

# **Main Project Executive Summary**

Deliverable D 4.2.1

Responsabile Partner: Romanian Cluster Association

# Contents

|                               |   |
|-------------------------------|---|
| 1. Executive summary.....     | 2 |
| 2. Introduction .....         | 3 |
| 3. Concept & Development..... | 3 |
| 4. Conclusions .....          | 4 |
| 5. Annexes .....              | 4 |

## 1. Executive summary

The Clusters Meet Regions Conference, organized by the European Cluster Collaboration Platform on behalf of the European Commission, in partnership with UNDP Moldova and CLUSTERO, took place in Chişinău, Republic of Moldova, from October 9–11, 2024.

The event focused on the role of clusters in developing international value chains, particularly in the Danube and Black Sea regions. A C2C/B2B brokerage event on the first day, supported by the Enterprise Europe Network, facilitated 101 bilateral meetings.

On October 11, the DanubIA Clusters Project Generation Seminar was held within the session on Sustainable Development and Digital Clusters, featuring expert presentations and the interactive Cluster Cooperation Quest. Topics included SME digitalization, the role of clusters in digital transformation, and AI's potential to enhance collaboration.

The conference attracted around 150 participants from 11 countries, with 54 attendees joining the DanubIA Clusters seminar. Insights collected contributed to the Report on the state of play on digital/AI-based cooperation platforms (D.1.1.1).

The event outcomes were disseminated via the European Cluster Collaboration Platform and featured in the CLUSTERO Newsletter (October 2024).

### Key Highlights:

Expert presentations covered topics such as SME digitalization, cluster-led digital transformation, and AI-enabled collaboration

Interactive Cluster Cooperation Quest- Participant inputs for Report on the state of play on digital/AI-based B2B/C2C/B2C cooperation platforms (D.1.1.1).

## 2. Introduction

The Cluster Meet Regions Conference organized by European Cluster Collaboration Platform, on behalf of the European Commission, in partnership with the United Nations Development Programme Moldova and the Romanian Cluster Association – CLUSTERO, was held in Chisinau, Republica Moldova on 9-11.10.2024.

The main day of the conference, October 10<sup>th</sup>, 2024, was dedicated to the role of clusters in setting up international value chains, with a special emphasis on cooperation in the Danube and Black Sea regions.

A C2C/B2B business brokerage event was organized in the first conference day, where 101 bilateral meetings were registered with the support of the Enterprise Europe Network.

The second day of the conference, October 11<sup>th</sup>, 2024, included four parallel thematic sessions. The project generation seminar of DanubIA Clusters was organized within “Session VIII Sustainable Development and Digital Clusters”.

Around 150 representatives from 11 European countries and beyond attended the Clusters Meet Regions Event organized in Chisinau on 9-11 October 2024 out of which 54 participants took part in Project generation seminar of DanubIA Clusters .

## 3. Concept & Development

Conference on “CLUSTERS AS DRIVERS OF INTER-REGIONAL VALUE CHAINS,” debated the role of clusters as reliable dialogue partners in the design, implementation and ongoing monitoring of regional development policies and programs with a focus on smart specialization, skills for industrial transition and entrepreneurship.

On the first day of the conference, the project partner — the National Cluster Association-CLUSTERO — presented the DanubIA Clusters project.

The Project generation seminar of DanubIA Clusters, held on the second day of the conference and included two sessions. The first session focused on expert presentations, while the second was dedicated to the interactive activity “Cluster Cooperation Quest.”

Topics covered in the first session included:

- Digitalization challenges faced by SMEs

- The role of clusters in fostering digital transformation

- European Digital Innovation Hubs and their spectrum of services

- Linking clusters and businesses: Can AI be a solution?

The presentations were followed by discussions and idea exchanges with the audience, aimed at exploring how clusters can be better leveraged to strengthen cooperation through digital tools.

The second session was an interactive one titled "The Cluster Cooperation Quest". The session used a combination of presentation slides and interactive digital tool (the platform **Sli.do**), to enable real-time input collection and participants interaction.

The participants were divided into 5 groups, fostering in-depth discussions and collaborative brainstorming. Each team represented a fictional international cluster cooperation entity and specific roles were assigned (spokesperson, strategist, scribe) to encourage organized participation and collective brainstorming. 42 cluster representatives answered the questions using the online platform **Sli.do**.

Participants were tasked with:

- Identifying current cooperation challenges and barriers.
- Prioritizing essential functionalities and improvements needed for future digital platforms.
- Envisioning innovative AI functionalities that could significantly enhance cluster cooperation.

Insights from participants' discussions provided valuable qualitative data and innovative proposals were included in the Report on the state of play on digital/AI based B2B/C2C/B2C cooperation platforms (D.1.1.1).

#### **4. Conclusions**

The participants took part in discussions on the AI-powered cluster cooperation platform, sharing ideas, insights, and experiences to help shape its features and priorities during the project generation seminar.

The seminar highlighted the crucial role of digital and AI-driven platforms in enabling effective international collaboration, fostering innovation, and strengthening the competitive advantage of clusters and SMEs.

The event was distributed by [European Cluster Collaboration Platform](#) and on the [Clustero Newsletter October 2024](#).

#### **5. Annexes**

Conference Agenda, including agenda of the Project Generation Seminar of DanubIA Clusters

Presentations

Pictures

List of participants



## CLUSTERS AS DRIVERS OF INTERREGIONAL VALUE CHAINS

9 – 11 October 2024

Hotel Radisson Blu Leograd

### Day 0 – Wednesday, October 9th, 2024

Blue Lounge Hall (hybrid)

Requires separate registration

|             |                               |
|-------------|-------------------------------|
| 10.00-17.00 | <b>EU4D ICT Digital Forum</b> |
|-------------|-------------------------------|

### Day 1 – Thursday, October 10th, 2024

Prut-Raut Hall

Translation EN-RO-EN provided

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09.00 – 09.45 | <b>Welcoming coffee, participants' registration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 09.45 – 10.15 | <b>Opening Speeches</b><br><b>Moderator – Teodora Jilkova, ECCP Team Member</b> <ul style="list-style-type: none"> <li><b>Cristina Ceban, State Secretary Ministry for Economic Development and Digitalisation of the Republic of Moldova</b></li> <li><b>Natalia Bejan, Director Invest Moldova Agency</b></li> <li><b>Jakub Buratynski, Director DG Grow European Commission</b></li> </ul>                                                                                       |
| 10.15 – 11.15 | <b>Input Paper: Jan-Philipp Kramer Team Leader 'Data &amp; Policy', ECCP Input Paper</b><br><b>Panel Discussion – Clusters as drivers of interregional value chains</b><br><b>Moderator – Dumitru Udrea, Project Manager, UNDP Moldova</b> <ul style="list-style-type: none"> <li><b>Linda Perina, DG Grow</b></li> <li><b>Daniel Cosnita, CLUSTERO, RO</b></li> <li><b>Jiri Herinek, President NCA, CZ</b></li> <li><b>Nicolae Minciuna, Head of Winemaking Cluster</b></li> </ul> |
| 11.15 – 11.45 | <b>Coffee Break</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 11.45-12.45   | <b>Session II: Role of clusters in the economic development of Moldova</b><br><b>Moderator – Linda Perina DG Grow</b> <ul style="list-style-type: none"> <li><b>Sergiu Harea, President, Chamber of Commerce and Industry of the Republic of Moldova</b></li> <li><b>Olesea Cazacu, Inclusive Growth Cluster Programme Analyst, UNDP Moldova</b></li> </ul>                                                                                                                         |

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <ul style="list-style-type: none"> <li>• <b>Irina Călugăreanu</b>, Academy of Economic Sciences of Moldova</li> <li>• <b>Angela Cașcaval</b>, Heart of Nistru Tourism Cluster</li> <li>• <b>Ciprian Morcan</b>, Transylvanian Furniture Cluster</li> <li>• <b>Julda Kielyte</b>, Team Leader Competitive and Inclusive Growth EU Delegation</li> </ul>                                                                                                                                                                              |
| 12.45 – 13.30 | <b>Lunch Break</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13.30 – 14.30 | <b>Session III: The Role of clusters in the interregional cooperation</b><br><b>Moderator – Gerd Maier zu Köcker, ClusterAgentur BW</b><br><br><b>Inputs:</b><br><b>Paul Maris, MA Black Sea Basin</b> <ul style="list-style-type: none"> <li>• <b>Carolina Tulgara</b>, TEX-DAN (Danube)</li> <li>• <b>Andrea Sulyok Pal</b>, DRWO 4.0 (Danube)</li> <li>• <b>Elena Stepanov</b>, INTERSMARTS (Black Sea)</li> <li>• <b>Christina Leucuța</b>, Plan C (Danube)</li> <li>• <b>Natalia Budescu</b>, SeedGuard (Black Sea)</li> </ul> |
| 14.30 – 15.30 | <b>Session IV: MD and international clusters present themselves. Pitching session</b><br><b>Moderator – Teodora Jilkova, ECCP Team Member</b> <ul style="list-style-type: none"> <li>• <b>Moldovan Clusters pitching slot</b></li> <li>• <b>International Clusters pitching slot</b></li> </ul>                                                                                                                                                                                                                                     |
| 15.30 – 16.00 | <b>Closing Remarks and Networking Coffee</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 16.00 – 18.00 | <b>Matchmaking event in cooperation with EEN</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Day 2 – Friday, October 11th, 2024

