

# **BioEast UniNet:**

## **Advancing Bioeconomy Skills in Regional Context**

George Sakellaris

BioEast Hub CR



# Education: Part of the strategy



Bioeconomy Strategy Objectives to be reached by

- ❖ Improving the knowledge
- ❖ Fostering innovation
- ❖ Emphasizing the Regional Character

- *Stakeholders Manifesto [November 2018]*
- *European Green Deal (December 2019)*
- *New Bioeconomy Strategy for Sustainable Europe (October 2018 – EC)*
- *Bioeconomy Action Plan (Revision of 2012) Expert Group Report – European Commission – 2017*
- *BioEast Foresight Exercise (September 2022)*





# The Requirements



- Besides **Knowledge, Infrastructure** and **Legislation**, new Bioeconomy requires:

- ❖ Specialized Employees
- ❖ Entrepreneurs
- ❖ Decision makers
- ❖ Consumers

Who will form the appropriate human capital





# The Rational



*Implementation of Bioeconomies will be based on a new generation of experts:*

- **Widely Educated in terms of conventional disciplines**

- [Life Sciences / Economy / Social Sciences / Regulation /Soft Skills, Communication]

- **Highly Specialized in:**

- A wide spectrum of Specific Domains
- Adopting a Regional Approach
- Open in Synergies and Cooperation
- Active in Public – Private Participation





