

BIOEAST VISION PAPER

23/02/2018

Content

1. Vision of the BIOEAST Initiative	3
2. Policy framework.....	4
3. Intervention logic of the Initiative.....	5
4. Challenges and scope.....	5
4.1. Key facts and figures.....	5
4.2. Challenges.....	8
4.3. Scope	8
5. The goals and the level of involvement.....	8
5.1. Long-term goals	9
5.2. Levels of involvement.....	9
6. Objectives and the broad action plan.....	10
6.1. Objectives.....	10
6.2. Action plan outline	11
7. Upcoming activities of the BIOEAST Initiative	14
Annexes	15
Annex 1. Intervention logic of the BIOEAST vision paper	15
Annex 2. Schedule	16

Prepared by

Contact person

Barna Kovacs PhD
 BIOEAST Secretary
 (barna.kovacs@mfa.gov.hu)

Author(s)

National level coordination carried out by the BIOEAST National Contact Points of the Ministries of Agriculture from **Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Lithuania, Poland, Romania, Slovakia, Slovenia**

Support

European Commission
 DG AGRI, Unit B2
 DG RTD, Unit F1

1. Vision of the BIOEAST Initiative

The bioeconomy¹ is of key importance to Europe. It represents an annual turnover of around EUR 2 trillion and it employs around 22 million people, a large number of them in rural and coastal areas. The EU-13 turnover is 273 billion Euro out of which 78 billion is produced by the primary production sectors: agriculture, forestry and fisheries, employing 7.66 million people, among them 5.34 in the primary production sectors. (JRC's Bioeconomy Report, 2016)

The Central and Eastern European (CEE) macro-region² has strong foundations for developing a sustainable bioeconomy. In terms of bioresources, its competitive and innovative abilities require an orchestrated effort to tackle sector-based disruptions, environmental risks and socio-economic imbalances. In this regard, bioeconomy strategies based on macro-regional cooperation and solidarity are needed to boost and to maximise the underutilized potential of the region in a sustainable way. A successful transition towards a functioning bioeconomy starts at local level. By boosting the sustainable productivity of primary sectors and through developing their conventional and innovative value chains, the preconditions will be ensured for a further step towards a more comprehensive and sustainable model of bioeconomy. This inclusive growth model should use the best possible mix of public and private actors that form the quintuple helix of innovation: motivated industrial partners, capable knowledge institutions, governments acting as catalysts, society-oriented approach and the environmental sustainability of a specific region. The outcome of applying this growth model will be a European macro-region with a network of cooperating bioeconomy clusters combining conventional industries with innovative bio-based technologies in sectors that complement each other in full circularity. Through exploiting their bioeconomy potentials, the Central and Eastern European countries will contribute to addressing the EU long-term sustainability challenges in terms of food, energy and jobs security – thereby also establishing the framework for a stronger and deeper cooperation with other EU Member States.

Through the BIOEAST³ Initiative, the Central and Eastern European (CEE) countries set the vision for 2030 to develop knowledge and cooperation based circular bioeconomies, which helps to enhance their inclusive growth and to create new value-added jobs especially in rural areas, maintaining or even strengthening environmental sustainability.

The BIOEAST Initiative's mission is to assist Central and Eastern European (CEE) countries to operationalise their vision for 2030 drawing on their potential and offering opportunities for:

1. A sustainable increase of biomass production, to become competitive and leading, high quality, food and feed producers worldwide;
2. A circular ("zero waste") processing of the available biomass, to become key players in the development of new bio-based value chains;

¹ According to the European Bioeconomy Strategy, the bioeconomy is defined as "the production of renewable biological resources and the conversion of these resources and waste streams into value-added products, such as food, feed, bio-based products as well as bio-energy". http://ec.europa.eu/research/bioeconomy/pdf/official-strategy_en.pdf

² CEE macro-region is defined as "a defined geographical area relating to those 13 Member States, those join the EU after 2004 (EU-13), and third countries (Western-Balkan) located in the same geographical area which thereby benefit from strengthened cooperation contributing to achievement of economic, social and territorial cohesion."

³ Central-Eastern European Initiative for Knowledge-based Agriculture, Aquaculture and Forestry in the Bioeconomy

3. Viable rural areas: to develop an innovative, inclusive, climate-ready and inclusive growth model;

This model should be based on the introduction of new value-added processes and jobs in the primary production sectors, on innovative solutions and on the development of new value chains in the processing sectors - with a specific attention to the use of bio-based chemicals and materials. However, this vision is under heavy pressure from different challenges and barriers. Investment into research and innovation related to primary production sectors (agriculture, forestry and aquaculture) and to bio-based processing sectors (food - feed, chemical - material use and fuel - energy) are of utmost importance to finding viable solutions for the challenges facing the region. There is a need to develop Strategic Research and Innovation Agendas and national bioeconomy strategies to avoid the deterioration of resources and further societal marginalization.