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09.00 – 09.30 | <b>Registration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 09.30 – 11.00 | <b>Session V - Doing Business in Moldova</b><br><br>Blue Lounge Hall<br>Mainly in Romanian<br><br><b>Moderator – Simion BERZOI, Project Manager, UNDP Moldova</b><br><br><b>Discussion Topics:</b> <ul style="list-style-type: none"> <li>• Recent reforms and their impact on the business climate.</li> <li>• Best practices for compliance and risk management.</li> <li>• Government incentives and support programs for foreign and local investors.</li> <li>• Financing options for startups and SMEs.</li> <li>• Challenges and opportunities in logistics and supply chain management.</li> </ul> | <b>Session VI Sustainable Development and Green Clusters</b><br><br>Raut Hall<br>Translation EN-RO-EN provided<br><br>Powered by Danube Project Plan C<br><b>Moderator – Daniel Cosnita, CLUSTERO</b><br><br><b>Discussion Topics:</b> <ul style="list-style-type: none"> <li>• Integrating sustainability into cluster strategies</li> <li>• Examples of green initiatives within clusters</li> <li>• Benefits of sustainable practices for long-term growth</li> <li>• Collaboration between businesses and educational institutions.</li> <li>• International partnerships and their impact on local clusters</li> </ul> |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | <ul style="list-style-type: none"> <li>Infrastructure projects and their potential benefits for businesses.</li> <li>Government initiatives to promote digitalization.</li> </ul> <p><b>Panellists</b></p> <ul style="list-style-type: none"> <li><b>Vitalie Tarlev</b>, MD Digitalisation Advisor</li> <li><b>Roman Ladus</b>, Prime Minister's Economic Council</li> <li><b>Natalia Bejan</b>, MD Investment Agency</li> <li><b>Cristina Tiscul</b>, Prime Minister Economic Council, Gender Specialist</li> <li><b>Marius Alexa</b>, General Secretary Club Afaceri.ro</li> </ul> <p><b>Q&amp;A</b></p>                                                                                                          | <p><b>Panellists</b></p> <ul style="list-style-type: none"> <li><b>Vladimir Sedlarik</b>, Tomas Bata University Zlin, Czechia</li> <li><b>Peter Kiss</b>, Hungarian Construction Cluster</li> <li><b>Andra Enache</b>, National R&amp;D Institute for Macromolecular Chemistry Iasi, Romania</li> <li><b>Andrei Mirza</b>, manager SORINTEX, Moldova</li> </ul> <p><b>Q&amp;A</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 11.00-11.30 | <b>Coffee Break</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 11.30-13.00 | <p><b>Session VII Perspectives of cluster development in the Republic of Moldova</b><br/><b>Group discussion with MD clusters</b></p> <p>Blue Lounge Hall<br/><i>In Romanian only</i></p> <p><b>Moderator – Dumitru Parfentiev, Project Manager UNDP Moldova</b></p> <p><b>Discussion Topics:</b></p> <ul style="list-style-type: none"> <li>Role of cluster managers and their impact on success</li> <li>Aligning cluster vision with industry trends</li> <li>Facilitating collaboration among cluster members</li> <li>Financial management and sustainability strategies</li> <li>Strategies for expanding cluster activities internationally</li> <li>Future trends in digitalization for clusters</li> </ul> | <p><b>Session VIII Sustainable Development and Digital Clusters</b></p> <p>Raut Hall<br/><i>Translation EN-RO-EN provided</i></p> <p>Powered by Danube Project DanubIA<br/><b>Moderator – Daniel Cosnita, CLUSTERO</b></p> <p><b>Discussion Topics:</b></p> <ul style="list-style-type: none"> <li>Digitalisation challenges of SMEs</li> <li>Role of clusters in fostering digitalisation</li> <li>European Digital Innovation Hubs: spectrum of services</li> </ul> <p><b>Panellists</b></p> <ul style="list-style-type: none"> <li>Bianca Muntean, Transilvania IT Cluster</li> <li>Ion Bodrug, ACETI &amp; DIH of Moldova</li> <li>Costin Lianu, Wallachia EHUB</li> </ul> <p><b>Better linking clusters and businesses: Can AI be a solution?</b></p> <p><b>Moderated workshop</b>, moderated by Andrej Gero, Union of Slovak Clusters</p> |
| 13.00-13.30 | <b>Lunch end of the conference</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



We connect cluster organizations and technology platforms defend their needs and develop cluster policy in the Czech Republic.

The National Cluster Association (NCA) is a non-governmental non-profit organization that brings together entities and individuals with the goal of coordinated and sustainable development of cluster initiatives and cluster policy development in the Czech Republic based on concentration of knowledge, experience and expertise to strengthen the Czech competitiveness.





# AI based Cluster Cooperation in the Danube Region

Clusters as drivers of interregional value chains

Clusters Meet Regions | Chisinau | 10 October 2024



# National Cluster Association Czech Republic brings together:



34 / 5

clusters and technology platforms /  
research and support organizations

881 / 282

companies / other members

268 tis

Total number of employees in member  
organizations (approx.)

We connect cluster organizations and technology platforms defend their needs and develop cluster policy in the Czech Republic.





## Top – down view



- **EU Industrial Ecosystems**
- Smart specialisation strategies
- **Green, digital, resilience**
- ...
- Aggregated data
- Regional comparison
- **This view is important for setting strategies for regional development, targeting grant support etc.**







## View from below



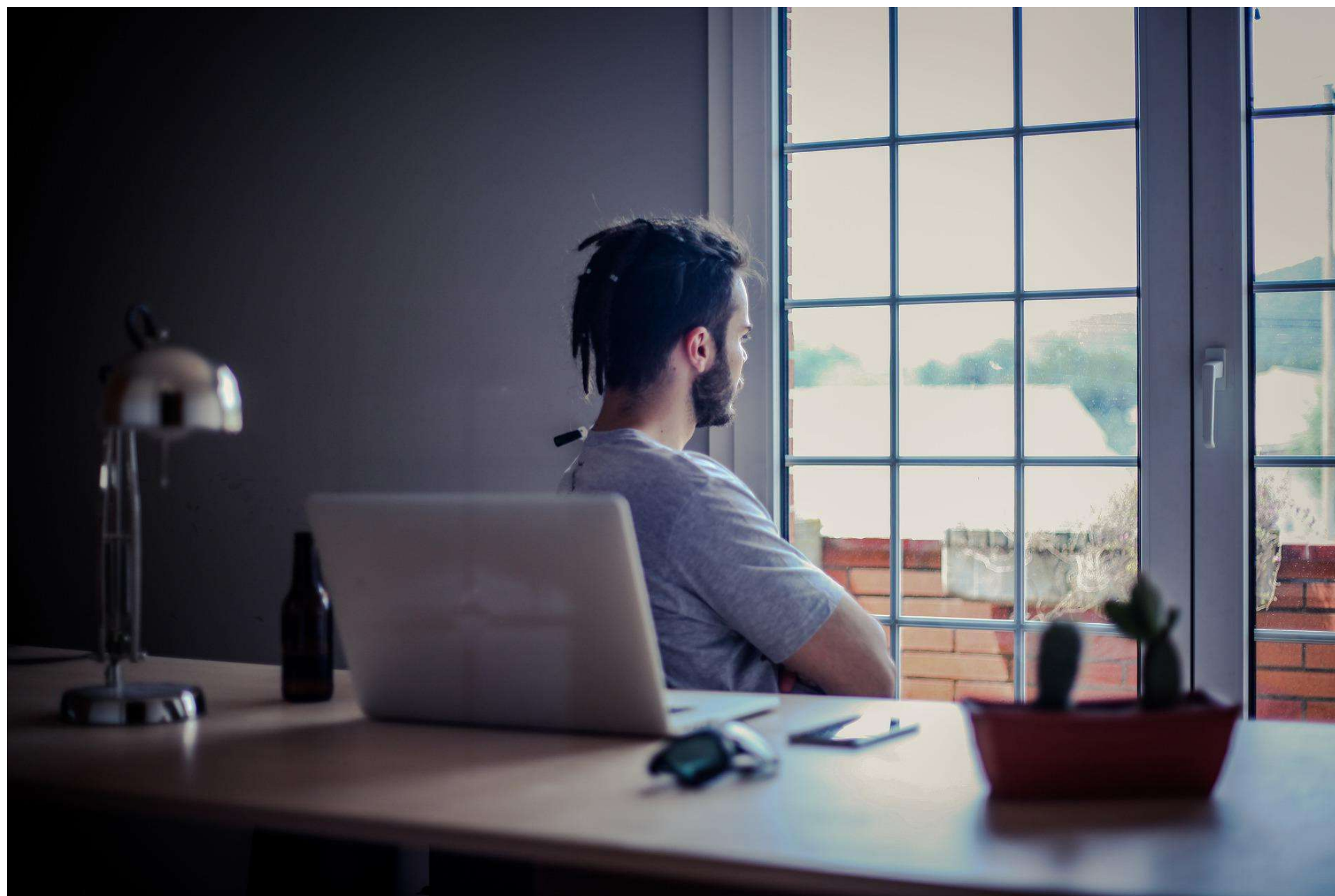
- **Mostly have minimum knowledge about industrial strategie, ecosystems etc.**
- Knows its product and service portfolio exactly.
- **Knows what they need for their development.**
- Doesn't use buzzwords.
- **We love them (mostly). They are our members 😊**