# The Reasoning

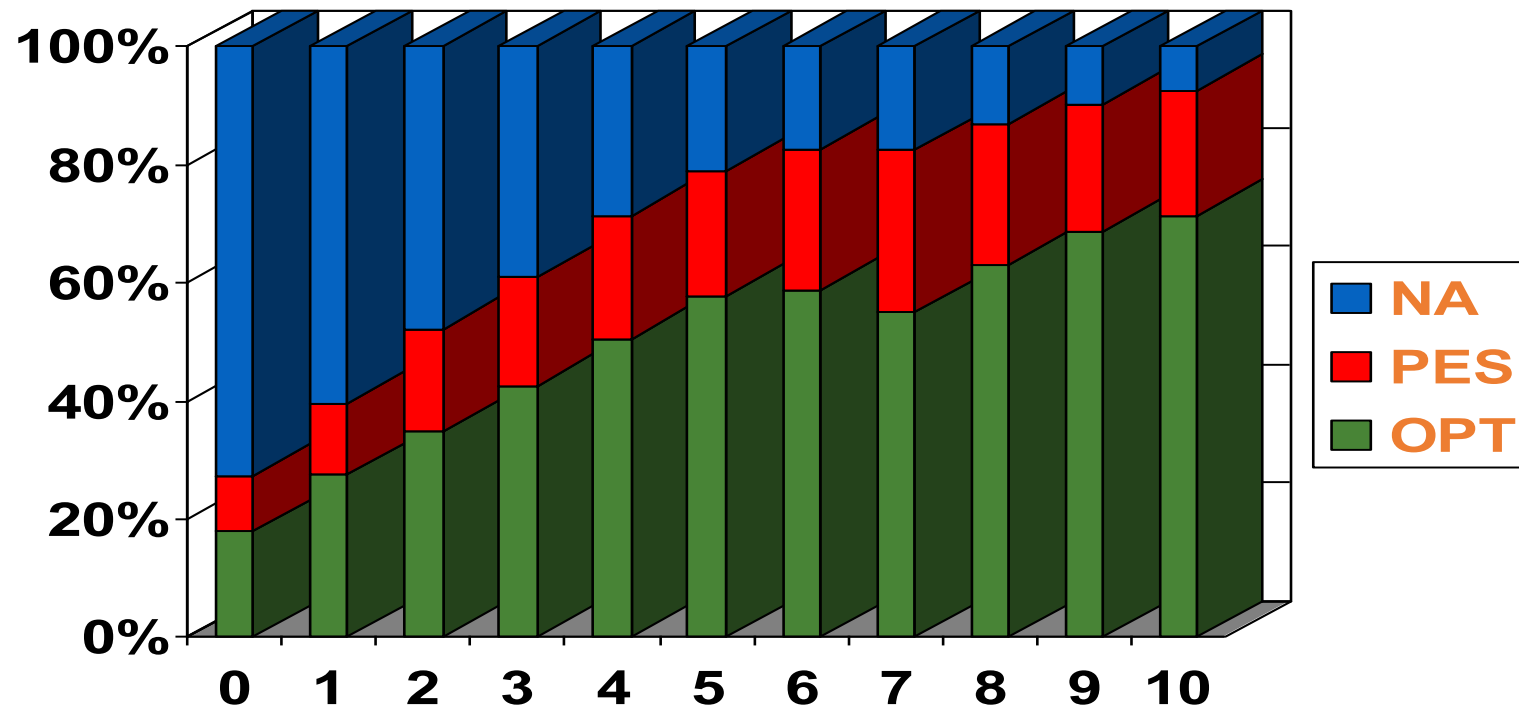


- ❖ Bio-based Economy and Circular Economy become substantial elements for the future development and growth in Europe
- ❖ The current dynamics in business and market requirements are changing. Therefore, a new generation of skilled working force, educated according to these needs is demanded
- ❖ There are high requirements in a wide spectrum of topics and disciplines, so the competent teams can gradually be complemented by skilled individuals

*For all the above a novel Educational approach is mandatory*



# Perception & Participation vs. Knowledge





# New Elements

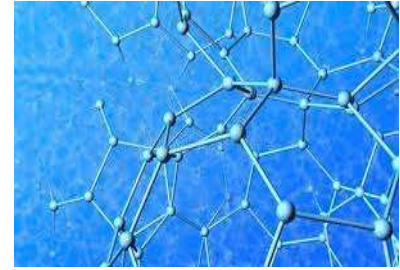


- Common Approach on Societal, Economic & Environmental needs
- Common Solutions to the above
- Respecting the (micro or macro) Regional Dimension
- Multi-disciplinarity in tools and expertise
- Lateral issues (Legal frame, Public perception, Communication)
- Considering alternatives, smart specialization and new value chains
- Including new tools (AI, Digitalization)
- Looking to the broader picture (competitiveness, brain drain, independency)





# A Complex Structure with Multiple Target Groups



- Students in all levels
- Employees of the related to the Bioeconomy Industry, Sectors and Domains
- Public Administration and Policy making officials in all domains
- Employees of commercialization chains and business development in the domains related to Bioeconomy
- Employees in Economy and Finances influenced by the Bioeconomy
- The general public, consumers, and stakeholders related to Bioeconomy
- Teaching the Teachers







