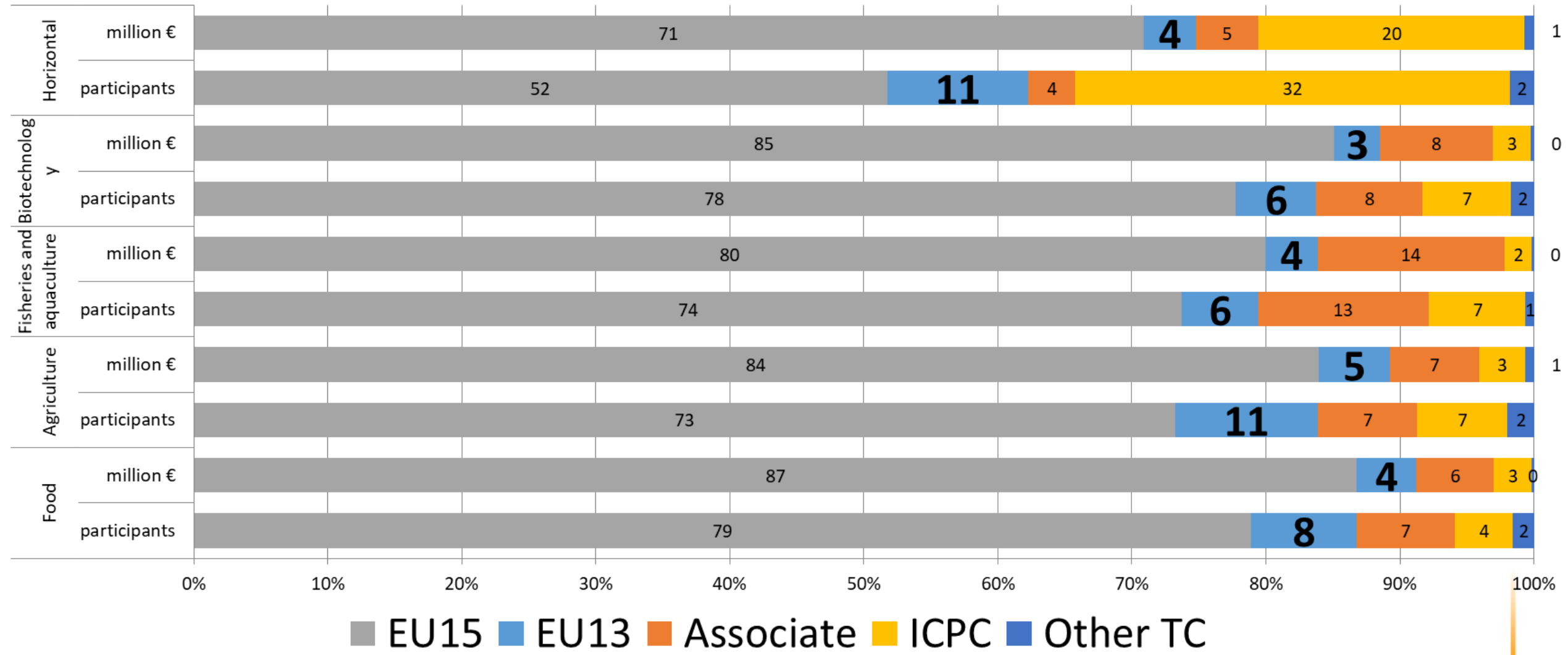


The BIOEAST Initiative – good example of CEE cooperation in the area of bioeconomy research

SCAR National Meeting in Poland
14 November 2018

Barna Kovacs PhD
BIOEAST Secretary General

Why do we need a common approach the CCE region?