## And somewhere in the middle we are ... cluster managers



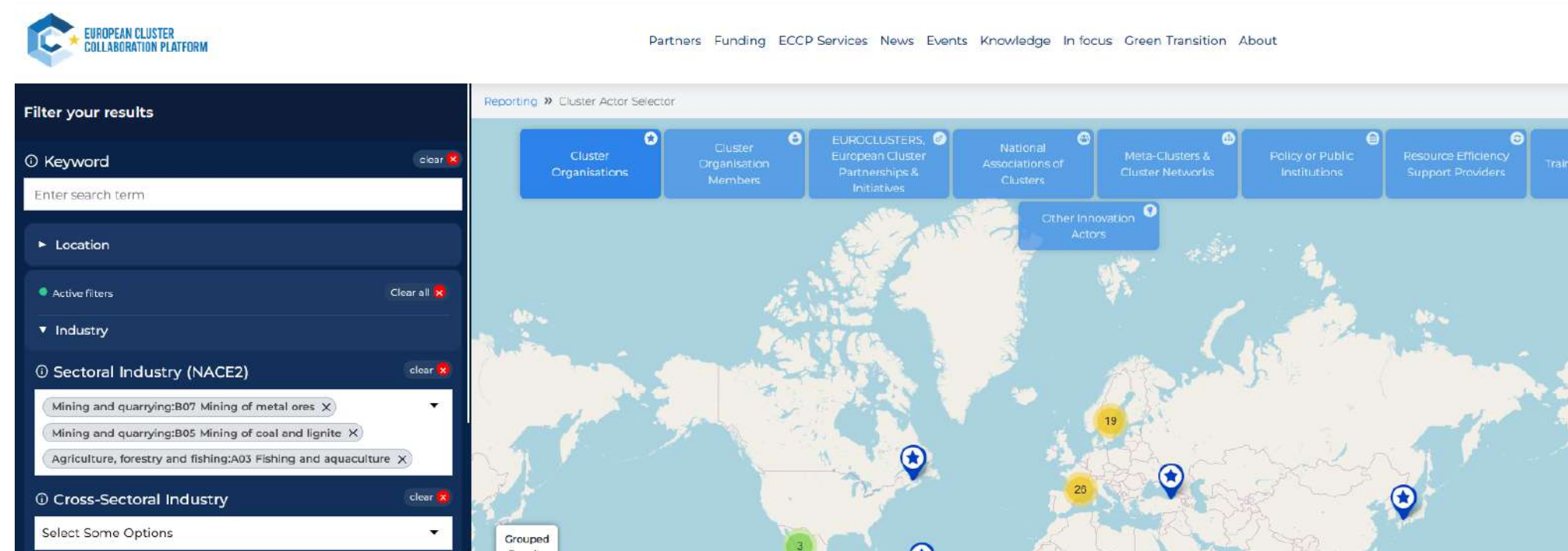
- **We know our members.**
- We know strategies and buzzword.
- **We strive to help our members as well as our region.**
- Among other services, we bring business and R&D opportunities to our members.
- **What tools do we have available?**



# Regional Map of the clusters, ECCP partners search etc.



<https://nca.cz/en/clusters-map-cr/>



### List of Clusters and Technology Platforms in the Czech Republic

#### Involvement of Clusters and Technological Platforms in the EU Industrial Ecosystems

**All** Tourism (0) Proximity and Social Economy (0) Retail (0) Construction (5) Digital (8) Health (8) Agriculture (0) Aerospace and Defence (6) Creative and cultural Industries (2)

#### Involvement of Clusters and Technology Platforms in Key Enable Technologies

**All** Výrobní technologie - Pokročilé výrobní technologie (10) Výrobní technologie - Pokročilé materiály (9) Výrobní technologie - Zpracování kovů (1) Digitální technologie - Fotonika (1) Digitální technologie - Umělá inteligence (6) Kybernetické technologie - Zabezpečení (1)

#### Established International Cooperation

**All** Bulharsko (1) Česko (2) Dánsko (1) Finsko (2) Francie (5) Itálie (5) Maďarsko (1) Německo (4) Polsko (1) Rakousko (1) Švédsko (1) Velká Británie (1)

| CIN      | Organization name                                       | No Members | Web                                                   |
|----------|---------------------------------------------------------|------------|-------------------------------------------------------|
| 3888321  | Agroklastr Vysočina z.s.                                | 0          | They don't have a website                             |
| 28795761 | AIM.klastr, družstvo                                    | 0          | They don't have a website                             |
| 26562898 | Asociace NGV z.s.                                       | 0          | <a href="http://www.ngv.cz">http://www.ngv.cz</a>     |
| 67362176 | Asociace obranného a bezpečnostního průmyslu ČR         | 5          | <a href="https://aob.cz">https://aob.cz</a>           |
| 10755713 | Asociace pro inovace v logistice, z.s.                  | 0          | <a href="https://apil.cz">https://apil.cz</a>         |
| 4968298  | Asociace pro komunikační nástroje a internet věcí, z.s. | 0          | <a href="https://www.knaw.cz">https://www.knaw.cz</a> |
| 67775403 | Asociace pro vodu v krajině České republiky, z.s.       | 0          | <a href="https://www.voda.cz">https://www.voda.cz</a> |
| 546151   | Asociace výzkumných organizací, z.s.                    | 0          | <a href="https://www.vzo.cz">https://www.vzo.cz</a>   |

<https://reporting.clustercollaboration.eu/>



# Detailed information about our members

| Technology profiles          |                                                                                                         | 9                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NÁZEV ORGANIZACE (člen COC): |                                                                                                         | NETWORK GROUP, s.r.o.                                                                                                                                                                                                                                                                                                                            |
| WEB:                         |                                                                                                         | <a href="http://www.nwg.cz">www.nwg.cz</a>                                                                                                                                                                                                                                                                                                       |
| Počet zaměstnanců v ČR       |                                                                                                         | 50                                                                                                                                                                                                                                                                                                                                               |
| SMEs                         |                                                                                                         | x                                                                                                                                                                                                                                                                                                                                                |
| Large Enterprises            |                                                                                                         |                                                                                                                                                                                                                                                                                                                                                  |
| Research Institutions        |                                                                                                         |                                                                                                                                                                                                                                                                                                                                                  |
| Působnost v<br>přích:        | Logo                                                                                                    | <a href="https://www.optickyklastr.cz/wp-content/uploads/2019/05/logo-nwg-optickyklastr-cz.png">https://www.optickyklastr.cz/wp-content/uploads/2019/05/logo-nwg-optickyklastr-cz.png</a>                                                                                                                                                        |
|                              | Industriální a spotřební optika                                                                         | x                                                                                                                                                                                                                                                                                                                                                |
|                              | Vojenská optika                                                                                         |                                                                                                                                                                                                                                                                                                                                                  |
|                              | Světelná technika                                                                                       |                                                                                                                                                                                                                                                                                                                                                  |
|                              | Laserové technologie a aplikace                                                                         | x                                                                                                                                                                                                                                                                                                                                                |
|                              | Elektronová a světelná mikroskopie                                                                      |                                                                                                                                                                                                                                                                                                                                                  |
| ZAMĚŘENÍ:                    | Hlavní (podnikatelské) činnosti:<br>Who we are: 95 znaků                                                | Development and production of FBG based sensors, interrogators and components of special fibre optic. Cabling systems and PCB assembling                                                                                                                                                                                                         |
|                              | Hlavní / nejčastější typy zákazníků:                                                                    | Owners of critical infrastructures, manufacturing companies, industrial companies, Research centres and Universities.                                                                                                                                                                                                                            |
|                              | Hlavní oblasti výroby/služeb:<br>Main areas of production/services: 250 znaků                           | Nuclear power plant monitoring. Bridge monitoring. Temperature measurement in silos. Advanced temperature measurement. Railway monitoring.                                                                                                                                                                                                       |
|                              | Hlavní oblasti výzkumu a vývoje:<br>Main areas of R&D: 400 znaků                                        | FBG sensors for advance industrial applications and Structure Health Monitoring, development of interrogation units, special sensors for nuclear powerplants, bridge monitoring systems, diffractive structures for sensor applications and development of optical resonance structures.                                                         |
|                              | Hlavní (příp. mezinárodní) konkurenční výhody (max. 3):<br>What we are the best at: 400 znaků           | Unique manufacturer of FBG structures and FBG based sensors in Czech Republic, development of low-cost interrogation units and following systems, independence from suppliers of key components for sensor systems. Own                                                                                                                          |
|                              | Specializované technologie a přístrojové vybavení:<br>Specialized technologies and equipment: 400 znaků | UV laser for FBG exposition; femtosecond laser; Special splicing system for manufacturing of unique optical components; hexapod position system, Hot-air stripper, Acrylate recoater; Polyimide recoater; Calibration baths; Thermo chambers; LTCC (low-temperature co-fired ceramic) workshop; dept. of PCB assembling, dept. of cable systems. |



**asphericon s.r.o.**  
[www.asphericon.cz](http://www.asphericon.cz)

**Who we are:**  
Design, manufacture and sale of precision optical elements and systems.

**Main areas of production/services:**  
Asphere, sphere, acylinders, reflectors, axicons, freeforms, optical systems, beam tuning. Services: Design and Manufacturing of optical systems and elements for UV, VIS, IR, CNC Grinding and Polishing, High-End Finishing, Diamond Turning, Coatings.

**Main areas of R&D:**  
R+D of machining processes for various materials, R+D of optical systems, R+D of evaporation and sputtering technology.



**What we are the best at:**  
1) High-End Finishing technology; ION-Finish accuracy "lambda"/600RMS for plano; Magnetorheological Finishing Tech. (MRF); asphericon Angstrom-Polishing (up to 60 nm PV). 2) Small and large series: spherical RMSi(0,10Fr/0,030µm),Rq<1nm, aspherical RMSi(0,30Fr/0,09µm),Rq<1,5nm. 3) Fully digitized processes and digital twin of lense.

