

# ICA Bioeconomy Committee



**Josef Glössl**

University of Natural Resources and Life Sciences, Vienna (BOKU), Austria

**ICA Board and General Assembly**

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Wageningen University, NL



University of Natural Resources  
and Life Sciences, Vienna

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## **The updated European Bioeconomy Strategy 2018:**

**“A sustainable Bioeconomy for Europe: strengthening the connection between economy, society and the environment”**  
presented at the **Bioeconomy Conference**, 22 Oct. 2018, Brussels

### Sustainable & Circular: Bioeconomy the European way

The bioeconomy covers all sectors and systems that rely on biological resources (animals, plants, micro-organisms and derived biomass, including organic waste), their functions and principles. It includes and interlinks: land and marine ecosystems and the services they provide; all primary production sectors that use and produce biological resources (agriculture, forestry, fisheries and aquaculture); and all economic and industrial sectors that use biological resources and processes to produce food, feed, bio-based products, energy and services.<sup>1</sup> To be successful, the European bioeconomy needs to have sustainability and circularity at its heart. This will drive the renewal of our industries, the modernisation of our primary production systems, the protection of the environment and will enhance biodiversity.

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**Aims** (as defined by the ICA Bioeconomy Task Force; may be further developed by the Bioeconomy Committee)

- Define ICA as representing the European Life Science Universities in the development of the Bioeconomy at the European level
- Contribute to the implementation of the EU action plan for bioeconomy in education, research and innovation by seeking synergies among ICA members and other EU and international institutions, industries, and networks

# Main Activities of ICA-Bio since the last ICA General Assembly



- **2nd Global Bioeconomy Summit (GBS2018), 18-20 April 2018, Berlin**
  - A Workshop entitled **“International Cooperation in Education and Training for the Bioeconomy”** was successfully proposed
    - Collaboration with **ICA-Edu** brought synergies between both ICA committees
    - Collaboration with **UNESCO** strengthened the international perspective of the workshop
  - Workshop Report included in the Conference Report of GBS2018 at [www.gbs2018.com](http://www.gbs2018.com)
  - See also Handout for a short version of the report

## Global Bioeconomy Summit Conference Report

Innovation in the Global Bioeconomy for Sustainable  
and Inclusive Transformation and Wellbeing

# GBS 2018 Workshop “International Cooperation in Education and Training for the Bioeconomy”:

Input Speeches from different stakeholder groups

## ■ Universities, Europe and Global:

- **Barbara HINTERSTOISSER**, University of Natural Resources and Life Sciences, Vienna (BOKU), AT
- **Chadamas THUVASETHAKUL**, Executive Vice President, National Science and Technology Development Agency (NSTDA), Thailand

## ■ Industry, Europe and Global

- **Phillippe MENGAL**, Executive Director, Bio-based Industry Joint Undertaking (BBI JU)
- **Karl-Heinz MAURER**, Global Marketing Director, ABEnzymes AG, D

## ■ Policy and Governance, Europe and Global

- **Andrzej SIEMASZKO**, Central and Eastern European Bioregions Forum, Marshal's Office of the Lodzkie Region, PL
- **Peter WELLS/Ahmed Fahmi**, Chief of Higher Education Section, UNESCO

# International Cooperation in Education and Training for the Bioeconomy:



## Concept for Small Discussion Groups (modified World Café)

- 7 Groups (Round Tables) with 8-12 participants each (including 1 Chair and 1 Rapporteur per table)
  - The same set of questions (**Guiding Questions 1 - 3**) was discussed in parallel at 2 or 3 tables
  - The list of questions to be discussed have been prepared in the preparatory phase before GBS 2018 by the organizers of the workshop
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## Workshop at GBS2018: “International Cooperation in Education and Training for the Bioeconomy”: Guiding Questions 1, 2, 3

discussed in parallel at Round Tables

1

- What are the current deficiencies in the curricula approaches (knowledge, competences and skills for cross-disciplinary understanding) in education and training institutions related to the bioeconomy in developed, developing and emerging economies?
- What new approaches are required in education and training for growing a sustainable bioeconomy?

