



POWER4BIO
REGIONS FOR
BIOECONOMY



Outcomes of our RBH group work

POWER4BIO Cross visit to South Bohemia, Nov 30 – Dec 1, 2020

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 818351





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Institutional Outcomes

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South Bohemian Association for Bioeconomy (JSBE)



- ✓ the association was established as an institutional outcome of the meetings of the POWER4BIO project expert group (RBH)
- ✓ the legal form and alignment of the association were discussed among the members of this group
- ✓ Regional bioeconomy vision and mission turned out to be the main common platform

Processs of origin of South Bohemian Association for Bioeconomy JSBE

Expansive period	Selective period	Expansive period	Selective period	Expansive period
				
Initiative group	Core group	Regional HUB	Expert's group	South Bohemian Association for Bioeconomy (JSBE)
				

Expert's group of the POWER4BIO project



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Diversity of interests, education (fields of study), professions and employments covered active people involved into the bioeconomy strategy for South Bohemia Regions

Purpose of the Association



1. South Bohemian Association for Bioeconomy was established with the **mission of becoming a regional platform for bioeconomy and the circular economy**, identifying and defending interests in this field, promoting them at the national and European level and implementing scientific research and technological innovation activities.
2. **The vision** of the Association is, in accordance with the definition of bioeconomy, **to close the ecological cycle in the landscape, which includes water, soil and climate**. The aim is to **build on traditional resources and sectors and connect them with new technology** with high added value under conditions that will **ensure the sustainability of the region's development**.

Purpose of the Association

3. Services:

- **Education** in the field of bioeconomics
- Proposals for new **legislation** and removal of legislative obstacles
- Promotes and provides **information** about activities and services offered, including examples of good practice
- Provide the basic **organizational** background for the **activities** of the expert group / hub / cluster

European Commission definition

“a bio-based economy that integrates the full range of natural and renewable biological resources....., through to the processing and the consumption of these bio-resources” (EC, 2011)



Focus on: Sustainability. Bioeconomy is therefore presented as the potential pathway to enable environmental sustainability of primary production as well as sustainable resource use,



What? Welfare and wellbeing of EU's citizens considering even the prosperity of future generations



Where? Rural and coastal areas contributing to the local and regional economy creating job opportunities in these area.



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South Bohemian Association for Bioeconomy (JSBE)



Jihočeský spolek pro bioekonomiku, z.s. (JSBE)/ South Bohemian Association for Bioeconomy

- ✓ **Legal form:** Association – NGO
- ✓ **Registration:** Regional Court in České Budějovice on 12 August 2020
- ✓ **Identification number (IČO):** 094 05 771
- ✓ **The seat of the association:** Na Zlaté stoce 1619, České Budějovice 2, 370 05 České Budějovice
- ✓ **The highest body of the association:** General Assembly
- ✓ **Statutory authority:** Board of Directors (chairman + vice-chairman + 3 members of the Board)
- ✓ **Audit committee:** chairman + 2 members of the committee



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Expert Assessment Outcomes

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Introduction

Research Q:

- What are effective Biomass Value Chains?
- What about the Barriers?



Our Sample: I'm an expert from:

10	Practice
8	R&D institutions
3	Regional government institution
0	Ministries
1	Other field (please specify):

N=22, own research

Question 1. In which of the following sectors do you recognize the best potential biomass value chains in the region?

Instructions: please, specify the order from 1 to 6 (1 best sources, 6 worst sources)



