

# Case Studies in Bioeconomy Education, Training and Skills Development

Case study sample: Boosting  
Bioeconomy Knowledge in Schools

Online

BSS



Funded by  
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# Boosting Bioeconomy Knowledge in Schools

## 1 Abstract

This MOOC aims to bridge the gap in education by providing teachers with a fresh perspective on the bioeconomy field and its applications to teaching STEM subjects. The course will present the BLOOM School Box, a series of lesson plans co-created by 20 pilot teachers in 10 European countries. These illustrate how the bioeconomy can be introduced into different STEM subjects.

## 2 Target Groups

Complementary education for teachers and professionals; re-qualification of professionals

## 3 Case Study Category

Bioeconomy education, training and retraining in vocational education and training (VET)

## 4 Training Provider

European School Net

## 5 Region

Online

## 6 Language

English

## 7 Objectives of the Educational Format

Re-qualification of professionals

## 8 Final Objective of the Educational Format

Bridge the gap in education by providing teachers with a fresh perspective on the bioeconomy field and its applications to teaching STEM subjects

## 9 Scope and Context of the Educational Format

Requires 2–3 hours per week

Presentation of the BLOOM School Box, a series of lesson plans illustrating how the bioeconomy can be introduced into different STEM subjects

Course participants will learn about the bioeconomy in (STEM) education by making use of the various educational tools and lesson plans.

Learning objectives:

- Understand what the bioeconomy is, its importance for society and students and its implications for education
- Explore the BLOOM School Box and learn how it can be used in teaching
- Learn how to teach the bioeconomy in educational contexts
- Understand what the BLOOM project is and how it can help teachers innovate classroom practices

Modules:

- Module 1: Bioeconomy in our lives
- Module 2: The BLOOM School Box: bioeconomy in the classroom
- Module 3: Teaching with bioeconomy
- Module 4: Your bioeconomy learning scenario

## 10 Specific Skills and Competencies Addressed

Valorisation competencies

## 11 European Qualification Framework Level(s)

Level 3.

## 12 Main Benefit to the Participants

Participants will receive a digital course badge and a course certificate upon completion of the full course.

## 13 Main Cost Categories Considered

Personnel costs needed to develop the contents, graphic designers, development of the platform

## 14 Importance and Impact

The BLOOM MOOC has involved over 800 teachers from 46 countries and has had an impact on almost 10,000 students.

## 15 Relevance (of the Format)

The bioeconomy involves a broad range of sectors, including agriculture, the agrifood industry, fisheries, forestry, biorefineries, chemistry, and (bio)energy. However, despite its many applications, it has not yet become a part of the public consciousness as an exciting solution to today's societal challenges. Teachers can raise awareness about the bioeconomy for future generations.

## 16 How can it Inspire BioGov.net? (Why was it designed in this specific way / what are the success factors?)

The bioeconomy needs to be incorporated into existing curricula and school subjects. This MOOC shows ways for accomplishing this and provides full lesson plans and training for teachers. It shows the possibility of teaching about and using current topics in class and can reduce the workload of teachers by providing ready-to-use materials. It also offers certification.

## 17 Data Sources

- **Online resources:**  
<https://www.europeanschoolnetacademy.eu/courses/course-v1:BLOOM+BoostBioec+2019/about>
- **Resource persons:** -
- **Other sources, if any:** -

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## Consortium

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