

Czech Republic

Factsheet

This document provides an overview of the Czech Republic's initiatives and current state in the bioeconomy sector, highlighting regional policies, educational programs, key trends, existing and expected sub-sectors, and opportunities for personal advancement in bioeconomy related fields.

About the region

Although the **Czech Republic** does not yet have a unified strategy for Bioeconomy, there are ambitious governmental initiatives and focused policies in various regions. Traditionally, the country has had strong research performance in many domains related to Bioeconomy. This, coupled with developed agriculture, forestry, and food industries, provides a solid foundation for developing locally based circular systems.

In the domain of Bioeconomy education, there are substantial initiatives, mainly through the BioEast network. The BioEast Hub coordinates the Thematic Working Group (TWG) on Bioeconomy Education, engaging many universities in dedicated educational programs and vocational training. Additionally, a significant Czech initiative is the creation of a University Network within Central and Eastern European (CEE) countries, known as BioEast UniNet.

Thematic Orientation

Existing Sub-Sectors

- Eco-construction (wood)
- Hemp industry
- Phytopharma & Cosmetics
- Food & Feed
- Textile

Key Trends Influencing Innovation

- Cooperation among companies and universities is growing (mostly because it is needed by the last projects and funding programs)
- Digital and green transformation (however the explicit focus on Bioeconomy is missing)

Expected Sub-Sectors / Value Chains

Key subsectors in the future by 2030:

- Green chemistry
- Bioplastics
- Bioenergy (biogas, biomethane, bioethanol)
- Health care
- Construction

Opportunities for advancement (Growth, Career, Social etc.)

There are numerous opportunities for personal and professional growth in the region:

- Education possibilities
- Paid Jobs are another (the income in the region is historically below average and paid jobs are a good opportunity)
- Own enterprise (start-up, spin-off)
- Employment in an existing company focused on the production/processing of renewable biological resources.



Note: Despite these opportunities, there is no systematic and comprehensive approach towards personal advancement in Bioeconomy.

Governance, Education Levels & Skills

Governance structure in adult education on Bioeconomy, or on the wider topic of sustainability (Higher Education, Vocational Training etc.)

- Existing Policies – Strategies
 - Regional Transformation plan
- Governance Model
 - The concept of agriculture and rural development
- Regulation – Legislation
 - Support of science and research in the Moravian-Silesian Region
 - Bioeconomy is not part of adult education in the Czech Republic and is not part of the government structure

Organisation of Adult and Lifelong Learning

- No organised structures for Bioeconomy

Available Research on Bioeconomy Education

- No organised structures for Bioeconomy

Main Training, Retraining or Lifelong Learning on Sustainability

- No organised structures for Bioeconomy

Available Research on Bioeconomy skills needed

- There is currently no organised research on the specific skills needed for the Bioeconomy sector. However, it is essential to build a comprehensive educational structure tailored to various levels of education and target groups. This structure should encompass language skills, drivers, skilled workers, and construction workers to meet the diverse demands of the Bioeconomy industry.

Linking Art & Bioeconomy Education

Bioeconomy education in which Art concepts are applied

- Art to simulate the Bioeconomy needed skills

- In the European project **AllThings.Bio** the workshop started with co-design workshops with citizens and secondary school children to gather ideas and start visualising the future game. The children were particularly creative and invented the basic avatar characters and backgrounds that Nurogames, the game developer of AllThings.Bio, took as a basis for future assets design and game development.

- Art to address different learning styles and facilitate inclusion of marginalised people

- No available examples

- Inspirational case studies and formats from art and design to educate in the Bioeconomy

[VIEW HERE](#)

- Injection of the Bioeconomy in design, art, architecture, etc.

- Injecting the Bioeconomy in design, art, architecture, etc. professions. Bioeconomy has an influence on such topics as architecture and design. We can see the marks on self-sufficient housing etc.

Marginalised Groups

Currently, there are no specific reports on working with marginalised, disadvantaged, or minority groups within the Bioeconomy sector. Relevant jobs and opportunities for the inclusion of these groups have not been documented.

The main needs for integrating individuals from marginalised groups into the Bioeconomy involve addressing concerns arising from unequal power relations between primary producers and other actors. Issues such as bargaining and lobbying processes that lead to the generation of institutions, are largely ignored in the analysed policy strategies.

Additionally, there are no reported existing educational or development activities aimed at integrating marginalised groups into Bioeconomy activities.



STRENGTHS

- Coverage of multiple sectors and subsectors
- Expected expansion to new sectors
- Competitiveness based on Innovation
- Transition based on green and digital principles
- Cooperation examples in the private sector
- Existing Educational Initiatives in the domain
- Existing lateral opportunities, Life-Long learning, Vocational training, mass information, etc
- Partial research on skills required in Bioeconomy
- Partial overlapping between the Bioeconomy Education Institutions and Art related institutions

WEAKNESSES

- Lack of a National Strategy on Bioeconomy
- Implementations related to Bioeconomy are not fully aligned with the socioeconomic priorities of the country
- Not fully valorized resources and products
- Lack of a National Plan aiming to achieve the defined goals
- Lack of a plan for identification and exploration of the potential of Marginalised Groups (MG)
- Not existing Educational Strategies in the domain
- Lack of Educational Structures for Bioeconomy
- Fragmentation of activities and priorities
 - Lack of an organisational umbrella
 - Not available dedicated research on Bioeconomy Education
 - Lack of any Education initiated for MG

SWOT Analysis

OPPORTUNITIES

- Building strategic alliances
- Further exploitation of the developed digital background Expansion in many ways, considering the geopolitical situation and also the involvement of the country in well-organized Macro-regional networks
- Benefitting from the existing general educational background
- Further exploration of structures for advancing opportunities on social educational and career levels
- Czech Republic can maximize the impact by operating on a macro-regional scale. This approach is fully applicable at the Educational level

THREATS

- Potential decrease of resources by 2050 due to dynamic harvesting
- A potential brain drain due to the lack of motivation
- The lack of identification and management of Marginalised Groups, and the lack of any educational plans for them, unavoidably will lead to an inhibition of social integration. Such a situation lead to societal issues and conflicts, also provoking an economic impact

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