



POWER4BIO
REGIONS FOR
BIOECONOMY



Webinar on bio-based materials, 19/01/2021

Katalin Kálai – Bay Zoltán Nonprofit Ltd. for Applied Research

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Horizon 2020 research and innovation programme
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POWER4BIO webinar series

- Biochemicals
- Food & feed
- Bioenergy
- Bio-based materials
 - give insights about the **current status** of bio-based materials at EU level, innovative **practices** and keys for successful business cases, value chains, sustainability, **funding opportunities** and supporting **policies**



Agenda of today



Time	Subject	Speaker
9:30 – 9:50	Welcome and introduction	Katalin Kalai, Bay Zoltan Nonprofit Ltd.
9:50 – 10:20	POWER4BIO's Bioregional strategy accelerator toolkit	Ignacio Martin, coordinator of POWER4BIO project, CIRCE
10:20 – 10:50	Introduction to biomass valorisation for biomaterials	Kornel Mateffy, Bay Zoltan Nonprofit Ltd.
10:50 – 11:20	Biomaterials success stories: Orineo, a matter of impact and authenticity	Philippe Willems, founder and director, Orineo



POWER4BIO – emPOWERing regional stakeholders for realising the full potential of European BIOeconomy

Coordination and Support Action
in Horizon 2020

Start: October 2018

End: March 2021

Duration: 30 months

Budget: 2,9 M€

Coordinator: CIRCE (Spain)