The BIOEAST Initiative sets the vision and provides the leadership to respond to this challenge. This vision paper identifies the key needs and strategies to address them framing the goals, scope and objectives of the initiative within a broad action plan.

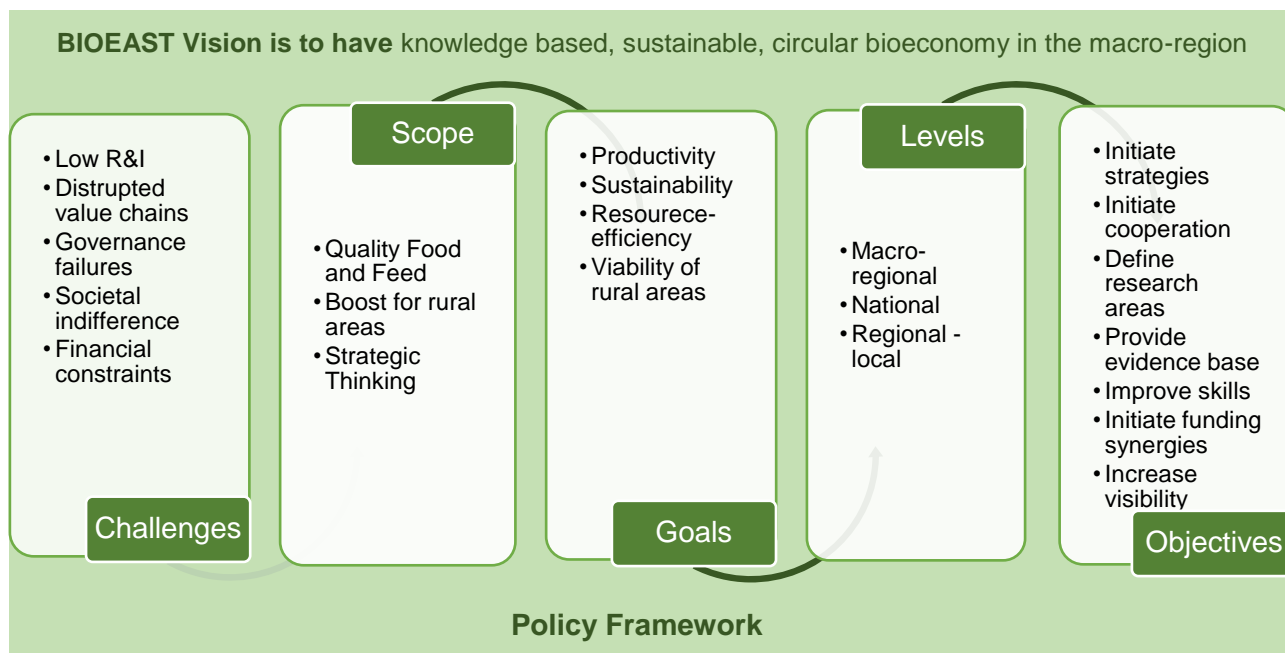
2. Policy framework

The vision identified in the BIOEAST Initiative is not only relevant for EU-13 countries, but also for the whole EU, as it addresses most of the 17 United Nations Sustainable Development Goals.

Addressing the 17 United Nations Sustainable Development Goals requires holistic, integrated and overarching approaches, systems thinking, technological advancement, knowledge transfer and investment into research and innovation. Developing bioeconomy strategies in the macro-region's countries will provide a common framework to achieve these goals. This will ensure food and energy security, help managing our natural resources sustainably, better valorise organic waste streams, reduce dependence on non-renewable resources, mitigate and adapt to climate change, create new and more diverse job opportunities for more vulnerable regions and societal groups and improve competitiveness. On these bases, the following EU policies and programmes (including their post-2020 successors) represent the key policy framework for the BIOEAST Initiative:

- The EU Innovation and Research Framework Programme
- The Common Agricultural Policy
- The Food 2030 initiative
- The European Bioeconomy Strategy – The European Bioeconomy Stakeholder Manifesto
- The EU Forest Strategy
- The Common Fisheries Policy
- The macro-regional development strategies (Danube Strategy, Baltic Sea, Black Sea, 3 Seas etc.) in the frame of European Structural and Investments Funds
- The Circular Economy package
- The Digital Single Market Strategy
- The Energy Union and COP 21 Agenda on climate change

3. Intervention logic of the Initiative



According to the common declaration⁴ of the Agricultural Ministers from Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia it was decided to develop a Vision Paper focusing on the macro-regional priority areas. The broad scope of the bioeconomy and the specificities of the macro-region requires a focused and targeted approach defining where and at what level to act. This Vision Paper paves the way for the development of a comprehensive Strategic Research and Innovation Agenda (SRIA). It identifies five challenges, which help the scoping process on how to focus the initiative. Within this scope, general objectives are set to address the challenges to achieve the overarching goals. The scope of the Initiative focuses on four levels of intervention at macro-regional, national and regional/local level. Based on the general objectives there a preliminary action plan was developed, which will be further discussed in the SRIA. (see Annex 1.: Intervention logic)

