

# ESEE 2017 CONFERENCE

12th Conference of the European Society for Ecological Economics

Corvinus University of Budapest – Budapest, Hungary  
20<sup>th</sup> – 23<sup>rd</sup> June, 2017



## PROGRAMME & ABSTRACT BOOK



## **Development of circular economy – a case study of Latvia**

Tatjana Tambovceva<sup>1</sup>, Dzintra Atstaja<sup>2</sup>, Dzineta Dimante<sup>3</sup>

<sup>1</sup>*Riga Technical University, Faculty of Engineering Economics and Management, Riga, LATVIA;* <sup>2</sup>*BA School of Business and Finance, Riga, LATVIA;* <sup>3</sup>*University of Latvia, Riga, LATVIA*

The circular economy is a fundamental change in the traditional economic model, and an important way to change economic growth pattern and achieve the balance among economy, resources and

environment.

Circular economy through ecodesign, waste prevention and increased reuse and recycling of products, provides that value of products, materials and resources is maintained in the economy for as long as possible. Europe 2020 strategy emphasises the policy objectives of sustainable development and is focused to resource efficiency and EU competitiveness. In end of 2015, the European Commission adopted a Circular Economy Package that seems to be a crucial turning point for further implementation of ecodesign concept into various economy sectors and will contribute to "closing the loop" of product life cycles through greater recycling and reuse. EU Action Plan for the Circular Economy establishes a concrete targets and measures for waste management and resource efficiency by 2030. Therefore, circular economy development initiatives create new challenges and draw up the new perspectives.

At the base of circular economy is life cycle thinking. Life cycle thinking means recognizing the various impacts that occur at all points along the life cycle of the product or material. It also means recognizing how certain choices – materials used, manufacturing process, energy sources, distribution channels, disposal possibilities – influence those impacts. In practice, life cycle thinking means evaluating the potential influences as part of the decision making process (UNEP, 2007). Life cycle thinking is a broad concept that facilitates an integrated assessment of the benefits and the burdens in terms of environmental, social, and economic aspects, for specific products and regions, etc. The application of life cycle thinking requires specific methodologies.

Therefore, circular economy is a very complex issue, involving resource extraction, transportation, production, consumption, distribution, waste management, social norms, biological and technological cycles etc. For developing of circular economy is necessary to explore the theory of circular economy and possible practical implementation, but to drive broader changes it is critical to collect and share data, spread best practice, invest in innovation and encourage consumers with adequate green product information.

The purpose of the research is to investigate basic principles and nature of circular economy, problems for the transition to a circular economy in Latvia and to propose relevant policies, possible solutions and constructive mechanism of promoting circular economy in Latvia.

The authors use theoretical and empiric study of issue, using European Commission and Latvian institutions documents, semi-structured interviews and analysis of personal experience. The results of the research show, that circular economy implementation milestones are: legal framework, administrative conditions, economic instruments and public education and awareness. The authors propose the following support measures, which could promote the implementation of CE development in Latvia:

- 1) Comprehensive concordance between Ministries, especially the Ministry of Environment and Regional development and the Ministry of Economy, should be established. That is a principal precondition for life cycle thinking and circular economy based industry and business development. As circular economy concept includes both waste management and eco-design oriented industry development, they should be realized under the supervision of both Ministries.
- 2) Development of cooperation between state and industry, including various support measures from the state, as well as development of industry related NGO institutions.
- 3) Further development of Green public procurement should have a principal catalytic impact due to promoting influence to eco-design successful implementation. Reversely, any obstacles for Green public procurement could endanger the CE development.
- 4) Facilitation of feasibility studies and research activities and projects focused on eco-design understanding in Latvia and necessary measures for successful eco-design development in country. Discovering and promoting successful examples of circular economy implementation in education and society in general.
- 5) Widespread implementation of circular-economy approaches would require deep transformation of production chains and patterns of consumption.