2

- Are new human resource and institutional capacities needed in education and training institutions for providing the workforce for a growing sustainable bioeconomy?
- How can these be created?
- What are the resources that the public and private sector can contribute to building such a model of the bioeconomy?

3

- How can synergies be developed at regional or global levels to support the capacity building of education and training institutions for growing a sustainable bioeconomy?

## Workshop at GBS2018: “International Cooperation in Education and Training for the Bioeconomy”:

### What`s next?

- Development of a „European/International Bioeconomy Education Platform” with a global perspective to provide a forum for international collaboration and exchange on education and training at all levels for the bioeconomy
- Take action now!
  - Developing education for bioeconomy is urgent. There is already a shortage of key competences and demand is expected to raise quickly



# Workshop at GBS2018: “International Cooperation in Education and Training for the Bioeconomy”:

## What`s next?

- The topics Education and Training are mentioned several times in the **Communiqué of GBS2018**
  - „Interdisciplinary education and training at all levels in bioeconomy“ was mentioned as one of the „newly emerging topics“ of global relevance to be considered
- The Communiqué was prepared by the **International Advisory Council (IAC) of GBS2018** (where JG is a member)
- This provides a good basis for continuing the topic at the next GBS in 2020
  - A preparatory meeting by the IAC will be held in March 2019 in Beijing



# Further Selected Activities of ICA-Bio



- Participation of ICA as a partner in the EU COST-Proposal „Education on the Bioeconomy“ submitted by April 2018
    - The proposal has been declared non-eligible due to formal reasons
    - A revised version will be re-submitted by 29 Nov. 2018
  - Participation at the European Bioeconomy Congress Lodz 2018, co-organizing the Workshop „Bioeconomy Education for the Future“, 24 Sept. 2018
  - ICA/ICA-Bio is a supporting partner of the project „Skills4Bio“ submitted to a Horizon 2020/BBI call in Sept. 2018
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# The further need of an ICA Bioeconomy Committee



- No other university network focusing on the development of the knowledge, skills and competences of the bioeconomy workforce  
→ **Continuing need for ICA to focus on the Bioeconomy in supporting universities** to:
  - ❑ embed the concept of the Bioeconomy in the ethos of the life science university at the strategic level
  - ❑ to embed the concept of the Bioeconomy in the mindset of academic staff, (in the same way as sustainability should be embedded across the degree programme curricula)
  - ❑ support the development of curricula so that the concept of bioeconomy is clearly embedded in the mindsets of the graduates.
  - ❑ support the concept of the circular economy for the bioeconomy and *vice versa*
  - ❑ support universities to engage in developing the concept of bioeconomy regional clusters for enterprise engagement in the circular bioeconomy

# Proposal for next activities of ICA-Bio

## Proposal 1



- Joint proposal for the **European Forum Alpbach** 2019 by BIOS Science Austria, Ecosocial Forum Austria and ICA:
  - Proposal for **Plenary Session** and **Breakout-Session** on Bioeconomy.
    - Working title “**Bioeconomy: Global challenges – local/regional implementation**”
  - Date: 22-24 August 2019, Technology Symposium of Forum Alpbach
  - General theme of European Forum Alpbach 2019: “**Liberty and Security**”
  - Suggested approach: linking bioeconomy to SDGs, climate change, transforming economy, ...
    - **Plenary Session** max 1,5 h, **Break-out Session** one afternoon
- President of Forum Alpbach: Former European Commissioner Franz Fischler
- <https://www.alpbach.org/en/forum2019/>