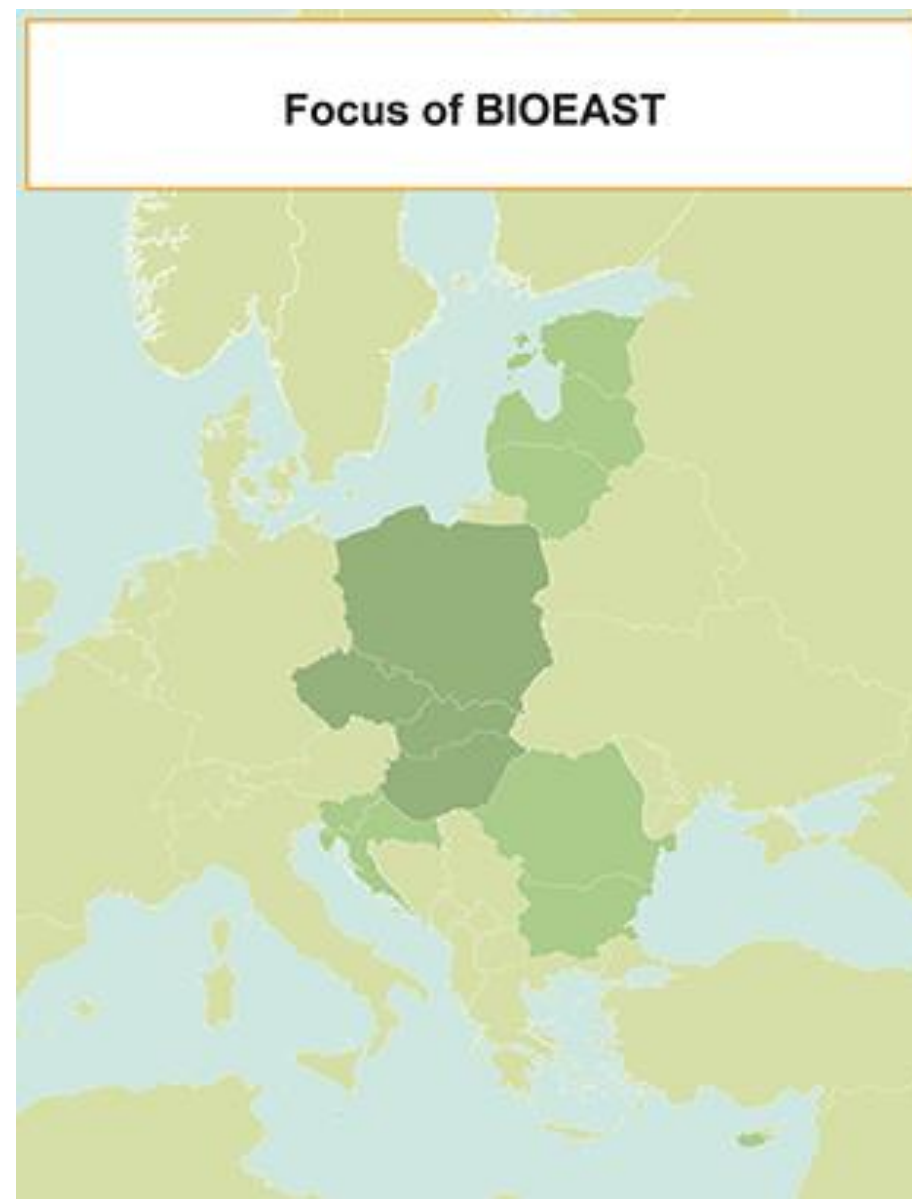


Weak FP7 and H2020 participation

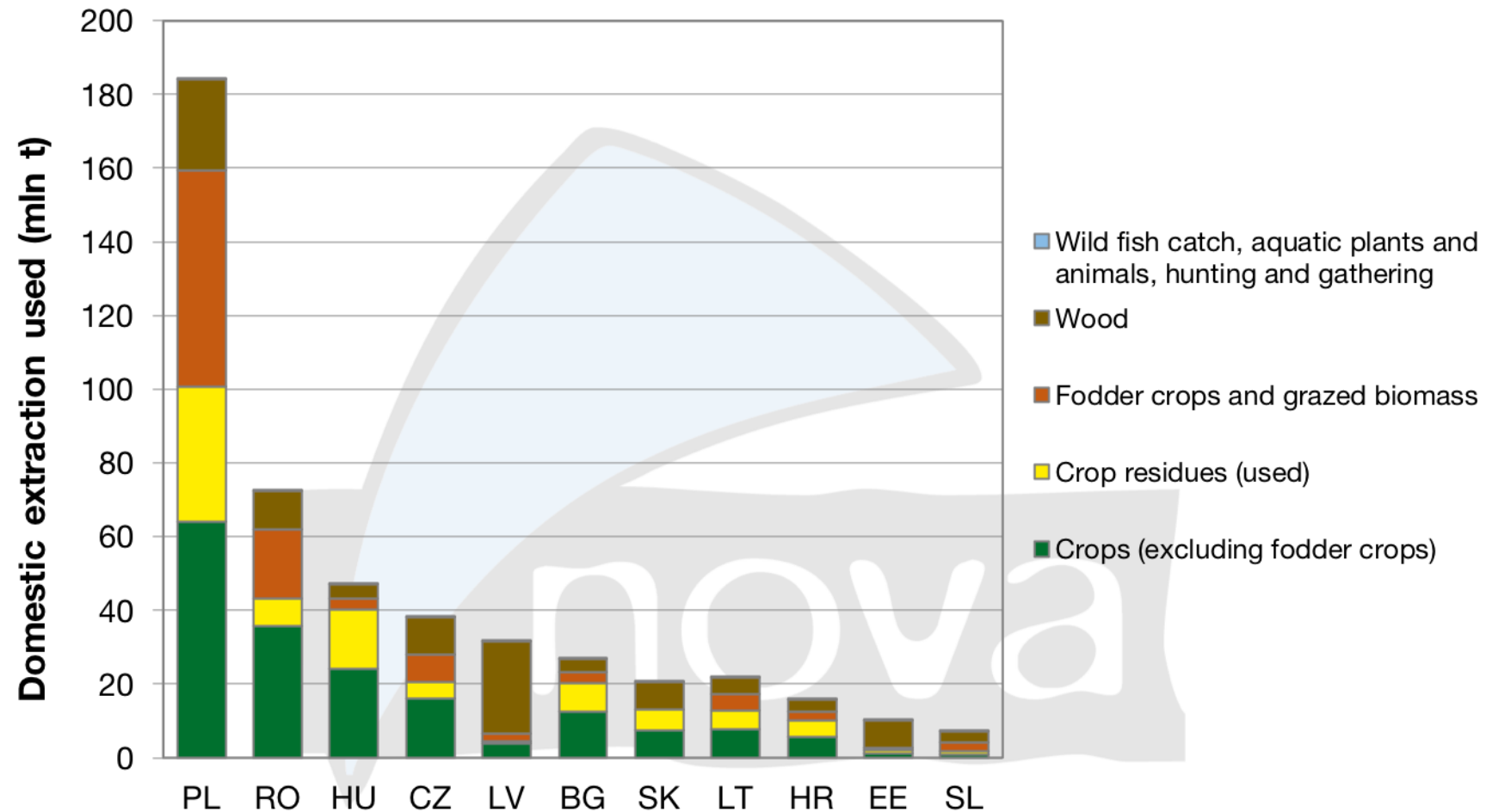
The role of the BIOEAST Initiative to support the development of Bioeconomy systems thinking in Central and Eastern Europe



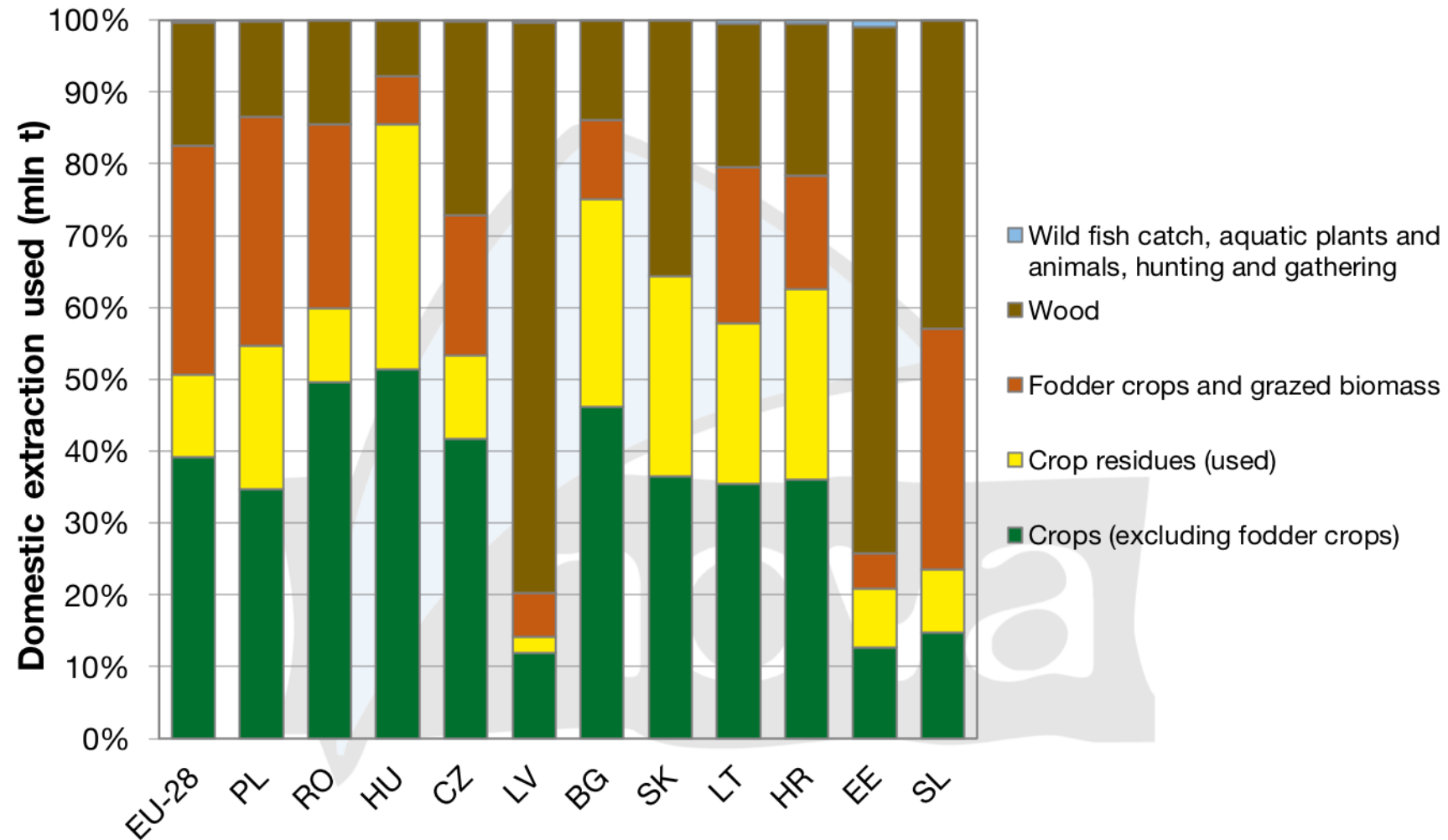
Source: GBC2018



Domestic extraction of biomass in the BIOEAST Member States (2016)



