

Bioeconomy in the forefront of national policies - BIOEAST conference

Forest-based sector, a cornerstone of the macro region's bioeconomy

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National Forest Centre Zvolen

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Content:

- 1) NFC – short presentation
- 2) FBS processes towards bioeconomy in Slovakia
- 3) Setting the scene – BIOEAST countries activities in Europe context
- 4) BIOEAST – Forestry working group



1) National Forest Centre

Official Name in English:	National Forest Centre (NFC)
Status:	Semi-budgetary public institution
Budget:	~ 10 mil. EUR
Employers:	~ 250
Legal address:	T. G. Masaryka 22, 960 22 Zvolen
Country:	Slovak Republic
Homepage:	www.nlcsk.org
Managing authority:	Ministry of Agriculture and Rural Development of the Slovak Republic

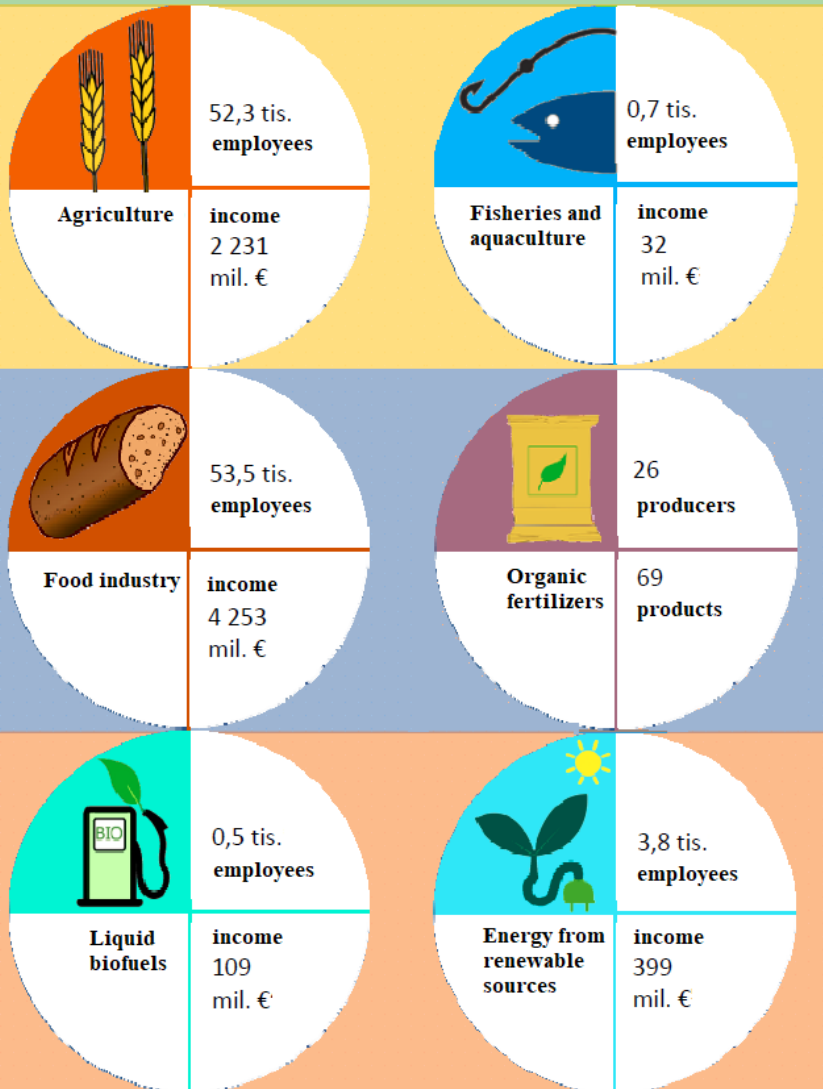


Zvolen, T. G. Masaryka 22



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2) FBS processes towards bioeconomy in Slovakia – STRATEGIC THINKING



Strategic partnerships

Complementarity (traditional)

Synergy (new products and services)

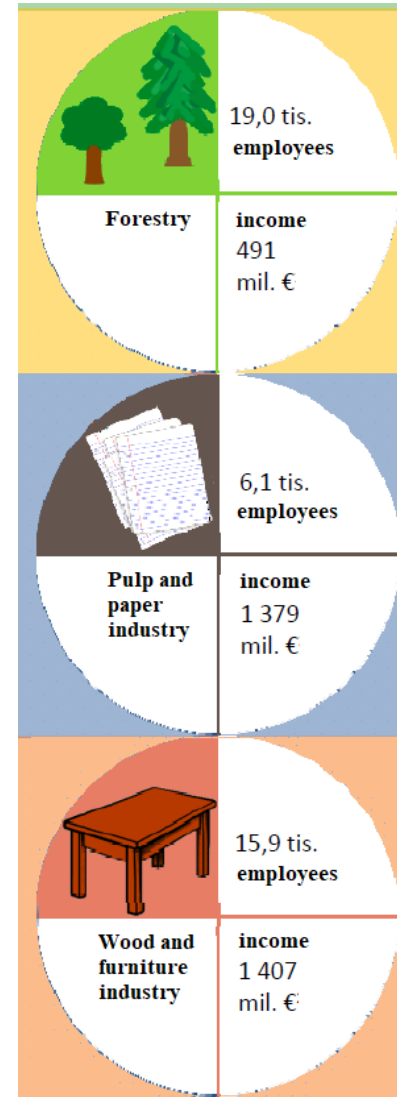
GDP: 85 mld. €

AF-FBS: ~ 9 %

Employment: 150 ths.

