



3<sup>rd</sup> workshop on Policy Support Facility (PSF)  
tools for developing bioeconomy strategies  
organised by the BIOEAST Initiative and the  
SCAR Strategic Working Group on Bioeconomy

Friday 14<sup>th</sup> June 2019, 09:00 – 16:30

Venue: Permanent Representation of the Slovak Republic to the EU, Avenue  
de Cortenbergh 79, Brussels

## Workshop Report

### Organisation team:

Barna Kovacs, Secretary General of BIOEAST Initiative

Alexandros Theodoridis, co-chair of SCAR Strategic Working Group for Bioeconomy

Alex Percy-Smith, independent consultant, moderated the overall workshop

Alexandru Marchis, external expert, moderated the methodology part of the workshop

Myrna van Leeuwen, bioeconomist from Wageningen Economic Research, rapporteur at the workshop

# Contents

- Scope and objectives of 3<sup>rd</sup> workshop on Policy Facility Support ..... 3
  - 1.1 Background..... 3
  - 1.2 Welcome and introduction ..... 3
  - 1.3 Workshop methodology..... 4
- Session 1: Priority themes – group work (Output 2.1)..... 5
- Session 2: Policy support needs – update from MSs..... 9
- Session 3: Actions for mutual learning excercises (MLEs) provided through the H2020 Policy Support Facility..... 18
- Session 4: Actions for EU level support and mentoring teams and directory of experts ..... 21
- Next steps..... 23
- Annex 1: Participants list ..... 24
- Annex 2: Agenda..... 25
- Annex 3: Priority Themes and Challenges and Expected outcomes ..... 28

# Scope and objectives of 3<sup>rd</sup> workshop on Policy Facility Support

## 1.1 Background

This workshop on ‘Supporting the development of national bioeconomy strategies’ was the third of three workshops intended to support the process of developing national bioeconomy strategies especially in the Central and East European countries (CEECs) and other member states (MSs) which are less active in the bioeconomy. Discussions about needs and gaps were initiated during the 1<sup>st</sup> workshop (13<sup>th</sup> March 2019) during which the current general Policy Support Facility managed by DG RTD was also presented. The 2<sup>nd</sup> workshop (3<sup>rd</sup> May 2019) focussed on involving especially BIOEAST countries in describing the state of play in their countries and the level of ambition within the bioeconomy. The needs for specific support were also discussed. Valuable experiences from developing a bioeconomy strategy in some countries were shared. This 3<sup>rd</sup> workshop included a combination of presentations and facilitated discussions. There was also a pre-workshop phase during which time some participants provided information in preparation for the actual workshop with a view to completing a country “Fact Sheet” with a specific policy support needs assessment. The workshop was co-organised by the BIOEAST Initiative and SCAR-Strategic Working Group for Bioeconomy with support from consultants funded by the CASA CSA project.

The *overall aim* of the 3<sup>rd</sup> workshop was to assist member states in developing and implementing national/regional bioeconomy strategies across Europe.

Its *specific objectives* were:

- To identify a road map supporting the development of national bioeconomy strategies.
- To complete an updated pipeline of policy support actions to develop bioeconomy strategies in Member States

A total of some 40 persons from the BIOEAST Initiative, SCAR BSW, European Commission and BBI-JU participated in the workshop (Annex 1).

This report provides a record of the workshop and does not attempt to provide conclusions and recommendations. However, a synthesis report is planned and the main conclusions from the three workshops will be drawn together in a consolidated set of conclusions for the three workshops.

## 1.2 Welcome and introduction

*Alexandros Theodoridis, Co-chair of SCAR Strategic Working Group for Bioeconomy*, stressed that the aim of the series of workshops was to a) support the work of the Policy Support Facility (PSF), and b) to get an overview on the current situation, especially on the (policy) needs and gaps, of countries without a dedicated bioeconomy strategy. The overarching goal is to support the development of bioeconomy strategies in such countries. The PSF tool has been set up by EC-RTD to help countries with developing their bioeconomy strategy, for example by conducting Mutual Learning Exercises (MLEs) focused on specific topics. The March workshop focussed on stocktaking, while the May workshop identified the state of play of bioeconomies in the countries. This 14<sup>th</sup> June 2019 workshop aims to finalize this first mapping stage in the process and must end up with MLE topics that will be needed during the next stages in developing national bioeconomy strategies.

*Barna Kovacs, Secretary General of BIOEAST*, addressed the need for a package of tools, like MLEs, that is helpful for supporting the process of building and/or revising bioeconomy strategies. Insight in the bioeconomy related topics the MLEs should focus is especially required, as they set the roadmap for building national bioeconomy strategies and targets to achieve. This should also be considered in

the context of the expected societal targets based on reports and updates from organisations like UN and EC, and the position of the bioeconomy herein. The four major reports were: on clean planet, decarbonization, EAT Lancet on food systems, the EC protein plan. The topics should allow the construction of MLEs from which also those countries who already have a bioeconomy strategy can benefit and have an important role. Depending on the topics prioritised in this workshop, there might be a need for other tools than those provided by DG RTD's PSF (peer reviews, MLEs, etc.).

### 1.3 Workshop methodology

Alex Percy-Smith, moderator of the workshop, mentioned that the current workshop builds on two other workshops, organised on respectively 13<sup>th</sup> March 2019 and 3<sup>rd</sup> May 2019, for which summary reports are to be found on both the BIOEAST website (<http://www.bioeast.eu/documents/other>) and the SCAR website (<https://www.scar-swg-sbgb.eu/documents/workshops-psf>). After this 3<sup>rd</sup> workshop, however, the work will not be finished. Preparation of the national bioeconomy strategies and, of course, implementation of the bioeconomy strategy must start.

The overall objective of the three workshops was to assist member states in developing national and regional bioeconomy strategies. The two specific objectives of the 3<sup>rd</sup> workshop were:

- *Development of a roadmap*: a strategic plan that defines desired outcomes and includes the major steps needed to achieve the implementation of national bioeconomy strategies.
- *Identification of a pipeline with actions*: a sequence of activities providing advancement or development aimed to reaching the overall goal, i.e. the implementation of national bioeconomy strategies.

Note that roadmap and pipeline of actions goes along with **time slots** (*action x* to be achieved in year *t1*; *action y* to be achieved in year *t2*, etc).

The workshop provided two main outcomes (see also figure 1):

- *Set of presentations of the current situation in several countries* (session 2) that highlights policy support needs and actions for developing national bioeconomy strategies.
- *A general roadmap and pipeline of actions* (session 4) that guide national trajectories towards building bioeconomy strategies:
  - o Actions for knowledge development in support of the bioeconomy strategies.
  - o Topics for MLEs provided through the PSF tools of EC-RTD.
  - o Scope and criteria for setting up a) mentoring teams; and b) a directory of experts.

Apart from the 3<sup>rd</sup> workshop report, a 5-6 pages *synthesis report* will be compiled from the three workshops together. This report will not include recommendations, but gives conclusions that participants can share and discuss with their delegates and country experts in next strategy development stages.

Alexandru Marchis, external expert, recalled the process which the group had been through leading up to this third workshop. There is no single approach in designing national bioeconomy strategies, as each member state's situation is unique. However, the '*four building blocks*' concept has been followed through the 3 workshops to guide this complex process:

- **Building Block 1:** Describe the bioeconomy concept at national level. Get a common view on **where the country wants to go with the bioeconomy and what the level of ambition is.**
- **Building Block 2:** Assess the current state of bioeconomy and ambition within the EU Strategy. **Collect data on understanding where the bioeconomy stands in the country.**
- **Building Block 3:** Define the bioeconomy measures, platforms and initiatives to achieve targets. **Mention the measures, platforms, etc. that is useful to bring the bioeconomy forward.**

- **Building Block 4: Leverage on the national and EU policies for sustainable bioeconomy. Transform the bioeconomy strategy into concrete actions.**

Figure 1 visualises the process that participants have gone through in the 1<sup>st</sup> and 2<sup>nd</sup> workshop (left side of line) and in the 3<sup>rd</sup> workshop (right side of line) within the 4 building-blocks concept, with focus on gathering the needed information and knowledge that are prerequisites for starting the real strategy implementation process.