4. Challenges and scope

4.1. Key facts and figures

Agriculture and Forestry

The agriculture sector in Central and Eastern Europe offers considerable, but largely untapped potential for biomass production, including opportunities for increasing the productivity. The agricultural productivity in Central and Eastern Europe (CEE) is 39,6% of the EU average (2013-2015 FADN data). If we take cereals as an example, the CEE average yield is of 3,5 tonnes per hectare, whereas

⁴ 21 September 2017, Visegrad, Hungary: Join declaration of the Agricultural Ministers of Visegrad Group as well as Bulgaria, Croatia, Romania and Slovenia on BIOEAST

for the rest of the EU (plus Norway and Switzerland) this is 5,5 tonnes (FAOSTAT). The labour productivity by person in the primary sector, where also agriculture belongs, of the CEE countries is lower than 20% of the EU-15 average (2015). Labour productivity in the food industry of the EU-28 is 46215 Euro per worker: the EU-15 value is more than twice as high as the one in the EU13 (2014, EUROSTAT data). The gross hourly earnings in Euro in CEE is about 2 to 7 Euro: the EU average is above 16 Euro, the EU-15 is well above 18 Euro (EUROSTAT data). There is considerable potential to produce protein and energy crops in the CEE countries. However, for example, the production averages 1.6-2.3 tons per hectare for soy is still low, it can be further improved with R&I to make the sector competitive.

Concerning the forestry sector, it should be emphasized that the potential of the region could be further exploited due to the existence of marginal lands suitable for afforestation. The forest area available for wood supply in EU-13 is 28%, of the total EU-13 forest area without water bodies, the net annual increment in forest available for wood supply EU-13 is 209204 (thousand m³) half of the EU-15: 534994 (thousand m³) (EUROSTAT data).

Drawing on this forestry and agriculture potential, more investment into research and innovation is needed to sustainably increase productivity, climate change resilience and biodiversity.

Freshwater aquaculture

Freshwater aquaculture is an important part of the macro-region's history, culture and everyday life of rural communities. It contributes to over 20% of EU aquaculture, and has a considerable potential to contribute to food security, maintaining the environmental aspects including fresh water and landscape management, protection and retention of the ecosystem services. Unfortunately, most of these benefits are unknown, except for a relatively narrow group of professionals and academics, and lead to lack of recognition among decision makers. While the economic share of the sector is still narrow, the communities feature the same socio-economical characteristics as the coastal ones providing employment and stability of the rural communities. Therefore, there is a need to improve substantially the awareness about the benefits of freshwater aquaculture. Further research and investment in innovative solution and new value chains would bring benefits not just at local level but would contribute to solve important food and nutrition security questions.

Bio-based waste

The socio-economic damage of bio-based waste and loss is sizeable; however, it is difficult to measure it due to the incomparable definitions and methodologies used in the different sectors and approaches. There is a need to develop a specific methodology to size the problem at national level, and to be able to compare the results at macro-regional level. The municipal waste and landfill management offers untapped potential for the circular bioeconomy. The food waste besides being a direct pollution source also creates additional energy consumption and undesirable environmental effects. However, it is complicated to find solutions to reducing this serious and complex problem is complicated. Although a number of studies exist on the subject, most of them illustrate the main contexts, but the detailed description of the cause and effect relationships is often missing, manifesting a clear gap in evidence based policy choices.

Economy and Society

Rural regions in the CEE are more densely populated than the EU-15 ones (66,8 versus 45,1 inhabitants/km², EUROSTAT data from 2011), the opposite is true for the intermediate and predominantly urban regions. In the predominantly rural areas of the EU-13, the primary sector generates 25% of

all jobs. The share of jobs in the tertiary sector in predominantly rural areas is therefore considerably lower in the EU-12 (46%, data from 2010) than in the EU-15 (66%, data from 2010). Against this picture, if we consider statistics for ageing population in Europe, the poorest predictions are for the CEE countries, where the old age dependency ratio for Latvia, Romania, Slovakia, Poland and Bulgaria are among the worst with almost 70%. New, more sustainable and efficient business models are thus needed to improve socio-economic conditions, diversifying and revitalising the economy to create quality jobs in rural areas. These models should be easily replicated in a variety of locations and contexts, with relatively low levels of investment, risk and technical sophistication. The emerging bio-based sector – developed by rural entrepreneurs in close partnership with farmers, forest owners, their associations and local authorities - has a strong potential for reversing negative economic and social trends in rural areas.