Numbers:

Argumentation base



STRATEGIC THINKING

Success of strategic partnerships – 1 of 5 domens RIS SK

Entrepreneurial discovery process:

- Set-up of working group – participatory approach
- Identification of stakeholders
- Workshop on the Agrokomplex fair
- Common identification of survey focus



Gestor domény
Ministerstvo pôdohospodárstva a rozvoja vidieka Slovenskej republiky



Národné poľnohospodárske a potravinárske centrum



Národné lesnícke centrum



Slovenská technická univerzita
Fakulta chemickej a potravinovej chémie



Univerzita veterinárneho lekárstva a farmácie v Košiciach



Technická univerzita vo Zvolene



Výskumný ústav papiera a celulózy, a. s.



Zväz celulózo-papierenského priemyslu Slovenskej republiky



Slovenská akadémia vied



Slovenská inovačná a energetická agentúra



Bioeconomy Cluster



Výskumný ústav chemickej technológie, a. s.



Slovenské biologické služby, a. s.



Palma, a. s.



Slovenská poľnohospodárska univerzita v Nitre



Ministerstvo životného prostredia Slovenskej republiky



Ministerstvo hospodárstva Slovenskej republiky



Ministerstvo školstva, vedy, výskumu a športu Slovenskej republiky

STRATEGIC THINKING

Development trends identification
Survey questionnaire
Synthesis of obtained answers and their analyses
Determination of development trends with detailed product lines

The documents was approved on **governmental level** and is **obligatory base** for the calls of Operational programm research and Innovation

Conclusion 1: Synergy strategic documents and allocation of financial resources is necessary assumption of success of structural changes in agricultural sector toward bioeconomy.

NACE 02: Forestry and wood logging
NACE 35: Electricity, gas, steam and cold air supply

Integration trend: New technologies of processing and energy utilisation

Product lines:

- Technologies of biomass processing
- Systems of storage and manipulation with fuel biomass
- Improvement of energy efficiency and emission reduction

STRATEGIC THINKING

Analysis of innovations **implementation potential in FBS**

Face to face meetings organized by NFC in cooperation with Business innovation centre Bratislava

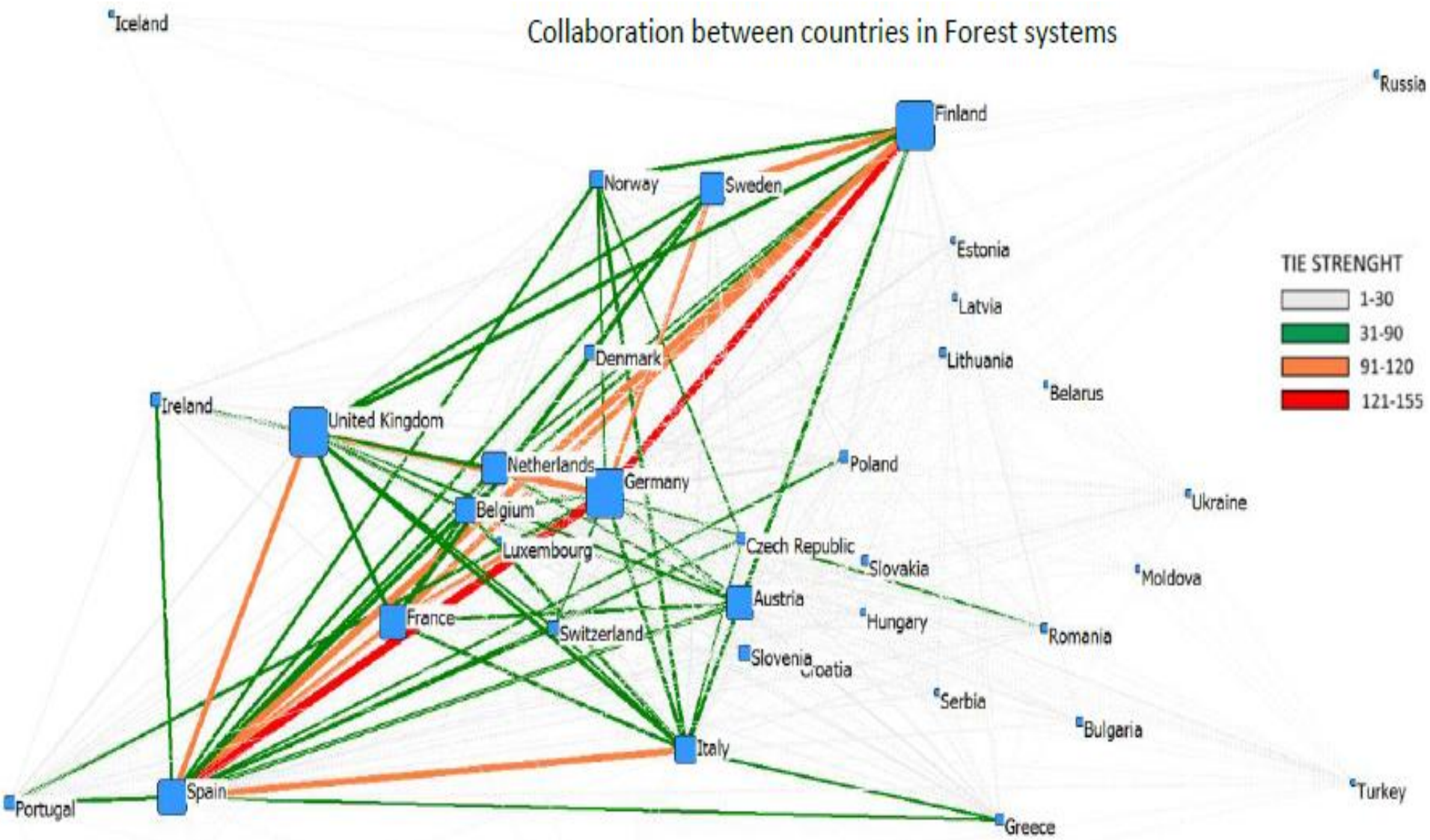
Conclusion 2:

- institutional **non-readiness** to prepare and submit project proposal, especially SMEs (on national level)
- Lack of financial sources for co-financing
- Missing interest to participate to open calls, especially strong transnational companies (internal RTD and sufficient sources)

These findings are consistent with European analyses:

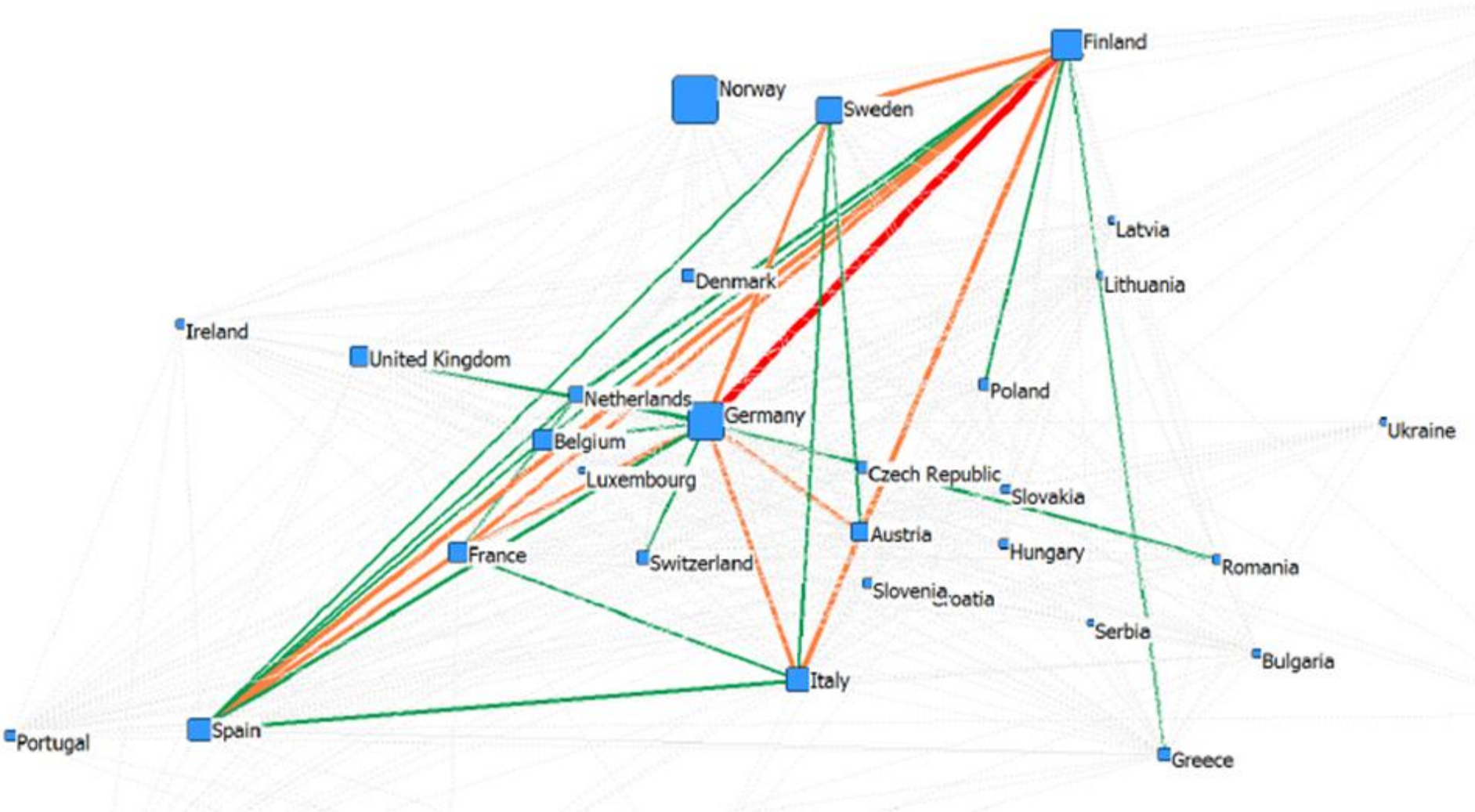
Lovrić, M., Lovrić, N., Mavsar, R., 2017: Synthesis on forest bioeconomy research and innovation in Europe. EFl. 64 p.