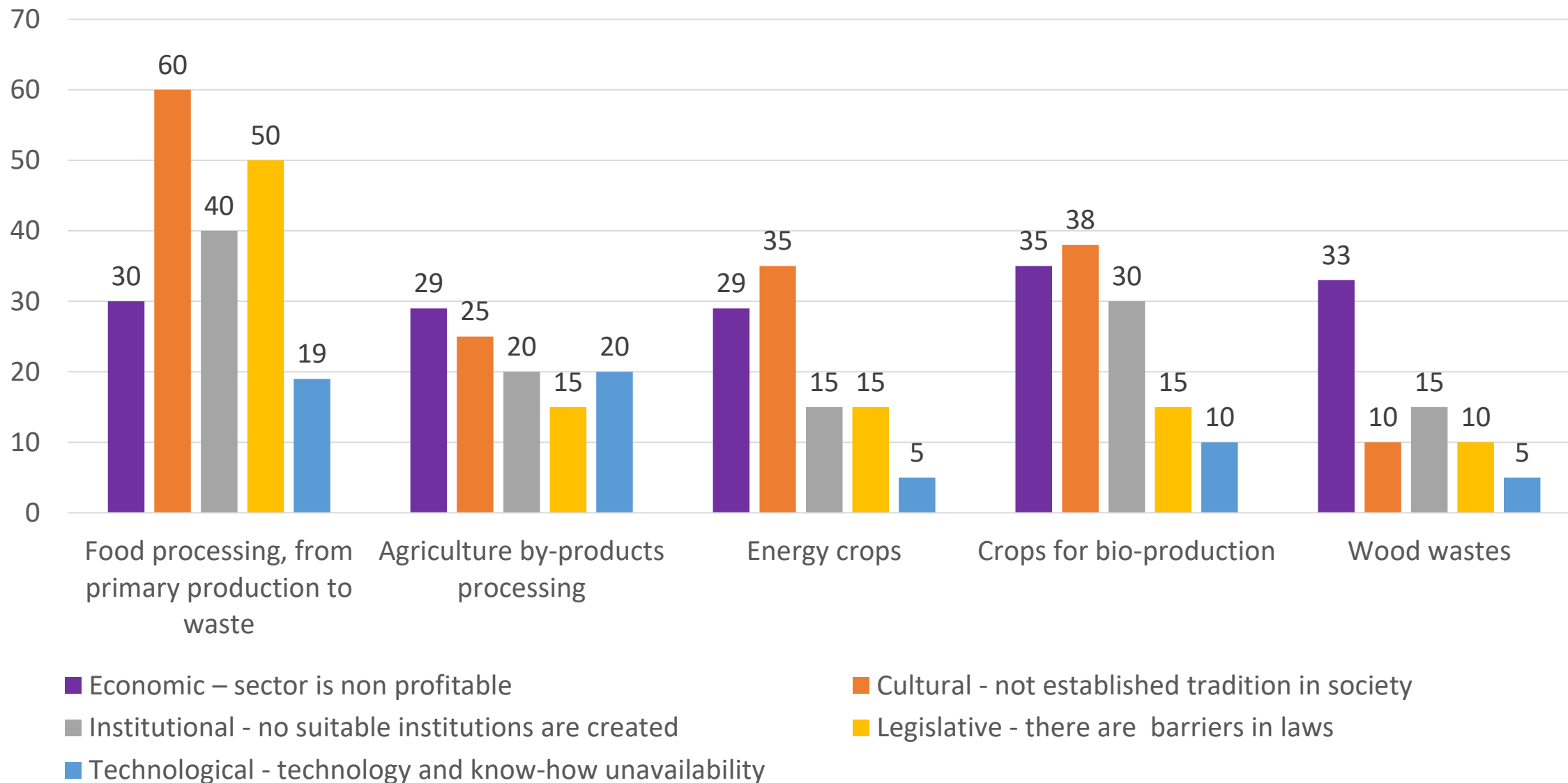
Average Order	Sectors
2,42	Wood wastes
2,58	Agriculture by-products processing
2,79	Food processing (from production to the use in canteen and restaurant waste)
3,11	Crops for bio-production
3,83	Energy crops (Crops for energy use)
4,83	Other

Summary:

Wood wastes are best based, on the contrary, energy crops are worst, which is the most widespread current aspect of bioeconomics in our country. However, they are also quite primitive (in terms of technology and value added) and they do not see great potential in it.

Only 6 respondents specified the Other option, but in most they did not. Among the various examples mentioned (but again without score) are the use of cannabis and medicinal plants or the use of plant residues. So I wouldn't think much about the Other option.