# Proposal for next activities of ICA-Bio

## Proposal 2



- Revisit the previously planned workshop **Life Science Universities as Partners for Developing the Bioeconomy**
  - The workshop was designed to involve delegates from the European Commission and Parliament, European Technology Platforms (ETPs), universities, national research councils and international student associations to share their knowledge and discuss their visions on the workforce for the bioeconomy
    - Ongoing discussion with John Bell / Waldemar Kütt (EC, DG Research & Innovation, Unit Bioeconomy) on the option for creating a European Platform on Education for Bioeconomy
      - EC will organize a planning workshop beginning of 2019

# Proposal for next activities of ICA-Bio

## Proposal 3



- Co-operation with BIOEAST Initiative
  - BIOEAST is an initiative of the Visegrad Group countries (CZ, SK, HU, PL) and includes further countries of the Danube Region
  - Preparatory Meeting planned at the **BIOEAST Conference “Bioeconomy in the forefront of national policies”** on 8 Nov. 2018, Budapest
    - Option of a Conference /Workshop in Prague in April 2019 on Education and Training for Bioeconomy
    - ICA-Bio was invited to co-organize this event in order to provide the European perspective
- **In general, ICA-Bio is actively joining forces and co-operating with other upcoming networks dealing with education and training for the bioeconomy**

# Proposal for next activities of ICA-Bio

## Proposal 4



- Development of concepts for **Further Education** and **Life Long Learning** in fields relevant for bioeconomy
  - Proposal to join forces with **Academia Danubiana**, an initiative of BOKU University for Further Education in European networks, with a focus in the Danube Region

# How to proceed with ICA-Bio?



- Further development of the ICA Bioeconomy Committee:
  - Volunteers interested to be Committee members
    - Former members of the Bioeconomy Task Force as well as further members
  - Development of Terms of Reference
  - Development of an Action Plan
  - Identification of contact persons playing a key role in bioeconomy related activities at ICA member institutions
  - To be discussed ....



# Thanks you for your attention



**Josef Glössl**

University of Natural Resources and Life Sciences, Vienna (BOKU), Austria  
[josef.gloessl@boku.ac.at](mailto:josef.gloessl@boku.ac.at), [www.ica-europe.info](http://www.ica-europe.info)

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# Academia Danubiana – goals and scope



## (1) history

- Founded in 2003 by Prof. Kvarda.
- Academic exchange on the Danube Region including research and teaching (e.g. summer school)

## (2) goals

- Promoting sustainable development and in the Danube Region, for a better exchange between universities and public authorities in science and governance.
  - Support the regional integration within the countries of danube region.
  - Cooperation of academic networks in the Danube Region
  - Establish customised education programmes
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EUROPEAN COMMISSION

Brussels, 8.12.2010  
SEC(2010) 1489 final

COMMISSION STAFF WORKING DOCUMENT

**ACTION PLAN**

*Accompanying document to the*

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**European Union Strategy for the Danube Region**

{COM(2010) 715 final}  
{SEC(2010) 1490 final}  
{SEC(2010) 1491 final}

Academia Danubiana is  
mentioned in the Action Plan of  
the EU Strategy for the Danube  
Region (EUSDR)

⇒ *Example of project - “To implement the strategy for soil protection” - Responsible, multifunctional use of land and soil and interlinkages to the regional development, as well as new governance tools and the "learning region" concept would be developed. The project should link to the work already undertaken by the Academia Danubiana<sup>67</sup> in this field.*

<sup>67</sup> Academia Danubiana is an institution that focuses on a scientific and educational network of universities and other institutions of the Danube Region.

# Academia Danubiana – goals and scope (3)



## Scope

- ❑ Supplement universities' 3rd Mission activities
  - ❑ Establish Academia Danubiana as Academy of Further Education for the Danube Region
  - ❑ Cooperations with the ICA-CASEE network and other initiatives (e.g. Danube:Future and EU's Danube Region Strategy)
  - ❑ Customised education offers in the BOKU main topics energy transition, climate protection and changes in bioeconomy
  - ❑ Integration in BOKU's continuing education activities.
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