



POWER4BIO
REGIONS FOR
BIOECONOMY



Bioeconomy Innovation Week | Hungary from the distance, 3rd to 5th March, 2021

Ignacio Martín – CIRCE Foundation



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2. INFRASTRUCTURE AND INDUSTRIAL FACTORS

3. RESEARCH AND INNOVATION

4. MARKET/ECONOMIC ASPECTS



1. AVAILABILITY AND USE OF RESOURCES

5. TRANSITION TOWARDS BIOECONOMY

6. PUBLIC AND INSTITUCIONAL SUPPORT/GOVERNANCE/POLICY FRAMEWORK

7. FUNDING

8. SOCIAL AND ENVIRONMENTAL ASPECTS



2. INFRASTRUCTURE AND INDUSTRIAL FACTORS

★ Active local and global **markets** and easy access for bio-based products

★ Difficulties for companies to Access local and global market

★ Difficulties to launch a new bio-based product

★ Actions carried out to create a demand for the emerging technology/product

★ Production costs of **FEEDSTOCK** products comparing to alternative non bio-based products

★ Competitive **advantage** of the bio-based product/processes

★ Avoidance of waste management **costs** and/or environmental damages costs

★ Possibility of additional **profit** generation for the raw material producers in bio-based value chains

★ Current **commercialisation** of innovative technologies at national level

★ Existence of **investors**

★ Existent **opportunities**: under-used resources that remain unexploited

1. AVAILABLE AND USE OF RESOURCES

★ **Number of employees**

★ **Share** of the bioeconomy in number of employees and turnover terms

3. RESEARCH AND INNOVATION

★ Actions implemented in the **primary sector**:

★ Contributing to the reduction of greenhouse gases and other **pollution**

★ Strategy aiming for a zero waste circular **bio-economy** implemented, farm exploitations, etc. is technology, but also related to markets, networks, users,

5. TRANSITION TOWARDS BIOECONOMY

★ To decrease the use of non-renewable **fossil raw materials** implementation of bio-based value chain etc.

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4. MARKET/ECONOMIC ASPECTS



★ Availability of infraestructura for logistics and other **collaboration**

★ Development of **training programmes** and performance of learning activities, mostly related to the emerging

★ **Large bio-economy** implemented, farm exploitations, etc. is technology, but also related to markets, networks, users,

★ **Implementation** of bio-based value chain etc.

★ Lack of any of the **actors** required along the bio-based

★ **Correlation** between industrial needs and research value chain or active presence of actors required along

6. PUBLIC AND INSTITUCIONAL SUPPORT/GOVERNANCE/POLICY FRAMEWORK

★ Production close to **zero waste** initiatives/examples and/or number of bio-based initiatives in the region

★ **Existence and development of demand** for new technologies/biorefineries projects

★ Active and **dynamic business/entrepreneurial** community/cross-sectorial tren for operation

★ Existence of **coaching programs** to identify opportunities

★ **Innovation culture** among companies: willingness and capacity

and assist companies interested

★ Important chemical, agro-food or other industrial sectors that look for a **shift** from fossil resources to biological resources and bio-based products

★ **Technology maturity** of the industrial sector

★ Feedstock **flexibility** of conversion technologies

★ Number of consolidated industrial **players**, but also small and innovative Young companies or entrepreneurs