Question 2: What is your opinion about the listed barriers in the each sectors in the region? (% of YES answers)



Question 2: continuation What is your opinion about the listed barriers in the each sectors in the region? *Instructions: please, mark Yes - No - (and briefly describe your decision), or check Don't know*



Barriers Sector	Economic – sector is non profitable		Cultural – not established tradition in society		Institutional – no suitable institutions are created		Legislative – there are barriers in laws		Technological – technology and know-how unavailability		Mean	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Food processing, from primary production to waste	30	Yes	60	Yes	40	Yes	50	Yes	19	Yes	40	Yes
	30	No	35	No	30	No	20	No	62	No	35	No
	40	I don't	5	I don't	30	I don't	30	I don't	19	I don't k	25	I don't
Agriculture by-products processing	29	Yes	25	Yes	20	Yes	15	Yes	20	Yes	22	Yes
	48	No	65	No	60	No	65	No	70	No	62	No
	24	I don't	10	I don't	20	I don't	20	I don't	10	I don't k	17	I don't
Energy crops	29	Yes	35	Yes	15	Yes	15	Yes	5	Yes	20	Yes
	52	No	50	No	65	No	55	No	85	No	61	No
	19	I don't	10	I don't	20	I don't	25	I don't	10	I don't k	17	I don't
Crops for bio-production	35	Yes	38	Yes	30	Yes	15	Yes	10	Yes	26	Yes
	35	No	48	No	55	No	45	No	75	No	52	No
	30	I don't	14	I don't	15	I don't	40	I don't	15	I don't k	23	I don't
Wood wastes	33	Yes	10	Yes	15	Yes	10	Yes	5	Yes	15	Yes
	48	No	80	No	65	No	60	No	85	No	68	No
	24	I don't	10	I don't	20	I don't	30	I don't	10	I don't k	19	I don't
Mean of YES answers	31 %		34 %		24 %		21 %		12 %		25 %	
Mean of NO answers	43 %		56 %		55 %		49 %		75 %		56 %	
Mean of I DON'T KNOW answers	27 %		10 %		21 %		29 %		13 %		20 %	

Summary:

We know how to deal with bioeconomy / biomass technologically. But Czech society is not ready for cultural, economic and institutional issues of the bioeconomy. Legislative barriers are important in the food cycle.

Respondents are sure about the cultural barriers (only 10% don't know). On the other hand, there is uncertainty about legislative and economic barriers (29% and 27%, respectively). Barriers are not perceived as large (25% YES vs. 56% NO).

Notes: There is used abbreviated answer options in the table. Numbers for Yes / No / Don't know are the percentage of answers. The sum in each cell should give 100% together, but somewhere it doesn't fit – because of some of few missing answers. The option Other has been used by only 2 respondents; is not on the presented table.

Question 5. Marking collaboration as None or Weak, what is the reasons for the low level of cooperation? *Instructions: please, specify the order from 1 to 10 (1 most serious, 10 least serious reasons)*



Average order in each category:

2,3	Lack of trust between businesses, organizations
2,8	Lack of market overview of potential partners
2,9	Small benefits of cooperation (advantages and synergies not apparent)
4,1	Confused legislation - risk of litigation
4,6	Lack of decisions by relevant institutions
5	Too competitive mind-set
5,2	Delayed privatization
6,9	Corruption environment
	Other only 4 answers

Summary:

Four group occurs:

Green – most serious – lack of trust, market overview and profit

Turquoise – laws, lack of institutional decision

Blue – competitions and delayed privatization

Red – corruption. This is the last serious. It indicates, corruption is not connected with green group (with lack of trust, market overview or profit) in our CR region. This is very positive sake for the economics environment.

Question 6. Who are the relevant partners for cooperation in the future prospective use of biomass in the region? *Instructions: please specify the order of importance from 1–10 (1 most important, 10 no important) and give the names of the 3 most important ones*



2,6	R&D institutions
3,6	Regional governance and municipalities
4,7	Associations and clusters
4,8	Technology parks and centers
5,1	National business agencies
5,1	Public administration institutions nationwide
5,9	Chambers of Commerce
6,3	Banking systems and financial services
7,2	Consulting companies and independent consultants
7,4	European Information Centers
7,8	Training institutions and agencies
	Other (please specify): only one answer

Summary:

Five groups occurs:

Green – most important: R&D institutions, including universities. On the other hand, there is lack of cooperation – like a small is marked in 62% (see question 3)

