GLOBAL BIOECONOMY SUMMIT 2020

How to shape education for a sustainable bioeconomy?

- What are the different skills requirements for the future circular sustainable bioeconomy (CSB) experts?
- Which educational formats can convey and combine these required skills sets?

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European Community of Practice for Bioeconomy Education

european bioeconomy university

Subworkshop 1: Outcome

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Education in Synthetic Biology - A role model for the education of next generation bioeconomy experts?

- Synthetic Biology is an essential part of the next generation bioeconomy.
- The global SynBio education program iGEM (a student competition) is for many participants a transforming experience.
- iGEM influences the next generation of high tech-driven bioeconomy on multiple levels: from education to governments, and industries.

Subworkshop 2: Outcome

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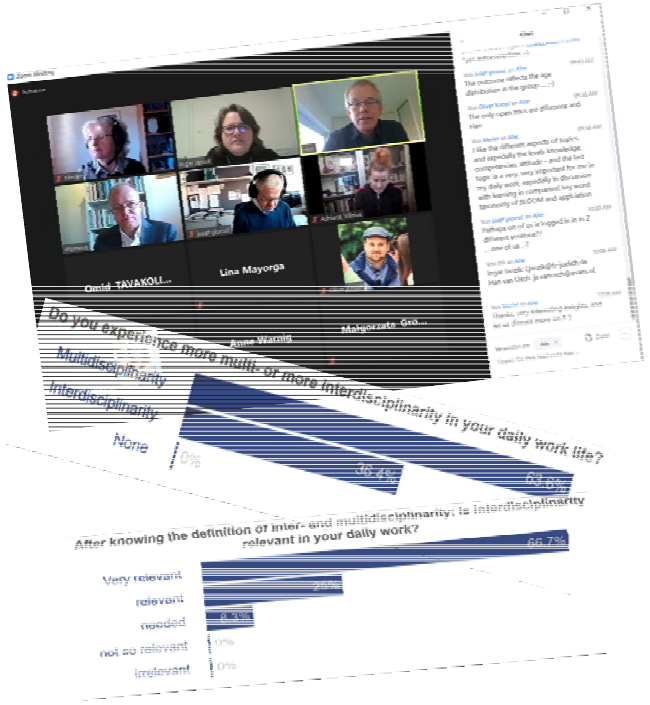
How should interdisciplinary education and training be developed to ensure that all graduates are well prepared for their career pathways in the CSB.

- Transdisciplinarity is the next step in CSB Education. Integrate the non-academic knowledge and include the public community and industry in development of curricula (schools, universities and vocational training)

- Tell the story: To create awareness for the CSB modern communication tools are a key element.



Subworkshop 3: Outcome

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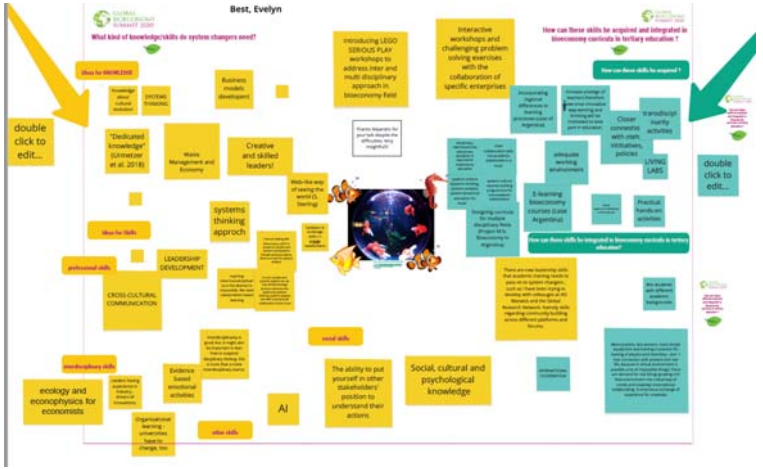
Skills and knowledge requirements for system changer that are able to move the transition to a truly sustainable bioeconomy



- Systems changers need transformative competencies: they need to be able to reflect on existing paradigms, to co-create visions of a future world, and to induce the required changes in their environments/surroundings.

