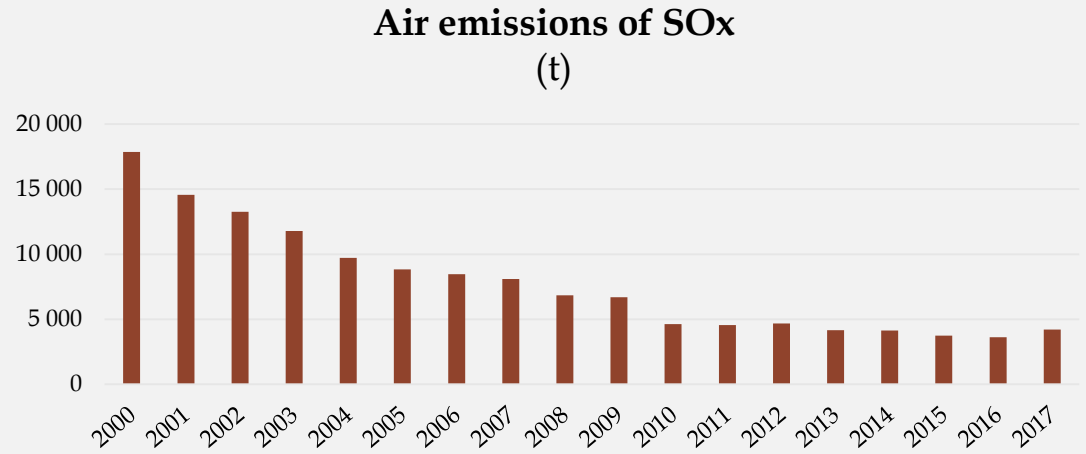
Data source: Central Statistical Bureau of Latvia

Latvia - changes in air emissions 2000 - 2017



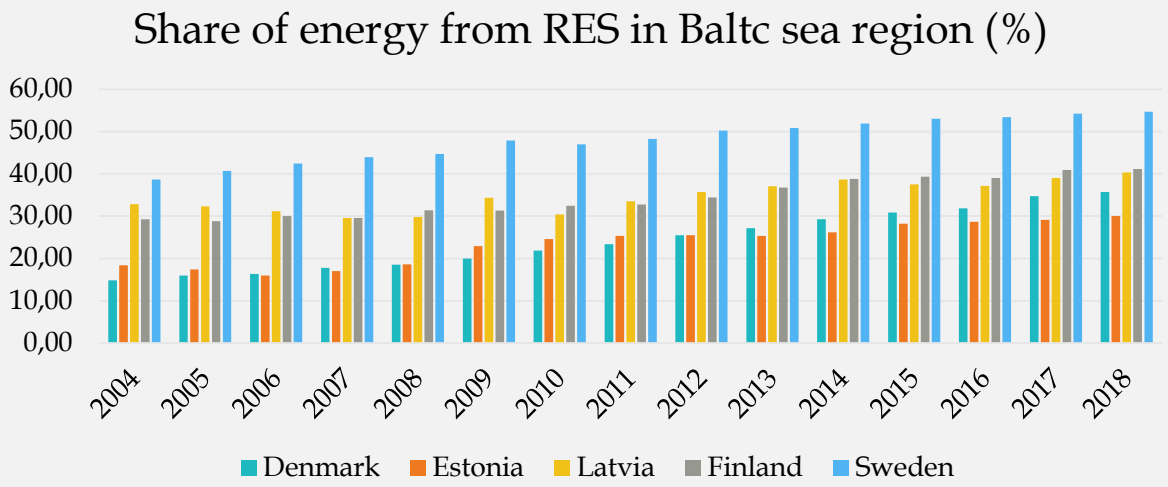
- The use of fossil energy is declining (SOx)
- No major progress in GHG reduction is observed over last 10 years
- The volume of emissions in general corresponds to fluctuations of GDP, economic development and evolution of technologies

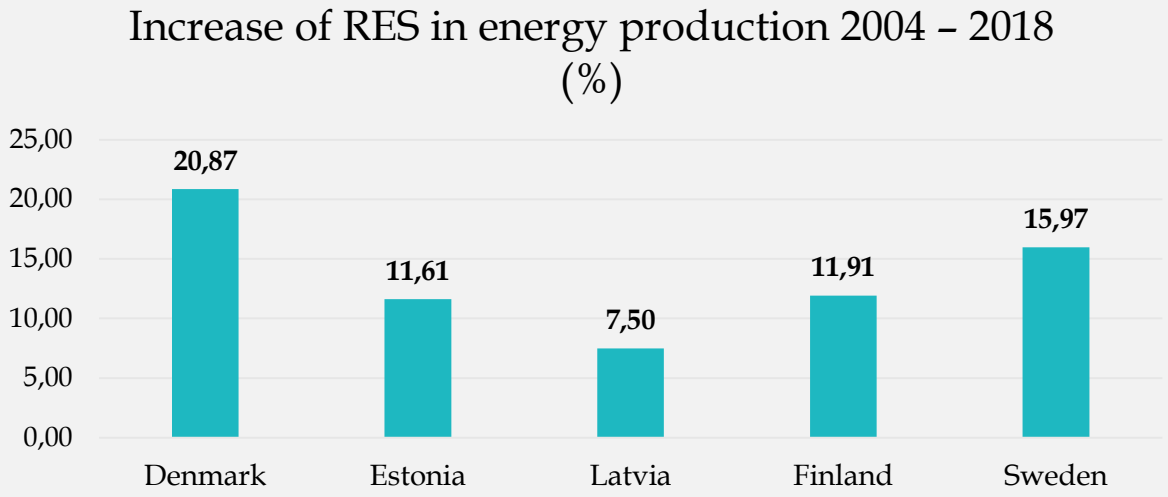




Data source: Central Statistical Bureau of Latvia

RES development in Baltic sea region





- RES share in energy production increases for all Baltic sea region (EU) countries over the years 2004-2018
- Denmark and Sweden shows the best results in the region
- The share of RES in Latvia's energy balance is significant due to historical reasons, but progress is weak - only 7,5% over 14 years

Data source: EUROSTAT

The European Green Deal in energy sector

- Climate neutrality by 2050 (net-zero carbon emissions)
  - Decoupling energy production from carbon creation
  - Reduce the energy consumption of buildings
  - Support closed-loop production, material recycling and energy efficiency in industry
  - Cleaner, cheaper and healthier modes of private and public transport
- Measures address the biggest environmental issues of the energy sector both in Latvia and in other EU Member States
- However, the European Green Deal at the moment is defined as a policy goal only. No precise milestones and intermediate indicators have been set yet.

National challenges of the European Green Deal

- No significant positive experience has been gained in recent years in promoting renewable energy sources or increasing energy efficiency at the national level
- The most energy-intensive industries will face problems in switching to lower emissions:
  - Transport sector – high conversion costs and undeveloped alternative fuels filling / charging network
  - Manufacturing sector – currently low use of recycled materials, low investment capacity
  - Households sector – only about 2,5% of existing housing stock has been renovated during last 15 years
  - Challenges for waste management in relation to the recycling and disposal rates to be achieved by 2035
- More precise information on the milestones of the Green Deal objectives is needed, as well as more detailed research / modeling on how these objectives could be achieved on a national level.

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NATIONAL DEVELOPMENT PLAN 2020

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European Regional Development Fund

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