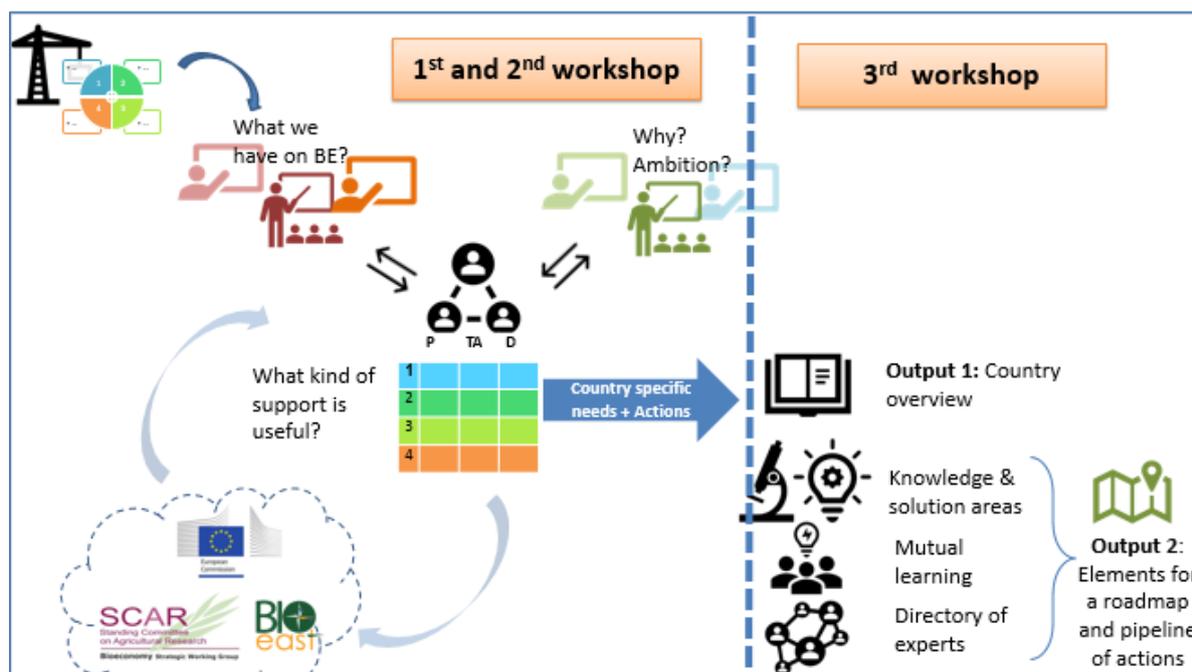


Figure 1. Work of CEEC participants in collecting information and knowledge as prerequisites to start the next – real - implementation process

### Package for country delegates

The two main outputs of the 3<sup>rd</sup> workshop are 1) **country factsheets/overviews**; and 2) a **roadmap and pipeline of actions** compiled from **Knowledge and Solution areas**, **Mutual Learning Exercise topics**, and a **Directory of experts and mentors**.

This package provides the necessary information and knowledge needed to start the next process of building and implementing national bioeconomy strategies.

### Session 1: Priority themes – group work (Output 2.1)

To advance the bioeconomy, regardless if a country has or hasn't a strategy, there are areas/ topics where further knowledge and actions are needed in order to progress towards building the bioeconomy in Europe. Such knowledge might help clarify the role of bioeconomy in responding to even bigger societal challenges, like SDGs, decarbonisation, clean planet or a protein plan for Europe. A number of priority themes were extracted from the Bioeconomy Strategy plans. Prior to the workshop, participants were asked to vote their top 3 priority themes which resulted in the order of Table 1 (see Annex 3).

**Table 1 Votes per priority themes assigned by participants**

Priority Theme	Votes
Sustainable food systems and the bioeconomy	11
Adaptation to climate change through bioeconomy solutions	8
Using bioeconomy to generate growth and jobs	7
Decarbonisation through sustainable use and mobilisation of biomass for food and non-food uses	7
Responsible and balanced value chains	5
Changes in consumption and waste management in bioeconomy	5
Models of circularity in bioeconomy	4
Social innovation and new cooperation models for bio-based value chains	4
Supporting bioeconomy regions and initiatives	3
Integrating protein plan objectives into bioeconomy approach	1

*Sustainable food systems and the bioeconomy, Adaptation to climate change through bioeconomy solutions, Decarbonisation through sustainable use and mobilisation of biomass for food and non-food uses and Using bioeconomy to generate growth and jobs* received most points and these were assigned one to each of four groups. Participants were divided into four groups and started discussions on the main issues per theme, as well as its related challenges and expected outcomes. Tables 2, 3, 4 and 5 highlight the findings of the four selected priority themes (see Annex 3 for images of flip-over notes).

**Table 2 Sustainable food systems & bioeconomy: Challenges and Expected outcomes**

Challenges	Expected outcomes
To achieve political commitment	Coherent policy framework
Get food & agriculture integrated as main parts of a bioeconomy strategy	Better exchange and deployment of knowledge
Better waste management; understanding sidestream hotspots in foodsystems	A monitoring system. Less waste/losses along food value chain.
Raise consumer awareness	Integrated role for communication people to explain importance of sustainable food systems. Education programs on sustainable food systems
Circularity use	New value chains with less food waste (households) and losses (harvest, processing, transport); use of bioeconomy clusters. Imposed incentives for research & innovation

**Table 3 Decarbonisation through sustainable use and mobilisation of biomass for food and non-food uses: Challenges and Expected outcomes**

Challenges	Expected outcomes
Logistics	Small scale use of biomass; Local use of biomass
Increase economic viability	Increased number of biorefineries
Technical and human resources	Better equipment and trained manpower
From linear to circular use of biomass	Cascading use of biomass
Better waste management	Increased waste usage for biobased products
Bioenergy position is better than others, i.e. biobased products	Increased role of other value chains; imposed supportive economic conditions
Governance	More cooperation
Low motivation to use biomass for contributing to decarbonisation	Linkage to new CAP; Increased knowledge

**Table 4 Using bioeconomy to generate growth and jobs: Challenges and Expected outcomes**

Challenges	Expected outcomes
More knowledge on current status on growth & jobs in biobased sectors	A data and analysis framework for identifying weaknesses and potentials of biobased sectors
Insight needed in impact of the bioeconomy on jobs & growths	Using models and methodologies for evaluation the impacts of the bioeconomy
Getting new jobs in primary production and bio-based related industry	New jobs profiles descriptions and developed new education and skills
Insight in the bioeconomy market needs	Established regional and EU wide bioeconomy markets; Overview of incentives to induce new industrial links (i.e. clusters)
Incentives for more cooperation cross-industries and cross-sectors in the values chain	Advisory body for different industrial organisations, including primary producers and processors

**Table 5 Adaptation to climate change through bioeconomy solutions: Challenges and Expected outcomes**

Challenges	Expected outcomes
Collecting more and better data on water, waste, heatpumps, animal wellbeing, breeding temperature, draught stress. Mapping of climate related indicators in livestock breeding.	Advisory services on e.g. type of investments; Governments motivates farmers and others in the value chain to re-invest in climate saving measures (support measures, subsidies).
Come with concrete practical solutions for farmers and related industries for adapting to climate change problems	Better waste management, new biobased value chains. Insight in cost-efficient measures. Government can play a role here as a package of measures for typical farms is needed: farmer can take out a set of measures to adapt to climate change. The new CAP is supposed to support this with a catalogue of measures.
Get better insight in climate impacts, water stress, biodiversity due to using different technologies	Data and analysis framework for monitoring and impact assessments in countries and regions. Implementation schemes benchmark.
More climate related pilot projects in regions; for building trust	Better use and linkage of R&D and innovation to climate change adaptations. Integrate measuring supportive to climate change innovations in new CAP
Energy solution measures in livestock and crop farming	Improved waste management.