3) Setting the scene – BIOEAST countries activity in Europe



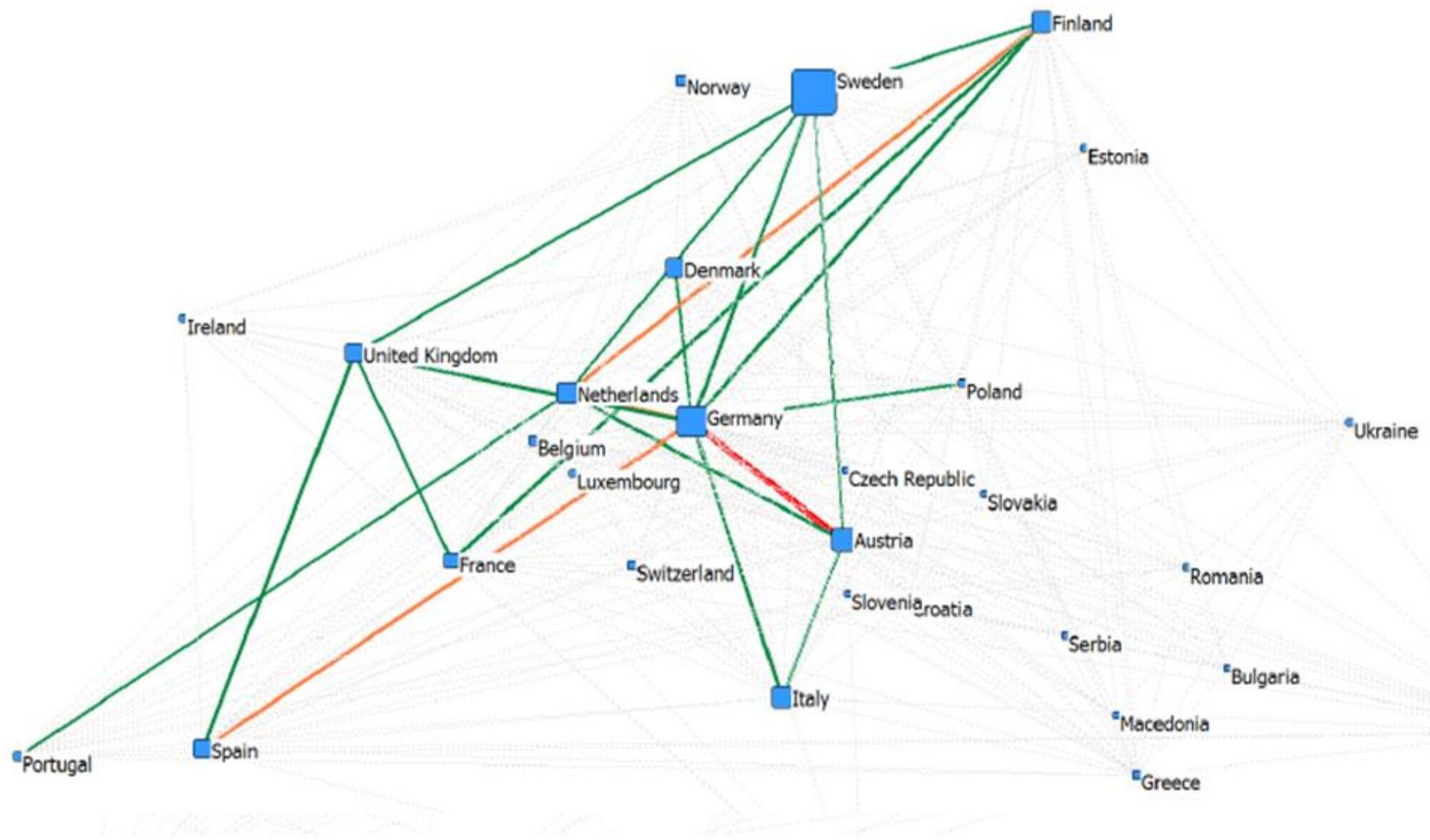
It can be seen that there are very few collaboration ties with Eastern European countries; and this feature is present throughout all supply chain categories

Collaboration between countries in Forest biomass & raw material



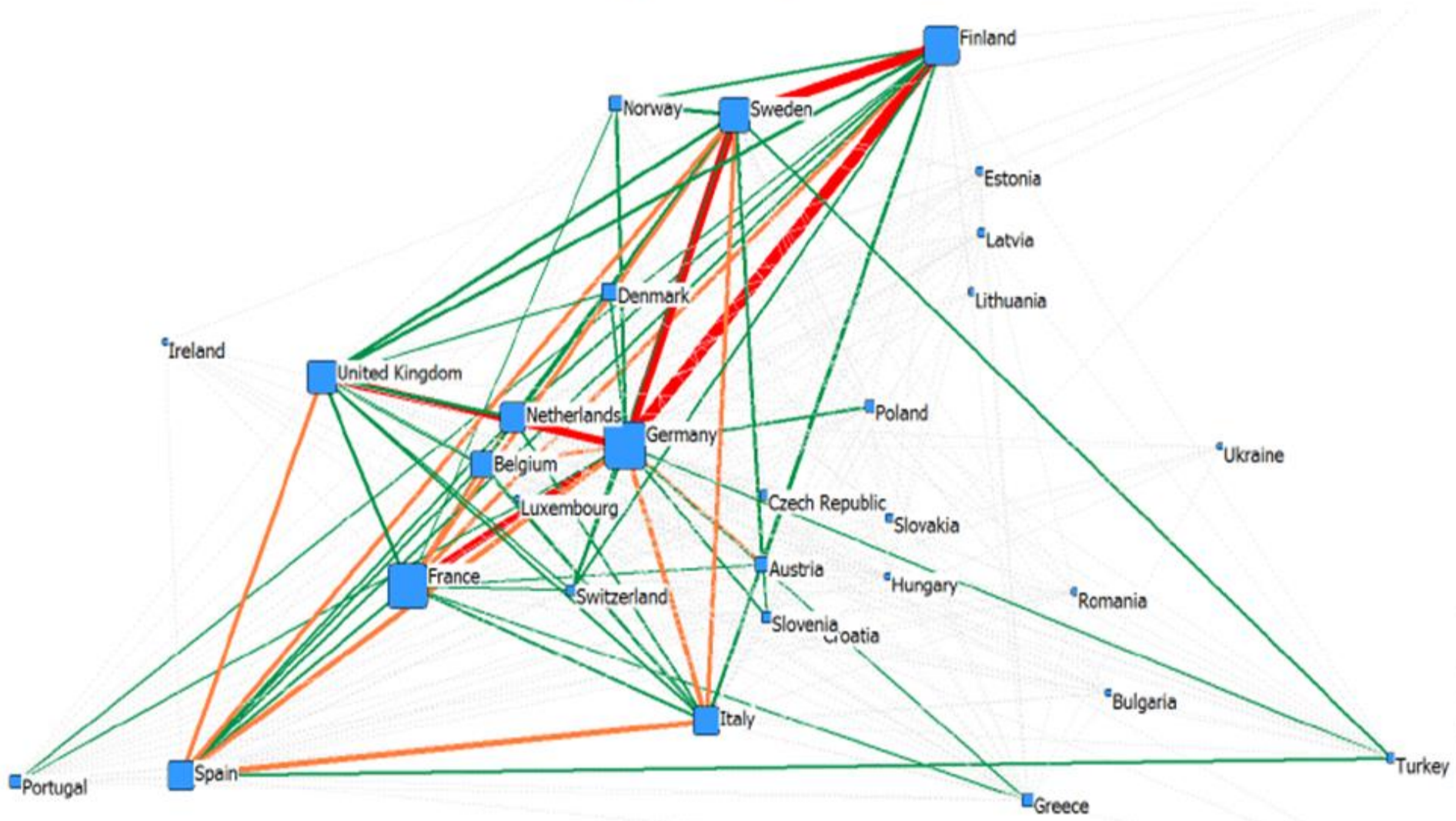
Source: Lovrić, M., Lovrić, N., Mavsar, R., 2017: Synthesis on forest bioeconomy research and innovation in Europe. EFI. 64 p.