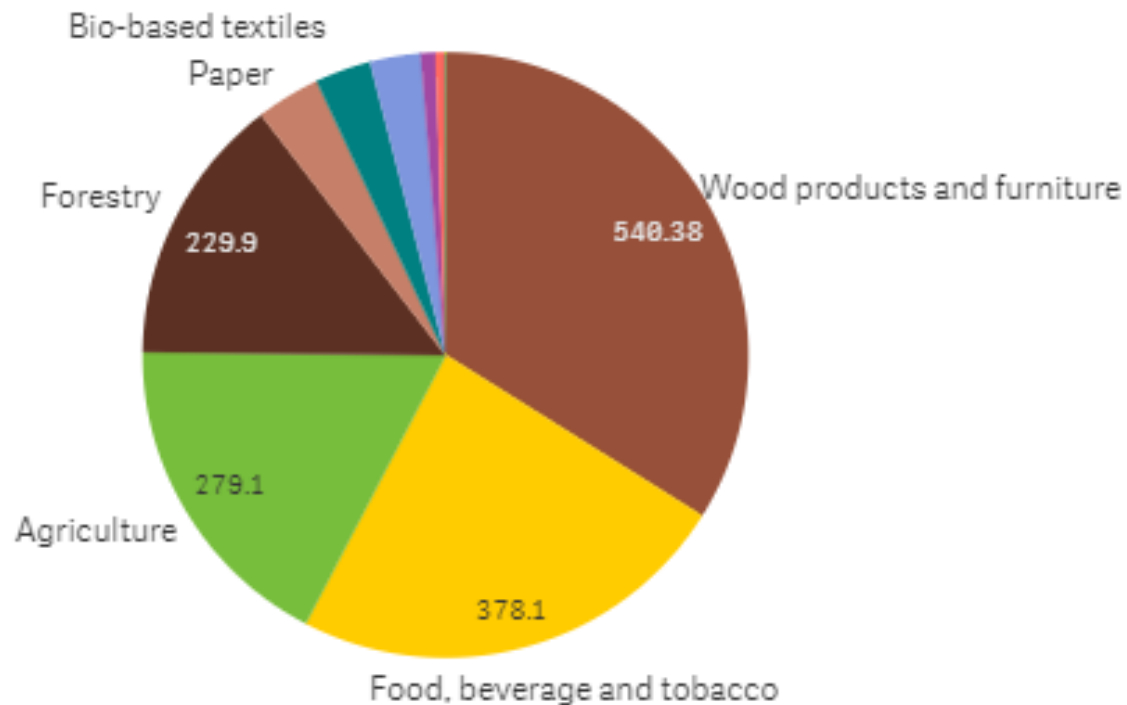
Domestic extraction of biomass in the BIOEAST Member States (2016)



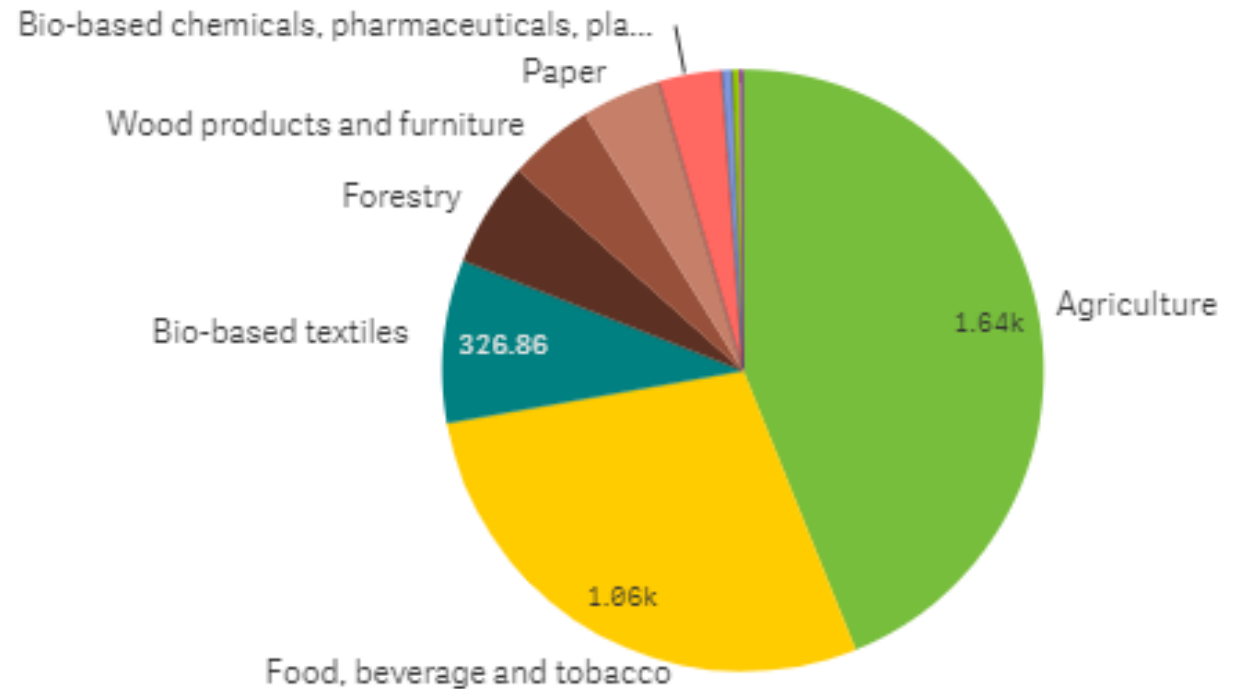
EU bioeconomy diversity

Value added in the bioeconomy by sector, 2015 (million €)