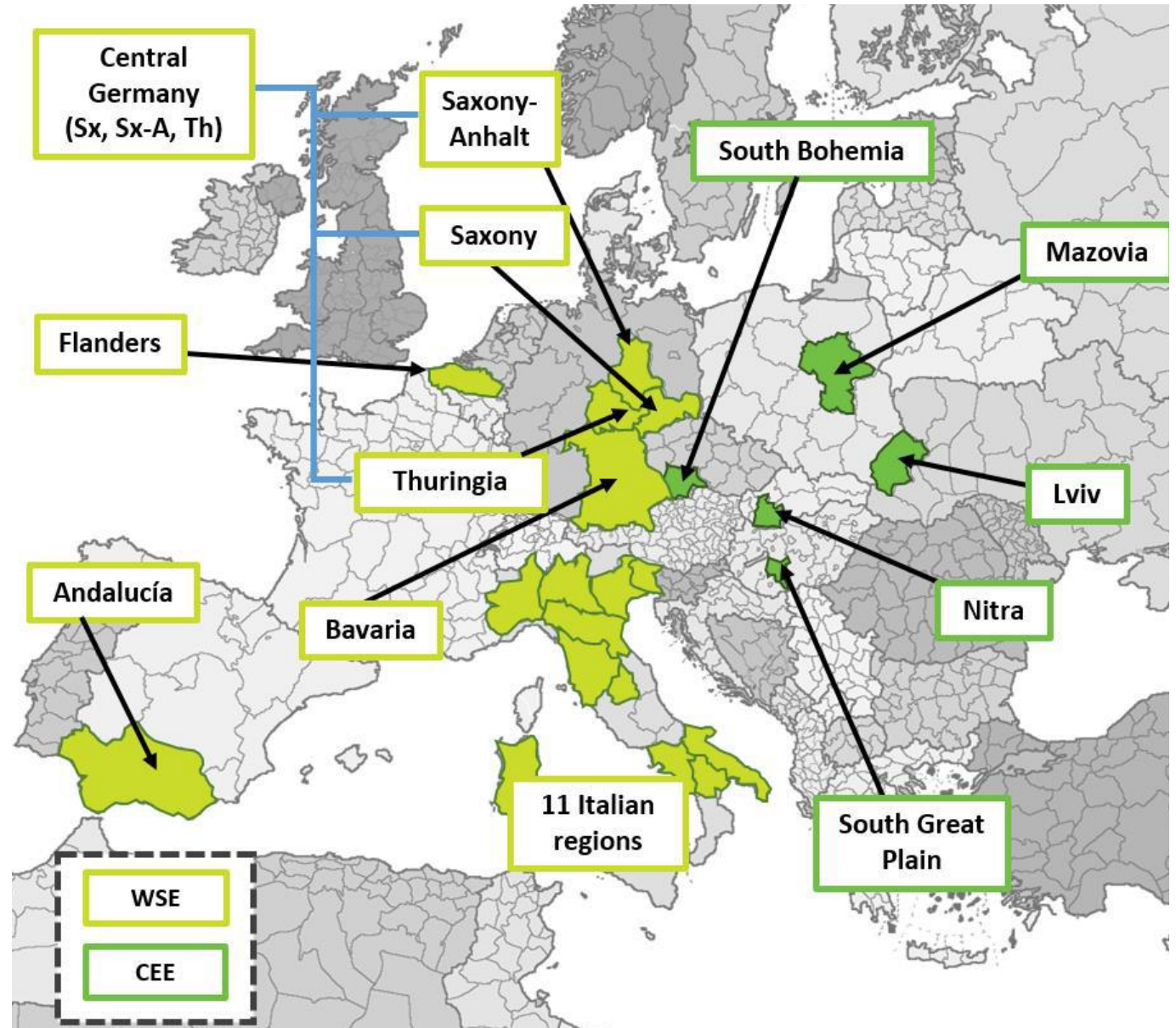
with the potential to stimulate innovation

POWER4BIO's aim










Empowering regional stakeholders to boost the transition towards bioeconomy regions in Europe by providing them with the necessary tools, instruments and guidance to develop and implement sound sustainable bioeconomy strategies.