Energy

CEE countries are highly dependent on fossil fuels, but they have begun to exploit an important biofuel potential from crops and forestry. The sector faces the challenges of heavy investments into first generation bio refinery capacities, unclear renewable energy targets, incoherent policies and miss concepts on sustainability issues. Moreover, the existing disadvantages on the level playing field between fossil and bio-based sectors puts an extra pressure on new investments. The investment into the bio-based chemicals and materials sector is heavily dependent on the profitability and competitiveness of the bioenergy segment, thus the future of the bioeconomy deployment in CEE countries is insecure.

Climate and biodiversity

Climate change is also affecting the region. Key changes are expected to hit the hydrological cycle associated with an increased concentration of greenhouse gases in the atmosphere. This will bring changes in the seasonal distribution and amount of precipitation, causing increased evapotranspiration and a reduction in soil moisture. Even though the agricultural land-use is moderately intensive compared to the rest of Europe, the natural susceptibility for soils to compaction is higher in CEE countries than in other regions, thus further aggravating the already low agricultural productivity.

Even though the problematic of sustainability is key for policy development in agricultural biodiversity, there is a lack of data and models concerning the macro-region. Central and Eastern Europe's biodiversity agenda is under-represented in the international literature. By analysing the literature, Northern and Western Europe dominates it, both in terms of absolute number of studies and proportional to the agricultural area. Whilst the number of studies from CEE countries is increasing, even when adjusted for the agricultural areas of the region, they are still only comprising a tenth of the overall number of studies focused on the rest of Europe. This aspect is analogous to the actual benefit of all EU-13 countries from the EU Research Framework Programmes in the period 2007-2020.

These issues are deeply inter-connected and mutually reinforce each other. Therefore, they need to be addressed through a systemic approach. The development of bioeconomy strategies at macro-regional, national and regional/local level could provide the framework to respond to these challenges while ensuring food security for the increasing global population and contributing to more circular and sustainable production systems, thus providing new opportunities for growth and for rural development.

To attain this result, the BIOEAST initiative has identified five challenges to be addressed. These challenges helped to scope the initiative and to set the goals and objectives.

4.2. Challenges

C 1. Research and Innovation deadlock: the macro-region still suffers the drawbacks of poor R&I infrastructure the uptake and deployment at full scale of research results into practice and the inputs of practitioners into research need to be improved.

C 2. Stalemate in the bio-based value chains: Neither the traditional nor the innovative value-chains are fully exploited, the opportunities for creating value added processes locally are low or missing. The local rural development model should be based on small-scale investments and on small-scale biomass processing.

C 3. Governance impasse: A more systemic and integrated approach in decision-making is necessary to agree on a set of common principles⁵ for sustainable production and consumption.

C 4. Societal indifference: The rural communities of the CEE countries need to be strengthened economically and socially to fully exploit the potential of a knowledge-based, sustainable circular economy.

C 5. Financial barriers: Low access to finance and low level of synergies in public-private funds and investments – CEE countries are characterized by low level of private support to research and innovation and by low level of synergies between public and private funds and investments⁶.

4.3. Scope

S 1. Strategic thinking in bioeconomy: Develop bioeconomy strategies to tackle specific environmental and climatic challenges facing the CEE countries. Facilitate evidence-based policy making by developing bioeconomy-relevant statistical and administrative data. Support stability and socio-economic development in the CEE macro-region, within the framework of a reinforced solidarity between EU Member States and the countries covered by the European Neighbourhood Policy.

S 2. Quality Food and Feed for Europe and for the World: To jointly develop and implement innovative solutions (or reinforce already existing ones) to improve the efficiency and sustainability of biomass production system.

S 3. Industrial boost for rural areas: To facilitate the creation of new value-chains and value-added jobs and competences in the CEE macro-region. To boost knowledge and innovation in rural communities, ensuring that they participate in the knowledge economy and maximise opportunities arising from advances in research.

5. The goals and the level of involvement

Over 100 million citizens in EU-13 are called to jointly address their common economic, social and environmental challenges. The BIOEAST vision is to turn these problems into opportunities defined

⁵ 4th SCAR Foresight (2015): 5 principles: food first, sustainable yields, cascading approach, circularity and diversity

⁶ OECD review (2017) Innovation for Agricultural Productivity and Sustainability

by four major goals and thus making CEE Member States pivotal actors in the development of the European bioeconomy.

The 'business as usual' approach is not an option to reach this ambitious objective. In rural areas with a potential for growth, sustainable intensification through resource efficient solutions and value-added processes is feasible within the boundaries of region-specific balance between production and ecosystem carrying capacity. Areas that are more vulnerable require a different approach, namely sustainable extensification. A balanced approach on governance is necessary to diversify investments and production systems, to avoid regional imbalances between better-developed and less developed parts.