**Specialized technologies and equipment:**  
Process Development Line: CNC optical machine center for grinding and polishing aspheres (Optotech), Interferometer (Mahr, Xonox), Non-contact 3D optical profilometer (LUPHOScan), Non-contact central thickness measurement (asphericon GmbH), White Light Interferometer (Mahr). Coating, ultrasonic cleaner.

**Specialized technology services:**  
Optical design (Analysis, Conception, Realization). High performance optical coatings: AR-Coating (ARES, ARDS, ARDD, ARBB, ARSBB), Dielectric mirrors (SHR/BBHR), Metallic mirrors (AGM, AUM, ALM, ALENHM), Filter layers (KPF, LPF), Beam Splitter (BS) Metrology. Optical Assembly. Optical characterization, Phasics™ SID4 – HR. Refinement (Edge Varnishing, Laser marking).

**Possible Joint R&D projects:**  
Precision imaging systems, medical applications, optical systems for R&D, evaporation, deposition and sputtering technologies.



**Possible Business cooperation:**  
Precise mechanical manufacturing. Testing of optomechanical systems and optical elements according to MIL. Business cooperation in the Czech Republic, Slovakia and Poland only.



But information are fragmented.

Members' professional profiles are becoming obsolete and hard to obtain.

Sharing information between clusters is difficult at the national level and even more difficult at the international level.



Google





# AI based Cluster Cooperation in the Danube Region - **DanubIA Clusters**



**How about testing the potential of artificial intelligence?**

# AI based Cluster Cooperation in the Danube Region - **DanubIA Clusters**



Automatically update information about cluster members from publicly available data using AI. Cluster manager will be able to edit the prepared information.

AI algorithm finds opportunities in the supply and demand chain / value chain.

Cluster managers will be automatically contacted with opportunities for their members.

Cluster managers of two cluster organizations know their members, verify the offered opportunity and simply connect their members.



# AI based Cluster Cooperation in the Danube Region - **DanubIA Clusters**



We using relevant data prepared automatically and checked manually.

We can rely on the expertise of cluster managers to assess the collaborative proposal.

Compared to a Google search, we are working with verified data, taking advantage of the trust that managers have built among their members.

If funded, the project will be piloted in 5 countries in 2025 - 2027.

Jiri Herinek  
president

E-mail: [herinek@nca.cz](mailto:herinek@nca.cz)  
Tel.: +420 724 315 041



## **NATIONAL CLUSTER ASSOCIATION**

Business centrum VŠB-TUO  
Studentska 6202/17  
708 00 Ostrava-Poruba  
Czech Republic

Tel.: +420 555 333 286  
Email: [info@nca.cz](mailto:info@nca.cz)  
Web: [www.nca.cz](http://www.nca.cz)





Co-funded by  
the European Union



# The European **Digital Innovation Hub** in Transilvania



Co-funded by  
the European Union



# Content

- I. The European Digital Innovation Hub in Transilvania
- II. TEDIHT Study Cases
- III. Contact





The European Digital Innovation Hub in Transilvania (TEDIHT) is the **One-Stop-Shop** for digital transformation for SMEs in the **North-West region of Romania.**

---

## OBJECTIVE

TEDIHT aims to provide a comprehensive set of innovation and digital transformation services across all businesses as well as the public sector through a cross-sectoral approach.



## CONSORTIUM

TEDIHT is a regional consortium consisting of **13 organizations** - **5 partners** and **8 associate partners** - created in 2017 by the main innovation players in the North-West region of Romania.





# PARTNERS

---



UNIVERSITATEA  
BABEŞ-BOLYAI



transilvaniadih.ro | @edihtransilvania



## Concrete Results

- Over 40 companies and public institutions are already benefiting from TEDIHT services.
- We provide support for digitalization and innovation in various fields: **production, healthcare, energy, creative industries** and **furniture**.



## The 3<sup>rd</sup> Call is Open!

- The 3<sup>rd</sup> Call is open until February 2025, offering digital transformation services worth up to €120,000 for new beneficiaries.
- We are collaborating with SMEs and public institutions to accelerate digital transformation.





# BEST PRACTICE EXAMPLE

TEDIHT has been highlighted as a best practice example in the recommendation report published by the **European Cluster Expert Group** within the European Commission for its strong partnership within the DIH and its cross-sectoral approach.



TEDIHT is part of the European Network of Digital Innovation Hubs (EDIH). It has secured funding from the Digital Europe program and the Romanian government through POCIDIF.



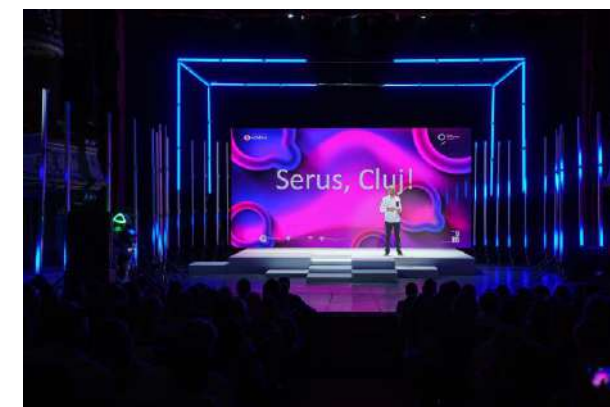
The first operational DIH in Romania, recognized in 2019 as a "Fully Operational DIH" by the European Commission's Joint Research Centre (JRC).



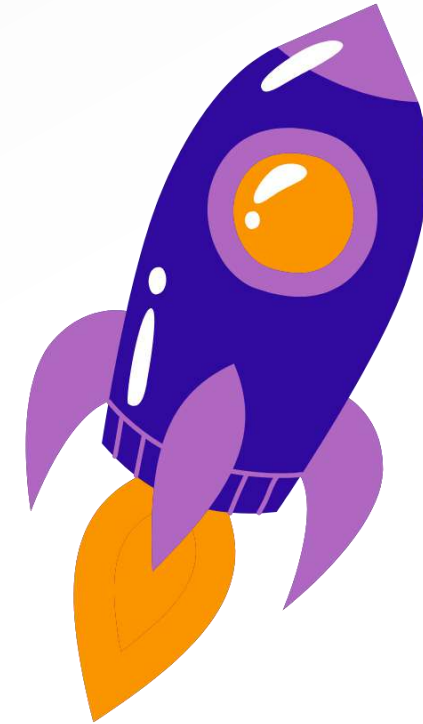
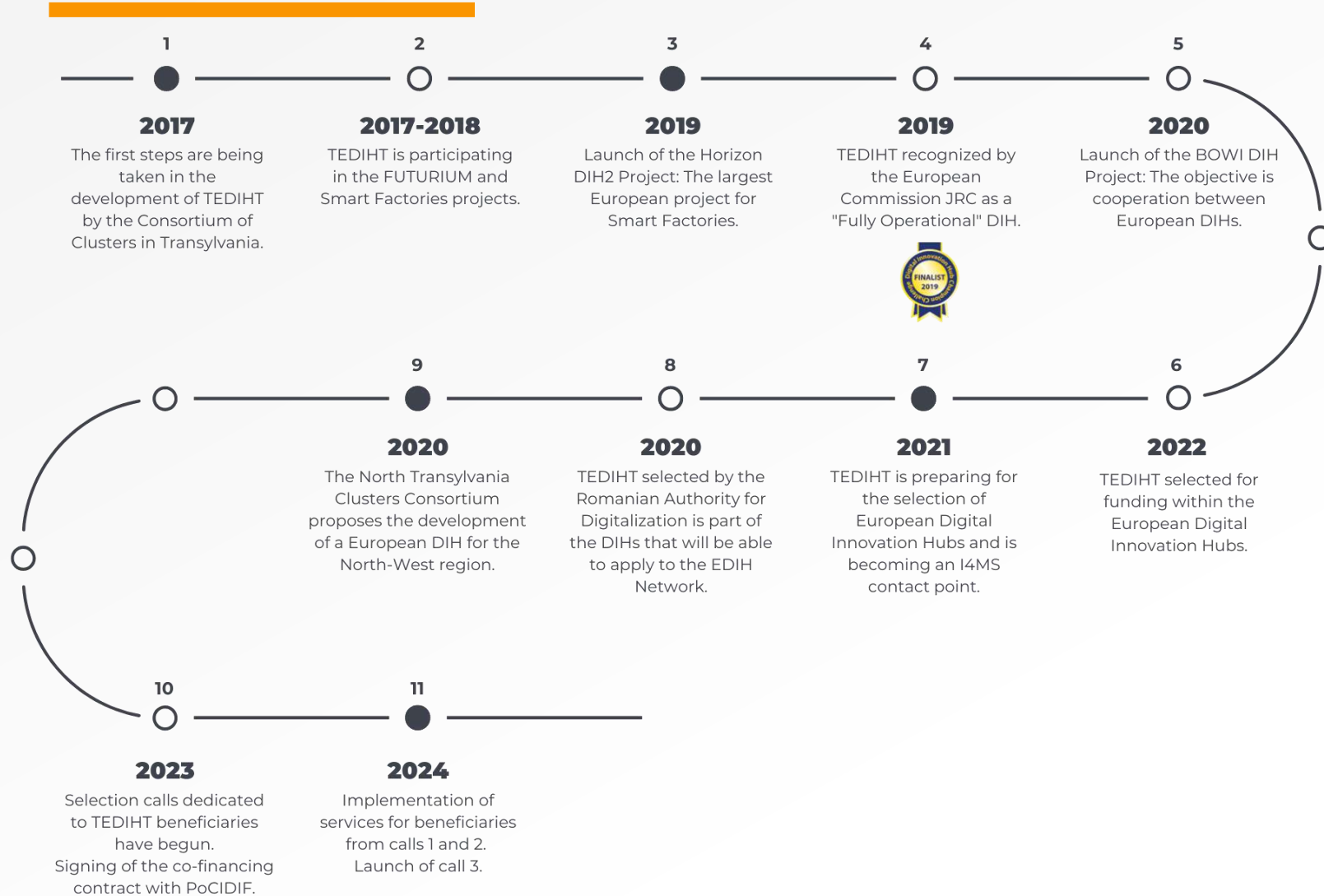
Finalist DIH at the Digital Innovation Hub Champion Challenge 2019 in Madrid. TEDIHT was selected in 2022 for entry into the EDIH network by DG Connect.