Turquoise – governance and municipalities

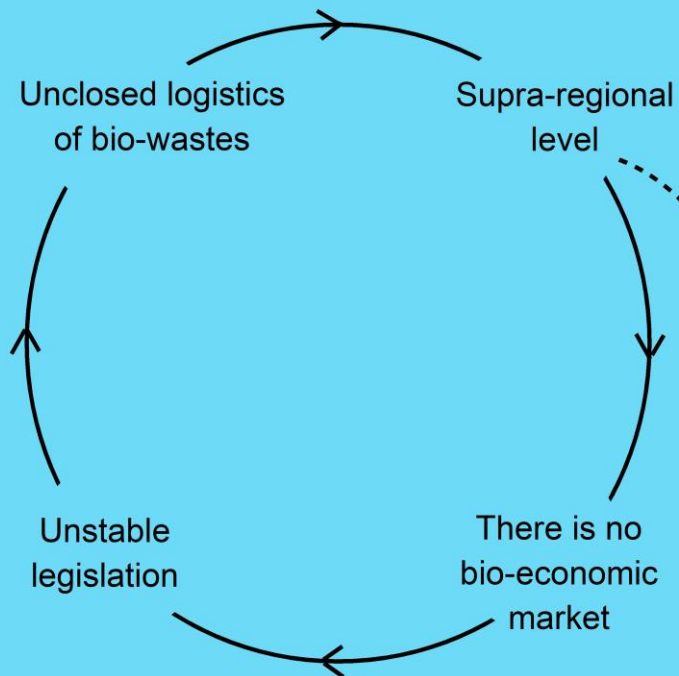
Blue – specific professional institutions

Pink – financial sector – no so relevant, corresponding with question 3. May be no experiences of stakeholders with their specific services.

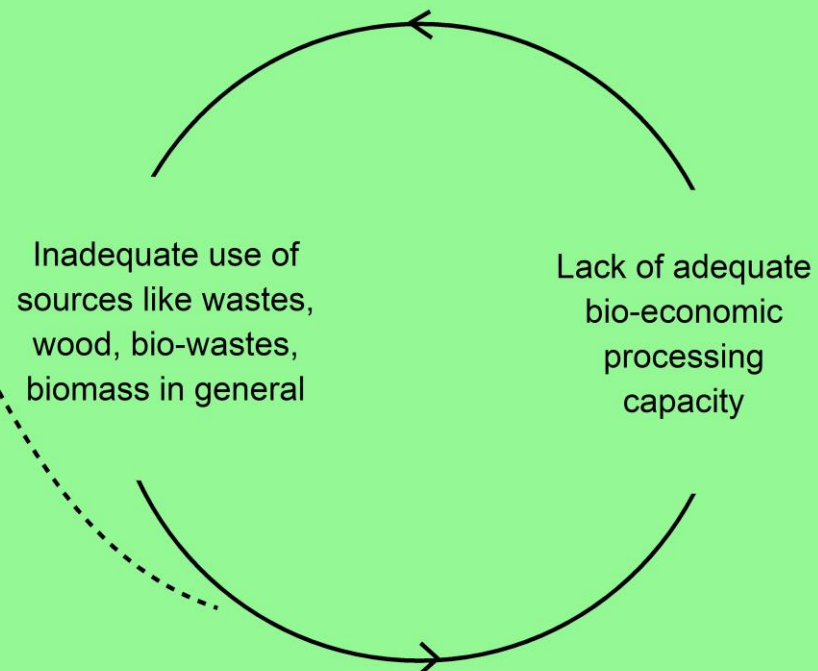
Red – despite of fact of good and even very good cooperation in question 3, there are not considered relevant partners for establishing bioeconomy. They are perceive as supporting partners.

It seems cooperation with relevant partners is weak; on the other hand, stakeholders want this cooperation. This is evident in the case of R&D institutions, including universities. Average rate is about trust and relevancy of partners for bioeconomy development.

Gaps in Socio-economic cycle



Gaps in Bio-ecological cycle



Measures proposal

- Regulation
- Education
- Advanced product
- Close the regional cycle

Measures proposal

- Avoid the out-of-day use of biosources - not primary production of agricultural crops for biotechnology
- Good practice implementation

POWER4BIO website and social media



www.power4bio.eu



@power4bioproject



@power4bio



@power4bio

Thank you for your attention

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