Estonia



Bulgaria

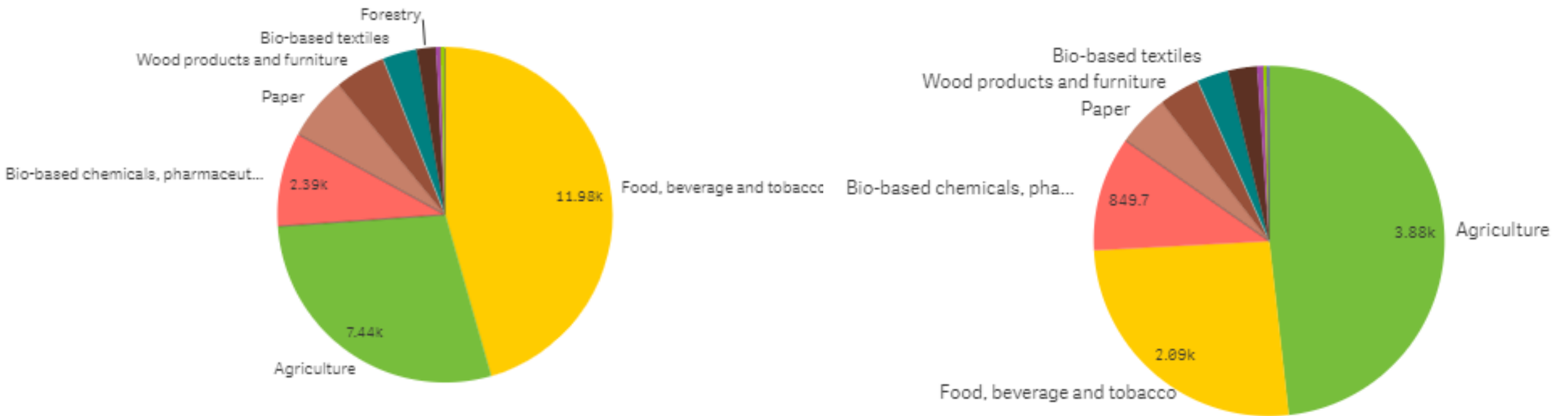


From turnover to value added

Turnover

in the bioeconomy in Hungary, 2015 (million €)

Value added



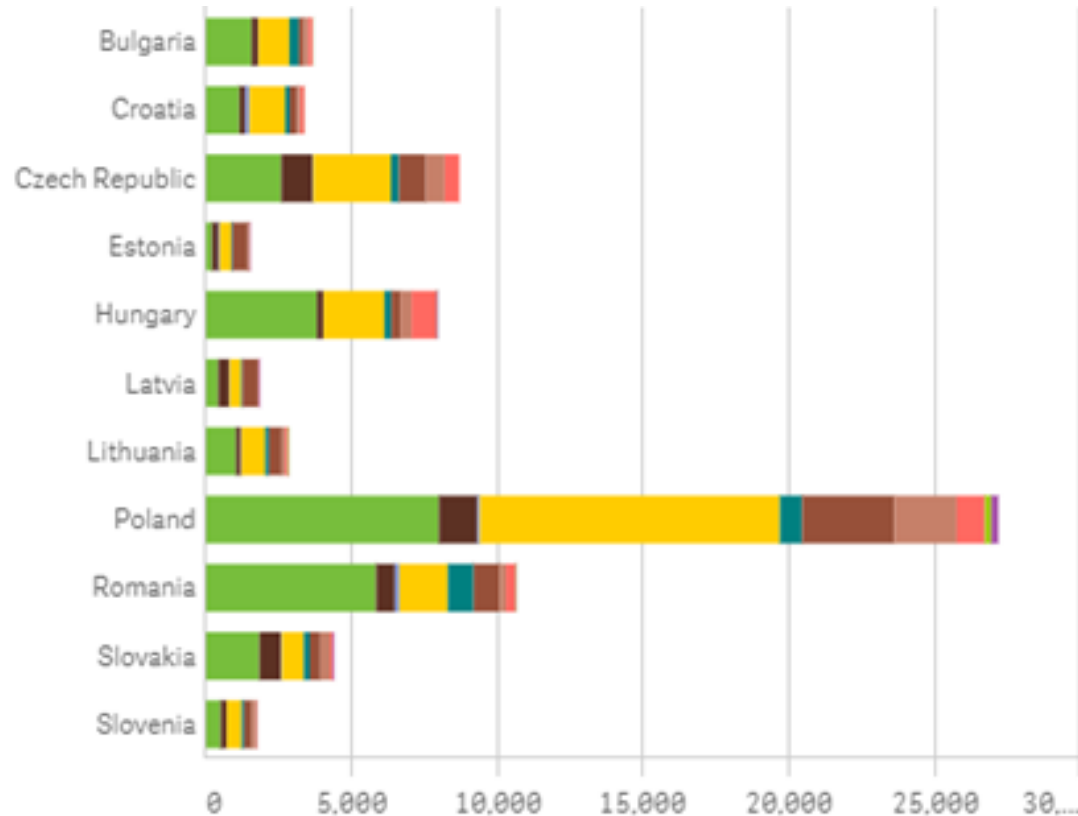
* The data set contains negative or zero values that cannot be shown in this chart.

Bioeconomy today

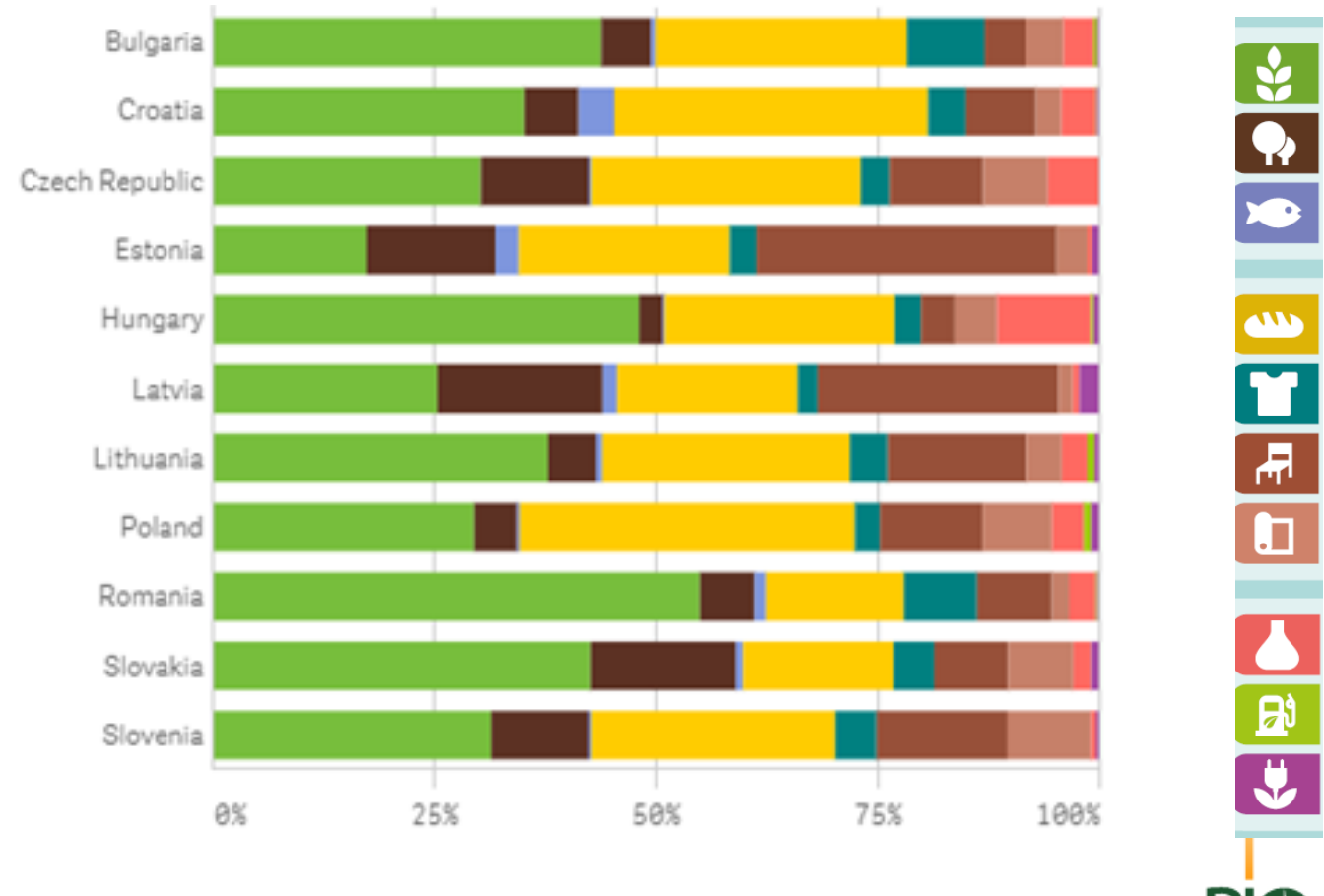
Key socio-economic indicators: value added

Employment

Value added in 2015 (million €)



Share of value added generated by sector



- 9.5% of the value added in the EU's bioeconomy correspond to BIOEAST countries.
- Poland main contributor with 45% of the share.