The discussion that followed focussed especially on the question **how to create the policy framework** i.e. build the political agenda. Groups identified the need for creating a strong policy framework, however, it was stressed too much in general terms and not concrete enough. Participants gave insight in the pre-conditions required to pave the way for creating a policy framework:

- Policy makers are willing to support the bioeconomy, but only if they have evidence on the needs and its impacts. Otherwise it will not happen. So, monitoring data is key to have.
- Some countries, like Spain, are divided in regions with their own government, strategies and interests in the bioeconomy. This complicates the set-up of a common policy framework.
- Many countries do not understand the meaning of the various terms in place: bioeconomy, green economy, blue economy, circular economy. Key precondition for building a policy

framework is to get common understanding on definition and ambition of the bioeconomy within country /region.

- Several participants mentioned that the pressure of the EU has to be pointed out to the individual countries. Then the countries should establish an office or secretariate that will only deal with the bioeconomy. That will help.
- Also some pressure of the BIOEAST initiative for the bioeconomy is more than welcome in CEE countries.
- In other countries, like Belgium and the Netherlands, the general public likes the bioeconomy, but in the meantime the awareness has been moved towards developing the circular economy. Research, policy makers and industries all focus more on circular economy.

### Highlights of Session 1

- The policy support need to be built around the first 3-4 themes identified during the **prioritisation exercise** as the ministries' representatives identified them as the most important for the policy makers in the ministries.
- There is a **need for creating national policy frameworks for supporting the bioeconomy**. More pressure from EU and/or BIOEAST to individual countries will help to speed-up the implementation of bioeconomy strategies.
- There is a need for a **common understanding of what bioeconomy is**, also in relation to variety of terms in place, like green economy, blue economy, bioeconomy, circular economy
- There is a **need for data to monitor the development of the national and regional bioeconomy**. To provide evidence on the state of play of the bioeconomy.
- There is a **need for models and methodologies to analyse the impact of the bioeconomy**, e.g. on jobs and growth, on climate change mitigation, on decarbonization, on food systems
- - **Sustainable food systems** are part of the bioeconomy; they are not two separate aspects
- - There is a **need for environmental solutions to adapt to climate change for all stages/industries in the value chain** (not only for farming). The new **CAP 2020** is supposed to support this with a catalogue of measures, which can be country specific selected and implemented.
- **Better waste management** along the value chain (from farmer to processors to logistics to consumer); identifying the hotspots of where sidestreams are and find solutions.
- - **Bio-clusters and co-creating and exchange** of expertise; collecting of best practices in order to develop the priority themes.
- **Communication, perception and society attitude** are important and must be brought into the bioeconomy system
- **Last but not least**, these points are also valid for countries that already have a bioeconomy strategy plan and have to develop sustainable food systems, new jobs and growth, solutions for climate change etc. as well. Most of them are still in a process of making and implementing the Action Plan following the bioeconomy Strategy Plan. Impacts on challenges haven't been achieved there neither, so all can learn from each other here. Each member state has to consider and work on issues like novel food, waste reduction, climate technical solutions; and on what policy support tools are needed to get it achieved.

## Session 2: Policy support needs – update from MSs

This Session 2 builds upon the the second workshop, in which representatives from the BIOEAST countries, i.e. Czech Republic, Hungary, Poland, Slovakia, Bulgaria, Croatia, Latvia, Lithuania, Republic of Estonia, Romania, Slovenia and Turkey presented their responses to the following 3 questions:

1. What is currently – officially or informally - available for a bioeconomy strategy in your country? *E.g. inter-ministerial working groups; political commitments; expert groups; studies; stakeholder platforms, research projects; networks and communication; discussion fora; conference findings.*
2. What are target(sub-)sectors for bioeconomy in your country? *(Sub)-sectors that should be covered by the national bioeconomy strategy and their potential importance in the national economy, e.g. shares in production value, GDP and area.*
3. What are the responsible public bodies and relevant stakeholders in your country? *E.g. responsible institutions, stakeholder groups or platforms involved in the bioeconomy strategy and their role according to procedures and national regulations.*

The highlights of the responses can be found in the 2<sup>nd</sup> workshop report <https://www.scar-swg-sbgb.eu/documents/workshops-psf>.

In this third workshop the representatives responded to two additional questions:

4. What are short and long-term policy support needs in your country? (Table 6 highlights the answers of the countries).
5. What are required actions to advance the development of the bioeconomy strategy in your country? *These may be national, regional or European. What are challenges, expectations and participants to these actions?* (Table 7).

This information will also be available on the websites of the BIOEAST Initiative and the SCAR BSW.

**Table 6 What are short and long-term external policy support needs in your country?**

Member State	Process related support	Technical Assistance support	Strategy drafting support
<b>Building Block 1: Describe the bioeconomy concept at national level</b>			
Bulgaria	Facilitator: guiding different sectors/policy makers to the strategy; Workshops. Demo-farms		
Croatia	Inter-ministerial working groups Guiding the different sectors to the Strategy Good examples; demo farms (inspired by Latvian case)	Study on success criteria and common understanding of the bioeconomy concept Better traceability and statistical use of biomass. Figure out what is the focus of bioeconomy in Croatia (use of waste for what?). Collecting and monitoring data from the processing industry	Common simple understanding of the concept of bioeconomy
Czech Republic	Public awareness on bioeconomy (different target groups); Incentives to support horizontal cooperation Developing an own soft bioeconomy strategy	Study on success criteria Data base	Common simple understanding of the concept of bioeconomy; MLEs
Estonia	Facilitator: guiding the different sectors/politics to the strategy	EU Bioeconomy Strategy. EC to communicate more;	Training; capacity building; explaining

	(EU+National); Public awareness on bioeconomy (different target groups); Incentive to support horizontal cooperation; Story telling, good examples; workshops; demos farms	Better traceability and statistical use of biomass (EU level)	
Hungary	Facilitator: guiding different ministries; incentive to support horizontal cooperation; public awareness on bioeconomy (different target groups)	Development of database about state of bioeconomy (biomass availability, indicators); Insight in best value chains for Hungary; better communication	Common, simple understanding of the concept of bioeconomy; training and explaining.
Latvia	Raising public awareness by organizing regional workshops within country; EC speakers for explaining the EU Strategy; Inspirational stories/sharing good practices of farming, processing, research, and business; Training (by social anthropologists/mentors) for policy makers on how to address society and bioeconomy stakeholders (esp. younger generation)	EC technical assistance for the organisation of workshops	
Lithuania	Raising public awareness of bioeconomy by local and foreign success stories	Workshops to build capacity within bioeconomy-related ministries	Facilitator: guiding sectors/politics to the strategy (EU + national)
Poland	Guiding the different sectors/politics to the strategy (EU + national)	Study on success criteria and common understanding of the bioeconomy concept	Training, explaining
Romania			
Slovakia	Methodology for pricing the biomass	Study on success criteria and common understanding of the bioeconomy concept	Common understanding and building capacity within the industry
Slovenia	Develop mutual trust&common vision among stakeholders; coordinate & cooperate among different stakeholders	Raise awareness in general & in specific target groups	Better defining of priorities in respect to sectors, resources, technologies etc.; common understanding key
Spain	A clear government commitment to support and supervise horizontal cooperation on the existing Bioeconomy concept	Raise awareness of primary producers for bioeconomy business cases; show benefits coming from bioeconomy.	Bioeconomy is important for export purposes; improving forestry production (e.g. timber)
Turkey	Workshop with stakeholders (inc. Farmers dem.); Public and society awareness raising Best practices-countries	Workshops and technical visits; Mapping of stakeholder groups; Public service ads/using ICTs Country visits/meetings (MLE)	
<b>Building Block 2: Assess current state of bioeconomy and ambition within the EU Strategy</b>			
Bulgaria	Conducting information events and demonstration practices. Improvement of MAFF capacity to develop and implement strategy.	Mutual Learning on strategy building for policy makers and decision makers.	
Croatia	Setting targets + SWOT; ToR ToR and methodology for the	Expert studies on evaluating the impact of bioeconomy; Data on	Training, explaining

