

NATIONAL BIOEAST HUB GUIDELINES

VERSION 1. AUGUST 2020



EXECUTIVE SUMMARY

Central-Eastern European Initiative for Knowledge-based Agriculture, Aquaculture and Forestry in the Bioeconomy (hereinafter referred as "BIOEAST") Initiative offers a shared strategic research and innovation framework to the transformation towards sustainable bioeconomies in the BIOEAST region. The BIOEAST Initiative is a political initiative and as such only the ministerial bodies can become members. Along with the process of the development of the BIOEAST Initiative and its thematic working groups, a great variety of private organisations from the research, as well as business sectors have expressed support and interest to participate. The BIOEAST Governance and Roadmap defines the national BIOEAST HUBs (hereinafter referred as "BIOEAST HUB") as a national bioeconomy network to gather stakeholders.

The aim of this document is to provide a framework for the establishment of the national BIOEAST HUBS, including basic operating guidelines and also to showcase the example of the establishment of the Czech chapter, or BIOEAST HUB CZ. This document is structured in three chapters: the first, briefly introduces the BIOEAST Initiative, its development, structure and key milestones to provide information about the international landscape and layout for the national BIOEAST HUBs. The second chapter outlines the development of the BIOEAST HUB CZ, its structure, the team, its activities and achievements in the first 9 months of its development. The third chapter briefly summarises good practice, and provides some suggestions for other national BIOEAST HUB establishment.

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1. THE BIOEAST INITIATIVE

The long-term process of establishing BIOEAST was initiated in 2015 by the Visegrad Group's Ministries of Agriculture: aiming to better elaborate the EU's research and innovation framework programme and to start the cross-sectoral strategic thinking in bioeconomy (hereinafter referred as "BE"). Consequently, four political declarations were signed by the Agriculture Ministers of the Visegrad Group Countries (CZ, HU, PL, SK), Baltic States (EE, LT, LV), and South-Eastern EU States (BG, HR, RO, SI) in support of the BIOEAST Initiative. BE is a multidisciplinary topic that engages the activities of several sectors and corresponds to the agenda of several ministries – in addition to the agriculture ministry.

1.1. BIOEAST VISION PAPER AND THE BIOEASTSUP PROJECT

Approval of the BIOEAST Vision for 2030 was one of the key milestones. The document was signed by all 11 BIOEAST countries with the support of the European Commission (DG RTD, DG AGRI) and it was adopted in February 2018. The Vision outlines the objectives of the Initiative and a broad Action Plan to develop knowledge and cooperation based circular BEs in the BIOEAST macro-region. Each of the BIOEAST member-states nominates one National Contact Point (hereinafter referred as "NCP") as a BIOEAST board member. The BIOEAST Governance and Roadmap was issued in 2019. The BIOEAST Board is the main working body of the BIOEAST Initiative. The Board is composed of the Secretary General and NCPs.

In 2019 the BIOEASTsUP project was supported by the H2020 RUR-18-2018 project. The BIOEASTsUP project was launched in October 2019, with the main aim to support the BIOEAST initiative in the implementation of its Vision for 2030 and Action Plan for transition of 11 Central and Eastern European countries toward BE. The high-level conference, *Bioeast as a driving force in the context of the European Green Deal,* took place in February 2020 in Brussels. In June 2020 the BIOEAST Board issued the position paper *BIOECONOMY and Green Investments,* reaffirming its commitment to assist the elaboration of knowledge-based BE solutions for Central and Eastern Europe.

1.2. BIOEAST THEMATIC WORKING GROUPS

Five BIOEAST Thematic Working Groups (hereinafter referred as "TWG") were established to support the work of the BIOEAST Governing Board in specific strategic areas, resulting in documents prepared with a special focus on the Strategic Research and Innovation Agenda (hereinafter referred as "SRIA"). The BIOEAST TWGs were initiated by the Ministry of Agriculture of select BIOEAST Countries, as follows:

- Forestry by the Slovak Republic
- Sustainable Yields and Agroecological Intensification by Hungary
- Bioenergy and New Value-Added Materials by the Croatia
- Food Systems by Poland
- Fresh Water Based Bioeconomy by the Czech Republic

Each country nominates one or two members of the national TWGs to keep the group size in a manageable way, the BIOEAST TWGs meet regularly



BE spans the broad agendas of the ministries responsible for trade, industry, environment, education, rural development and also research. The BIOEAST Initiative is open to these ministries from across the BIOEAST macro-region.