In the CEE countries, the society is not fully aware of the global challenges. The involvement of the society in understanding the global processes and in the development of solutions should be strengthened. The traditional knowledge transfer still prevails in the production and processing sectors: there is not enough feedback from the end-user to the knowledge developer. The thinking in silos - the search for solution in a specific sector - is still prominent: this leads to incomplete, sub-optimal solutions and policy developments that mainly consider the economic aspects – but not the environmental and societal requirements. Weak policies, missing data and absence of evidence-based support lead to market distortions. To make the economies of the CEE countries future-proof, the drive for profit and technology will have to be reconciled with the often-neglected environmental and societal aspects of development.

Achieving environmental and social sustainability goes beyond national borders. Climate change mitigation and adaptation solutions should be developed within the same climatic macro-region. Given the scope and size of these challenges, the sustainable growth of the CEE countries is thus only possible through acting together at macro-regional level and, to a wider extent, at EU level.

5.1. Long-term goals

G 1.1. Productivity: Sustainable increase of biomass production, by becoming competitive and leading high-quality food and feed producers worldwide.

G 1.2. Sustainability: Developing biodiversity and biosecurity, by maintaining and strengthening natural values and defending the rest of Europe from the transboundary plant and animal diseases.

G 2.1. Resource efficiency: Circular and value-added use of the available biomass, by becoming key players in the development of new bio-based value chains.

G 2.2. Rural development: Increasing viability and attractiveness of rural areas and society, by developing an innovative, inclusive, climate-ready and sustainable bioeconomy growth model by 2030.

5.2. Levels of involvement

L1. Macro-regional: since sustainability, especially from an environmental point of view, needs transnational cooperation.

L2. National: since policymaking, especially from the regulatory and incentives frameworks are mainly influenced by national governments.

L3. Regional and local: since the success of the national implementation, especially in the countryside, depends on the involvement of farming and rural communities.

6. Objectives and the broad action plan

To achieve its goals and to focus on its scope the BIOEAST initiative will boost the CEE countries' knowledge-based bioeconomy. The analysis shows that macro-region's countries have a low level of bioeconomy maturity, i.e. they cannot fully exploit the potential (i.e. jobs, growth, resource efficiency, rural development) of the bioeconomy on their own. Further development of bioeconomy related research and innovation (R&I) activities of EU regions and Member States is required, which involves a faster development and adoption of scientific and technological advances for sustainable, circular, climate ready practices in the primary sectors (agriculture, aquaculture and forestry). An improved performance and overall sustainability of their conventional upstream and downstream sectors is also needed, as well as a collective effort to bridge the gap with the leading European regions in the development of new bio-based value chains, environmental protection and sustainable energy resource management.

6.1. Objectives

- O 1. To develop strategies:** to create a cross-sectorial approach for the development of national circular economy and bioeconomy strategies that are integrated into a broader, common strategy in all countries of CEE region aligned to the EU bioeconomy strategy and the common BIOEAST Initiative goals.
- O 2. To cooperate and develop evidence-based policies:** to establish a multi-stakeholder network and cluster under the BIOEAST Initiative level to facilitate joint actions, backed up by a renewed commitment to closer cooperation at both political and operational levels.
- O 3. To identify common challenges and validate common research areas:** to map specific challenges for a Strategic Research and Innovation Agenda and foster innovative multidisciplinary research and cooperation activities at national and macro-regional level. These should address the relevant common challenges of the BIOEAST Initiative member countries by means of common work carried out by experts, researchers and governmental officers as a follow up to the Visegrad4+3 Common Declaration as a starting point for the discussion⁷.
- O 4. To provide the evidence base:** to map and to establish data-driven support for the development and implementation of policies through the creation of an interoperable, fully integrated observing and forecasting system. This would promote continuous, long-term observation based on open data structures to guarantee easy access.
- O 5. To improve skills:** to increase the expertise of the actors involved by means of training and capacity building actions (incl. cross-border).
- O 6. To develop synergies:** to promote regional, national, EU and international funding opportunities to develop innovative technologies, methodologies and approaches. The purpose would be to boost the sustainable and circular economic growth of the European bioeconomy sectors and the conservation and upgrading of the regional environment, resources and cultural heritage.
- O 7. To increase visibility:** to draw attention to specific challenges and to the research and innovation potential of the macro-region, through involving the society and by promoting public awareness.

