Certificate of participation

UNIVERSITÄT HOHENHEIM

ABBEE Bioeconomy Education

Co-funded by the Erasmus+ Programme of the European Union

We hereby certify that

Lars-Peter Wiese

completed the online course

Concepts of Sustainable Bioeconomy

on 19 June 2025.

This course consisted of 6 sections that provided concepts and perspectives related to the bioeconomy and integrated multiple examples of biobased value chains and webs, sustainability assessment tools and digitalisation approaches for the transition towards a sustainable biobased economy. Additionally, it highlighted the importance of innovation, inter- and transdisciplinary and systems thinking, and governance frameworks to foster the bioeconomy.
The following questions were addressed:

- What is bioeconomy and which are the principles and sectors related to this concept?
- How can bioeconomy contribute to sustainability?
- What is the vision of sustainability that we want and how can bioeconomy be part of a societal transformation?
- How is bioeconomy implemented in the practice?
- What are examples of biobased value chains and webs in the bioeconomy?
- What approaches exist for the sustainability analysis in the bioeconomy?
- How can digitalisation contribute to the bioeconomy?
- Why does bioeconomy require systems thinking, inter- and transdisciplinarity?
- What is the importance of innovation for the bioeconomy? Is it only about technological innovation?
- What are the different types of actors and their roles in the bioeconomy?

Course content listing

Lars-Peter Wiese has completed the following content.

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I. Bioeconomy concepts

1. What is bioeconomy? Definitions and history; 2. Sustaina bioeconomy; 3. Normative dimensions of the bioeconomy

II. Biobased value chains and webs

4. Biobased value chain I – Agriculture; 5. Biobased value chain II – Waste; 6. Biobased value chain III – Microorganisms and Algae

III. Measuring sustainability in the bioeconomy

7. How to measure sustainability in bioeconomy: Life-cycle sustainability assessment; 8. Techno-economical assessment (TEA) and drivers of innovation

IV. Bioeconomy in the digital era

9. Bioeconomy and digitalization

V. Inter- and transdisciplinarity, innovation and governance for the transition towards a sustainable bioeconomy

10. Inter- and transdisciplinarity in bioeconomy; 11. Innovation systems and knowledge to thrive the bioeconomy; 12. Governance of the bioeconomy