TEDIHT is the coordinator of the national network of Romanian DIHs on the DIHNET.EU platform and the initiator of the representative association of DIHs in Romania, RODIH.



# TIMELINE





# SERVICES PROVIDED BY **TEDIHT**

---

**TEST BEFORE INVEST**

**NETWORKING & ECOSYSTEM  
BUILDING**

**SKILLS AND TRAINING**

**SUPPORT TO FIND  
INVESTMENT**

- Access to national and international events
- Support in identifying funding sources
- Training and development courses for company employees
- Free services worth up to 120,000 euros



# CO-FUNDING

The national co-financing contract for the project was signed on November 23, 2023.

The European Digital Innovation Hub in Transilvania is:

the first project submitted in the national call

the first project approved and invited to start the contracting procedure

the first project contracted with no. 1\_EDIH/23.11.2023



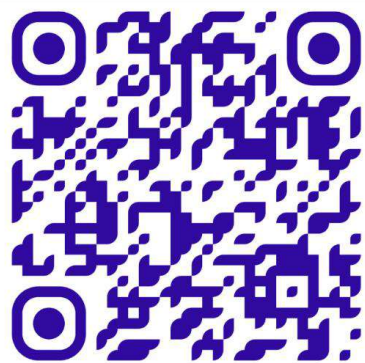


## Open calls for services beneficiaries

---

40 contracts signed in the first  
open calls

**3rd OPEN CALL IS  
OPEN NOW**



# The promotion events for the project and services

## Launch Event

Digitalization Exploratorium. Innovative Validation Hackathon – November 24, 2022, Cluj-Napoca



## Digital Talks

6 Digital Talk Events – Cluj-Napoca, Oradea & Baia Mare





# The promotion events for the project and services

---

## Onboarding events

- Digital Mastery Bootcamp
- Onboarding Bootcamp for the 2nd call



## International Events

IQ DIGITAL SUMMIT CLUJ, brought to Cluj-Napoca by the Transilvania Digital Innovation Hub - June 14, 2023, Romanian National Opera.

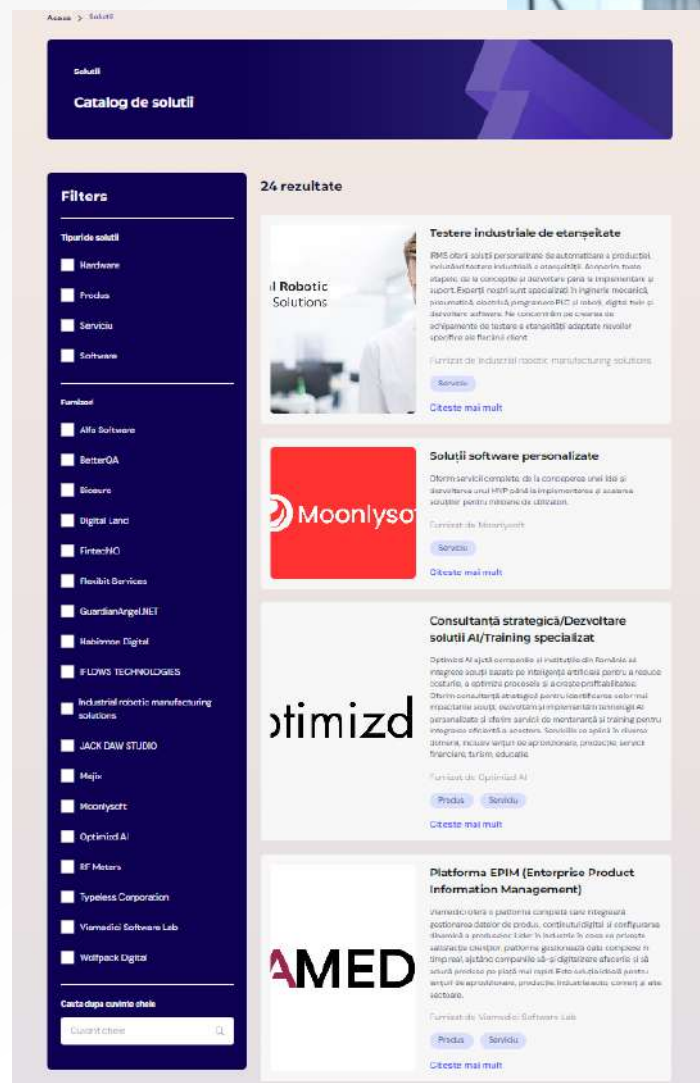
IQ DIGITAL SUMMIT ORADEA, brought to Oradea by TEDIHT – October, 3rd 2024



# Solutions Catalog for Digital Transformation

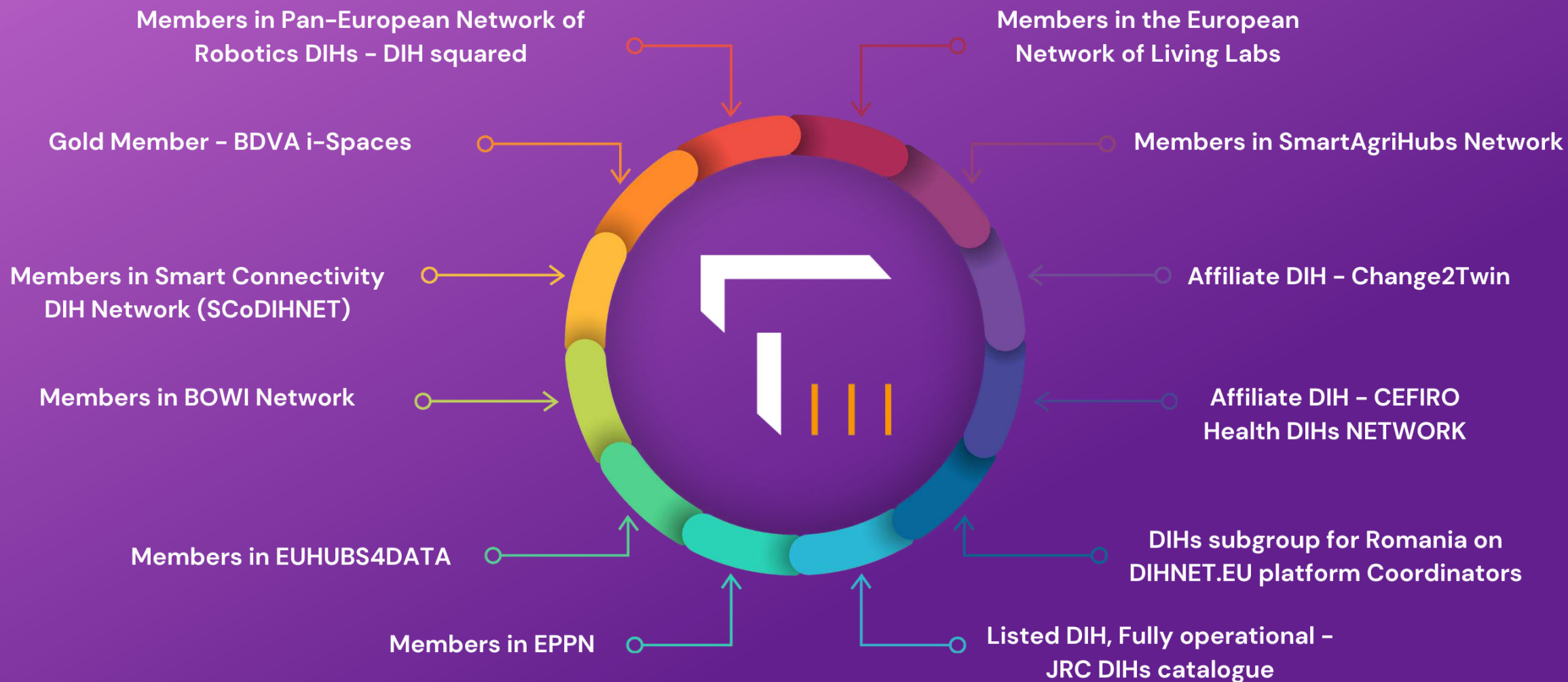
The Digital Transformation Solutions Catalog by TEDIHT is now available for all beneficiaries interested in digitalization.

This catalog provides a clear overview of the existing solutions on the market and helps users easily understand their applicability.





# Networks



## STUDY CASES

Medena Clinic, PSC Automation and CargoTrack.