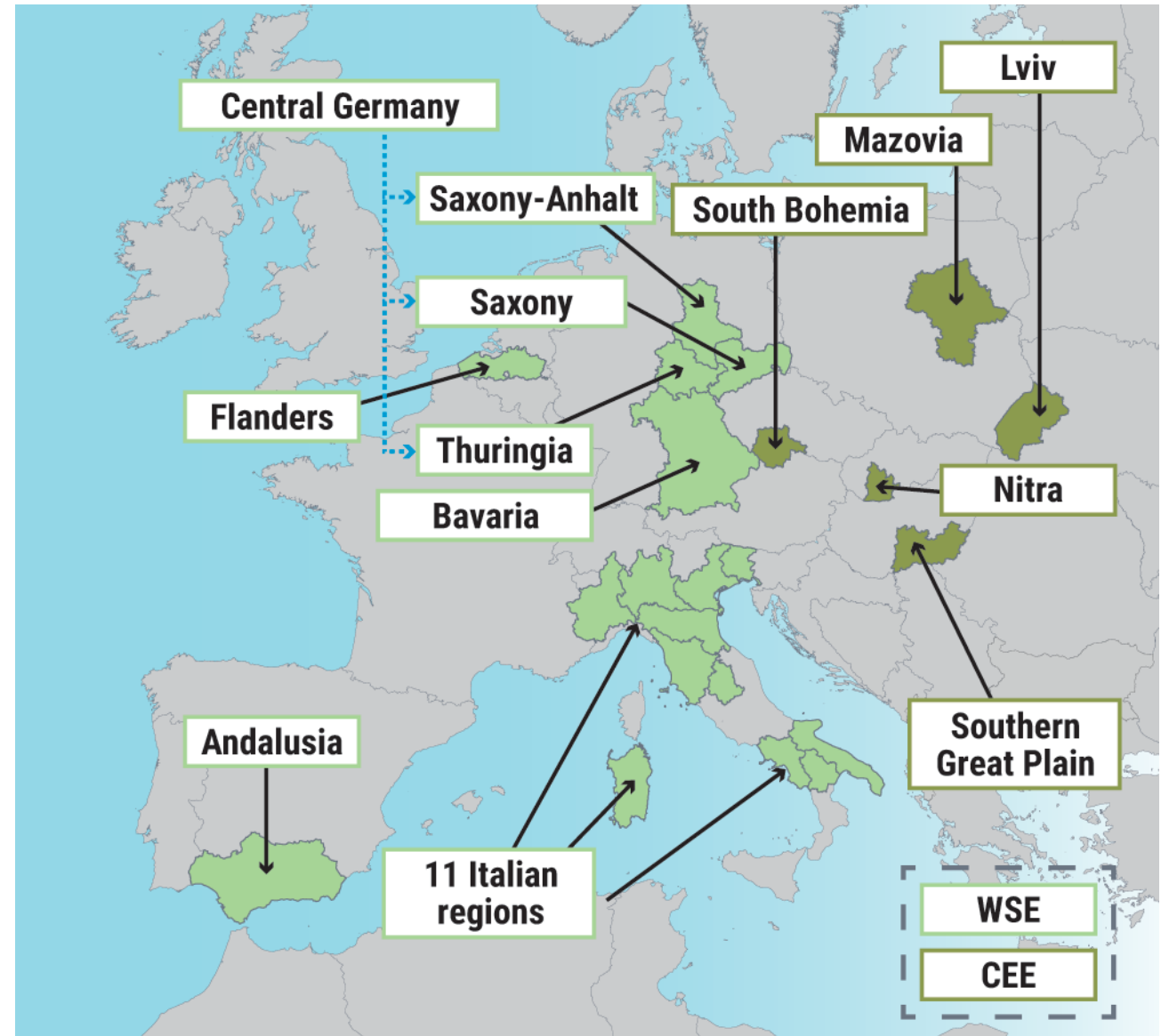
17 partners from 11 countries



POWER4BIO concept

- **Empowering EU regions**, with special focus on **CEE countries**, for maximising the mobilisation and use of endogenous biomass feedstock
- **Support policy makers** and other **regional stakeholders** to take the most suitable decisions in the transition to a bioeconomy era
- Develop a **catalogue of business model** pathways adapted to real regional needs to fully realise their bioeconomy potential by the end of the project
- **10 regions across EU and 1 regional network**, being supported by an extensive and varied number of stakeholders

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



Activities and Outputs



Regional Bioeconomy Hubs

Set up infrastructure in CEE regions where key stakeholders will collaborate to develop a bioeconomy strategy

New bioeconomy bridges between regions

Fostering the dialogue between POWER4BIO stakeholders and enabling long-lasting cross-regional cooperation

10 cross-visits and training programmes

Experience exchange by visiting each POWER4BIO region. Training and education programmes for regional stakeholders

Catalogue of mature technologies and business models

Support regions to identify most adequate biobased solutions, suitable to be deployed at small-scale in rural areas

Bioregional Strategy Accelerator Toolkit

Instruments & support material for regions to prepare and review their bioeconomy strategy

