

Conclusion

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The 30th EURAGRI conference “Bioeconomy challenges and implementation: the European research organisations’ perspective”, held at the Estonian University of Life Sciences in Tartu, provided space to reflect on the opportunities and challenges encountered while implementing a bioeconomy strategy and what it entails for research organisations in the agrifood and life sciences sector in terms of research contents, study programmes and interactions with old and new potential stakeholders.

There is indeed a need for informative and inspiring social dialogue and for platforms to exchange ideas, experiences, challenges and opportunities related to structural and strategic transition processes and to diffuse shared knowledge as future food for thought. Representatives of research and higher education organisations, research and innovation institutions, and innovative enterprises in the agrifood sector have been expressing such a need.

The contribution by Thomas Arnold presents the European Commission’s ideas on how to further develop the bioeconomy concept. The Commission’s approach is based on three pillars: (i) food and nutrition security, (ii) the transition from a fossil-fuel based economy to an economy based on renewable resources and (iii) unlocking the potential of the marine ecosystems interlinked by circular uses. This policy advance is very complex and demands change on many levels, not least for the scientific community and its structures. In particular he calls for interaction across disciplines, natural sciences as well as social sciences and humanities, and other sectors and non-scientific actors to secure successful and relevant research to bring these changes forward.

In Estonia, as mentioned in the opening speech of Toomas Kevvai, Deputy Secretary General for Food Safety, Research and Development of the Estonian Ministry of Rural Affairs, bioeconomy as a strategic concept has been very much in focus over the last years. Knowledge-based and innovative operations are the foundation of the rural and agricultural sector. More emphasis must be put on education, knowledge transfer, and enhancing capabilities by creating measures that would allow implementing the European bioeconomy approach. An open and active discussion is needed on how the Estonian society as a whole can gain from the more effective use of research-based technologies in the bio-economy sector.

The contribution by Ülle Jaakma provides an overview of the recently approved development plan of the Estonian University of Life Sciences, which was based on the bioeconomy concept. She reflects on the problems faced by an academic institution in implementing the bioeconomy approach and in setting up academic curricula to address the related anticipated needs of and challenges faced by future researchers and the next generation of academics. It echoes the contributions by Lone Krogh and Gerlinde van Vilsteren, which highlight the paradigm shift in higher education resulting from the emergence of a biobased economy.

It is EURAGRI’s aim and policy to facilitate the expression of ideas and opinions from Central and Eastern European countries. In their contributions, Cosmin Salasan, Vice Dean of the Agricultural Management Faculty, Romania, elaborates on the role and the impact of university research on the bioeconomy. Luka Juvančič and Myrna van Leeuwen from the University of Ljubljana, Slovenia, introduced the BioEconomy Regional Strategy Toolkit for benchmarking and strategy development.

In their contribution, Sylvia Burssens, Marku Järvenpää and Pascal Bergeret illustrate how the new demands on research institutions brought about by the development of a biobased economy have led, among other factors, to the deep restructuring of research organisations.

Bettina Heimann and Uno Svedin, reflecting on the conclusions of a EURAGRI workshop held in Brussels in 2016, remind us of the multidimensional contribution of social sciences and humanities in accompanying the evolution of agricultural research and innovation towards a modern biobased economy.

In fine the question is whether “bioeconomy” is simply a common name for a certain group of economic domains, such as agriculture, fisheries, forestry, chemical industry, the bioenergy sector, etc. applied to these relatively conventional branches of industry to make them appear more modern and attractive (in contrast to the usual and conventional “agrifood sector”), or whether there is something new vested in the bioeconomy as a notion that will empower the existing concept of those sectors with an additional edge and additional value.

It can be concluded that the most crucial aspect of the term “bioeconomy” lies in its unifying conceptualisation, which brings together the use of biological resources, production and processing and the related circular economy, as well as research and development activities, into a single, holistic approach. It will enable us to see the issues of this area with all its facets, actors and interlinkages. One of the key questions dealt in this book is how research and development and educational institutions could respond and adapt to the specific new types of approach and challenges of the bioeconomy concept. The answer is simple, yet complicated. It means that when we devise respective research programmes, or develop corresponding educational programmes, or are active in the actual R&D activities, we should follow the circular economy approach on the one hand and the problem-based approach on the other. This is certainly an important challenge for research institutions, universities and administrators alike.