	Strategy; 3 <sup>rd</sup> party/external facilitator	value added; Scenarios!	
Czech Republic	Align policies to promote demand for biomass product markets	EU support for national bioeconomy studies; Development of database about state of bioeconomy; Biomass data evaluation; Expert studies on evaluation of economy/impact of bioeconomy	Collecting bottom-up feedback
Estonia	Facilitator: guiding the different sectors/politics to the strategy (EU + national)	Biomass data evaluation; Development of database about state of bioeconomy; EU support for national bioeconomy studies; Data on value added; Scenarios; Scientific EU advisory panel.	Training, explaining;
Hungary	There are many informal groups at national level. Urgency is to set up an official ministerial working group. Alignment of policies (how?)	EU support for national bioeconomy & expert studies Biomass data evaluation, analysis of potential value chains; impact (environmental, economic, social) studies of bioeconomy.	Collecting bottom-up feedback (industry, research, farmers)
Latvia		Increasing collaboration. What to do with biomass and focus on environmental aspects.	Living labs, trainings, workshops.
Lithuania	Expert evaluation (based on EU BE Strategy) of available national bioeconomy data to help set both short-term and long-term priorities	Info day on benefits of bioeconomy and most relevant links to updated EU strategy on bioeconomy for different target groups	
Poland	Align with CAP and other policies	Data on value added; Scenarios	Collecting bottom-up feedback
Romania	Analysing how national policy can support bioeconomy sectors Investment orientation to support development of new bioeconomy business models for: 1) expanding biomass use; 2) increasing use of by-products and residues; 3) extension of waste, water use, etc.		Information/promotion measures for BE; networking; Analyse roles of government and stakeholders involved in strategy development Creating thematic working group on BE
Slovakia		Biomass data evaluation	
Slovenia	To develop mutual trust & common vision among stakeholders	To map biomass resources & streams; To assess value chains' gaps and potentials; to develop an effective bioeconomy monitoring system to see if measures achieve the targets behind	To define appropriate goals and indicators for monitoring
Spain	Assessment and monitoring needed by the Spanish Bioeconomy Observatory concerning indicators, both statistical and on sustainability	Necessary two types of evaluation index: (i) <u>Commitment and activity</u> : measuring the related public and private investment and the number of activities; (ii) <u>Results</u> : evaluation	EU/National support for Bioeconomy studies and aligning with the CAP

		of the economic importance of the sectors linked to biomass-use, and improvements	
Turkey	Strategy development methodology; Measurement of bioeconomy in Turkish economy; Setting targets and SWOT; best practices	Training for national experts (By EU/SCAR experts; Expert support and training with different methods; Technical working groups for different fields; monitoring & evaluating biomass data; biomass data measurement and evaluation; country visits (MLE topic)	Training and expert support
Building Block 3: Define bioeconomy measures, platforms and initiatives to achieve targets			
Bulgaria	Align policies to promote demand for biomass product markets; Cooperation, capacity building within ministry	Inter-ministerial groups. How? Support the development of small scale bioeconomy processing technologies	How to build CLUSTERS (regional)
Croatia	Development of clusters/networks around existing and new value chains; Capacity building within the Ministry and at national level	Pilot case; Inter-ministerial groups; Explain strategy & Action Plan	Training, explaining Inter-sectoral collaboration between different policy & technical expert groups
Czech Republic	Developing clusters/networks. Building capacity (within the ministry); Align policies to promote demand for biomass product markets	Pilot cases; educating farmers advisors; financing bioeconomy projects; Database of funding sources for bioeconomy; Support development of small scale bioeconomy processing technologies	Collecting bottom-up feedback; EIP Agri support at local level
Estonia	Development of clusters/networks; Align policies to promote demand for biomass product markets; Building capacity within the ministry; Capacity building; national level; Facilitator: guiding the different sectors/politics to the strategy (EU+ national)	Pilot cases; Policy/legislation alignment and interministerial groups. How? Financing bioeconomy projects; Database of funding sources; Support development of small-scale bioeconomy processing technologies; Educating farmers advisors; EC: explain strategy and action plan. Scientific advisory panel at EU level	EIP agri support at local level; How to build CLUSTERS (regional); Training, explaining.
Hungary	Building capacity (within ministry); Development of clusters/hubs/ networks (mentoring best practices, and innovative start-up enterprises)	Pilot cases (collection and analysis); Financing bioeconomy projects; Database of funding sources for bioeconomy; educating farmers advisors Advisors; sharing examples	Workshop on integration of bioeconomy in CAP. SCAR WGs mirror at MS level(+ intersectoral collaboration)
Latvia	Development of EC webpage/information system dedicated to bioeconomy support instruments (CAP, RDP, LIFE, Horizon, etc.) for entrepreneurs (incl. farmers, processors) and scientists (in all MS languages); Training for policy makers and farmer advisers on bioeconomy		Policy support facility for regional (meaning a region of a country) bioeconomy strategy development

	support to various stakeholders ; Demo-farms /living labs; Explaining bioeconomy strategic block in EC communication on Clean planet for all; training for policy makers on bioeconomy role in Horizon Europe		
Lithuania	Best practices of horizontal cooperation (e.g. interministerial groups) from other states	Workshops on most effective systemic way of communication among ministries and stakeholder groups	Advice on alignment of bioeconomy incentives in strategic documents
Poland	Guiding different sectors/politics to strategy (EU + national)	Pilot cases	Collecting bottom-up feedback
Romania	--	--	--
Slovakia	Building capacity within the ministry. Mentoring on bioeconomy HUB (Best practice from other countries)		Education to farmers on different tools to show possible bioeconomy cases; good examples
Slovenia	To develop mutual trust & common vision among stakeholders; better coordinate & cooperate across sectors	To build capacity within stakeholders; to better organise platforms (best practices)	To develop appropriate measures & instruments
Spain	Public drive to set up national certification schemes for biomass & bio-based products	Database of funding sources for Bioeconomy	Industry has to be better involved in the action plans; apart from role of research and government
Turkey	Development of clusters/networks; Monitoring on Bioeconomy; Building capacity within public bodies to plan/monitor Strategy Country level capacity building	Pilot cases Training for national experts, stakeholders Workshops for different field.	Possible EIP support for candidate countries.
<b>Building Block 4: Leverage on the national and EU policies for sustainable bioeconomy</b>			
Bulgaria	High level forum; Workshops on bioeconomy related policies		Inter-sectoral collaboration between different policy & technical expert groups; SCAR WGs mirror at MS level
Croatia	Adapting legislation to the situation. Bioeconomy is getting on the political agenda, which is promising	Pilot cases Educating farmers' advisors	Tailoring CAP measures to help farmers under the bioeconomy topic, but in broader scope of e.g. climate change. Inter-sectoral collaboration between different policy & technical expert groups
Czech Republic	Mutual learning at transnational level; Common council agendas; Adapting legislation to the situation;	Pilot cases; MLEs to learn/get knowledge on the bioeconomy	SCAR WGs mirror at MS level; training, explaining Intersectoral collaboration between policy & technical expert groups
Estonia	Mutual Learning at transnational level; identifying common attributes; High-level forum; Workshops on bioeconomy related policies; Adapting	Pilot cases	Intersectoral collaboration between policy & technical expert groups; Training & explaining

	legislation to the situation.		
Hungary	High level forum (EU/national for decision makers); Strategy development methodology (workshop for policy)		
Latvia	SCAR mirror groups in MSs; ambassadors needed for promoting, awareness raising. Role of communication to bridge bioeconomy to youngsters. Learned from Finnish case.	Support for MS representatives' participation at SCAR meetings	Role of Baltic countries collaboration is important. Good exercised and trainings.
Lithuania	Workshops on most efficient bioeconomy related policies, at regional, national and macro-regional levels.	Monitoring methodology	SCAR WGs mirror at the level of MS
Poland	Mutual learning at trans-national level; identifying common attributes	Pilot cases	Inter-sectoral collaboration between policy & technical expert groups
Romania	Correlation of relevant sectoral policies for bio-economy - policy synergies	Analysis of national legislative framework – identifying possible legislative barriers for developing the bioeconomy sector	Develop a roadmap for defining the framework for sustainable development of the bio-economy Organizing new value chains within the relevant fields for bioeconomy concept
Slovakia	Workshops on bioeconomy related policies; Makro-regional Workshops on processes and current developments regarding the bioeconomy strategies development		
Slovenia	To develop mutual trust & common vision among stakeholders; better coordinate/ To better coordinate & cooperate among different actors	To evaluate measures & instruments	
Spain	Government to establish specific strategies and programmes relevant for the support of the biobased-industrial sector	Task force/working group to impulse a bottom-up process for national/regional funding programmes in place to specifically support biobased-industrial sectors (e.g. SMEs, projects, initiatives, etc.)	EU/National support for task force to help drafting specific achievements from the established policies on sustainable bioeconomy
Turkey	Constructing national legislative framework; Transnational and regional cooperation; Workshops on common challenges regarding implementing the strategy; Establish Executive Board/High level forum Harmonisation with EU legislation and EU Strategy	Country visits/meetings (possible MLE topic); pilot cases Collaboration between national experts and bodies; Workshops/meetings with different countries (MLE); Training on examples and expert support	