# Study Case:

## Medena Clinic

### Oradea, Romania

*What services did Medena receive from TEDIHT:*

Networking and access to events in the regional innovation ecosystem



Matchmaking and brokerage between beneficiaries and providers of digitization and innovation solutions



Digital audit



Mentorship and access to the expertise of business or technical experts



Training or mentorship on basic or advanced digital skills

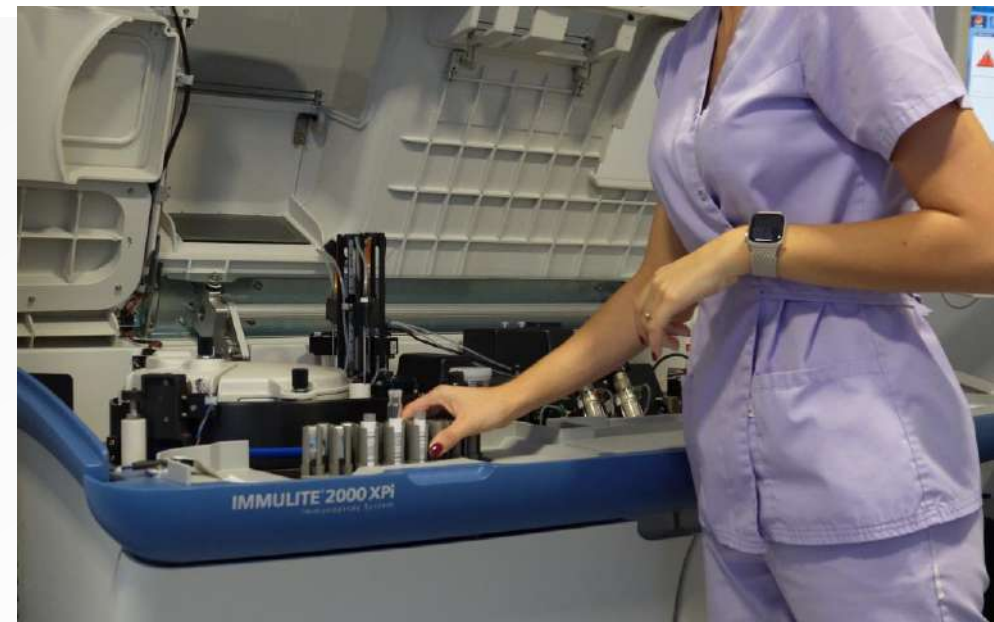


Business mentorship



# How **TEDIHT** supported **Medena Clinic** in their digitalization process:

- **Objective:** Medena aimed to automate and digitalize its internal processes.
- **Impact:** The clinic's staff proposed innovative solutions, which were later integrated into research and development (R&D) projects.
- **Benefits:** Streamlined processes, enabling the medical staff to focus more on patient care; Improved patient experience through the adoption of digital tools.



Training Provided

Digital Audit

Business Mentorship

Matchmaking &  
Expertise

Future Projects  
for the clinic





# Study Case:

## CargoTrack

### Oradea, Romania

*What services did  
CargoTrack receive from  
TEDIHT:*

Technical expertise and  
resources for solution  
expansion and  
optimization



Training sessions on  
relevant technologies  
and methodologies



Mentoring to  
support project  
development



Access to  
advanced  
technological  
infrastructures



Support in developing  
and implementing AI  
solutions



Assistance in  
accelerating  
digitalization and  
innovation  
processes



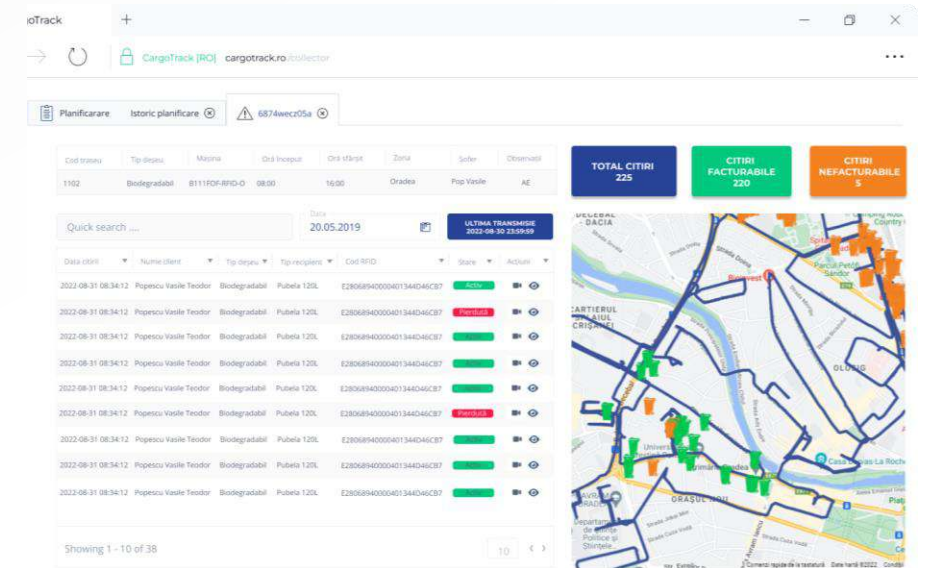
# How **TEDIHT** supported **CARGOTRACK** in their digitalization process:

## Benefits of Digital Transformation in the Waste Management Industry

**Improved Operational Efficiency:** The integration of modern technologies allows for optimized collection routes and reduced operational costs.

**Sustainability and Environmental Protection:** The use of AI algorithms optimizes waste management and minimizes environmental impact, contributing to environmental protection and sustainable development goals.

**Transparency and Accountability:** The principle of "pay for what you throw away" and the integration of AI ensure increased transparency in the waste collection and management process, facilitating real-time monitoring and reporting of activities.





# Study Case:

## PSC Automation Cluj-Napoca, Romania

*What services did PSC Automation receive from TEDIHT:*

Networking services and access to events within the regional innovation ecosystem



Matchmaking and brokerage between beneficiaries and digitalization and innovation solution providers



Digital audit & training/mentoring on digital skills (basic and/or advanced).



Mentorship and access to business and/or technical expert knowledge



Access to experts, equipment, and digital technologies for prototyping, validation, and access to research laboratories.



Business mentoring and investments.

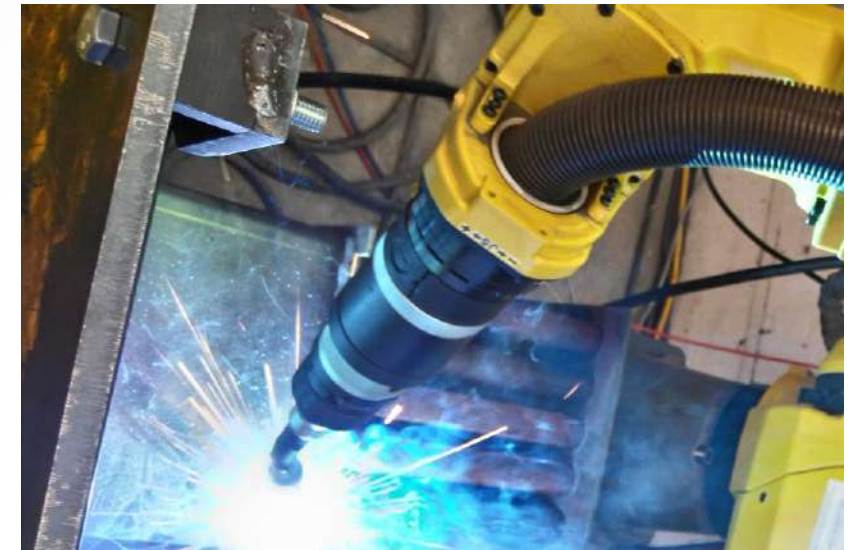


# How **TEDIHT** supported **PSC AUTOMATION** in their digitalization process:

- **Objective:** Optimization of processes and preparation for the technological future.
- **Benefits:** Since the partnership is still in its early stages, the company has received information for the automation concept and is set to launch a state-funded project with the support of TEDIHT.
- **Final impact:** The automation solutions will bring significant changes in operational efficiency and cost reduction.

**Competitive Advantages:** The services provided by TEDIHT help the company define new competitive advantages as it aims to become a major player in Industry 4.0 by supplying robots capable of taking on complex tasks.

**Future Support from TEDIHT:** PSC Automation will receive mentoring services from TEDIHT in business development and assistance in identifying new funding sources aligned with the company's profile and growth ambitions.







## **Bianca Muntean**

Honorary Consul of Estonia in Romania,  
Transilvania IT Cluster Manager &  
The European Digital Innovation Hub in  
Transilvania Coordinator

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Cluj-Napoca, Cluj







Co-funded by  
the European Union



THE EUROPEAN  
**DIGITAL INNOVATION HUB**  
IN TRANSILVANIA



*Transilvania Digital Innovation Hub (Cod proiect 101083508 TDIH, DIGITAL-2021-EDIH-01) Proiect co-finanțat de către Comisia Europeană în cadrul Programului Europa Digitală Proiect co-finanțat prin Programul Creștere Inteligentă, Digitalizare și Instrumente Financiare 2021-2027, Cod SMIS 161789*



**Digital Innovation Hub  
of Moldova**



**Association for the Development  
of Electronic Communications and  
Innovative Technologies**

**Ion BODRUG**

**President of ACETI & DIH of Moldova**



**Future Technologies Activity**  
f Innovate Moldova



# Digital Innovation Hub of Moldova



## Association for the Development of Electronic Communications and Innovative Technologies

- ACETI was launched in 2019
- ACETI brings together 24 IT companies
  - Programming
  - Electronic communication
  - Hardware solutions
  - Sale of licensed software
  - Development of IT solutions
  - Graphic design development
  - IT education /reskilling/upskilling
  - Smart solutions (houses, buildings) .
- 2021 – Study on the state of the labor force in the field of IT and engineering in the northern part of the Republic of Moldova.

- 2021 – Creation in collaboration with the "Alecu Russo" State University from Balti of a new specialty in Information Technology .
- **ACETI** was created on December 21, 2021 by partnership agreement through participation together with a group of regional , national IT companies and international - **Digital Innovation Hub of Moldova**

Areas of expertise:

- **Digitization and retechnology of SMEs**
- **AgroTech**
- **HealthTech**
- **EnergyTech**
- 2024 – Study "Consultancy services needed on improving the digital processes of SMEs and improving the digital skills of employees ".