Collaboration between countries in Primary processing



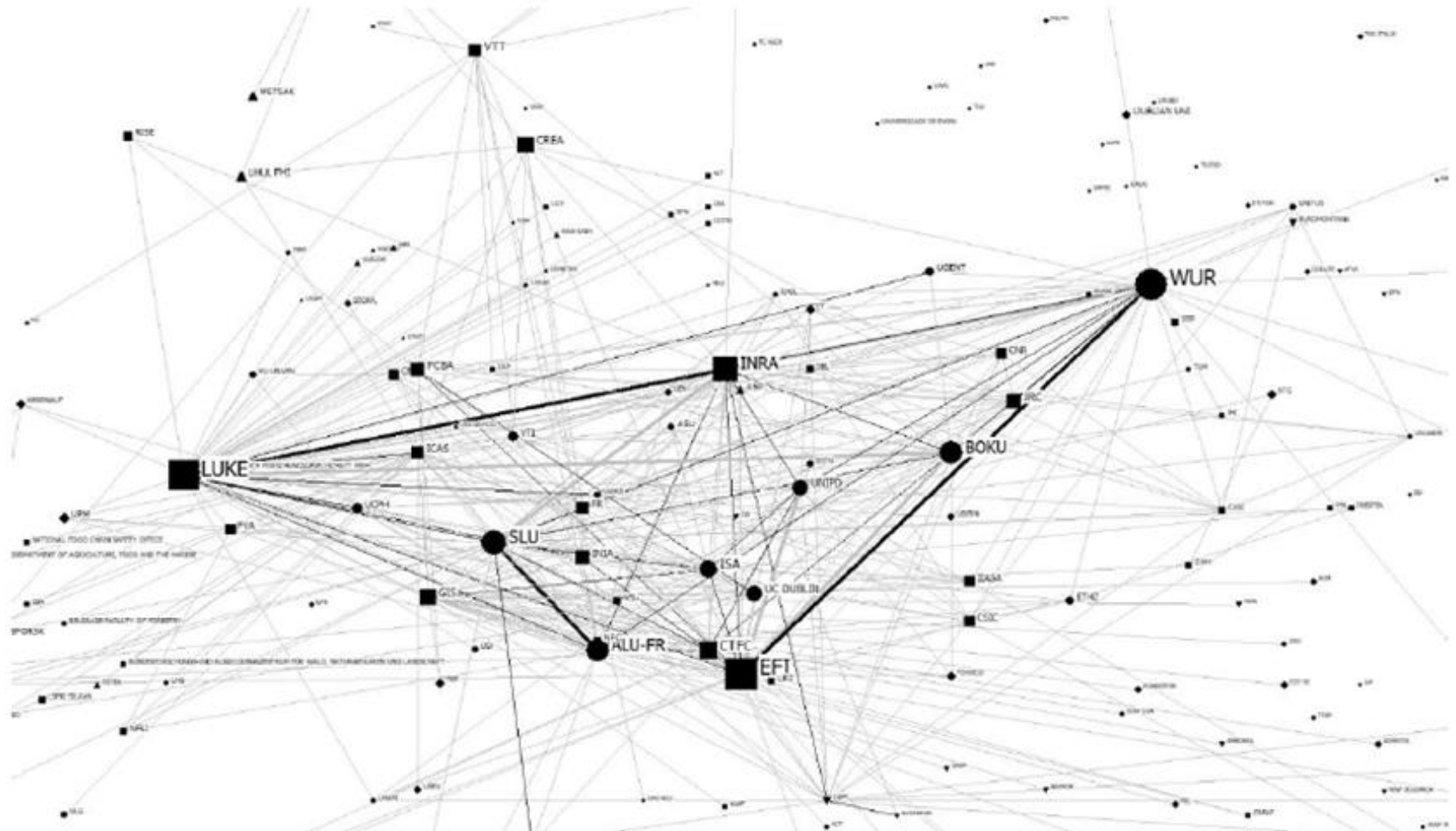
Source: Lovrić, M., Lovrić, N., Mavsar, R., 2017: Synthesis on forest bioeconomy research and innovation in Europe. EFI. 64 p.