In 2017, the BIOEAST website, www.BIOEAST.eu, was launched to increase the visibility and information flow; the web pages are provided in the English language. Along with the process of forming the BIOEAST Initiative and TWG establishment, 100+ stakeholders from the research, business, and public sectors, and also nongovernmental non-profit organisations expressed their support and interest to participate in the BE development and the BIOEAST Initiative.

1.3. ROLE OF THE NATIONAL BIOEAST HUBS

The BIOEAST is a political initiative, and as such, only the ministerial bodies can become members. Therefore, the BIOEAST Governance and Roadmap defines the role of national BIOIEAST HUBs (hereinafter referred as "BIOEAST HUBs") as a national network to gather stakeholders and support their engagement in BE. National BIOEAST HUBs shall create a stakeholder group at the national level, support their engagement in the BE and in the topics discussed in the TWGs at the national level and also facilitate the communication with the BIOEAST NCPs of their given BIOEAST countries. The objective of the BIOEAST HUBs is to help the information flow at national levels and to ease the participation of the national stakeholders in EU calls. The role of the NCPs is key for enforcing the participation of ministries in channelling and maintaining the level playing field of BE stakeholders at the national and local level. A copy of all of the support letters should be sent to the secretariat for the common records and transparency. The "BIOEAST" or the "Country name BIOEAST HUB" name cannot be used by any of the national level "supporters", but by the NCP of the specific ministry.

Communication and stakeholder engagement are of, crucial importance not only for successful implementation of the BIOEASTsUP project, but also to increase the awareness of the BE in the BIOEAST macro-region and to support the engagement of research, public, private, for-profit and also non-profit organisations involved in the BE development. National BIOEAST HUBs shall be established with a vision towards the long-term sustainability of its activities, beyond the horizon of the 3 years BIOEASTsUP project, and as such, BIOEAST HUBs shall support the further impact of the BIOEASTsUP project results.

National BIOEAST HUBs shall organise national TWGs that mirror the topics of the BIOEAST TWGs (top-down; highlighted in Section 1.2) to support the national dialogue about the agenda of the BIOEAST TWGs and ensure the priorities and opinions represent the consensus. National BIOEAST HUBs shall also support the establishment of the national TWGs that reflect the needs of their given BIOEAST country (bottom-up). National BIOEAST HUBs shall:

- organise all national stakeholders (e.g., organisations from the private, public, research, business background), and support their engagement and involvement in the BE
- support NCPs, support the inter-ministerial discussions and connect the public administration in the individual BIOEAST country
- get involved in the discussion of the SRIA developed by the BIOEAST TWGs
- get involved in creating the evidence of the BE in the given BIOEAST country and support the development of the national BE strategy
- enhance the national discussion concerning the national thematic research agenda for each national TWG and support the public administration to include the BE topic in the national strategic documents





- amplify the information from the BIOEAST and EU level to the national level preferably in the national language, cooperate with the member of the national communication expert; the communication expert team is supported by the BIOEASTSUP project
- cluster with other national BE projects and also with the national teams involved in the international project related to the BE
- facilitate knowledge transfer and education among the different actors in BE

2. BIOEAST HUB CZ

Agriculture Research , Ltd. Troubsko (<u>www.vupt.cz</u>, hereinafter referred as "ART") is the only partner from the Czech Republic in the BIOEASTsUP project consortium. ART is leading the Communication and Dissemination Work Package of the BIOEASTsUP project. In line with the BIOEAST Governance and Roadmap paper, and with the support of the Ministry of Agriculture of the Czech Republic, the national BIOEAST HUB CR (www.bio-hub.cz) was established in November 2019.

2.1. BACKGROUND AND MEMBERS

ART is a research organisation that has established a wide network of national and also international partners. The statutory representative, Jan Nedělník, Ph.D. is the president of Czech Academy of Agricultural Sciences (www.cazv.cz) and vice president of the Association of Research Organisations (www.avo.cz). He is also a member of the board of the Czech-Moravian Breeding and Seed Association and also a member of the scientific council of the Mendel University. Marie Kubáňková, Ph.D. established the Technology Transfer Centre focused on agriculture, food industry and bioenergy in 2010, and since then she has developed several coordination and support projects focused on technology transfer, innovation and communication of agriculture (e.g. www.inovacezvt.cz, www.bioenergetikazvt.cz). She has also developed several research projects for SMEs and research organisations focused on the water clearing technologies, biogas, composting technologies and also new breeding techniques.