## Future Technologies Activity



# Digital Innovation Hub of Moldova



Association for the Development  
of Electronic Communications and  
Innovative Technologies



**Future Technologies Activity**  
f Innovate Moldova

- ACETI at public consultations during elaboration of Digital Transformation Strategy of the Republic of Moldova for years 2023-2030 proposed, which what was included in variant final, the fact that *European Digital Innovation Hub represents mechanisms that “can contribute and them when accelerating transformation digital economy national ”.*
- *DIH of Moldova through its activities contribute to the achievement Transformation Strategy Digital of the Republic of Moldova for the years 2023-2030, which assumes that Republic of Moldova „will become a digital society innovative and inclusive with digital skills, with an infrastructure digitally advanced, a pro-digital government and a business community that makes the most of the digital opportunities”.*



- 15 companies were surveyed with reference to the digital maturity assessment.
- Recommendations were proposed for the digitization and retechnology of processes within 7 companies.
- 9 companies were assisted to apply for funding to ensure digital transformation.
- 6 companies obtained financing for the implementation of digital transformation and retechnology solutions.
- 6 companies have initiated the implementation of digital transformation and retechnology .

*Total amount of co-financing for 6 companies  
with the support of ACETI, within the DIH of Moldova  
through the grants of the Organization for the Development of Entrepreneurship*

# **6 175 806 MDL**

- **SA Codru Nord (40 employees) - Agro Solution** - *agricultural drone, agricultural land processing (80 hectares).*
- **SRL Cuptorul Fermecat (170 employees) - IT solution** - *an automated enterprise management system.*
- **SRL Ighivan-Metal (20 employees) – Energy Efficiency Solution and Refurbishment** - *high-performance photovoltaic system, but also a steel profile bending machine and cutting machine fibers.*
- **SRL Igan Grup (40 employees) – Re-engineering solution** – *a high-performance walnut pre-coating line (walnut orchard 160 ha).*
- **SRL Liada-Nord (65 employees) - Retechnology solution** - *production line the sauces*
- **Aluminum SRL Group (8 employees) - Retechnology Solution** – *line of production advanced thermal insulation (with elements of innovation).*
- **SA RED Nord (1500 employees) – (IT audit, cyber security, digital maturity assessment)** - *assistance in digital transformation.*





# Digital Innovation Hub of Moldova



## Association for the Development of Electronic Communications and Innovative Technologies



MD-3100, Republica Moldova,  
Bălți, Str. Ștefan cel Mare 76/a



- Servicii de elaborare studii și analize
- Servicii de consultanță în IT
- Servicii de audit în IT
- Distribuția și furnizarea soluțiilor IT
- Activități de realizare a soft-ului la comandă
- Prelucrarea datelor, administrarea paginilor web și activități conexe
- Servicii de elaborarea proiectelor și planurilor de afaceri
- Servicii de marketing
- Servicii în medicina muncii
- Servicii de publicitate online cu impact social
- Servicii de elaborare a produselor multimedia
- Servicii de educație media
- Servicii de consultanță în domeniul cybersecurity

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## Future Technologies Activity

Innovate Moldova



## **EEN-EDIH -Horizon Europe cluster based approach: Integrated services for organizations through multi projects client journey**

Study case support for food and agroecology SMEs, clusters and organizations

Associated prof. dr Costin Lianu – President of Inter-Bio Association and Wallachia Cluster Consortium

Prof. Dr. Irina Gabriela Radulescu, Manager Danube Engineering Hub

Dr. Cosmin Lianu, EDIH and EEN expert, manager Dual Use Cluster

# INTER-BIO Association and a clusters consortia enabler

- <https://inter-bio.ro/en/home/>
- [office@inter-bio.ro](mailto:office@inter-bio.ro)

## Inter-Bio

Inter-Bio is an interprofessional organization for organic agro-food products, which promotes, representing, protecting and facilitating the common interests of the founding members and other members of the organization in relations with the central administration bodies and with other domestic or international associations or federations.

The organization aims to undertake a series of activities including: supporting and promoting the value chain manufacturers, processors and traders; representate members interests in order to increase economic competitiveness and to create new skills; supporting members to do export and with internationalization; professional training of the members; participation in national and European networks; increasing the research, innovation and development potential of industry members; integration of organic farming into the other branches of the bio-economy; raising public and consumer awareness of the benefits of organic farming







# INTER-BIO CLUSTER CONSORTIUM

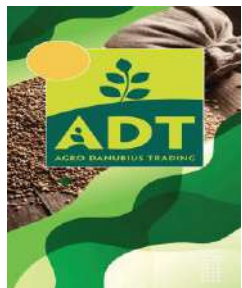
► **INTER-BIO Consortium** was established on 31.07.2020, at the Bârnova City Hall, where the collaboration agreement of the clusters specialized in the field of organic agriculture was signed. The consortium is coordinated by the INTER-BIO Association.

► The family of clusters that make up the consortium consists of: Bio Danubius, a cluster created in 2014, whose members are producers of organic cereals from the Danube Delta; Bio Concept Prahova Valley, created in 2017, cluster of producers of organic products from the Prahova Valley area; BioNEst cluster from Moldova and Bio Oltenia, a cluster of producers from the southwestern part of the country. The presidents of the clusters agreed to develop a national cooperation for the promotion and development of organic agriculture in which Romania has a high potential.

- **THE MISSION** of the consortium is to capitalize Romania's ecological advantages and develop the competitiveness and sustainability of the organic sector at national and international level by encouraging cluster collaboration, associations and cooperatives, by strengthening relations between regions in the field.
- **THE PURPOSE** of the consortium is to develop and promote a common, collaborative concept of member development, through activities to stimulate entrepreneurship, encourage cooperation between different economic actors, in order to increase their competitiveness and productivity. INTER-BIO Cluster Consortium will be an active factor, together with INTER-BIO Association in the organization of product chains and intelligent specialization based on organic products.



# Partners



## Consortiul de cluster INTER-BIO



# MEMBERSHIP AND PARTNERSHIPS

- IFOAM
- IFOAM- EU
- TP Organics
- agROBOfood Network
- Smart Agri-Hubs
- National Council for Digital Transformation (CNTD), within the Authority for Digitization of Romania (ADR)
- The Advisory Board of the EU Strategy for the Danube Region (EUSDR)
- Technology Transfer Center - PRO TRANSFER
- Business Center for Export – CAE
- WALLACHIA HUB digital transformation consortium for the South Muntenia region
- WALLACHIA eHUB digital innovation center







## *Members and affiliates*

► **BIOTERRA Association** has over 3000 members, considerable experience and a solid network of collaborators. The Association represents an important voice of the Romanian farmers, and supports members, collaborators and actors eager to embrace organic farming.

► **BIO DANUBIUS** is a cluster from the South East Region concerned with increasing the innovation potential of the organic farming sector, through research and increasing the competitiveness of member enterprises.

► **Spiru Haret University** is a private educational institution in Romania, with a tradition of 29 years, which provides students with a variety of educational programs and opportunities for personal and professional development.

► **USH Pro Business Center** is an entrepreneurial center, is the structure linked to Spiru Haret University that is specialized in activities dedicated to the entrepreneurial environment such as: research, development, innovation; entrepreneurial development; business education; innovation and technology transfer; establishment and development of innovative clusters; internationalization; establishment and development of start-ups.

Adhering Members:



## International Partnerships



Inter-Bio is part of WallachiaeHub community It's mission is to become the digital transformation gateway in the region of South Muntenia and Bucharest-Ilfov, Romania, by providing twin transition services and solutions to both the private sector (start-ups, SMEs, mid-caps) and the public sector. <https://european-digital-innovation-hubs.ec.europa.eu/edih-catalogue/weh>



## European Project

**PROSME** The European Enterprise Europe Network,, continues and expands its activity during the period 2022-2025, through the project “**Promoting SMEs through Enterprise Europe Network**” (**PROSME**. <http://een-romania.ro/en/prosme/>





## **OrganicTargets4EU**

The overall objective of OrganicTargets4EU project is to support the achievement of organic sector targets in the EU Farm to fork strategy. Based on an assessment of key drivers and lock-ins affecting the development of the organic sector, the project sets-up a multi-actor process to create possible scenarios for reaching the targets.

<https://organictargets.eu/>



## **Agroecology-TRANSECT**

Agroecology-TRANSECT aims to contribute to releasing the full potential of agroecology for European agriculture by strengthening the knowledge base for farmers and advisors and supporting decision makers..

<https://www.agroecology-transect.net/>



### **OrganicClimateNET**

The overall aim of OrganicClimateNET is to establish a pilot network of 250 organic farms to adapt, test, improve and implement climate and carbon farming practices. <https://organicclimatenet.eu/>



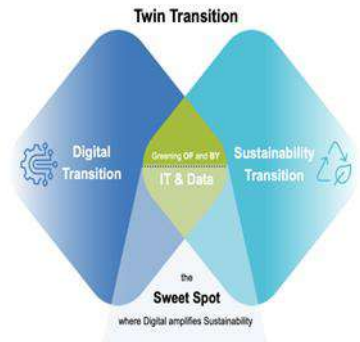
### **OrganicAdviceNetwork**

The overall objective of the project is to co-create an EU-wide network of 1000 organic advisors that will exchange knowledge and provide mutual support, covering all 27 EU Member States and 7 other European countries. The network will cover both plant production and animal husbandry.