- 10 participant regions
- 5 regions from Western and Southern Europe with medium to very high bioeconomy maturity
- 5 regions from Central and Eastern Europe with low to medium bioeconomy maturity



Regions from Central and Eastern Europe

Region	Bioeconomy maturity	Bioeconomy strategy	Main feedstock available
Southern Great Plain (HU)	Low	No	 
Mazovia (PL)	Medium-low	No	  
Nitra (SK)	Low	No	 
South Bohemia (CZ)	Medium-low	No	
Lviv (UA)	Low	No	



Agricultural residues




























Forest residues



Municipal waste and waste water

Regions from Western and Southern Europe

Region	Bioeconomy maturity	Bioeconomy strategy	Main feedstock available
Andalusia (ES)	Medium	Yes	   
Bavaria (DE)	Very high	Under development	   
Central Germany (DE)	High	At national level	  
Flanders (BE)	Very high	Yes	   
11 Italian regions (IT)	Medium (in average)	At national level	    

 Agricultural residues
  Forest residues
  Municipal waste and waste water
  Aquatic-based feedstock
  Carbon dioxide

Bioeconomy strategy “by consensus”



01

**STAKEHOLDERS
ENGAGEMENT**



Creation and launch of the
Regional Bioeconomy Hubs
(RBH)

Step 1.1

Organizational set-up
Stakeholder characterization
Contact and engagement

Step 1.2

Vision
development
Existing policies
(RIS3, CAP)

02

**ANALYSIS OF THE REGION'S
BIOECONOMY POTENTIAL**



Main aspects
of bioeconomy

bioeconomy analytical tools:

SAT
S2BIOM tool
BERST tool
...

03

**REGIONAL BIOECONOMY
STRATEGY AND ROADMAP**



Strategy > Roadmap

Catalogue
of biobased
solutions

Portfolio
of instruments



Training activities



POWER4BIO
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BIOECONOMY

POWER4BIO WEBINAR SERIES: **BIOCHEMICALS**

JUNE/JULY 2020

A series of five thematic training webinars providing insights into the field of biochemicals: their current status at EU level, innovative practices and keys for successful business cases, value chains, sustainability, funding opportunities and supporting policies.

More information: <https://power4bio.eu/webinar-series-biochemicals>



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POWER4BIO WEBINAR SERIES: **FOOD AND FEED**

OCTOBER/NOVEMBER 2020

A training webinar providing insights into the fields of food and feed, their current status at EU level, innovation practices and keys for successful business cases, value chains, sustainability, funding opportunities and supporting policies.

More information: <https://power4bio.eu/training-webinar-food-and-feed>



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POWER4BIO WEBINAR SERIES: **BIOENERGY**

DECEMBER 2020

A training webinar providing insights into the field of bioenergy: its current status at EU level, innovation practices and keys for successful business cases, value chains, sustainability, funding opportunities and supporting policies.



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POWER4BIO WEBINAR SERIES: **BIO-BASED MATERIALS**

JANUARY 2021

A training webinar series providing insights into the field of bio-based materials: their current status at EU level, innovation practices and keys for successful business cases, value chains, sustainability, funding opportunities and supporting policies.

More information: <http://power4bio.eu/webinar-series-bio-based-materials>

Training activities

AGENDA:

1. **Roadmap** to promote the implementation of Bioenergy/Biochemicals/Biomaterials/Food projects
2. **Success cases examples**. From technological solution to business: boosting technology transfer and entrepreneurship in EU regions
3. **Keys for success and synergies/cooperation scheme**. Open access to (cross-border) research and test facilities
4. **High potential** value chains/potential bio-applications to develop in the region
5. **Legislation** to consider and financing opportunities. Combining public and/or private funding instruments to finance bio-based business models and Policy alignment: towards a coherent and supportive framework for regional bioeconomy

[POWER4BIO Training webinar series on biochemicals](#)

[POWER4BIO Training webinar series on food and feed](#)

[POWER4BIO Training webinar series on bioenergy](#)