# The Regional Dimension

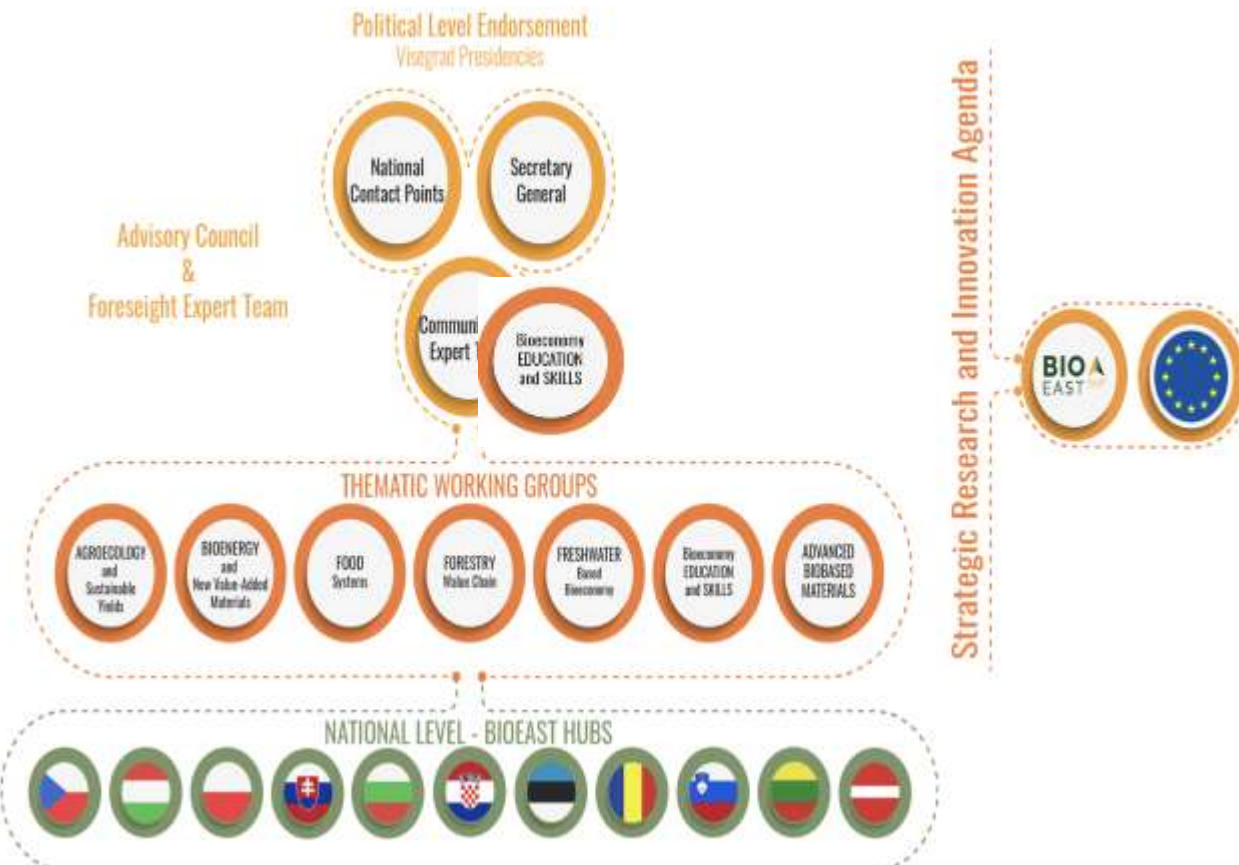


- Screening and Evaluation of the Regional potential
- Screening and Evaluation of the Regional needs
- Involvement of the Stakeholders
- Contribution to the National Strategy Plan
- Horizontal Actions
- The Regional Labor Market Analysis
- Determining criteria and indicators
- External Factors (*Natural, Social, Cultural, Demographic, Economic, Political*)



# BIOEAST TWG Bioeconomy Education Objective

- Support the BIOEAST Initiative on the EU scene
- Improve the involvement of TWG members and the dialog between Policy Makers and Academia
- Share the knowledge from the on-goings international projects, exchange the data & results and contribute to the capacity building
- To align with ongoing initiatives of European priority and extrapolate among them the specific interests for the BioEast region
- To identify specific target groups
- Create a dedicated Educational Network for the Region



# Input from SRIA Validation Workshops

- Mapping the Bioeconomy Education landscape in the region
- Identify the regional priorities
- Emphasize on Vocational Training
- Adopt the “Sustainable Entrepreneurship Education” priority
- Focus on specific Target Groups for education (Finances, Private Investors) and align forced on this direction with already ongoing activities (European Investment Bank, European Circular Bioeconomy Fund)
- **Establish the network of Bioeconomy Uni of the BIOEAST macro region**

# Conditions

- Innovative Governance
- Knowledge Exchange and Awareness raising
- Development of tutorials and other supportive tools on a cbc basis
- Development of place-based and context-specific business models
- Enhance participation and visibility
- Wider participation in consortia and projects
- Wider participation in dedicated events