POWER4BIO website and social media



www.power4bio.eu



@power4bioproject



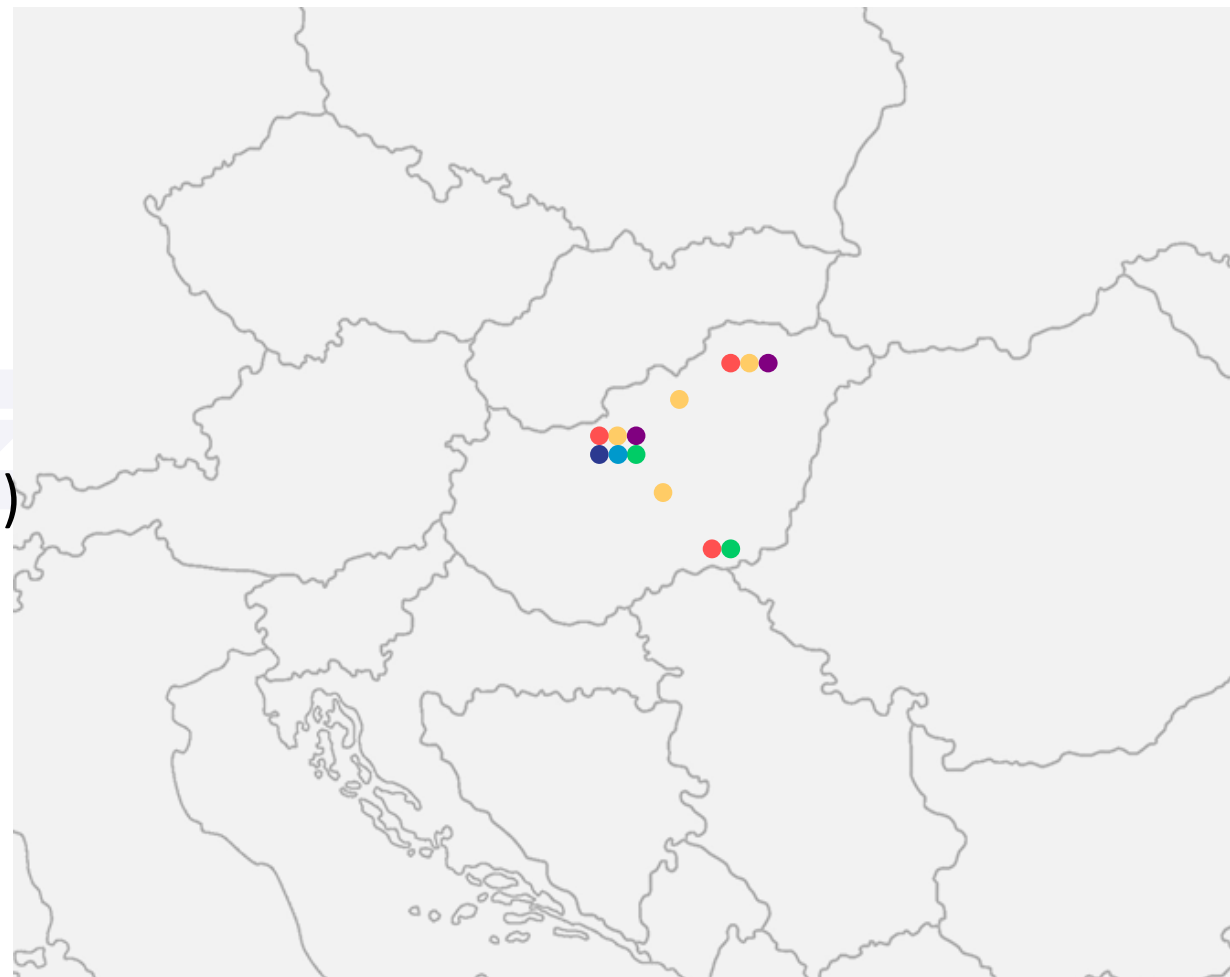
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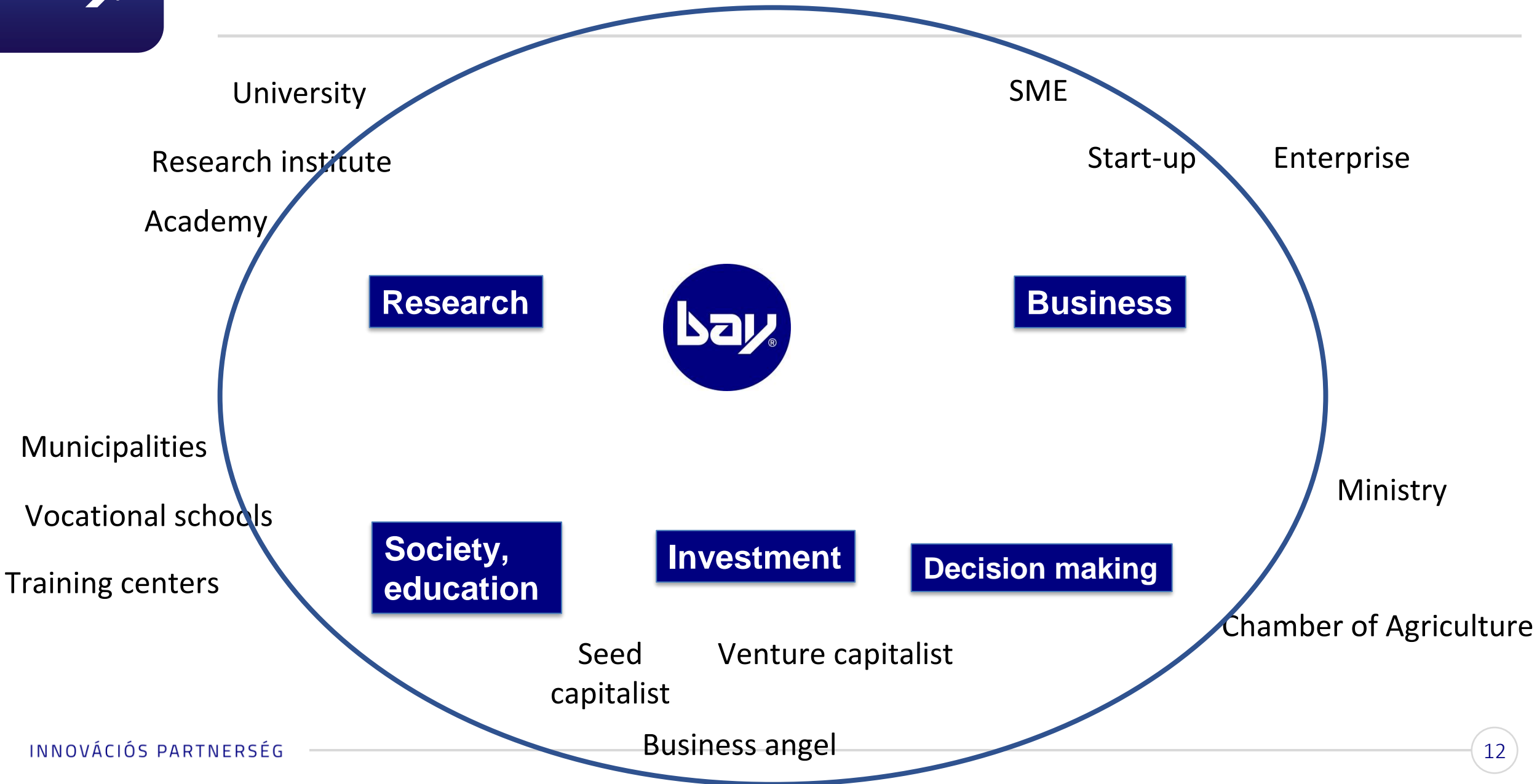
- **Biotechnology Division (BAY-BIO)**
SZEGED, BUDAPEST
- **Engineering Division (BAY-ENG)**
MISKOLC, BUDAPEST, EGER, KECSKEMÉT
- **SMART Systems Division (BAY-SMART)**
MISKOLC, BUDAPEST
- **Knowledge Management Center (BAY-TMK)**
BUDAPEST, SZEGED, MISKOLC
- **Innovation Park (BAY-INNO)**
BUDAPEST
- **Business Development Unit (BAY-SALES)**
BUDAPEST, SZEGED, MISKOLC