Source: JRC DataM, 2018

Analysing the potential Biomass production

Agricultural land abandonment:

- EU is expected to continue at a rate of 0.2% in utilised agricultural area (UAA) per year until 2030
- Literature not clear about situation in BIOEAST countries

Yield development :

- Production of major crops is expected to increase significantly in BIOEAST countries, almost entirely through increased yields (e.g., for wheat and maize, increases of 15% and 50% respectively are projected for 2026).
- For instance Global yield gap atlas explains the difference between actual yields and agro-climatically achievable yields in the same region. For the BIOEAST countries, several examples underpin the existing gap from the northwestern EU countries.

Residues:

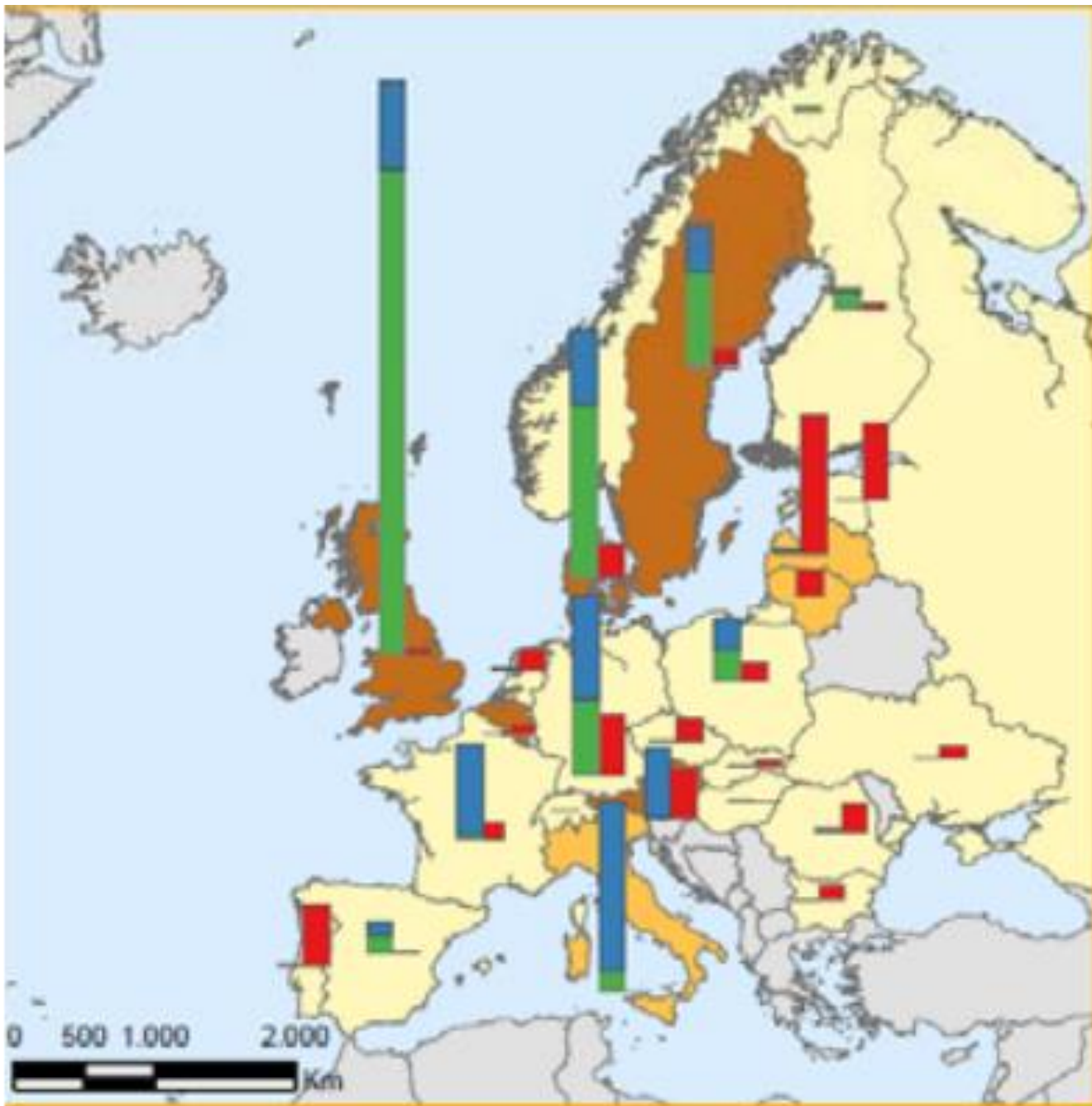
- Potential from forestry and agroforestry residues could be further exploited (see also JRC research brief on forest-based bioeconomy).

Animal production:

- Higher productivity through an improved input/output ratio would therefore require less feedstock (available for other uses)

„BIOMASS has legs”