# Project Scope & Objectives



- Identify special challenges the macro-region
- Provide guidance to national policy makers
- Contribute to the BIOEAST Strategic Research and Innovation Agenda
- Position the development of the regional Bioeconomies within the wider EU (Green Deal) and global context (Paris Agreement, SDGs)







## Strategic Objectives

- **Increase awareness and understanding:** Increase the general awareness and understanding of the concepts, principles, and potential of bioeconomy among students, educators, and the general public in the BIOEAST macro-region
- **Enhance curriculum integration:** Embed bioeconomy-related topics into the curricula of different disciplines (e.g., biology, chemistry, economics) at various educational levels.
- **Build interdisciplinary expertise:** Foster interdisciplinary collaboration and develop bioeconomy-specific courses or programs to equip students with the necessary knowledge and skills to navigate the complexities of the bioeconomy
- **Promote research and innovation:** Encourage and support research activities focused on bioeconomy-related topics, including the development of innovative technologies, sustainable production methods, and efficient resource management.
- **Establish industry-academia partnerships:** Facilitate collaborations between educational institutions and bioeconomy industries to ensure that education aligns with the needs and demands of the bioeconomy sector.
- **Foster entrepreneurship and start-ups:** Promote entrepreneurship within the bioeconomy sector by developing initiatives, such as business incubators or entrepreneurship programs, to support students and graduates in launching their own bioeconomy-related ventures.
- **Strengthen international cooperation:** Facilitate cross-border collaboration and knowledge exchange with international



1<sup>st</sup> year in a nutshell

# Action Plan



The Network of Bioeconomy Universities in the  
BIOEAST macro-region – BIOEAST Uni Net  
Concept Paper & Action Plan

BIOEAST HUB CZ as an operative managerial body of the BIOEAST Uni Net

- continued in the discussion about the cooperation with ICA / CoP, EBU, EC
- invited universities from both BIOEAST macro region and also Western Balcan countries
- represented the newly established interwork in the national and international events (f.e. EU Conference on Knowledge Valorisation Prague May 23; ICA – CoP & Boku May 23 workshop on BOKU; international summer school in Thesaloniky July 2023)
- was developing BIOgovNET, BIObec and CASCADE projects that support circular bioeconomy education
- participated and arranged involvement of BIOEAST Uni Net members into several project proposals focused on bioeconomy education, some projects are at the stage of grant agreement preparation (once the GA is signed, more information will be disclosed)



THE NEED TO ESTABLISH BIOEAST UNI NET





# The UniNet Roadmap

- December 2022 – Establishment of the Network – 6 Members MoU
- September 2023 – Enlargement of the Network – 10 Members
- November 2023 – Adoption of the Action Plan
- 2023, 24, 25 – Participation in HE projects
- October 2024 – New Governance Model
- March 2025 – Contribution to the BioEast SRIA
- May 2025 – Public Consultation EC New Bioeconomy Strategy





# Networking

- Community of Practice on Bioeconomy Education (CoP)
- European Bioeconomy University (EBU)
- Education and Awareness raising actions (*various projects*)
- COST Action on Bioeconomy Education
- Strong Regional Dimension (Within BioEast)
- BBI & CBE
- EuroBioNet
- World Bioeconomy Forum

# Aligning with European Initiatives

- Aligning with the Initiatives of the EC on BE
- Participation in the “*European Community of Practice of Bioeconomy Education*”
- Participation in specific and related networks
- Participation in several EC funded projects (H2020 & HE)



# The Network



*University of Ljubljana*



VYTAUTAS  
MAGNUS  
UNIVERSITY  
MCMXXII



UNIVERSITY  
OF NOVI SAD





# International Project Cooperation



Bio-based Industries  
Consortium



This project has received funding from the Bio Based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 101023381.



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



Circular  
Bio-based  
Europe  
Joint Undertaking



BioGov.net  
Governance & Upskilling for a  
Stronger Bioeconomy



BIOLOC  
Biobased and social innovation to revitalise  
European local communities



BIO2REG



*thank you for your attention !*