The support of BE comes as a natural outcome and follow-up of all the above-mentioned activities. The BIOEAST HUB CZ is based on the network that has been continuously developed during the past decade. There are several platforms and associations that are already a member of BIOEAST HUB CZ, for example:

- The Czech Academy of Agricultural Sciences (www.cazv.cz) a scientific advisory body to the Minister of
 Agriculture of the Czech Republic established as a state-funded institution of the Ministry of
 Agriculture of the Czech Republic that supports staff of agricultural research, development and
 education as well as practitioners, who have been instrumental in the development of agriculture
 both in terms of science and public enlightenment
- The Association of Research organisations (www.avo.cz), that is the only organization in the Czech Republic representing applied research (AVO has more than 75 members, both entrepreneurs and research organisations)
- the Czech-Moravian Breeding and Seed Association (https://www.cmssa.cz/) as the professional association of research, breeding and seed companies; member of the European Seed Association (ESA)



the Czech Technological Platform Plants for Future (http://www.rostlinyprobudoucnost.eu/ctprb/), member of the European Technological Platform Plants for Future

Among other members of the BIOEAST HUB CR, we can mention the non-profit organisations: Technology Centre of the Czech Academy of Sciences (https://www.tc.cz/en/about-us), ZERA regional agency (www.zeraagency.eu) and enterprises such as AgriKomp Bohemia (https://agrikomp.com/cs).

Figure 1: BIOEAST HUB CZ Members



Source: bio-hub.cz

The BIOEAST HUB CZ is currently not a legal entity, however new members sign a memorandum of cooperation with ART. The membership is free of charge.

2.2. MANAGEMENT

The BIOEAST HUB Steering Committee is the main working body of the BIOEAST HUB CZ. Each BIOEAST HUB Member has one representative in the Steering Committee, ART is represented by two members. BIOEAST NCP is a member of the Steering Committee.

The daily activities of BIOEAST HUB CZ is provided by a small team coordinated by Jan Nedělník and Marie Kubáňková. They propose the activities of the BIOEAST HUB CZ, arrange and organise operative activities and support the national TWG leaders. Jan Nedělník is responsible for the regular communication with the Ministry of Agriculture of the Czech Republic, he discusses the plan of activities and informs about the outcomes. He



represents the BIOEAST HUB CZ at meetings with the representatives of policy-makers, as well as board meetings of the organisations where he holds membership. Marie Kubáňková is developing projects for the BIOEAST HUB CZ activities targeted by national funds, and is supervising and cooperating the development of road maps, analysis, and previews topics concerning BE. She is also cooperating with Dr. George Sakellaris on the development of the international projects for the BIOEAST HUB CZ. Dr. George Sakellaris initiated the horizontal activities under BE education, being a member of the Community of Practice for Bioeconomy Education, he connects the BIOEAST HUB CZ directly with the EU activities. Dr. George Sakellaris is also a member of the BIOEAST foresight team of experts, his direct involvement in the BIOEAST HUB CZ activities is beneficial, as he has direct access to the wide spectrum of stakeholders. Dagmar Doleželová, MBA is a member of the BIOEASTSUP Communication Expert Team. She is responsible for updating the BIOEAST HUB CZ web pages and also social media. Dagmar Doleželová, MBA is the public relations and marketing manager of AVO, where she is using the well-established AVO social networks to amplify information concerning BE, BIOEAST Initiative, BIOEASTSUP project and also BIOEAST HUB CZ activities.

2.3. STRUCTURE

The mission of BIOEAST HUB CZ is to support stakeholders' engagement in the BE implementation and support the *Green Deal*. The BIOEAST HUB CZ is organised in thematic working groups that, on one hand reflect the BIOEAST thematic working groups (bottom-down), and on the other hand, the needs of its stakeholders (bottom-up). The mirror TWGs reflecting the structure of the BIOEAST TWG (bottom-down) has a leader and co-leader who are approved by the Ministry of Agriculture. The leader and co-leader then invite other experts to join the group. There are the following five mirror TWGs: Forestry, Agroecology, Food System, Bioenergy and new value-added materials and Fresh Water based BE (these groups are marked by an orange colour, please refer to the Fig 2). In the EU BE Strategy and also in the Green Deal there is an attention to the urgent need for the BE education. Currently there is no TWG dedicated to the Education at the BIOEAST Initiative level. George Sakellaris initiated the horizontal activities under BE education, he also prepared the Terms of Reference as a basis for the future TWG.

There are also currently five national TWGs initiated by the stakeholders, these groups are marked by a dark green colour, there groups are Biotechnology and new breeding techniques, Composting and bio-based recycling technologies, Engineering, Material Engineering, Building material, rubber and plastic products. Ing. Hejátková is a director of the ZERA Agency and has been involved for the past 20 years in promoting composting, she coordinates the thematic working group of new composting technology. ART coordinates the thematic working group of new breeding technology, and is coordinating the National Competence Centre of the Plant Bioetechnology (www.bio-nck.eu) that unites all top plant breeding institutions of the Czech Republic. AVO coordinates the thematic working groups of engineering, material engineering and energy that reflect the specialisation of AVO members.