⁷ 26 October 2016 Warsaw, Poland Common Declaration of the Agricultural Ministers of the Visegrad Group as well as Bulgaria, Romania and Slovenia

6.2. Action plan outline

Scope	Level	Specific objectives
Strategic thinking in bioeconomy	Macro-regional	<ul style="list-style-type: none"> - To keep the BIOEAST Initiative on the political agenda of CEE ministers - To launch a Coordination Support Action for BIOEAST, to establish a better science-policy partnership - To launch a project on setting up a data and models warehouse for CEE countries, including ICT solutions, mapping the opportunities and making it available to enterprises, in cooperation with the JRC's Bioeconomy Knowledge Centre - To boost the participation in already existing joint programming initiatives (ERANETs, JPIs, EJPs, and Art.185) or launch new actions (if necessary) based on CEE countries needs focusing on agriculture, forestry and aquaculture - To reach up to the EU average on successful proposals in the next EU R&I Framework Programme - To take part or launch new Public Private Partnerships on collaborative research and development activities, cooperation between research institutions and enterprises (academia-industry partnerships), including cross-border cooperation and shared infrastructure.
	National	<ul style="list-style-type: none"> - To launch horizontal inter-ministerial discussions on biomass use, for thematic areas (food-feed, material use and chemical industry, energy) - To identify key policy level priorities in the ongoing national strategies - To identify key policy level priorities in the ongoing post 2020 EU discussions - To provide consultancy for the different ministries - To organize national events in bioeconomy to raise public awareness - To support the development of national bioeconomy policies - Supporting national policies - To develop guidance on soft skills and education - To identify possible synergies between structural and research funds - To boost investment into R&I for strategic thinking in forestry and forest-based industry - To boost investment into R&I for strategic thinking in aquaculture - To boost investment into R&I for strategic thinking in sustainable bio-energy
	Local	<ul style="list-style-type: none"> - To launch and promote the bioeconomy thinking in the local governments - To support micro-regional mapping of potential new value chains - To launch the sustainable biorefinery concept (small and big scale) - To launch local stakeholder level discussions - To support the strategic building of bioeconomy clusters - To promote the role of innovation brokers upon the identification of funds and strategic documents and creating contacts with relevant stakeholders - To maximise opportunities arising from advances in research with knowledge transfer and capacity building across technology, digitisation, education, social innovation and management spheres.

Quality FOOD and FEED for Europe and for the World	Macro-regional	<ul style="list-style-type: none"> - To become a competitive provider of good quality nutritious food and feed in Europe - To identifying the bottlenecks of the food system in BIOEAST countries - To identify common challenges and validate common research topics - To establish a multi-stakeholder network and cluster - To boost participation of CEE countries' Operational Groups and researchers in the EIP AGRI. - To map the food and feed losses and waste streams
	National	<ul style="list-style-type: none"> - To conduct research on how to involve the CEE society in solving the big societal challenges, and to overcome such common economic and societal challenges for bioeconomy in the urban and rural areas: <ul style="list-style-type: none"> o To invest in R&I for closing the yield gap; o To increase labour productivity; o To alleviate the implications of population ageing; o To create jobs in rural regions; o To increase the uptake of innovation and modern technologies such as novel food or reuse of food by-products to prevent waste; o To increase consumer awareness. - To participate and contribute to the already set JPI FACCE and JPI HDHL and other Member States led initiatives - To launch the transdisciplinary approach for the food systems - To prioritize resource management and development of strategies and tools for effective food and feed wasting prevention.
	Local	<ul style="list-style-type: none"> - To introduce, to develop and to promote agro-ecological and resource efficient practices mainly on seeds, fertilizers, pesticides, on feed for animal production, and support processes on the principles of the circular economy. - To find context-adapted solutions to increase the food and nutrition security and efficiency in the context of agro-food system by reducing losses and wastes and fresh water use; - To support the common development of smart and sustainable farming systems to maintain natural resources and to increase production efficiency; - To support adaptation to climate change of the primary production sectors: crop production, animal husbandry, forestry, fishery and aquaculture, food processing, forest based and other bioeconomy activities in terms of cooling and heating, pest and disease control, risk management and knowledge sharing - To utilize the potential of agro-forestry systems; - To test and stimulate application of context-tailored water-saving solutions, in particular in agriculture; - To activate and engage local communities in networking and knowledge transfer; - To improve the sustainability of the land and water use;

Industrial boost for rural areas	Macro-regional	<ul style="list-style-type: none"> - To map the bioresources capacities and potential - To take part in Coordination Support Action for realising the potential of regional and local bio-based economies - To identify the competence and research and innovation expertise available in the region and to make use of it for the common good of the region and Europe in general; - To identify the technology deadlock in the BIOEAST countries - To promote cross-border PPP cooperation; - To identify the most successful sectors (highest value added) in each country - To map the global/international value chains the most successful examples - To identify new business models for rural areas
	National	<ul style="list-style-type: none"> - To create new jobs in the bioeconomy sectors - To ensure synergies among the different EU funds - To identify possible PPPs areas - To map and initiate the brownfield investment - To ensure the sustainable use of ecosystem services to optimize their contribution to bioeconomy - To provide research for developing the strategic thinking in forestry and forest-based new value chains - To provide research for developing the strategic thinking in agriculture based new value chains on sustainable production of protein and energy crops. - To provide research for developing the strategic thinking in aquaculture based new value chains - To provide research for developing the uptake of the chemical and material use industries on biocomponents for producing various novel products (such as biopesticides, cosmetic products, etc), valorisation of by-products, new processing technologies. - To increase climate change mitigation through bioeconomy, e.g. by industrial use of wood
	Local	<ul style="list-style-type: none"> - To develop regional and local bio-based models adapted to the local contexts - To launch bioeconomy clusters at local level , including rural and remote areas and outermost regions - To identify the new value chains for biomass - To identify potential research projects in the bio-based material, use and chemical industry with low TRL level and support them up to the 6-7 TRL - To promote and support to niche projects with higher risk in order to facilitate innovative approach - To identify innovative business models in the primary production sector to stimulate efficiency and effectiveness - To promote investment in the higher value-added processing sectors for growth and creation of new jobs - Attracting further investments for the development and application of innovative solutions.