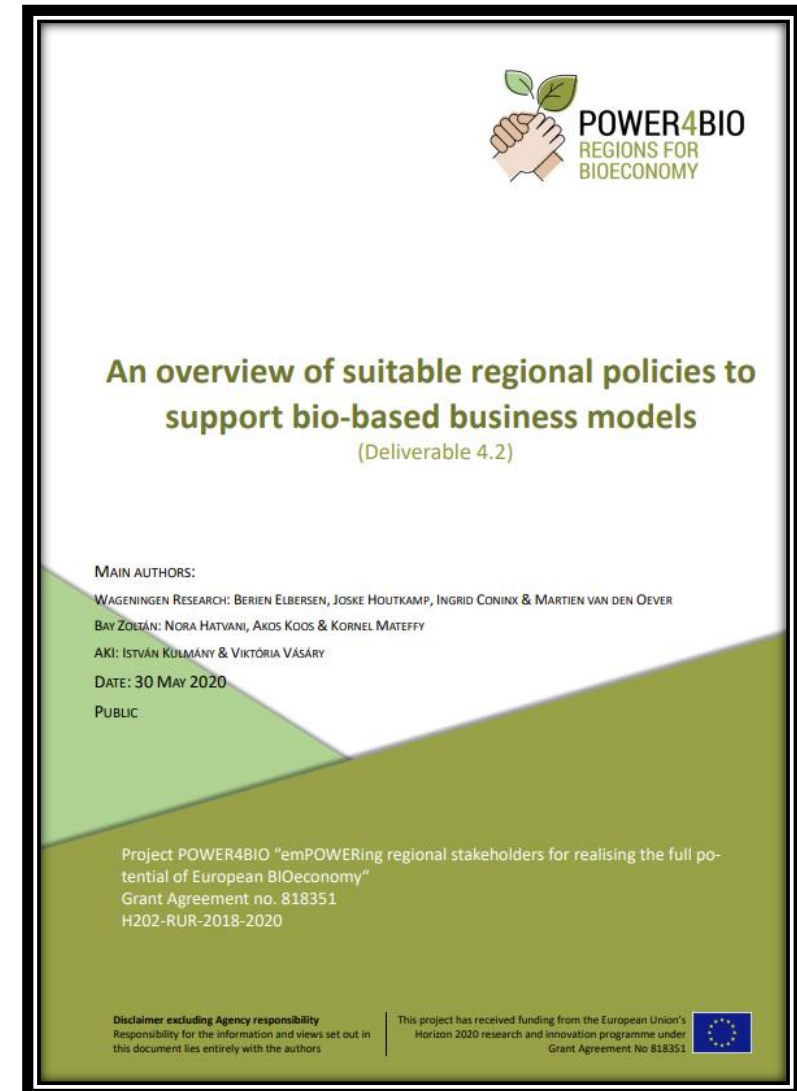
[POWER4BIO Training webinar series on bio-based materials](#)

An overview of suitable regional policies to support bio-based business models



“An overview”....of 243 pages...

.....adapted to the Bioeconomy Strategy Accelerator Toolkit (BSAT)



Lessons learnt from peers

	1. cross-visit	2. cross-visit	3. cross-visit	4. cross-visit		5. cross-visit	6. cross-visit	7. cross-visit	8. cross-visit	9. cross-visit	10. cross-visit	
Name of partner	CAPDER (Spain)				Online cross-visits because of the COVID-19 pandemic				20-21. 10. 2020			
	MAE (Poland)										20-21. 01. 2021	
	DBFZ (Germany)							23-24. 06.2020				
	USB (Czech Republic)										30.11. - 01.12. 2020	
	SUA (Slovakia)								23-24. 09. 2020			
	SPRING (Italy)		2-4. 09. 2019									
	CCB (Germany)			21-22.01.2020								
	EWI (Belgium)					20-21.02.2020						
	UNFU (Ukraine)						19.05.2020					
	BZN (Hungary)	25-26. 09. 2019										



Power4Bio results



Catalogue of bio-based solutions: **Martien van den Oever**, *WP Leader in POWER4BIO Project*, WR

Business models behind bio-based good practices: **Nóra Hatvani**, *WP Leader in POWER4BIO Project*, BZN

Developing regional bioeconomy strategies in CEE regions: results and lessons learned: **Laura García Laverde**, *WP Leader in POWER4BIO Project*, DBFZ

The role of financial instruments to empower bioeconomy strategies: **Francesca Natali**, *Partner in POWER4BIO Project*, META-GROUP

Thank you for your attention!

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