Figure 2: BIOEAST HUB CZ Structure















- Forestry CZ
- Agroecology and sustainable yields CZ
- 3. Food System CZ
- Bioenergy and new value-added materials 3.
 CZ
- 5. Freshwater based bioeconomy CZ

BE Education

- Biotechnology and new breeding techniques
- Composting and bio based recycling technology
 - Engineering
- 4. Material Engineering
- Building materials, rubber and plastic products

Source: bio-hub.cz

The national TWGs are involved in the discussion of the SRIA developed by the BIOEAST TWGs, and elaborates on the national dialogue concerning the priority thematic research agenda for each national TWG, and supports the public administration to include the BE topic in the national strategic documents. They also map priorities and barriers of their members.

Figure 3: **BIOEAST HUB CZ Activities**



3. MACRO REGIONAL LEVEL

national priorities of the Horizon EUROPE program, Strategic Research Agenda of the BIOEAST Region

2. NATIONAL LEVEL

RIS 3 strategy strategic and conceptual materials provided by public administration, (e.g.The strategy of R&D of the Ministry of Agriculture CZ), public consultation of the public grants

1. STAKEHOLDERS' LEVEL

barriers & opportunities & interests

Source: bio-hub.cz





2.4. ACHIEVEMENTS AND PLANS

The BIOEAST HUB CZ web pages (www.bio-hub.cz) were launched in February 2020 on a joompla template. In April 2020, an issue of the zprAVOdaj magazine by the AVO was published. This issue was dedicated to the *Green Deal*, BIOEAST Initiative and the BIOEAST conference, *Bioeast as a driving force in the context of the European Green Deal*, also activities of the BE in the Czech Republic. The face-to-face kick off meeting of the BIOEAST HUB CZ was cancelled due to the COVID-19 restrictions, as a consequence, a virtual meeting was organised in April 2020. Beside the BIOEAST HUB CZ members, representatives of the inter-ministerial group participated and declared support for the BIOEAST HUB CZ activities. A memorandum of cooperation between the national project team of CELEBIO (BBI_JU funded project), Dr. Markus Dettenhofer, and BIOEASTsUP, Dr. Jan Nedělník, was signed in May 2020. Both teams cooperate and promote the activities and opportunities in RF

In May 2020, BIOEAST HUB CZ issued the first document that summarizes the strategic priorities concerning BE, which was published as strategic documents provided by the public administration in the Czech Republic. The field research and questionnaire to map the priorities of the stakeholders followed in June 2020. In June and July 2020, ART submitted several project proposals focused on the activities of the national TWGs and also on the engagement of SMEs in BE and technology. Besides BIOEAST HUB CZ members, there are also non-members involved – two universities and The Association of the Industry and Trade of the Czech Republic (www. spcr.cz) that represents 11.000 companies with more than 1.3 million employees (the biggest association of its kind in the Czech Republic). The project preparation brought a lot of interesting topics that the ministerial bodies are developing, for example, the legislative changes in the law concerning waste and the related issues concerning compost certification, water savings in the industry and the economic transformation of the coal mining regions that will be utilized in the activities of the national TWGs. The BIOEAST HUB CZ team is also involved in the development of several international projects proposals.

BIOEAST HUB CZ achievements and plans are summarized below (Table 1).

Table 1. BIOEAST HUB CZ Achievements

Period	
November 2019	BIOEAST HUB CZ establishment in line with the BIOEAST Governance paper and with the support of the Ministry of Agriculture of the Czech Republic
	The nomination to the mirror TWG began, 5 national TWGs were initiated by the BIOEAST HUB CZ members
January - February 2020	Clustering activities with Czech Team Leaders (Power4BIO, DANUBIOVALNET) began.
	The BIOEAST HUB CZ web pages (<u>www.bio-hub.cz</u>) were launched, Corporate Identity was provided.
April – May 2020	The 19 th issue of zprAVOdaj was published dedicated to the <i>Green Deal</i> and BE activities in the Czech Republic
	The virtual kick-off meeting took place, the representatives of the inter-ministerial group participated and declared support for the BIOEAST HUB CZ activities.
	BIOEAST HUB CZ issued the first document that summarizes strategic priorities concerning BE published in the strategic documents, provided by the public administration in the Czech Republic