- Transformative learning environments are needed that provide spaces for reflection and problem-/project-based teaching.

Subworkshop 4: Outcome

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Trends in Interfacing Biobased Industry requirements with Bioeconomy Education

- From an industry perspective:
  - bioeconomy education to be included into study programmes (add socioeconomic disciplines beyond technical ones)
  - Importance of Life-long learning
- Increase collaboration between industry and education institutions.
- Global exchange of best practices is needed.

ESAB European Society of Applied Biocatalysis

SKB

Lodz University of Technology

Subworkshop 5: Outcome

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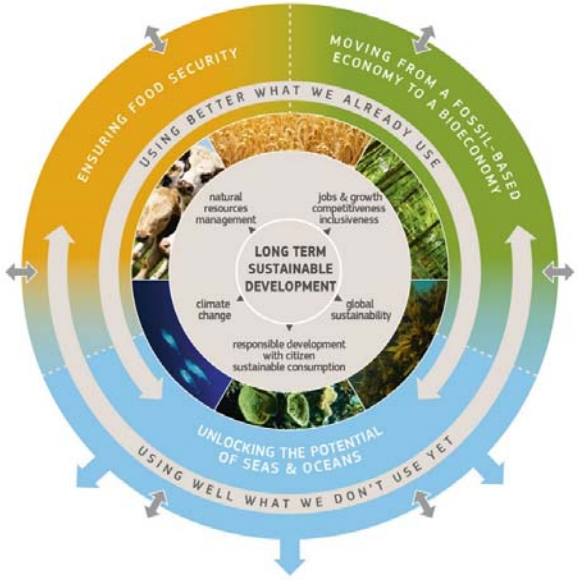
Do Regional or National Perspectives Shape the Current Delivery of Education for a Sustainable Circular Bioeconomy?

- Recognition of the sustainable circular bioeconomy is not well developed in higher education programmes globally
- We should engage globally to share experience and understanding



Subworkshop 6: Outcome

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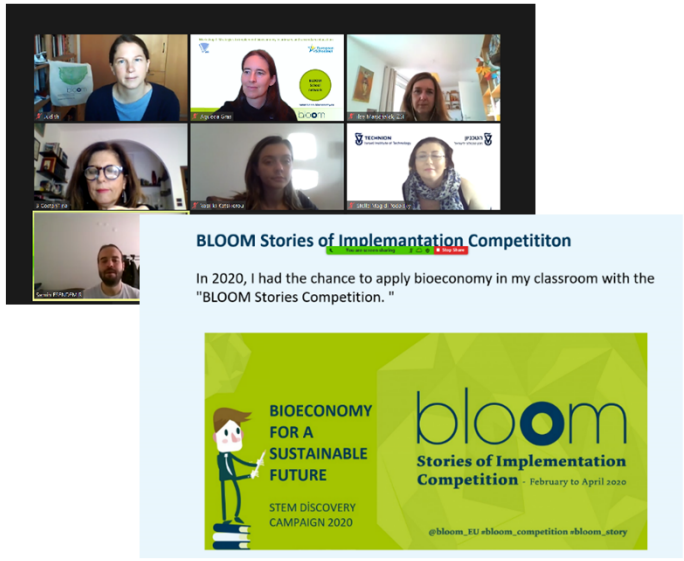
Strategies to implement CSB beyond tertiary education – engage and train the educators of primary and secondary education

- Structural and political context: Ministry of education should support the integration of CSB into the curriculum (so far CSB in teaching is an “extra”)
- Provision of good teaching materials in the respective language of Teachers (see e.g. BLOOM school box)
- Connect and build up a network for teachers, so they can teach each other.



Follow Up

GLOBAL BIOECONOMY SUMMIT 2020

How to shape education for a sustainable bioeconomy?

Elaboration of strategic recommendations for tertiary education programs.

- Workshop report for GBS2020 Homepage
- Opinion Paper

Goal:

- Educate bioeconomy graduates that meet the range in expertise required in the circular sustainable bioeconomy (CSB) workforce.
- Include the need for system changers, which can support the transition to a sustainable bioeconomy.