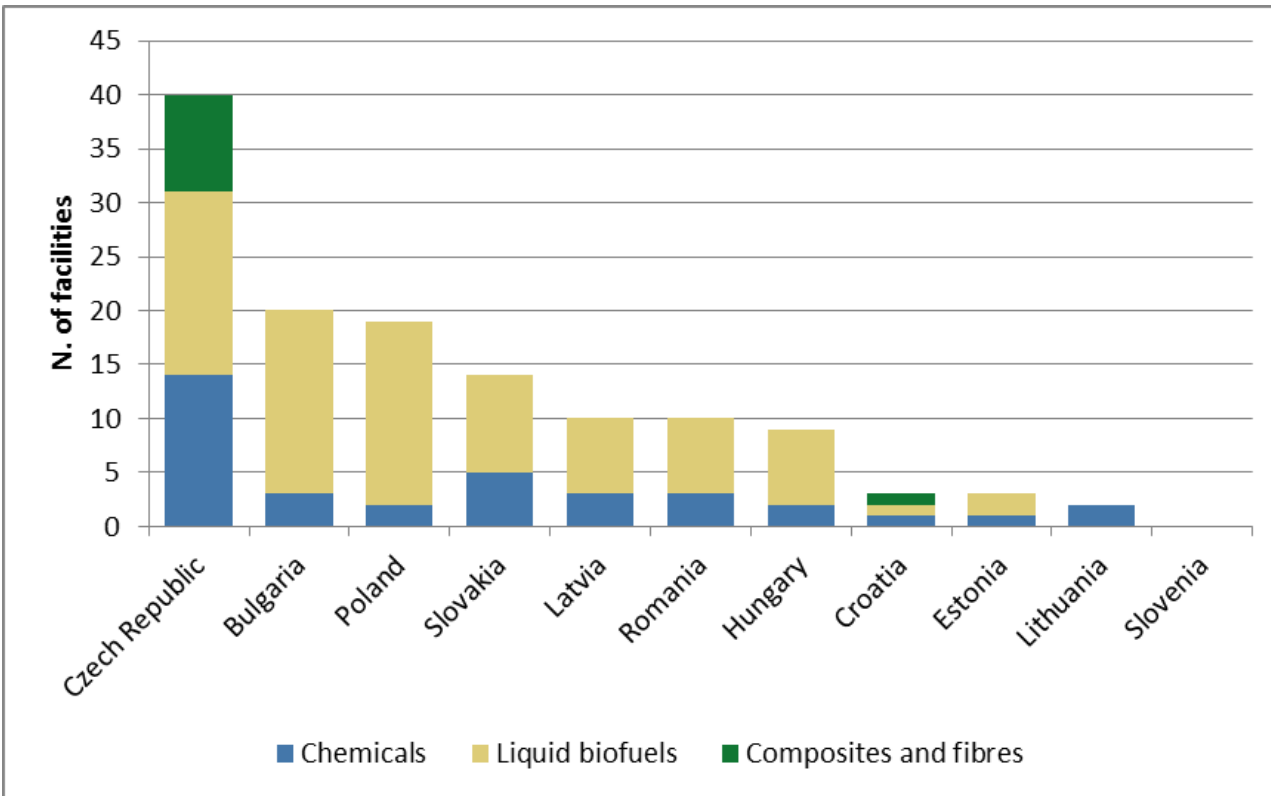
the
BIOEAST countries
exporting (red)
the Western
countries importing
(Green/Blue)