Collaboration between countries in Secondary processing

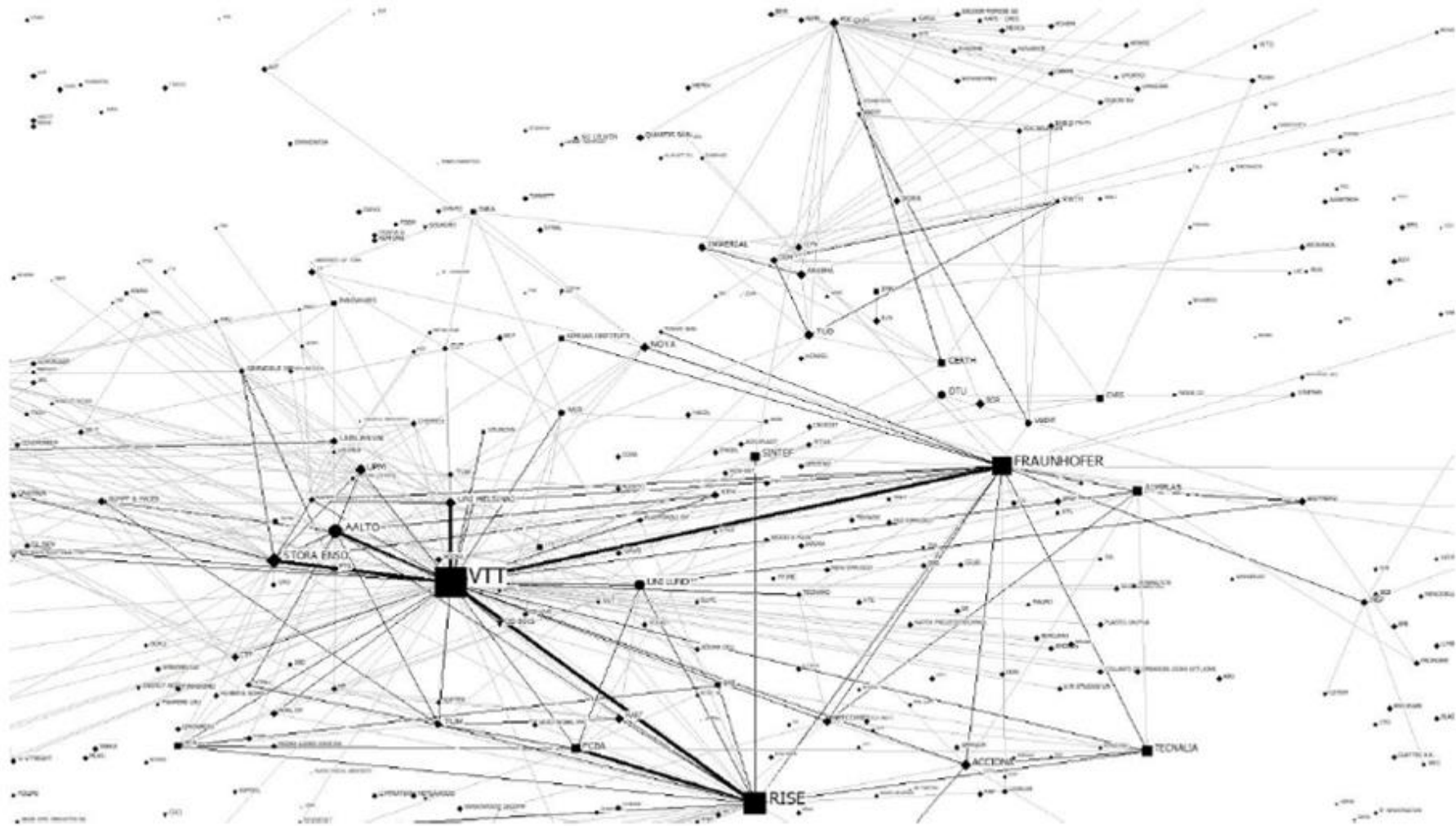


Source: Lovrić, M., Lovrić, N., Mavsar, R., 2017: Synthesis on forest bioeconomy research and innovation in Europe. EFI. 64 p.

Organizational collaboration network – forest systems

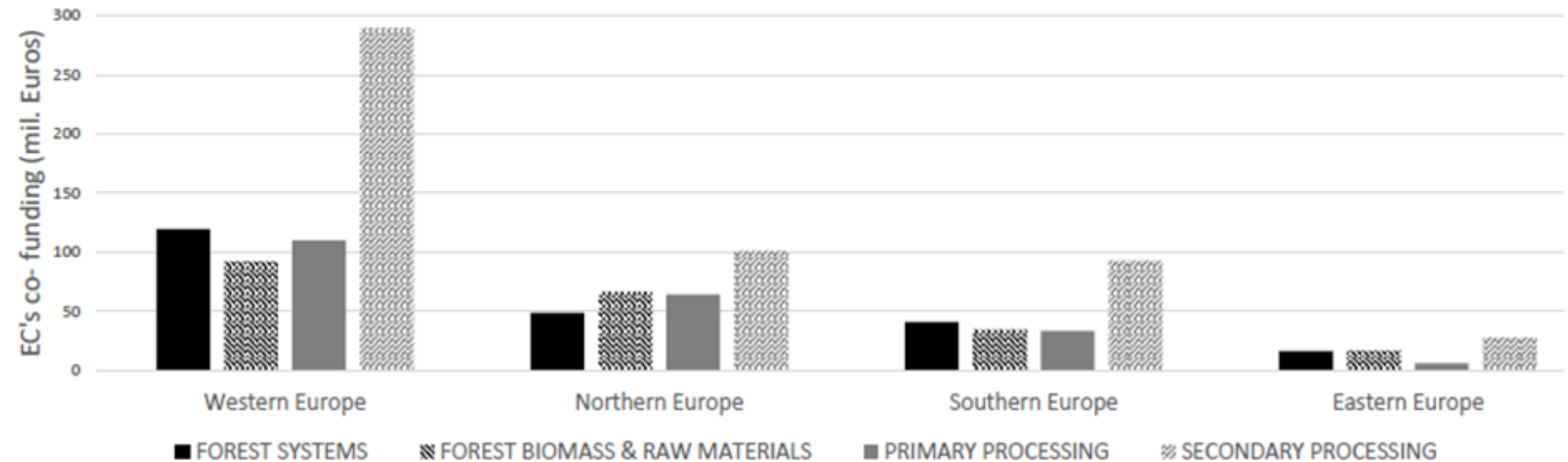


Organizational collaboration network – secondary processing



Source: Lovrić, M., Lovrić, N., Mavsar, R., 2017: Synthesis on forest bioeconomy research and innovation in Europe. EFI. 64 p.

