DanuBioValNet - Cross-clustering partnership for boosting eco-innovation by developing a joint bio-based value-added network for the Danube Region

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www.nca.cz

Project co-funded by European Union funds (ERDF, IPA)
14 Project Partners + 2 Associated Partners

10 Countries

**Germany**
- BIOPRO Baden-Württemberg GmbH
- ClusterAgentur Baden-Württemberg
- Ministry of Economic Affairs, Labour & Housing Baden-Württemberg

**Czech Republic**
- National Cluster Association

**Austria**
- Upper Austria

**Slovenia**
- Ministry of Science
- Anteja ECG

**Croatia**
- Ministry of Economy, Entrepreneurship and Crafts
- Croatian Wood Cluster

**Bulgaria**
- Association of Bulgarian Clusters

**Serbia**
- Institute of Mechanical Engineering

**Montenegro**
- Vinecluster of Montenegro

**Slovakia**
- Prounion
- Ministry of Economy
- Clustero
- Institute of Economical Forecasting

Start date: 1.1.2017
End date: 30.6.2019

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The establishment of the National Cluster Association (NCA-CZ) in 2008 as a non-profit association of individuals and legal bodies with the goal to:

- ensure coordinated and sustainable development of cluster initiatives in the Czech Republic
- advocate cluster organisations and their interests towards the government
- align with the European Commission policies & actions
- facilitate cluster internationalisation and transfer of the best practices into and outside the Czech Republic

www.nca.cz

NCA - the partner in the European projects:
- DanuBioValNet (Interreg Danube)
- KETGATE (Interreg Central Europe)

Mission:
„The National Cluster Association creates a long–term and competent platform for the development of cluster initiatives within the Czech Republic and an active interface for their internationalisation.”

HELPING CLUSTERS TO CLUSTER

Project co-funded by European Union funds (ERDF, IPA)
Cluster is a geographical concentration of interconnected companies, specialised suppliers, service providers and related institutions in a particular field and firms in associated areas, which compete but also cooperate, have common features and complement each other. (Professor Michael E. Porter, Harvard Business School)

CLUSTERS ⇔ CLUSTER INITIATIVES ⇔ CLUSTER ORGANISATIONS
National Cluster Association - members

Cluster organisations

APPLIED RESEARCH AND TECHNOLOGIES
- CzechBio
- MedChemBio
- NANOPROGRESS

ENERGY, MATERIALS, MANUFACTURING
- ATOMEX Group
- CREA Hydro&Energy
- Czech Machinery Cluster
- Czech Stone Cluster
- Czech & Moravian Glass Cluster
- Cluster of Czech Furniture-Makers
- Cluster of Precise Machinery Vysočina
- Cluster Mechatronics
- ETIK
- EWIC
- HK Metal Cluster
- Industry Cluster 4.0
- Moravian Aerospace Cluster
- Moravian-Silesian Automotive Cluster
- Plastics Cluster

ICT & SAFETY & SECURITY
- Safety Technology Cluster
- Hi-tech Innovation Cluster
- IT Cluster
- Network Security Monitoring Cluster

AGRICULTURE, CREATIVE INDUSTRY
- Cluster of Applied Biotechnologies
- Regional Food Cluster
- Zlin Creative Cluster

Development, education and innovation infrastructure
- BizGarden, Brno
- PRODO-SERVIS, Ostrava
- Regional Development Agency of the Ústí Region
- RERA – Regional Development Agency of the South Bohemian Region
- Palacký University in Olomouc, Science Technology Park and Business Incubator
- Tomas Bata University in Zlin, Faculty of management and economics
- Technology Centre, Academy of Science of the Czech Republic

⇒ 450 companies, 50 educational institutions, 11 R&D institutions
⇒ More than 170 000 employees
⇒ Turnover more than €17,3 billion

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DanuBioValNet project

- The transition of a fossil-based to a bio-based economy addresses one of the main challenges in the Danube Region.
- Only 10% of chemical feedstock base consists of renewable materials (sugar, starch, cellulose, oils and fats, etc.).
- The Danube Region possesses huge biomass resources, knowledge and technologies for bio-based materials and has strong application sectors that would benefit from bio-based innovations.
- Due to a missing holistic transnational approach in the Danube region, actors in bio-based industry operate disconnected, important bio-based VCs are not established.
- The infrastructure of clusters enables business development and industry modernisation through **critical mass, collaboration, connectivity, joint learning and innovation processes.** The value chain basis of clusters and their **potential to generate the value chain innovation** is one of the most important features in this context.
DanuBioValNet - objectives

• **Building awareness** of bioeconomy and biobased industries in the Danube Region;

• **Identify** and **connect** key actors from different regions and industries in four value chains:

  ADVANCED-PACKAGING - ECO-CONSTRUCTION - PHYTOPHARMA - HEMP INDUSTRY

• **Bring potential partners together** and enable them to cooperate - matchmaking events, awareness workshops, Open Space Innovation Arena)

• Identification and benchmarking of **programmes and funding schemes** for biobased industry; the launch of the **BioBased-InnovationExpress** - synchronised pilot scheme among the partners, incl. funding rules, e.g. on international cooperation of clusters.