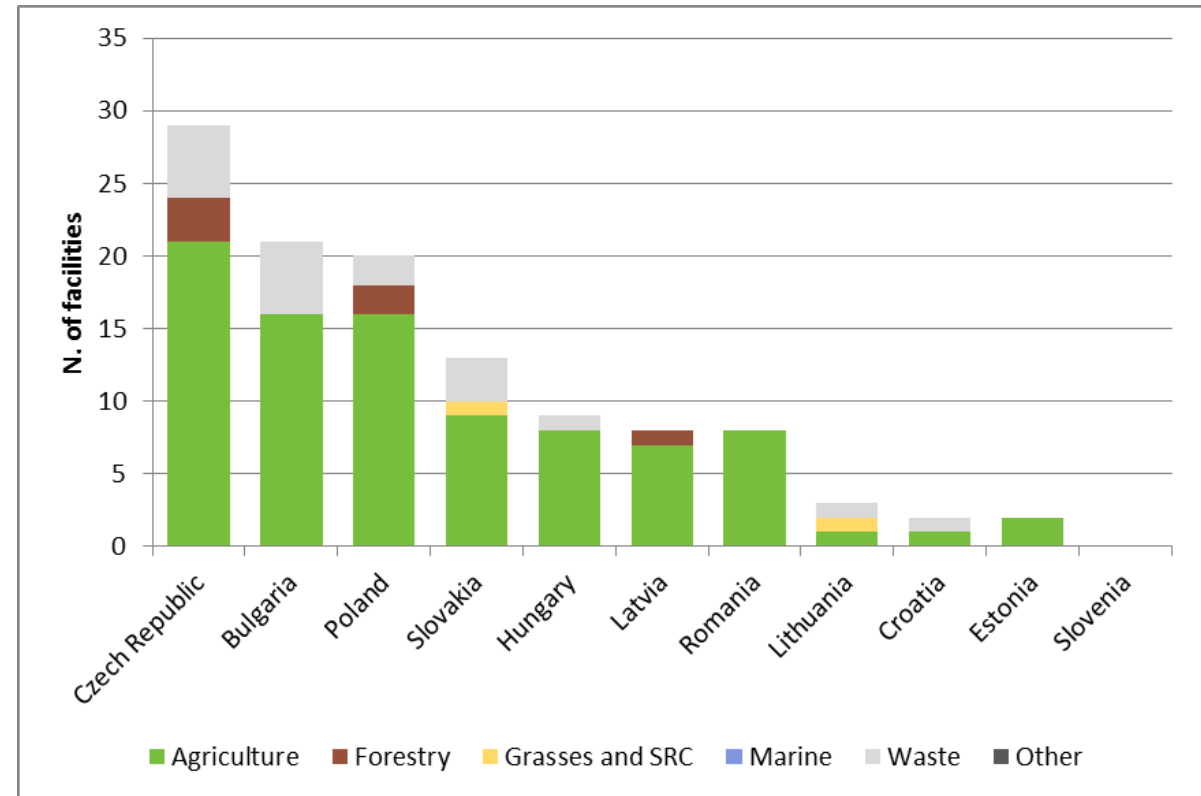
Analysing the potential

Industrial perspective - biorefineries

Geographical distribution of biorefineries per type of bio-based production

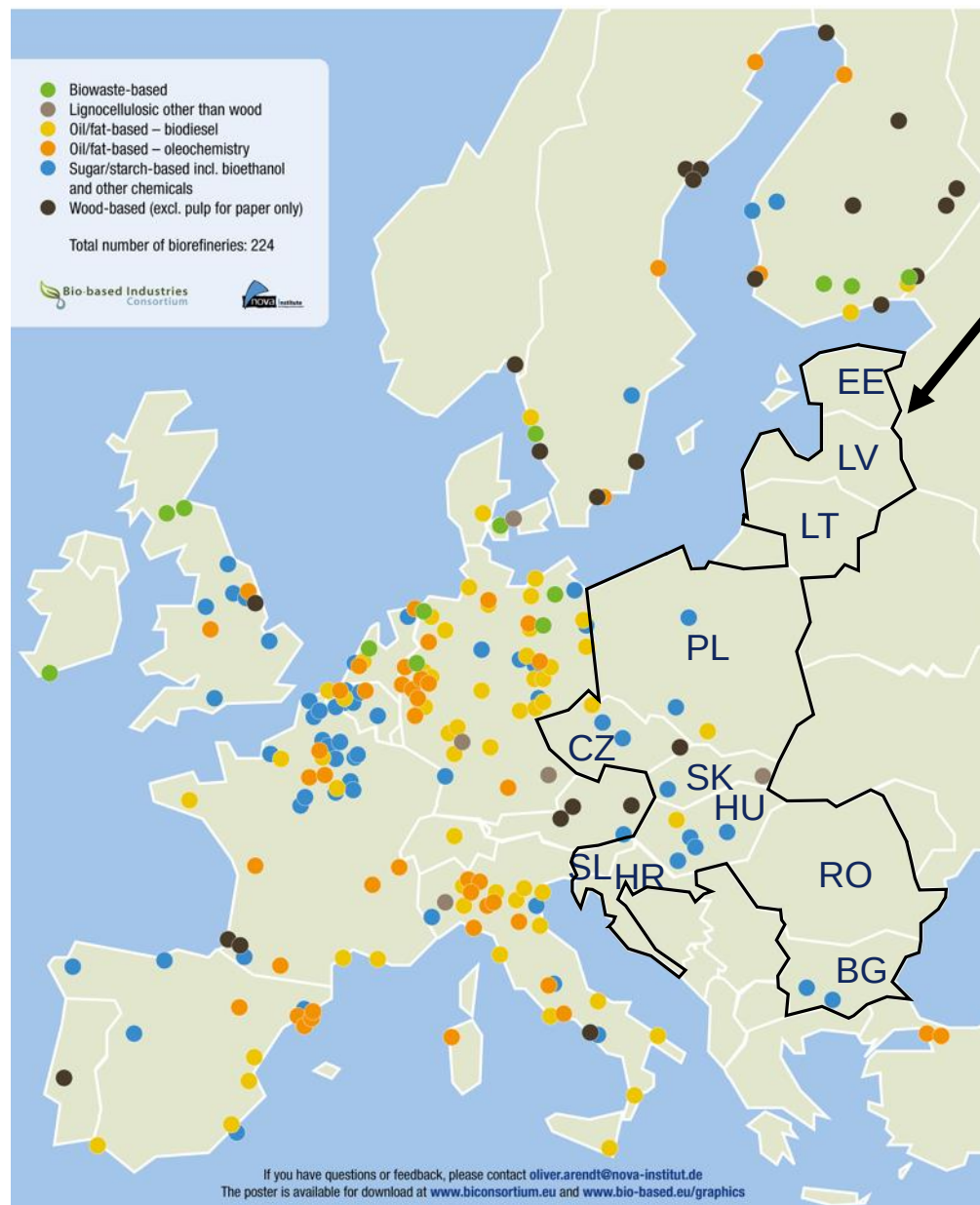


Geographical distribution per type of biomass feedstock used



Source: Parisi, 2018

Biorefineries in Europe 2017



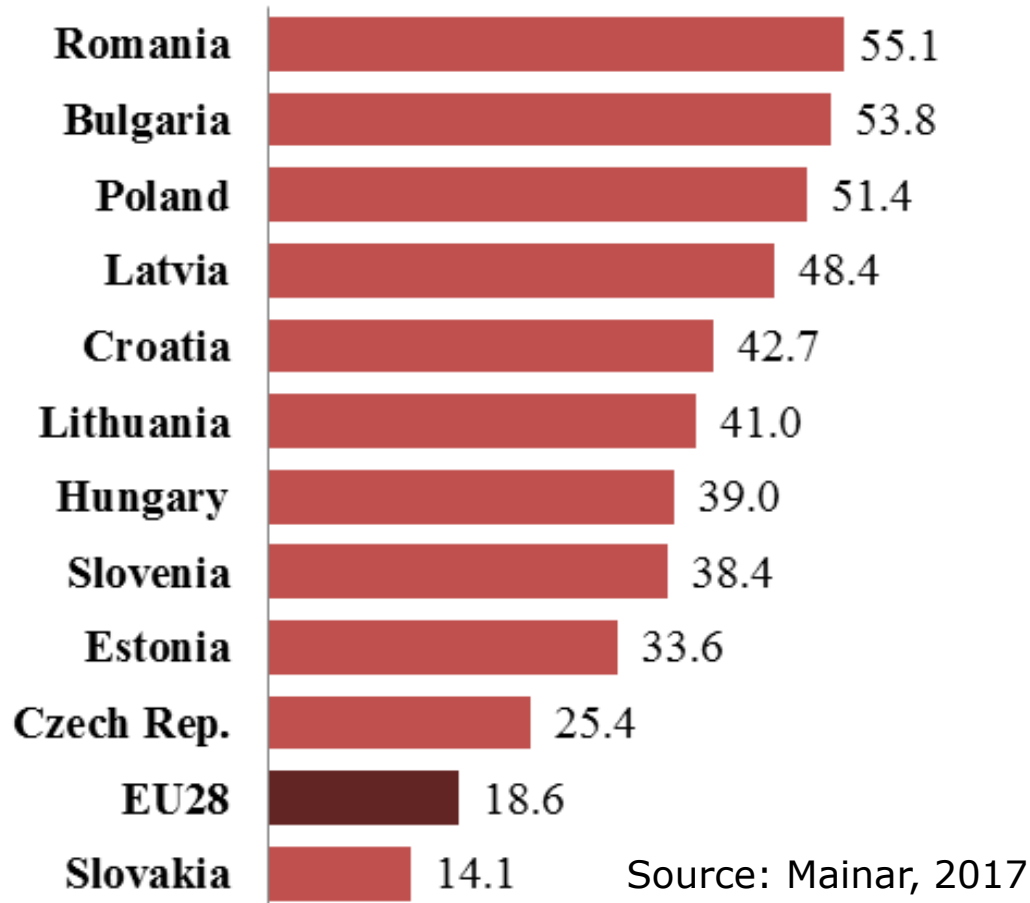
Lack of biorefineries in BIOEAST, except for some sugar-/starch-based clusters in Central-Eastern Europe

Biorefineries		Nr.
Biowaste	●	13
Lignocellulose other than wood	●	5
Oil-/fat-based - biodiesel	●	64
Oil-/fat-based - Oleochemistry	●	54
Sugar-/starch-based incl. Bioethanol and other chemicals	●	63
Wood-based excl. Pulp for paper only	●	25
Total		224

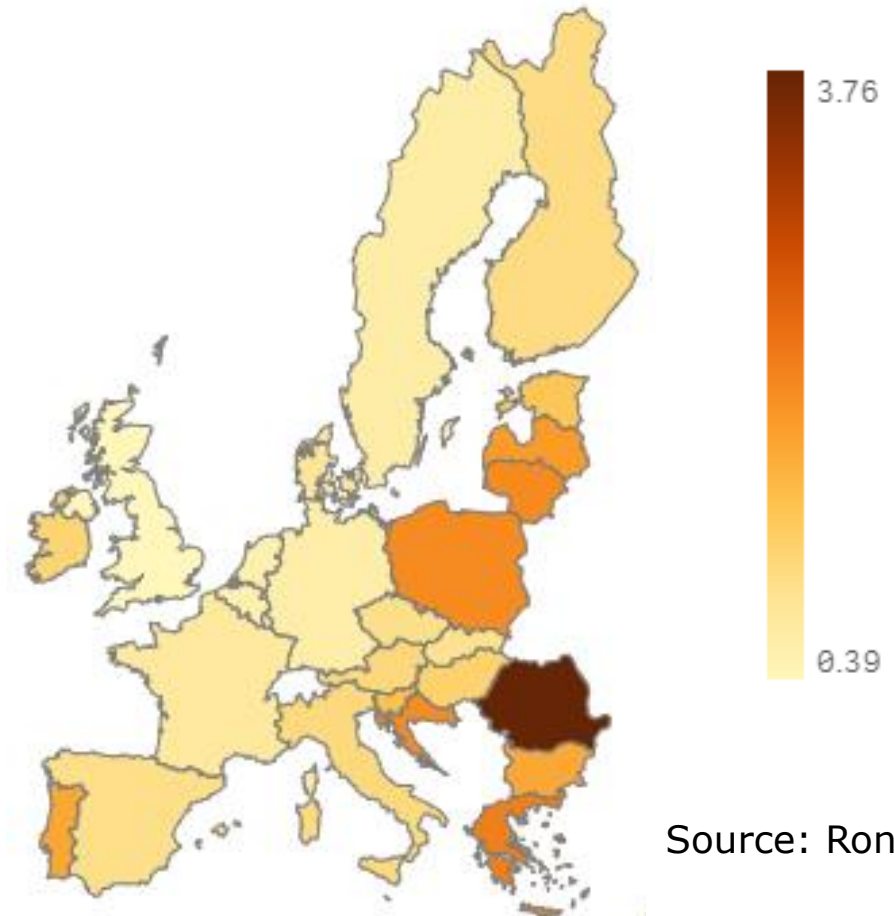
The poster is available for download at www.biconsortium.eu and www.bio-based.eu/graphics

