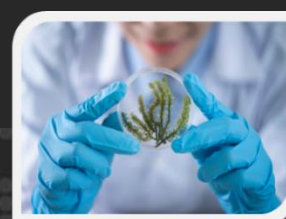
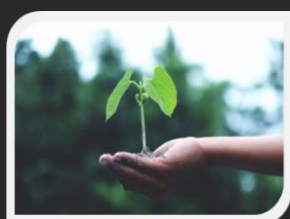


# ONLINE BIOECONOMY YOUTH DEBATE #1

Bioeconomy education and training to  
develop the skills of the future



*Event Report*

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ORGANISER



[www.genb-project.eu](http://www.genb-project.eu)

[info@genb-project.eu](mailto:info@genb-project.eu)

# Outcomes and Recommendations

## Miro Board outcomes on Topic 1.1

| Topic 1.1 Questions   | Participants answers   |
|---|--|
| <p><b>1. What are the most important subjects or elements to teach about bioeconomy?</b></p>  | <ul style="list-style-type: none"> <li>- Sustainable Resource Management</li> <li>- Biotechnology and Innovation</li> <li>- Green Economics and Business</li> <li>- Biomimicry &amp; How to Design Without Waste</li> <li>- Circularity</li> </ul>   |
| <p><b>2. How can we introduce life cycle and systems thinking at younger ages?</b><br/>(the answers are numbered according to popularity based on the voting session)</p> | <ol style="list-style-type: none"> <li>1. Outdoor education (visits to forests, agricultural sites for students to connect with the production processes etc)</li> <li>2. Experiential / interactive learning (storytelling, games, books, hands-on-labs)</li> <li>3. Intergenerational learning</li> </ol>  |
| <p><b>3. How to overcome the barriers and challenges to teaching bioeconomy?</b></p>  | <p><b>Lack of teacher training and awareness</b></p> <ul style="list-style-type: none"> <li>- Dedicated training activities and toolkits ready to be implemented in the classes.</li> <li>- Teacher education on environmental matters.</li> <li>- Cooperation with organisations and institutes that have the tools and the know-how.</li> </ul> <p><b>Limited resources</b></p> <ul style="list-style-type: none"> <li>- Partner with private sector bioeconomy-based companies.</li> <li>- Credits recognition and teachers' rewards.</li> <li>- Incentives provision to teachers (e.g., certifications).</li> </ul> <p><b>(Parental) misunderstandings</b></p> <ul style="list-style-type: none"> <li>- Joint informational activities and campaigns for both parents and kids (e.g., school gardens and activities with parents).</li> <li>- Focus on how bioeconomy won't negatively affect the economy.</li> <li>- Students to become the "teachers" of their parents.</li> <li>- Informative sessions and take-home resources to explain bioeconomy in relatable terms, involving parents and community members in supporting these values at home.</li> </ul> <p><b>Complex nature of bioeconomy</b></p> <ul style="list-style-type: none"> <li>- Mention critical/controversial issues in the bioeconomy.</li> <li>- Separate bioeconomy issues – clarify that the bioeconomy is as complex as nature.</li> <li>- Tackle various bioeconomy aspects in connection</li> </ul> |

with challenges like climate change, biodiversity, waste and circularity, soil protection, food security, etc.

**Rapid advancements**

- Partner with local industries to provide real-world applications.
- Utilise advancements instead of being left behind.

**Curriculum constraints**

- Integrate bioeconomy topics across multiple subjects to broaden understanding.
- Set “Circular bioeconomy” models as the “default”.
- Build the topic within the existing curriculum.

**Funding limitations**

- Explore partnerships with universities, NGOs, and private sector companies to provide resources, materials, and sponsorships.
- Advise educational institutions to prepare funding applications.
- Use methods, tools, and examples that are not very costly.

## Miro Board outcomes on Topic 1.2

| Topic 1.2 Questions   | Participants answers   |
|---|--|
| <p><b>1. What are the skills needed for young talents to strengthen the bio-based sectors?</b><br/>(numbers according to votes)</p> | <ul style="list-style-type: none"> <li>- Environmental knowledge: 11 votes</li> <li>- Creativity and Innovation: 10 votes</li> <li>- Analytical skills: 5 votes</li> <li>- Technical skills – Business perception: 4 votes</li> <li>-Project management, Communication skills, Legislation and regulation: 3 votes</li> <li>- Risk management and Digital skills: 2 votes</li> </ul>   |
| <p><b>2. What other careers related to bioeconomy can become more attractive?</b></p>   | <p><b>Research &amp; Development</b><br/>           Environmental Policy Analyst<br/>           Bioprocess researchers<br/>           Land-use planner<br/>           Biodiversity conservation</p> <p><b>Engineering &amp; Manufacturing</b><br/>           Bio-based materials manufacturer<br/>           Bioenergy technician<br/>           Bioprocesses engineer - scale up biobased products<br/>           Biorefinery plant manager<br/>           Supply chain manager<br/>           Bioprocess operations optimisation</p> <p><b>Humanities &amp; Arts</b><br/>           Landscape designer<br/>           Historical skills coordinator<br/>           Bio-fashion designer<br/>           Games creator either digital or tangible games like floor games</p> <p><b>Biosciences</b><br/>           Bio-plastics designer<br/>           Food scientist<br/>           Agriculture technician/scientist<br/>           Bio-therapist</p> <p><b>Consulting</b><br/>           Sustainable tourism<br/>           Connector of stakeholders along the value chain<br/>           Communicator expert in sustainability topics<br/>           Ecosystem facilitator<br/>           Life cycle assessment expert</p> |

**3. How would you start to plan your career in bioeconomy?**

- Interest and Strengths identification: which area of bioeconomy aligns with person passions.
- Research on career opportunities and skills needed CV and experience analysis to identify the bioeconomy-specific elements that should be highlighted when applying.
- Volunteering/internship applications.
- Keep on studying and getting updated (e.g. master's degree).
- Develop green economic skills.
- Incorporate social innovation in bioeconomy.
- Spot business behind biotechnologies.
- Build Network: join social media, forums, conferences, to gain insights.
- Be open-minded to different opportunities.

## Key Insights stemming from the discussions

The event highlighted the importance of a holistic and interdisciplinary approach to bioeconomy education, integrating topics like sustainable resource management, biotechnology, circularity, and green economics into curricula. Practical, hands-on methods such as outdoor education, storytelling, and interactive labs were identified as the most effective strategies for introducing lifecycle and systems thinking to younger audiences. To address barriers such as limited teacher training and resources, collaboration with organizations, private companies, and NGOs was emphasized, alongside the creation of dedicated toolkits and training programs for educators. Parental engagement through joint activities and informative resources was also recognized as essential for fostering family-wide support and understanding of bioeconomy principles.

Simplifying bioeconomy's complexity by linking it to pressing global challenges, such as climate change and biodiversity, and providing real-world applications through partnerships with industries, were key recommendations. Participants stressed the need for integrating bioeconomy education across multiple disciplines within existing curricula, presenting circular models as the default framework. Finally, innovative funding strategies, including partnerships and grant applications, coupled with incentives for educators, were proposed as vital to ensuring the successful implementation and sustainability of bioeconomy education initiatives. These insights underscore the collective effort required to embed bioeconomy principles into education and prepare the next generation for sustainable living and careers.