• Setting up the **Danube Cluster Policy Maker Forum** – policy frame of the implementation of the **Joint Bio-Based Cluster Policy Strategy** and its Action Plan to improve the framework conditions for clusters to cluster / SME cooperation along bio-based VC across regions.

Project co-funded by European Union funds (ERDF, IPA)
Realized project activities

- More than 100 participants from 12 countries

Capitalisation event in November 2017, Bucharest, Romania
Phytopharma Day, in December 2017 in Stuttgart, Germany
Awareness workshops in Bulgaria, Slovakia, Austria, Czechia
Realized project activities

**Cluster Mapping** and **Value Chain Mapping** - eco-construction, phytopharma, biobased packaging. **Outputs:** Regional reports and the Danube synthesis reports

www.interreg-danube.eu/approved-projects/danubiovalnet/section/synthesis-value-chain-mapping-reports

**ECO-CONSTRUCTION**

**Characteristics:**
- traditional wood-processing, furniture clusters - strong industry in the Danube Region

**Problems**
- prevailing regional orientation of the companies
- low export
- lack of labour force

**Opportunities**
- Hemp buildings, hemp concrete

Project co-funded by European Union funds (ERDF, IPA)
BIOBASED PACKAGING

Characteristics:
• young industry, small number of companies, big potential in DR
• resource material is imported from abroad (FR, D, GB, USA)
• customers are international companies (Nestle, Lego)

Problems:
• high price of input material (bioplastic granulate) and bioplastic products

Opportunities:
• food industry packaging and luxury goods

Project co-funded by European Union funds (ERDF, IPA)
Realized project activities

PHYTOPHARMA

Characteristics
• big concentration in DR, e.g. rose oil (BG)

Problems
• Growers: lack of technologies and labour force, uncoordinated collecting of wild-growing plants, societal issues (condition of collectors of wild-growing plants in Eastern Europe)
• Manufacturers: focus on R&D (repurposing of medical plants), huge interest of pharmaceutical companies in processing of medical plants, opportunities for international export/import
The Danube Hemp Cluster Initiative

- Agronomic potential of hemp production is huge in the Danube countries.
- The hemp industry can serve as a demonstration model for the bioeconomy fostering through hemp clusters in the Danube region countries.
- Broad scale of exploitability covering both technical and medical cannabis.

Project co-funded by European Union funds (ERDF, IPA)
Stimulation of hemp cluster initiative

• **Multi-sectoral cluster approach**
  - Increase of the agronomy potential of hemp
  - R&D, new technologies and innovative applications in hemp growing and processing
  - Manufacturing of final products
  - Regulatory measures, legal unification
  - Education, awareness and promotion

• **Hemp cluster network development in the Danube Region**
  - Identification of key hemp actors and the hemp industry strengths in the partner regions;
  - Facilitation of cluster organisations establishment and their mobilisation for internationalisation
  - Inclusion of the hemp experts in the project activities
  - Interconnection of hemp clusters for **cross-country and cross-sectoral collaboration** in the three value chains of the project: Phytopharma, Biopackaging, Eco-construction and beyond (textile, paper, food, medicine, .....,)

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The DanuBioValNet project shall demonstrate that eco-innovations, new business opportunities, new investments will improve long-term access to materials and opens doors to cross-regional long-term partnerships through:

- Meetings, matchmaking, brokerage, etc. with other clusters to **develop international business, knowledge transfer and R&D cooperation** - cross-sectoral approach (feedstock base, processing infrastructure, innovation and R&D)

*Project co-funded by European Union funds (ERDF, IPA)*
NCA invites policy-makers, experts, scientists, business people and practitioners to participate in the informal

CZECH BIOECONOMY PLATFORM

with the purpose to:

– The continuous building of the bioeconomy awareness in the Czech Republic
  ▪ The best practice so far: The South Bohemian University’s Bioeconomy Course
  ▪ The DanuBioValNet project
– Identification of inter – sectorial communication tools to develop bioeconomy (agriculture – industry – R&D)
  ▪ The model of the hemp industry development

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Thank you for your attention

Official project web: http://www.interreg-danube.eu/approved-projects/danubiovalnet

DanuBioValNet