Analysing the potential: Jobs in an economic context

**Bioeconomy employment multipliers
(persons per million €)**

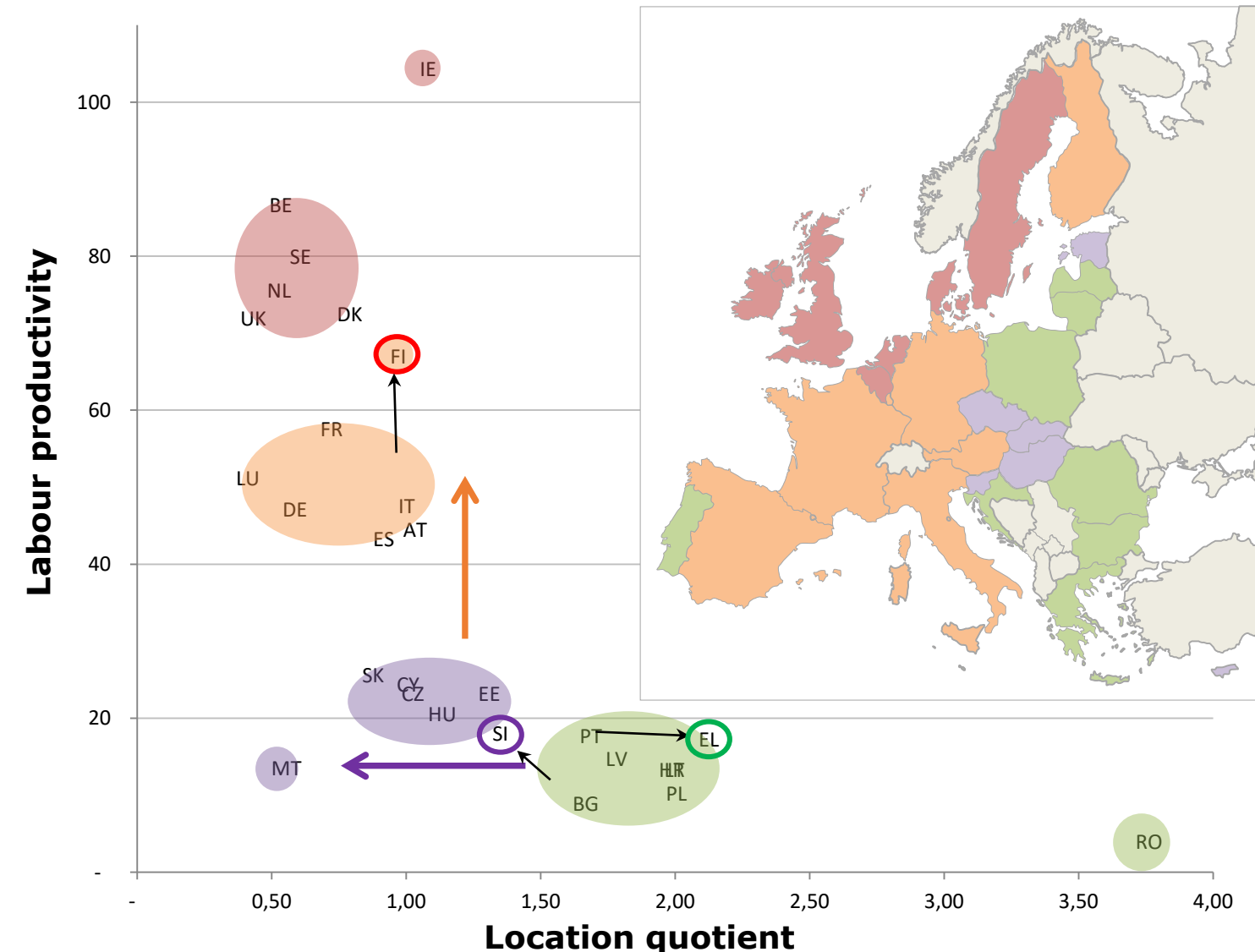


**Location quotients (job concentration)
for the bioeconomy**



Source: Ronzon, 2018

Schematic view on EU MS Bioeconomies: Jobs and productivity



Bioeconomy transition process? (2008-15)

- Finland
- Slovenia
- most BIOEAST countries stable

Resilience of the bioeconomy? Economic crisis) in Greece - 10% bioeconomy jobs vs. -21% in total jobs

Source: Ronzon et al, 2018



The pushing factors (outside) are calling for: strategic thinking at national level

1. To solve „food first” issues
2. To ensure sustainable yields
3. To have cascading approach for biomass use
4. To secure circularity
5. To sustain the diversity of production systems

The (internal) national level factors not necessary pushing for complex strategic thinking

1. Lack of societal understanding and participation in addressing challenges
2. Traditional knowledge transfer process
3. Sector based, parallel processes (ex. agro-food sector)
4. Often missing evidence based policy-making
5. Market driven economy (mostly profit driven, some times technology driven, but less governance)
6. Missing macro-regional approach for the sustainability (economic, environmental, societal)

OBJECTIVES of the macroregional BIOEAST Initiative:

1. **Initiate cooperation:** establish a multi-stakeholder network to facilitate joint actions;
2. **Provide an evidence base:** establish data-driven support for implementation of policies;
3. **Support strategies:** create the cross-sectorial approach for the development of a national circular and bioeconomy strategies;
4. **Focus on research:** map specific challenges for a Strategic Research and Innovation Agenda;
5. **Improve skills:** train a new generation of dedicated multi-stakeholder actors;
6. **Develop synergies:** promote regional, national, EU and international funding opportunities;
7. **Increase visibility:** draw attention to specific challenges of the CEE regions.

Three political agreements of the Agri Ministers

26. October 2016: VISEGRAD 4 Group + 3 Countries: on stronger inclusion into H2020

21. September 2017: VISEGRAD 4 Group + 4 Countries: on broadening the remit of the BIOEAST initiative beyond HORIZON2020

13. June 2018: VISEGRAD 4 Group + 7 countries (V4: Czech Republic, Hungary, Poland, Slovakia and Bulgaria, Croatia, Estonia, Latvia, Lithuania, Romania, Slovenia): on the Vision for BIOEAST

Intervention logic of the BIOEAST Vision

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

Next Steps

1. 8. November 2018 BIOEAST conference: TODAY
<http://bioeast.eu/article/bioeast-bioeconomy-in-the-forefront-of-national-policies-conference>
2. BIOEAST CSA call in HORIZON 2020 WP2019
3. Establishing Thematic Working Groups
4. Macro-regional Strategic Research and Innovation Agenda (SRIA) for addressing the goals and challenges of the Initiative



Thank you for your attention!
www.bioeast.eu

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