**Table 7 What are required actions to advance the development of the bioeconomy strategy in your country?**

Member State	Challenge	Expectations	Participants
Bulgaria	Setting up Inter-ministerial groups and coordinating the development of the national strategy	Clarification and differentiation of objectives of the circular bioeconomy in agrarian sector and biomass processing industries	
Croatia	Bioeconomy placed on the political agenda. Now forming an interministerial group with dedicated experts and/or suitable capacity to work on the concerted policy	A common understanding what bioeconomy is; what is at stake and what it can do to the economy; Definition where we want to go with bioeconomy;	A quadruple Helix approach: government + academia + industry + civil society
Czech Republic	Developing a database and collecting data; education of farmers (AKIS)	Monitoring the processing industry; Studies on success criteria; Good examples; public awareness on bioeconomy.	Different target groups
Estonia	Silos between ministries; room for improvement in involving researchers in developing national strategic plans. Think tanks. Autum 2019: 1) seminar to exchange experiences on bioeconomy strategy; , fragmented overview of what is going on; 2) national conference presenting results of Agriculture and Fisheries strategy (AAFS) and to discuss possibilities of linking CAP to developing bioeconomy	Better communication, cooperation; teamspirit.  Benefit from lessons learnt information, new insights, inspiration and motivation  Raising awareness, presenting the AAFS in relation to bioeconomy.	Ministries, research organisations, related organisations representing industry, etc.  Estonian representatives (ministries, Parliament, + representatives from other countries, EC
Hungary	Sharing good examples of W-European MS: bioeconomy is a horizontal theme, so find out how other have developed inter-ministerial co-operation and modified their policies/regulations to promote bioeconomy.  Methodology needed to show economic benefits of implementing bioeconomy	Most relevant topics, sharing good examples of: 1) financing mechanism in more developed MSs, national policy and legislative/regulatory forms, aligning policies; 2) cluster building; 3) practices to support incubation process of early stage bioeconomy projects; 4) Motivation of farmers in getting involved in higher added value value-chains (incentives).	Decision makers (not 'only' administrators)
Latvia	Review of Latvian Bioeconomy Strategy 2030, based on revised EU bioeconomy strategy, Horizon Europe, a Clean Planet for all, and other policies. Bring circularity (re-use, reduce, et) in bioeconomy.	Pathways towards national circular bioeconomy action plan  Green investments (banks, loans) are also looking more for circularity aspect.	EC as facilitator between national and regional policy makers and NGOs
Lithuania	External facilitation to gather bioeconomy related ministries	SWOT analysis sector by sector to set short-term and long-	Different target groups

	(both policy makers and decision makers) to raise awareness of the bioeconomy, and the role of horizontal cooperation in the process. Workshops and training on systemic approach to benefits of the bioeconomy for different target groups. Nationwide promotion of success stories and good practices (focusing on LT ones mostly, and then cases in other countries that could be applied here as well).	term priorities. Calculating the benefits of the bioeconomy (e.g. pricing the biomass) and setting monitoring indicators.  Aligning different policies sharing some of their goals (e.g. related to climate change).  Sep 19: study on visions of the bioeconomy strategy; taking into account the new CAP; focus is on waste management and food systems	
Poland	Support of experts from countries where National Bioeconomy Strategies was implemented; Proper understanding & implementation of sustainable bioeconomy concept as defined in EU Bioeconomy Strategy	Regional understanding of potential for local bioeconomy development.  Better transposing needed of top-up view of policy makers to bottom-up society	SME and research institutes in EU R&D research projects
Romania	To set up an interministerial thematic working group on this issue		A governmental entity should take the lead of this WG on bioeconomy; ... then, natural steps will be taken
Slovakia	Mentoring/Workshop on methodologies for calculation economic benefits (e.g. GDP growth) of implementing the bioeconomy; Methodology for pricing the biomass (e.g. creating an index for biomass price); Revision of the RIS3 policy in order to include bioeconomy related research as one of the main topics (Structural funds related problems)	Best practice on aligning different policies (e.g. how to ensure circularity in bioeconomy strategy; CAP) Showcase of successful bioeconomy business cases applicable in Slovakia to materialize business expectations for stakeholders; Assessing impacts of implementing bioeconomy on national budget (Finance ministry expectations)	
Slovenia	Raise awareness on bioeconomy in general & in specific target groups; Develop mutual trust & common vision among stakeholders; Form an inter-ministerial group on bioeconomy; More efficient coordination & cooperation and knowledge transfer among stakeholders.	Developing and successful implementing of measures & instruments to achieve bioeconomy development goals; Developing effective bioeconomy monitoring and evaluation system	Policy makers, companies, farmers, citizens, research & education institutions, NGOs etc Representatives from ministries of economy environment, agriculture & forestry, education & research
Spain	Worldwide food provider; Sustainable use of natural resources (land, water, emissions, biodiversity,	Top-class innovation for new production, conservation and transformation systems Improve efficiency while	Preparatory work led by research and innovation policy managers; Later work by different

	ecosystems); Improving production/transformation of forestry products (timber, cork, resin, pulp and paper); Improving extraction of energy & other bioproducts; Improving services linked to ecosystems; Promotion of public/private research and investment in innovation; set-up of bioeconomy indicators to evaluate plans of action.	reducing losses and wastes; Cover social expectations, especially related to rural and coastal development  Strengthened bioeconomy's social, political and administrative framework; competitive bioeconomy market and new products	stakeholders (social representatives, industry, academia, national, regional and local administrations)
Turkey	Jan-Jul 2019: creating WGs, awareness activities for stakeholders; state of play report.  July-Dec 2019: Determining potential and thematic areas to develop  May 2010: preparing strategy and action plans  From June 2010: implementing and monitoring of national strategy	Assessment of current situation with raw data/information; Determine state of play for Turkey wrt possible stakeholders; accuracy and field-specific data (lack); field experiences for best practices (lack); insufficient public awareness ; Insight in bioeconomy potential; funding and timing Drafted strategy; its funding and timing  Achieve full political commitment of all partners; building legislative framework; monitoring the progress	MOAF and related public institutions   Stakeholder participation

## Highlights of Session 2

- Need for **inter-ministerial set-up** within countries
- Need for **external facilitators or mentors** to guide the process towards bioeconomy strategy and action plans; creating **thematic working groups**
- **Understanding the concept of the bioeconomy** is key in respect with definition and ambition
- There is tendency to bring **circularity (re-use, reduce, refuse, redesign, recycle, etc) into the bioeconomy**
- Best practice on **aligning different policies**, e.g. with **new CAP 2020** for which MS have to develop own **implementation plans** and which has more focus on innovation and **environmental measures**
- **Political willingness** goes along with **evidence** for the bioeconomy topic.
- There is a **need for a monitoring and analysis framework to identify feasible solutions for national and regional bioeconomic value chains** (e.g. use of waste for what products) and evaluate the impacts of action plans.
- Identification of a set of **measurable indicators** for benchmarking competitiveness of

possible bioeconomic value chains and organising better waste management.