Specialities:	Industrial focuses:	Activities:
<ul style="list-style-type: none"> • Materials science and technologies • Biotechnology • Information and communication technologies • Production and manufacturing technologies • Environmental protection • Operational safety, structural integrity and reliability • Logistics • Mechanical, material structure, physical and chemical-analytical measurement technology • Industrial engineering support services to manufacturing processes 	<ul style="list-style-type: none"> • Car industry • Mechanical industry • Health industry • Petrolchemistry industry • Energy industry • Environmental industry • Agro industry • Food industry 	<ul style="list-style-type: none"> • R+D+I • Engineering / expert services • Manufacturing, technology and material testing services • Prototype development • Small-scale production • Fundraising • Technology and business validation

- **insufficient policy surrounding support**, lack of clarity of the legal situation and policy background
- **lack of long term vision** set by the government (which the development strategies are harmonised with)
- **lack of entrepreneurship**
- **lack of internal financing** and **difficulties in accessing funding instruments**
- **lack of trust** between research and industry
- prohibitively high costs and obstacles that originate in legislation and legal requirements
- **lengthy administrative and approval procedures** during authorisation of the new technologies
- solutions being in line with bioeconomy are often not competitive against 'conventional' technologies (as renewable energy sources against fossil energy sources)

„Multi-actor approach”



Hungarian Bioeconomy Cluster



✓ **Strengthen and scale-up the bio-based sector:**

- ✓ Conduct applied research, development and innovation (R&D&I) activities;
- ✓ Assess the R&D&I potential of higher education institutions;
- ✓ Develop cooperation projects to create market-oriented R&D&I processes and technology transfers, support the members' innovation activities;
- ✓ Promote technology transfers as well as the marketing and distribution of technologies;
- ✓ Develop relations between the business sector and the academic institutions, thus helping to boost the knowledge-based economy and the training of employees with marketable knowledge;
- ✓ Enhance the members' opportunities in the money market;

✓ **Deploy local bioeconomies:**

- ✓ Conduct joint PR and marketing activities;
- ✓ Organize events, conferences and training programmes;
- ✓ Promote development policies (both domestically and internationally);
- ✓ Cooperate with industrial clusters, universities conducting relevant activities, research institutes and other organizations internationally;
- ✓ Represent the interests of the sector, conduct lobbying activities;
- ✓ Promote job creation in bioeconomy and contribute to the education of employees;