	The memorandum of cooperation between national project team of CELEBIO, Dr. Markus Dettenhofer, and BIOEASTsUP, Dr. Jan Nedělník, was signed
June - July 2020	The field research and questionnaire to map the priorities of the stakeholders was opened.
	Several national projects were developed, some current challenges of the ministerial bodies were discovered
	The cooperation with other national stakeholders (universities, The Association of the Industry and Trade of the Czech Republic) was initiated

The coordinators plan to use the summer period to further develop the mirror national TWGs and facilitate the discussion concerning the national priorities. They also intend to develop a new section of the BIOEAST HUB CZ web pages concerning the BIOEAST Initiative and also provide a brief English version of the BIOEAST HUB CZ. The second meeting of the BIOEAST HUB CZ members is planned for the autumn 2020.

3. GOOD PRACTICE

BE is a relatively new topic for the BIOEAST countries, however the development of a 'hub' in the sense of a network of stakeholders from public, private, academia and business sectors is a relatively common activity. There exist various forms of business support organisations — clusters, chambers of commerce, regional development agencies and technology transfer centres, with abundant supporting publications and guidelines on how to develop and manage a particular business support organisation. Here we identify features of the national BIOEAST HUBs and provide a few suggestions on how to establish national BIOEAST HUBs, and how to connect them with the BIOEASTSUP project.

3.1. ESTABLISHMENT

The BIOEAST HUB coordinating entity can be any type of organisation — ministry, university, research organisation, business support organisation (cluster, technology centre, business chamber). The key issue is to involve the NCPs and the ministry that represents the country in the BIOEAST Initiative. The existence of a network of partners is an advantage and can speed up the process, but it is not a pre-condition.

To attract the first members, it is very important to explain the need and agency of the BE, communicate the *Green Deal* and the EU BE strategy. The concrete conditions will differ in each BIOEAST country. An advantage for the BIOEAST HUB CZ was the pre-established network, that helped to create a solid basis that can be built upon. The BIOEAST HUB CZ was formed from the bottom-up. In the other BIOEAST countries, the Ministry of Agriculture might be the coordinator and invite all subsidiary organisations or networks that are financed by public funding (e.g., research organisations, agriculture business clusters, chambers of commerce, etc.), in a top-down approach.

The second step is to invite a wide spectrum of stakeholders – business, non-profit organisations, universities, and representatives from public bodies. The national BIOEAST HUBs that will be based on already established networks might proceed faster, while the newly established networks might, on the other hand, be encouraged to participate based on the novelty and impact-oriented promise of the BE, as witnessed with Industry 4.0.





3.2. MANAGEMENT

In the early phase, each organisation shall have its representant in the governmental body of the national BIOEAST HUB (e.g., the steering committee). NCP and a representant of the designated ministry must be a member of such body. National BIOEAST HUB shall be coordinated by one person or a group of people, in the latter stage the supervisory board or similar control body can be established.

The coordinator discusses with the NCP plans and activities of the national BIOEAST HUB development and shall inform about achievements. The communication to promote BE is of crucial importance, therefore, the national BIOEAST HUB shall have the national web pages as a tool to spread up-to-date developments in the field of BE and its potential for the stakeholders.

3.3. SUPPORT OF THE BIOEASTSUP PROJECT

Capacity and funding might be challenging for the national BIOEAST HUB establishment. In the beginning, the resources of the BIOEASTsUP project can be used. Each BIOEASTsUP partner has some person months dedicated through WP5, communication and dissemination. CET members (task 5.4) can cooperate on the national BIOEAST HUB establishment, while ART can provide templates with instructions of the graphical designer and also the BIOEAST HUB CZ logo in case of further modifications.

National BIOEAST HUB development is closely connected to the WP3 and the establishment of the BIOEAST TWG working groups and the national TWGs. The members of the TWGs can become members of the National BIOEAST HUB and also the institutions which they represent. There are several questionnaires planned in the WP1 and WP4 and also public consultations of SRIA (WP4), all these activities can be utilized to enhance the national BIOEAST HUB development.

The coordinators of the BIOEAST HUB CZ are motivated to support the BE development in the BIOEAST region. We are ready to help you with your national BIOEAST HUB establishment. Please do not hesitate to get in touch with us, our contacts are available on the www.bio-hub.cz.



ABBREVIATIONS

ART - Agriculture Research Troubsko $\underline{www.vupt.cz}$

BE - BIOECONOMY

BIOEAST - Central-Eastern European Initiative for Knowledge-based Agriculture, Aquaculture and Forestry in the Bioeconomy

NCP - National Contact Point

SRIA - Strategic Research and Innovation Agenda

TWG – Thematic working group