- **Revision of the RIS3 policy** in order to **include bioeconomy** related research as one of the main topics. Use of structural funds to develop the regional bioeconomy.
- **Collaboration at different levels** has to be achieved, e.g. across sectors, across regions, across stakeholders
- **Bio-clusters and co-creating and exchange** of expertises; collecting of best practices in order to develop new, viable business cases

## Session 3: Actions for mutual learning exercises (MLEs) provided through the H2020 Policy Support Facility

This session encompassed two stages:

- 1) Presentation on practicalities of requesting and organising MLE
- 2) Discussion on the priority topics for MLEs and peer reviews related to a) Process related support; b) Organising technical assistance support at national level; and c) Strategy drafting support

### *Ad 1. Practicalities of requesting and organising MLE*

*Ioana Petre, DG RTD - PSF implementation unit*, provided a useful recap on the H2020 PSF instruments as presented in the 1<sup>st</sup> workshop on 13<sup>th</sup> March 2019, i.e. Peer reviews of national R&I systems; Specific support to countries; and Mutual Learning Exercises (MLEs). Herein, the MLE is the proposed instrument for supporting the design of national bioeconomy strategies, due to following reasons:

- The topic reflects a R&I policy challenge of interest to several volunteering countries.
- It asks for a policy learning approach: interested MSs/ACs learn from each other by exploring specific questions with the aim to implement changes in their own R&I policies
- Learning through the identification of good practices, lessons learned and success factors.
- Using a modular approach & combination of activities (workshops, study visits, information sharing activities, etc.); i.e. a specific broad topic (e.g. “bioeconomy strategy development”) can be broken in pieces (e.g. “waste management”) and specific tools could be applied to it (e.g. “study visits to biorefinery”).
- The learning process between peers is supported by independent experts in R&I policy and governance.

In practice, the application of the MLE instrument works as follows (with output related deliverables):

- *Scoping meeting* (optional): as a start; could be through emails, questionnairing, etc
- *Kick-Off meeting on modus operandi* in Brussels: agree on the way we will work together, on the hosts for the country visits, on the timeline.
- 3 or 4 country visits; each visit start with a challenge paper and ends with a *topic report*
- Final meeting in Brussels, resulting in a *final report*
- *Dissemination event* organised on findings
- *Policy change implemented* in MS/AC

The EC re-imburses only two delegates per country, but countries are free to bring more participants to the meetings. Further, the MLE makes use of independent experts:

- *Panel of independent experts:* 1 expert to chair the MLE; 1 R&I expert per subtopic (or for 2 subtopics) of the MLE; out of whom 1 rapporteur.
- *Expert profile:* all should ensure the large spectrum of expertise that would allow them to share the analytical and drafting tasks of the MLE. In addition, the expertise should have some complementarity in their knowledge.
- *Expert selection:* the EC nominated the chair of the MLE and selects the rest of the expert panel with help of the PSF contractor.
- *Experts' role:* to support 1) the learning process by preparing appropriate material and moderating dedicated parts of the MLE meetings; 2) broad dissemination of the findings.

The procedure to submit a request for MLE is organised by submitting a concept paper (ca. 2 pages) to DG RTD-Unit C2. The paper should include the description of the main – must be a relevant one! - topic of the MLE, its objectives, its relevance for the current political/policy context at EU and MS levels, and the envisaged sub-topics of exercises

Finally, success factors of the MLEs depend on commitment and trust created, the use of high level expertise, a good timing and the provision of actionable recommendations. Note that it is not the expert that will make the recommendations, but the participants/target group of the MLE.

#### *Ad 2. Discussion on the priority topics for MLEs and peer reviews*

Participants raised a number of questions (Q) in respect to understand how useful the MLE is as a tool for developing tailor-made national bioeconomy strategies. The answers (A) of DG RTD immediately follow the questions.

**Q:** *Do you already have experience with the bioeconomy topic in a MLE?*

**A:** Not yet, but there will be new elements in the PSF 2.0 version (which will be available by mid 2020) that will make MLEs more applicable for developing bioeconomy strategies. It is preferable for both countries with and without a bioeconomy strategy to be in an MLE, whereas the former group must have reasons to participate in the MLE and learn from others. For example, because the countries already with a strategy are in a process to revise it, or because they still have to set up an action plan.

**Q:** *Inter-ministerial discussions to be launched is mentioned in each CC. So that means that the MLE should go into the country itself to learn about the specific topic, e.g. how to bring local ministries together and let them interact and collaborate. This is how BK sees the role of a MLE. It is not that the MLE is set up to learn how the bioeconomy should be integrated in a specific countries. However, 3 or 4 country-visits per MLE have been mentioned. The issue is that probably we need 15 to 20 country visits, or it might even be that visits to all MSs are needed. Is the PSF 2.0 developing in this direction, i.e. to let MLEs take place within the country?*

**A:** Note that the MLE will not go to each participating country, but it would contribute to bringing the envisaged reform in there. The procedure is as follows: a specific MLE topic will be discussed in a hosting country (a country visit), and another MLE topic will be discussed in another hosting country (another visit).

**Q:** *Experts might need different profiles and/or different countries might need expertise at different levels. How are experts selected?*

**A:** Experts are indeed very important to make an MLE successful and their CVs and bios must be sorted out with respect to their expertise on a) governance; and b) transformative

innovation/bioeconomy knowledge. The profiles of experts will be tailored to the topics that are on the table in the MLE.

**Q:** *How many people can actually participate in a MLE? The group might become quite large.*

**A:** In principle, there is no limit on participation number.

**Q:** *If one topic has to be decided on for the MLE, how broad could that topic be?*

**A:** Topics (one per year) for a MLE regarding the 'bioeconomy' can deal with e.g. strategy designing, toolbox implementation, stakeholder involvement. As a MLE can be considered as a dynamic process, it is possible to allocate money to changing sub-topics over time. DG RTD has allocated maximum 300 keuro for MLEs with the main topic 'bioeconomy' in 2020.

**Q:** *What is the deadline for submitting a proposal for the MLE call on the main topic 'bioeconomy'?*

**A:** The DG RTD PSF implementation unit is responsible for the tool improvement. However, PSF 2.0 is not functional yet as that situation has been planned for mid 2020.

The call for tender for the new PSF contractor will be launched soon, but that means that a new MLE can only be organised in the second half of 2020. As there are usually several requests for organising MLEs, selection criteria for awarding proposals will be applied. The first step in requesting an MLE is the preparation of the concept note (together with Unit C2 – Bioeconomy), to be delivered to the PSF team in the first quarter of 2020.

**Q:** *The MLE in PSF 1.0 (2 persons per country) was set up for R&I with involvement of only one ministry. On the other hand, the bioeconomy is a much more complex topic that requires the interaction of more ministries, experts, stakeholders and sub-topics in the strategy building process.*

*Actually a MLE process in each participating countries should take place, but that is expensive. Therefore, is 300.000 euro for a MLE sufficient to deal with such a broad and complex topic as the bioeconomy?*

**A:** EC agreed on the fact that a bioeconomy strategy is much more complex – due to the various cross-relations – to establish than the R&I strategy it was initially intended for. PSF 2.0 will provide an improved version of the tool. To overcome the budget restriction of 300.000 euro provided by DG RTD, it was suggested to search for additional resources at the national and EU levels in order to improve the MLE intention to develop national bioeconomy strategies.

**Further specific questions on MLE issues could be sent to the E-mail [RTD-PSF@ec.europa.eu](mailto:RTD-PSF@ec.europa.eu)**

### Highlights of Session 3

- **Current PSF** is useful for systemic R&I challenges, **not directly for complex strategy development** as the bioeconomy requires (cross-sectoral, cross-interministerial, cross-stakeholder)
- **PSF 2.0** is being improved – ready in summer 2020 - in order to become better useful for developing bioeconomy strategies and for addressing transformative innovation issues
- **Call for tender for PSF2.0** is expected to be launched before 2020, but the MLEs may only start in the second half of 2020; there is 300 keuro available for the main topic 'bioeconomy'.
- DG-RTD has **no experience yet with complex MLE topics as the 'bioeconomy'**. There is concern if the usual set-up of the MLEs (2 or 3 country visits) and the maximum available budget (300 keuro; 2 participants per country re-imbursed) will fit to the

needs of the complex bioeconomy topic.