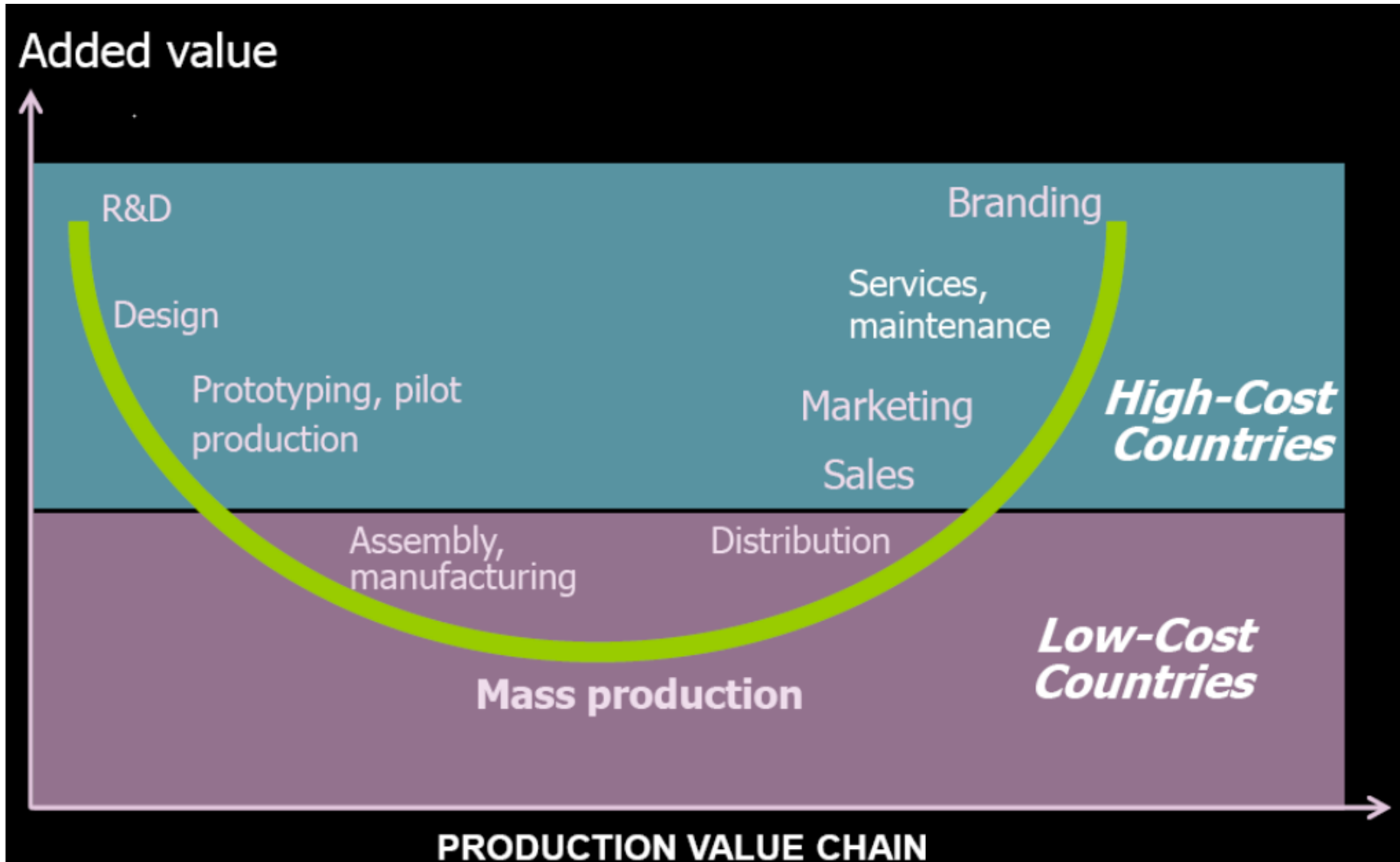
Funding by region and category



The analysis points **two policy recommendations** for the level of EU R&I planning:

- Support higher involvement of research organizations from Eastern European countries to the international scientific community within the field of forest bioeconomy by emphasizing **criterion of geographical coverage** in future research and innovation planning (e.g. H2020 Widespread schema – CoE Innorenew in Slovenia, CoE Lignosilva in Slovakia)
- Design research and innovation calls for projects that thematically **cover multiple forest bioeconomy supply-chain categories**.

Value chain – is there reason for a smile ?



4) BIOEAST Initiative – position of BIOEAST Forestry

Realized activities:

- Communication channels established
- Set-up BIOEAST Forestry working group (BFWG)
- Kick-off meeting of BFWG in Brussels – 2nd October 2018
- Nomination procedures: on-going
- **Draft of Term of Reference**



Planned activities of BFWG

- ❑ **Mapping of BFWG flagships projects, priority areas** (*November 2018*)
- ❑ **Development of synergies within BFWG providing a platform for sharing experience across borders and regions, interlinks to FTP, EFI, Forest Europe** (*continuously*)
- ❑ **BFWG inputs for CSA project, H2020 RUR-18-2019 Support to the BIOEAST initiative: boosting knowledge and innovation-based bioeconomies** (*January 19th, 2019*)
- ❑ **BFWG Strategic Research and Innovation Agenda document** (2019)
- ❑ **BFWG contributions to preparation of research and innovation policies (FP9), and bioeconomy linked policies and strategies and transfer from science to policy** (2019)