7. Upcoming activities of the BIOEAST Initiative

The BIOEAST Initiative is running since 2016 and it started to formalize its work in 2017. Thus, it is important to report on the 2017 activities and plan for 2018 and 2019. (See Annex 2. Schedule).

As a next step, starting in 2018, the BIOEAST Initiative will develop a macro-regional Strategic Research and Innovation Agenda (SRIA) for addressing the goals and challenges of the Initiative. The Visegrad Groups' Common Declarations will be the starting point for the discussion. The SRIA will detail the scope, and based on specific objectives will develop the action plan to be implemented to achieve the goals.

The BIOEAST SRIA will identify issues and areas of intervention that will be addressed by complementary national and trans-national initiatives undertaken by the BIOEAST countries, as well as by the identification of EU-relevant issues that could then be proposed for joint actions under the EU Research Framework Programmes. It will be designed as a living document, offering a handbook for interested implementing bodies, bearing in mind that the BIOEAST initiative:

- Is designed to involve relevant players and stakeholders such as national ministries, regional authorities, international organisations and initiatives, research organisations, academia, universities, the private sector, nongovernmental organizations and the general public;
- Allows for different types of action to be taken at different levels, as regards geographical coverage, critical mass, joint funding, coordination of national/regional efforts or the use of EU instruments;

The BIOEAST Strategic Research and Innovation Agenda will develop a shared framework for working towards the development of sustainable circular bioeconomies in the CEE countries. This will benefit the CEE societies – and consequently the EU as a whole - by creating jobs and growth and to provide framework conditions favourable to development of a functioning circular bioeconomy.

Annexes

Annex 1. Intervention logic of the BIOEAST vision paper

Challenges What is hindering?	Scope Where to focus?	Goal What is the aim?	Level Where to act?	Objectives How to overcome?	Actions What to do? (To be developed in the SRIA)
<p>C1. Research and Innovation deadlock</p> <p>C2. Stalemate in the bio-based value chains</p> <p>C3. Governance impasse</p> <p>C4. Societal indifference</p> <p>C5. Financial barriers</p>	<p>S1. Strategic thinking in bioeconomy</p> <p>S 2. Quality Food and Feed for Europe and for the World</p> <p>S 3. Industrial boost for rural areas</p>	<p>G1. Productivity: Sustainable increase of biomass production;</p> <p>G2. Sustainability: Developing biodiversity and biosecurity;</p> <p>G3. Resource efficiency: Circular and value-added use of the available biomass;</p> <p>G 2.2. Rural development: Increasing the viability and attractiveness of rural areas and society</p>	<p>L1. Macro-regional</p> <p>L2. National</p> <p>L3. Regional and local</p>	<p>O 1. To develop strategies;</p> <p>O 2. To cooperate and develop evidence-based policies;</p> <p>O 3. To identify common challenges and validate common research areas;</p> <p>O 4. To provide an evidence base;</p> <p>O 5. To improve skills;</p> <p>O 6. To develop synergies;</p> <p>O 7. To increase visibility;</p>	<p>Further develop specific objectives</p> <p>Develop BIOEAST SRIA</p> <p>Start to implement the action plan of BIOEAST SRIA based on the objectives</p>