- **Additional funding** must be found both at EU levels but also at national levels in order to make MLEs more successful in facilitating and implementing tailored bioeconomy strategies
- **Experts** to be involved in the MLEs are selected based on their **profile and knowledge** on a) governance and b) the bioeconomy/transformational innovation content

## Session 4: Actions for EU level support and mentoring teams and directory of experts

### *Actions for EU level support*

The discussion in this session focused on the kind of support needed originating from the concerns and expectations due to the group discussions on priority topics in session 1. Table 8 provides a scoping list of issues that has to be linked to specific actions targeted to drive the strategy development process in the good direction. It is important to communicate this list with the EC as it gives insight into a) the type of support tools; and b) the type and amount of budget needed for guiding the process. It was stressed that the 300.000 euro for PSFs/MLEs already mentioned would be insufficient to develop national bioeconomy strategies in so many countries. Efforts have to be put into finding additional funds – from EC, from project proposals/thematic network creations, from national authorities – and into finding support tools additional to the PSF tools – to boost and facilitate the development of strategies and action plans. Staff from DG RTD confirmed that the EC support is not only limited to the 300.000 euro for PSF tools (e.g. MLE). In next FP programme there are more financial support options foreseen. Everybody is aware that the bioeconomy is a complex topic, with many challenges. Therefore, the pieces of available funds and support must be regarded as a way that help to proceed in a progressive way.

Note that the division in the three groups of support is rather diffuse and not always evident. The key thing, however, is to have the issues included somewhere, either in the one group, or in the other.

**Table 8. Highlights of the MLEs related support on priority themes**

<i>Process related support</i>
High-level coordination and policy leadership (inter-ministerial)
Building public and authority awareness and society support for bioeconomy
Measuring the progress & results towards bioeconomy
Best practices and bottlenecks in building bioeconomy clusters
Stakeholder involvement
Cooperation between authorities and between stakeholders
Policy communication to the wide world
PSF not really suited for developing national bioeconomy strategies so far. More tools available?
Achieve consenses on what bioeconomy means. Common understanding, vision and goals
Alignment and coordination of different policies
<i>Technical Assistance related support</i>
Defining what bioeconomy means at national level
Administrative capacity building
Best practices and pilot cases in support of bioeconomy
Regional and macroregional cooperation and synergies
Evaluation of socio-economic impacts and contribution to competitiveness of bioeconomy

Mapping of biomass resources and uses
Identifying possible barriers/bottlenecks (legislative, systemic, etc) in bioeconomy development
Identifying possible financing resources for implementation
<i>Strategy drafting support</i>
Coordinating national strategies with the EU strategy
It is not only on drafting a new strategy, but also on revision strategies
Challenges in the implementation of the bioeconomy strategy
Setting targets, priorities and goals
Developing technologies and markets for bio-based products
Organising bottom-up contribution and stakeholder involvement
Facilitation of internal cross-sectorial coordination of the political agendas
Streamlining bioeconomy priorities into other policies (CAP, regional development, etc.)

#### *Actions for mentoring team a directory of experts*

After having gone through a list of topics, there are still missing elements in the process. The links to the experts that could provide support have to be identified and established, originating from the own country and from other countries. The questions are:

- How to bring experts in? Note that required expertise depends on the topics the experts should be linked.
- What will be the scope of the expertise?
- How to build up the database of expertise? For example, this could be an institutional process, with names of persons included that are in each country's databases.

Participants in the workshop came up with following suggestions:

- The qualifications and experiences of the required experts have to be defined.
- Expertise can be related to different aspects (climate, sustainability, business models, etc.) or to different processes (institutional, administrative, etc.) or more related to technical issues (projects, etc).
- All must advertise in own networks in order to find the correct/suitable persons.
- It will be difficult to find a single person who can organise the whole orchestra, thus a group of experts has to be looked for.
- Bioeconomy demands for multi-disciplinary experts. So, learn from how it is done in other sectors that looks at multi-disciplinary aspects, like the bioenergy sectors.
- The directory/database of experts to be built should not be compiled from BIOEAST experts only, but should contain expert database from everywhere.
- The experts should have have good references in research but also in projects.
- The interaction amongst experts and the degree of interation and flexibility is very important during the strategy building process.
- Mentoring – sharing of good practices between countries – is important. Understanding the levels of mentoring (or cascading of mentoring) is essential. There are at least 26 different platforms on bioeconomy information available on the web. So also use the information already available to build mentoring and expert databases.
- Some MSs have long relationships and, therefore, may rely on experts that they usually work with instead of ,unknown' experts from a database.
- Not only experts on the administrative level are needed. Key persons acting as motivators/drivers in launching the bioeconomy in a country should be there as well. They motivate, give advice, build the community and drive the development. Could be professors or scientists; let them search within their networks and perhaps they can suggest 'drivers'. Also the

older experts should be in, as they are often the founders of the bioeconomy in their country. The BIOEAST also contains a few of such drivers/key persons, which should be involved in the MLEs.

#### Highlights of Session 4

- There is a **need for tailoring/mapping the expertise**, as you can approach the expertise from different angles.
- Databases with **experts** and **mentors** should be compiled.
- Experts must be able to **organise** and must have **knowledge on the contents**; they must have references in **research** and in **projects**.
- Expertise should be related to **multi-disciplinary knowledge** as the bioeconomy is a multi-disciplinary topic; **‘cascading’ of the mentoring**
- - **Motivators/drivers** are key persons for advising, stimulating and building the bioeconomy community. These persons must be in the database as well.

#### Next steps

The three workshops have come to an end now. However, the work on building national bioeconomy strategy has not been finalised. The state of play in many countries has been described, and a list for potential MLE topics been identified. These are just starting points and snap shots. The process has to proceed now and will be a dynamic one.

Presentations and workshop report will be uploaded on the BIOEAST and SCAR-BSW websites and the links will be circulated. The draft report will be first circulated amongst participants for comments.

The country factsheets that have been generated during the three workshops – i.e. the powerpoints – are also available on the websites of BIOEAST and SCAR-BSW .

Finally, a synthesis report of 5 to 6 pages on the three workshops will be made.

## Annex 1: Participants list

	<b>Surname</b>	<b>First name</b>	<b>Country</b>
1	Behrens	Martin	Germany
2	Benovicsova	Alexandra	Slovakia
3	Bole	Kristina	EC
4	Dehautt	Valérie	Germany
5	Escudero	Jesús	SPAIN
6	Foks	Agata	Poland
7	Ginova	Antoaneta	Bulgaria
8	Goyens	Petra	EC
9	Groom	Elaine	UK
10	Hroncek	Stanislav	Slovakia
11	KİLCİ	Mehmet	Turkey
12	Kovacs	Barna	Belgium
13	Kristóf	Ákos	Hungary
14	Kubankova	Marie	Czech Republic
15	Kubáňková	Marie	Czech Research
16	Kulisic	Biljana	Croatia
17	Kunya	Zsófia	Hungary
18	Maes	Dries	Belgium
19	Mallorquin	Paloma	Belgium
20	Marchis	Alexandru	Romania
21	Matić	Ivan	Croatia
22	Meyruey	Clémence	France
23	Ní Choncubhair	Órlaith	EC
24	Pehme	Sirli	Estonia
25	Percy-Smith	Alex	Denmark
26	Peškovičová	Dana	Slovakia
27	Petre	Ioana	EC
28	Plešej	Mario	Slovenia
29	Popescu	Marius	EC
30	Sirma	Kristine	Latvia
31	Somosne Nagy	Adrienn	Hungary
32	Stonawska	Katerina	Czech Republic
33	Szabelak	Pawel	Poland
34	Theodoridis	Alexandros	Germany
35	Vaisvilaite	Justina	Lithuania
36	van Leeuwen	Myrna	Netherlands
37	Vehviläinen	Anne	Finland

## Annex 2: Agenda



### Concept and programme for 3<sup>rd</sup> PSF workshop

Friday 14<sup>th</sup> June 2019, 09.00 -16.30, Permanent Representation of the Slovak Republic to the EU, Avenue de Cortenbergh 79, Brussels

#### Supporting the development of national bioeconomy strategies

##### Concept

This workshop will be the third of three workshops intended to support the process of developing national bioeconomy strategies.