Hungarian Bioeconomy Cluster

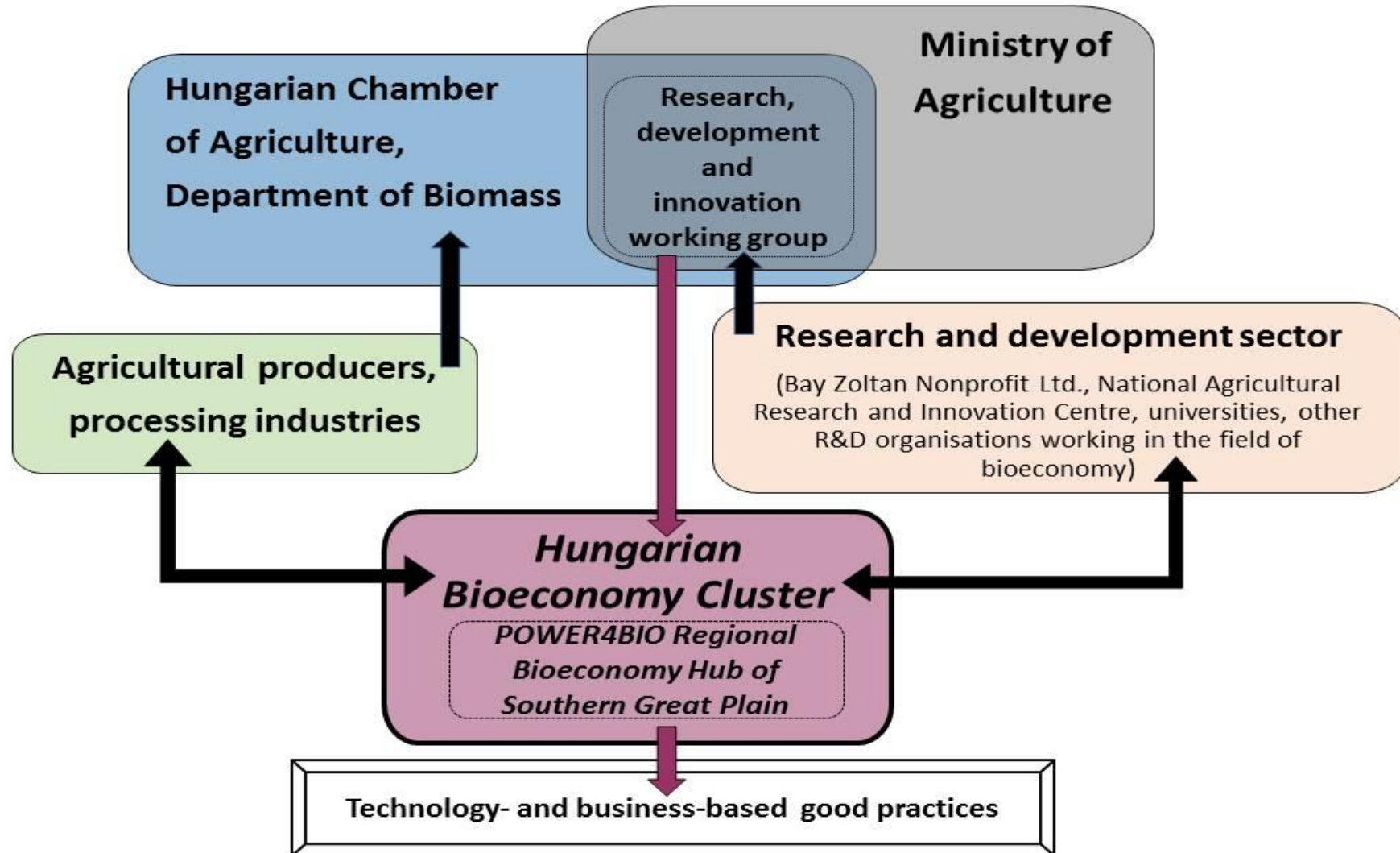


✓ **Ecological boundaries of the bioeconomy:**

- ✓ Support measures to mitigate the effects of climate change, promote adaptation processes and preserve biodiversity;
- ✓ Promote the availability and sustainable application of natural resource materials;
- ✓ Contribute to reducing the dependence on non-renewable resources.



Visioning



Visioning

The Hungarian Bioeconomy Cluster will



- create and convey a **clear definition** of bioeconomy and also **sector-specific messages** to be widely used in fostering common understanding of the opportunities, benefits and challenges related to the systems that rely on biological resources and their bio-based economic and industrial processes;
- seek to generate an **innovation-enabling, supportive environment** in the region which helps to overcome the difficult steps from “the laboratory to product”, to facilitate the industrial utilisation of research results;
- identify **good practices** and existing industrial processes which can become good practices in the short term;
- identify **resources and knowledge transfer channels** (infrastructures as demonstrational, educational farms or plants, organisations, forums, networks of experts, events, trainings and other educational tools, advisory or consulting systems and services etc.) which can be effective in gathering and providing bioeconomy-related information to the stakeholders;
- as a **mentor organisation**, facilitate effective cooperation, communication and mutual understanding between the stakeholders to encourage evidence-based planning of businesses in the bioeconomy sector

Thank you for your attention!



Nóra Hatvani

charge d'affaires,
coordination



Ákos Koós

charge d'affaires,
professional leader



Katalin Kálai

International cooperation,
management



Kornél Mátéffy

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