

# **EDUCATION ON BIOECONOMY**

SCAR BALTIC WOKSHOP ON BIOECONOMY STRATEGY 4-5 April 2019, Riga, Latvia Academy of Sciences

Baiba Rivza, Latvia Daina Vasilevska, Latvia



- Bioeconomy is complex and involves interdisciplinary knowledge.
- Some countries like Finland, France or Italy, foster the training of experts, while others, like Austria, Germany and Sweden, also promote stakeholder platforms and cross-sectoral alliances as the basis for interdisciplinary exchange.
- In Europe, only few countries have adopted specific measures related to the improvement of education on Bioeconomy in Schools and Universities.



## **DESCRIPTION OF THE CHALLENGE**

- Bioeconomy as a concept is a long-term process and requires the concentrated cooperation of a large number of scientific disciplines, as well as political and economic decision-making process.
- All the above aspects need to be analyzed under the prism of the education in order to be better adapted to specific audiences, regions and processes.



# **Enormous challenges for university development at present**

Excellence in research, education and university management (increasing competition between higher education institutions!)
Specific challenges for life science universities to develop the basis for the future development of mankind

✓ Food and water security, environmental protection

✓ Sustainable use of natural resources (soil, bioresources, water,..)

✓ Development of high-end technological methods in biotechnology (biorefinery, renewable energy,....)

✓ Landscape development; town- and country planning

✓ And many more.....

### **Cooperation Objectives**

- <u>To identify</u> education institutions in Baltic States providing education on Bioeconomy at all levels, and to analyze them in terms of objectives, contents, principles, target audiences and impacts.
- To create a platform for the systematic collection and exchange of teaching activities and materials for the key players in the field of Bioeconomy education.
- To analyze good practices in teaching the topics relevant for Bioeconomy from a didactical point of view.
- To determine learning outcomes, link them to the overall European and national qualification frameworks, and to constructively align them with teaching and assessment methods.
- To develop generic and country/region specific strategies for pilot courses, case-studies, summer schools, trainings etc., tailored to the need of SMEs in the field of Bioeconomy.

## **Digitalization of Bioeconomy Education**

- Digitalization will be more crucial in the future since it is creating numerous new opportunities to institute new business models in Bioeconomy.
- This important field is completely unknown at the education level. We has the challenge to set up an education module in the frame of this cooperation.

## **Educating Life Science Graduates Fit for Baltic States**

Panel "Challenges of the Bio-economy for Graduates" <u>Workshops:</u>

- (1) challenges of the intercultural classroom
- (2) tools for enhancing the learning experience,
- (3) bridging education and practice,
- (4) innovation in curriculum development and delivery

General Goal: To contribute to the development of the European HE Area

## **Some Expected Benefits**

#### **University Management:**

Strategic support and funding

- ✓ Institutional benchmarking
- ✓ Enhanced internationalization
- ✓ Global network for large research programs
- ✓ Collective Dialogue EU, UN, OECD, etc.

#### **Researchers:**

Scientific expertise

- ✓ New projects (bilateral multilateral–global)
- ✓New interdisciplinary insights

#### Students:

Curiosity/Creativity:

- ✓ Enhanced awareness of global challenges
- Lifelong global network of colleagues early in careers in academia, business, government,....

The implementation of bioeconomy is a process for the entire society: not one that can be implemented alone by expert circles in science and economics.

A bio-based, sustainable economy has a chance to become reality only if the desired goals and the possible conflicts in objectives are discussed with all players in society.



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#### **THANKS FOR YOUR ATTENTION!**