Discussions about need and gaps were initiated during the first workshop and the current general Policy Support Facility managed by DG RTD was presented. The second workshop focussed on involving especially Bioeast countries in identifying the state of play in their countries, the level of ambition in bioeconomy and the needs for specific support were discussed. Valuable experiences from developing a bioeconomy strategy in some countries were shared.

There will a phase prior to the third workshop for updating and further elaborating information from MSs in preparation for the actual workshop with a view to completing a country “Fact Sheet” with a specific policy support needs assessment.

During the third workshop these will be discussed and a pipeline of policy support actions produced for use by the EC and by MSs. A general road map will be identified for actions required to develop national bioeconomy strategies.

The workshop will include a combination of presentations and facilitated discussions. A final report will be produced shortly after the workshop.

##### Objectives

The **overall aim** of the workshop is to assist MS in developing and implementing national/regional bioeconomy strategies across Europe.

The **specific objectives** of this second workshop are:

1. To obtain a qualified overview of the needs and gaps to develop bioeconomy strategies in the CEE states and MS that are less active within the bioeconomy
2. To identify a road map and actions required to develop national bioeconomy strategies

Expected Outcomes

### Output 1:

A set of presentations of the current situation in several countries, their policy support needs and actions for developing a national bioeconomy strategy (country fact sheets) including Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, , Slovenia as well as Turkey, Greece and Portugal

### Output 2:

A Roadmap and pipeline of actions in support of bioeconomy strategies in Member States:

- 1.1 Actions for knowledge development in support of bioeconomy strategies
- 1.2 Topics for mutual learning exercises provided through the DG RTD PSF
- 1.3 Scope and criteria for EU mentoring team and a directory of experts on bioeconomy

### Target participants

Probably 50-60 persons primarily from the Bioeast Initiative and SCAR BSW members

### Program

08.30 Registration

#### 09.00 Welcome and introduction to the topic of the worksho

*by Alexandros Theodoridis (Co-chair SCAR Strategic Working Group for Bioeconomy) and Barna Kovacs (Secretary General BIOEAST)*

#### 09.10 Introduction to the workshop sessions and workshop methodology

*by moderator Alex Percy-Smith and Alexandru Marchis*

#### 09.25 Session 1 Priority Themes - Group work

**Knowledge and actions are needed in order to progress towards building the bioeconomy in Europe. What are the priority themes and related expectations?**  
(Output 2.1)

*To advance bioeconomy, regardless if a country has or not a strategy, there are areas where further knowledge needs to be produced to help sound policy making. Such knowledge might help clarify what is the role of bioeconomy in responding to even bigger societal challenges, like: SDGs; decarbonisation, clean planet or a protein plan for Europe. Participants will choose priority themes for future EU policy support and define the challenges and expected outcomes. Prior to the workshop, please think about your top 3 choice from among the following themes:*

- *Models of circularity in bioeconomy*
- *Sustainable food systems and the bioeconomy*
- *Decarbonisation through sustainable use and mobilisation of biomass for food and non-food uses*
- *Responsible and balanced value chains*
- *Changes in consumption and waste management in bioeconomy*
- *Supporting bioeconomy regions and initiatives*
- *Social innovation and new cooperation models for bio-based value chains*
- *Using bioeconomy to generate growth and jobs*
- *Adaptation to climate change through bioeconomy solutions*
- *Integrating protein plan objectives into bioeconomy approach*

**Plenary discussion (30 minutes)**

**11.00 Networking coffee break**

**11.30 Session 2 Policy Support Needs - Plenary**

**Update from MSs on their policy support needs (Output 1)**

**Brief highlights from workshop 2**

*By Alex Percy-Smith and Alexandru Marchis*

**Presentations by participants of priority needs and actions to progress towards a national bioeconomy strategy**

**Plenary discussion**

**13.00 Lunch break**

**14.00 Session 3 Mutual Learning Exercises - Plenary**

**Actions for mutual learning exercises (MLEs) provided through the DG RTD PSF Instrument (Output 2.2)**

- **“What could be done under the Horizon 2020 Policy Support Facility”?**

*by Ioana Petre, DG RTD – PSF implementation unit*

- **Discussion on the priority topics for MLEs**

- Process related support
- Organising technical assistance support at national level
- Strategy drafting support

**15.30 Networking Coffee break**

**15.45 Session 4 Mentoring team and directory of experts - Plenary**

**Actions for EU level support and mentoring team and a directory of experts to support countries on the pathway towards a bioeconomy strategy (Output 2.3)**

- Scope, mission and objectives
- Major expertise categories and criteria to select expertise

**16.15 Next steps**

**16.30 Close of workshop**



1st Group ?  
Sustainable food systems & bioeconomy

- political commitment
- food & agriculture as main parts of a B. Strategy
- waste
- consumer aspects - societal challenges
- circularity
- environmental aspects
- understanding side streams
- new developing new value chains
- bioeconomy clusters

To do:

1. Policy framework
2. Knowledge generation + exchange + deployment
3. Monitoring
4. Incentives for research & innovation
- 5.

2<sup>nd</sup> Group

CHALLENGES

- LOGISTICS
- ECONOMIC VIABILITY
- TECHNICAL & HUMAN RESOURCES
- LINEAR 2 CIRCULAR USE OF BIOMASS
- WASTE MANAGEMENT
- BIOENERGY POSITION IS BETTER THAN OTHERS
- GOVERNANCE
- LOW MOTIVATION TO USE BIOMASS FOR CONTRIBUTING TO DECARB.

EXPECTED OUTCOMES

- LOCAL USE
  - ↳ SMALL SCALE BIOREFINERIES
- CASCADING USE OF BIOMASS
- INCREASE WASTE USAGE FOR BB. PRODUCTS
- INCREASE THE ROLE OF OTHER VALUE CHAINS
- ↳ DEVELOP SUPPORTING ECONOMIC CONDITIONS
- COOPERATION
- CAP
- KNOWLEDGE

## 3<sup>rd</sup> Group

### Knowledge needs

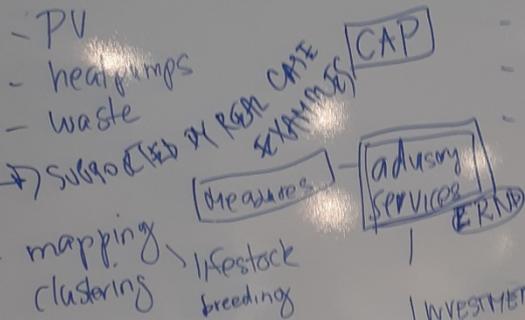
- x Current status on growth & jobs in BE
  - Data, analysis of weaknesses & potential
- x Models & methodology for evaluation of BE
- x New job profile descriptions (primary prod. & ind. including education & skill needs)
- x Bioeconomy meeting market needs
  - Both regionally & EU-wide
- x Overview of incentives to induce new intersectorial links (cluster)
- x Advisory body for different industrial organisations including primary producers

# 4<sup>th</sup> Group

## Adaptation to climate change

### What is cl. ch.?

- PV
- heat pumps
- waste
- temperature
- water retention
- animal wellbeing
- breeding temperature drought stress



1. CONCRETE CLIMATE CHANGES IN 10 YRS / 20 YRS? → PROPOSE ADAPTATIONS FOR FARMERS  
- negative public perception of farmers  
- Bioenergy
2. CONCRETE PRACTICAL SOLUTIONS? TO PROTECT TRAINING CLUSTER (RES, WASTE MNGM - DNEW VA CHAINS - PRODUCTS)  
- Trust insurance between regions
3. NOT ENOUGH DATA ABOUT THE CLIMATE IMPACTS / WATER STRESS / BIODIVERSITY OF DIFFERENT TECHNOLOGIES.

### IMPLEMENTATION SCHEMES BENCHMARK

4. R&D and innovation  
- pilot projects in region - build trust