Annex 2. Schedule

Date 2017-2018	Event	Action
June-September	EC proposed technical meetings between BIOEAST and DG RTD's DIR F	BIOEAST advisor, with the support of the EC, tasked to develop the draft roadmap and the draft Vision Paper
June-September	BIOEAST internal discussions	To prepare the draft roadmap and draft Vision Paper
June-September	Hungarian BIOEAST discussions	<ol style="list-style-type: none"> To prepare the BIOEAST Secretary post To prepare a dedicated website
20-24 September, Hungarian National Agricultural Fair	Bioeconomy Conference for policy makers	<ol style="list-style-type: none"> Adopt and promote the EU Bioeconomy definition including all the sectors Involve all relevant Ministries, Regions, public/private partnerships, industrial/consumers Associations Promote interconnection of sectors Include circularity elements of the Bioeconomy Setting-up the Vision Paper
20-24 September, Hungarian National Agricultural Fair	Visegrad Group Agricultural Ministers meeting	Adoption of a declaration on broadening the scope of the initiative beyond HORIZON2020
September - October	Remote	Discussion on Roadmap Concept note for EC workshop on preparing the Roadmap and on setting the governance structure
October	EC Brussels Workshop	Discussing the internal structure and division of competences within the BIOEST Initiative governance structure Drafting the Roadmap and Vision Paper Focusing the Initiative Develop a first draft to be discussed in a dedicated meeting
November	Brussels	Endorsement of the BIOEAST Roadmap
20-21 November 2017, Lodz, Poland	Lodz Region Bioeconomy Conference	<p>Mobilizing the policy makers:</p> <ul style="list-style-type: none"> Strengthen the local promotion of the Initiative, its inclusion in reg./nat. agenda, alignment Networking/cooperation with other initiatives. Alignment priority/actions <p>Align policies, R&I funding strategies and funds and infrastructures</p>
December	Brussels	Endorsement of the BIOEAST Position Paper on RUR9
December Tallinn	EC -EE workshop	Discussion of the draft Vision Paper
30 January Brussels	BIOEAST-EC workshop	Discussion of the draft Vision Paper
30-31 January Brussels	SCAR SG and SC2 PC	Presentation of the milestones of developing the Vision Paper
February	Remote	Adoption of the Vision Paper
March	SC2 PC	Presentation of the Vision Paper
April	BIOEAST workshop	Drafting the Strategic Research and Innovation Agenda
April	Hungarian national CASA SCAR event	<ul style="list-style-type: none"> promotion at national level for the SCAR and SC2 PC activities promotion of bioeconomy thinking and the BIOEAST vision
June-November (tbc)	Polish national CASA SCAR event	<ul style="list-style-type: none"> promotion of the Initiative discussion on the Strategic Research and Innovation Agenda

		<ul style="list-style-type: none"> discussion on the role of Bioeconomy and circular economy within SCAR activities
June	HU BIOEAST conference	Start to work on the SRIA with goals, actions, detailed level, scope and duration
2018 June	AGRIFISH Council	Informing on the Vision
September - November Brussels	BIOEAST workshop	Discussion on a potential BIOEAST CSA
2019 April-June (tbc)	SK V4 Presidency: BIOEAST conference	Promotion of initiative activities, bioeconomy thinking, regional cooperation
2019 June	AGRIFISH Council	AOB, informing of the conference

Governance

The Central and Eastern European countries are strongly committed to keep the BIOEAST Initiative high on their political agenda. Two political declaration⁸ were signed by Agriculture Ministers of the enlarged Visegrad Group Countries (BG, CZ, HR, HU, PL, RO, SK, SI) on launching the Initiative. Other Member States (EE, LT) also signalled their interest to participate.

The enlarged meetings of the Visegrad Group Countries' Agriculture Ministers including other CEE countries will provide the political discussion platform for the Initiative. However, the topics of the BIOEAST initiative could possibly cover broader subjects and several other sectors and ministries. Due to the lack of national level horizontal approaches to the bioeconomy related sectors in most of the MSs, it is difficult to coordinate a common viewpoint.

The positive experience of the SCAR (Standing Committee of Agricultural Research) and Horizon 2020 Programme Committee meetings is a good setup to be considered, where the representatives of different ministries are discussing together.

The proposed way forward is to include in the communication all the ministries and their viewpoints from the outset by providing a contact person/or contact persons for coordinating in each involved ministry. The solution would be to nominate one national contact point or number of national contact points due to the division of competences among national ministries (i.e. agriculture, aquaculture, forestry).

The national contact points form the BIOEAST Working Group, through a process of national nomination, become BIOEAST Working Group members.

This setup can be changed in function of the Initiative's interests. At this stage the BIOEAST General Secretary, who will liaise with the BIOEAST Working Group will coordinate the BIOEAST Initiative. Barna Kovács is appointed as the General Secretary.

The European Commission will be updated formally on the results of these discussions via the Horizon 2020 Societal Challenge 2 Programme Committee and the Standing Committee for Agricultural Research (SCAR). The Council of the European Union will be updated formally in the frame of the different Council meetings, while the European Parliament will be kept in the loop via the interested Members of the European Parliament.

The more detailed structure and the governance of the BIOEAST initiative will be established by the end of May 2018 as the latest.

⁸ 26 October 2016 Warsaw, Poland Common Declaration of the Agricultural Ministers of the Visegrad Group as well as Bulgaria, Romania and Slovenia
21 September 2017 Visegrád, Hungary Common Declaration of the Agricultural Ministers of the Visegrad Group as well as Bulgaria, Croatia, Romania and Slovenia