Classification of forest bio-economy

CATEGORY	TOPIC
1. FOREST SYSTEMS	1.1. Forest inventory and economics
	1.2. Sustainability assessment
	1.3. Forest ecosystem services
	1.4. Non-wood forest products
2. FOREST BIOMASS & RAW MATERIALS	2.1. Forest management
	2.2. Tree breeding and forest biotechnology
	2.3. Wood properties
	2.4. Wood supply chain
	2.5. Recycled wood and fibres
3. PRIMARY PROCESSING	3.1. Wood processing
	3.2. Pretreatment technologies
	3.3. Pulping
	3.4. Bioenergy
4. SECONDARY PROCESSING	4.1. Construction and final wood products
	4.2. Chemical conversion
	4.3. Bioprocessing and biotechnology
	4.4. Biopolymer processing
	4.5. Fiber technologies
	4.6. Other bio-based final / high value products
	4.7. Biorefinery

Flagship projects

Slovakia – **CoE LignoSilva:**
1.1; 2.1-2.5; 3.1-3.4;

Slovenia – **CoE InnoRenew:**
2.3-2.5; 3.1-3.4; 4.1-4.4

Hungary - **AGRO-CLIMATE 2:**
1.1-1.3; 2.1-2.2;

Czech republic – **EXTEMIT-K , EVA4.0**
1.1 – 1.3; 2.1-2.5; 3.1

Poland -

Romania -

Estonia -

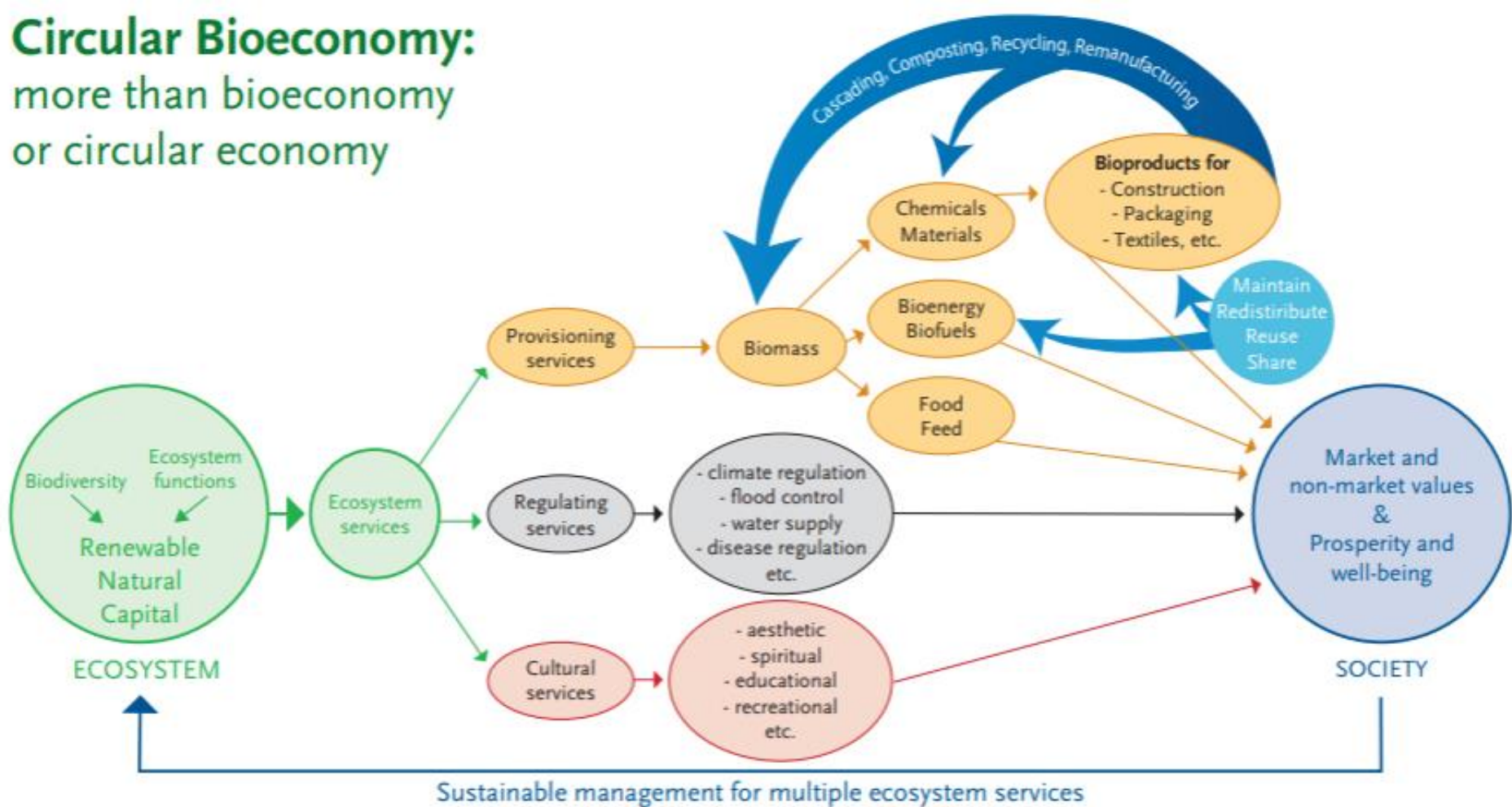
Latvia -

Lithuania -

Bulgaria -

Croatia -

Circular Bioeconomy: more than bioeconomy or circular economy



Open issues: without including ES we will not be able to engage urban population -75% EU citizens (different needs)

Circular Bioeconomy (CB) is mainly about transforming urban living sustainable. It is only secondly about rural jobs and income.

Second strategic goal of BIOEAST „Boost of rural area“ could be blocked – trade-off needed



NATIONAL FOREST CENTRE

www.nlcsk.org