<https://www.organicseurope.bio/news/organicadvicenetwork-project-the-first-europe-wide-network-for-organic-advisors-starting-soon/>

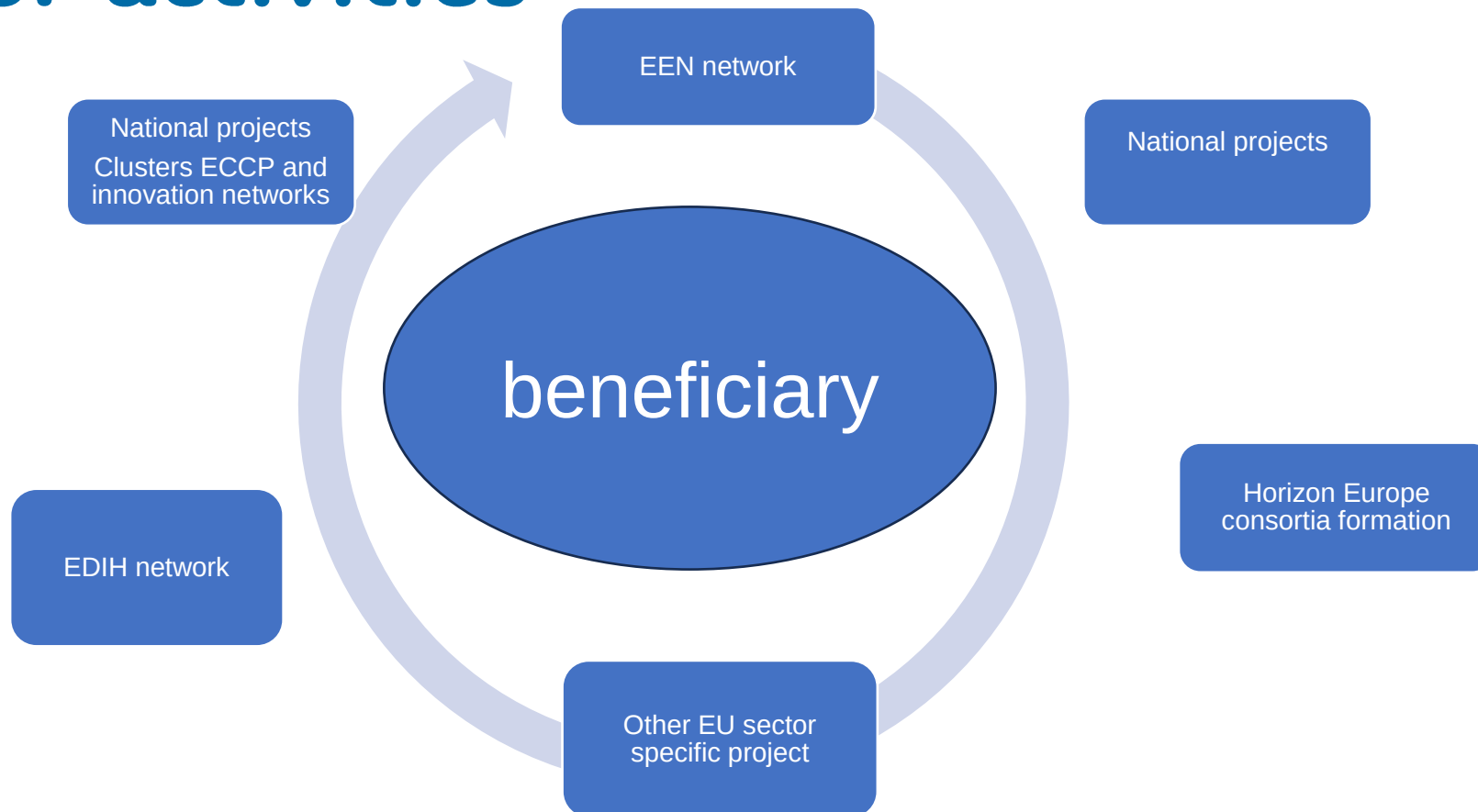
# EEN-EDIH-ECCP-<sub>for digital transformation</sub> Hirozon synergies

**WE HUB**





# How multi project approach may work in a circle of activities



# Inter-Bio clients in agri-business



Organic certified companies



Agro-ecology business models



Eco-tourism businesses



Different positions on the value chain (producers, processors, inputs suppliers, retailers, traders, consultants)



High technology suppliers sector specific (bio technology, environment, energy, IT&C etc)



Covering various fields and sectors etc

# Client journey multiprojects sinergies

EEN /EDIH core services

Digital transformation  
journey based on digital  
maturity assessments and  
test before invest plus  
other digital technology  
services through WEH

Access to sector specific  
network of consultants for  
communities of practice  
and use cases

Access to applied  
research communities to  
boost innovation

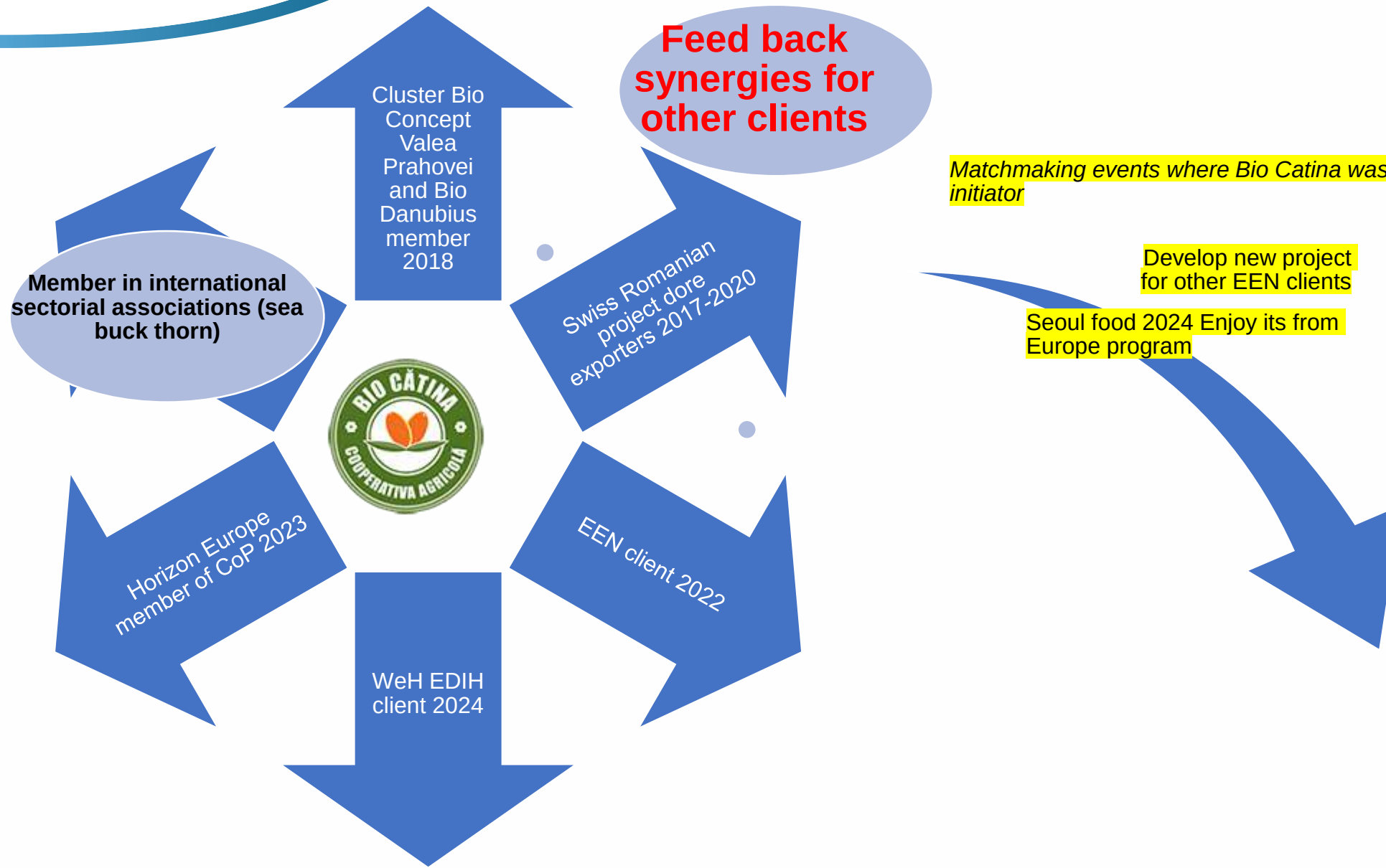
Access to specific  
research infrastructures



## *How it works in Inter-Bio case for agri food business, a multifaceted client journey*



# Synergies “Bio Catina” client



# Challenges

- Diversity of business models and sector business profiles
- Lack of resources and time consuming
- Overlapping
- Lack of capacity and knowledge to network
- Results are not recognized by the clients as fast as we think





#EENCanHelp

# Thank you

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[een.ec.europa.eu](https://een.ec.europa.eu)



# The Cluster Cooperation Quest

Team brainstorming

# Introduction

Participants will embark on a cooperative quest where their mission is to help build the future AI-powered cluster cooperation platform. Through a series of challenges, participants will contribute ideas, insights, and experiences to shape the functionalities and priorities of the platform.

Within each team, assign roles like spokesperson, strategist, and scribe to encourage participation.

Participants will go through four “Cooperation Challenges.” For each challenge, they will be given a series of questions and will need to discuss and present their answers or responses. Points will be awarded based on creativity, insight, and engagement.



# Challenge 1: The Great Cooperation Debate

1. What is the most significant challenge you face in collaborating with other clusters?
2. How often do you engage with international clusters, and what drives this engagement?
3. What support tools would improve your cooperation efforts?

# Challenge 2: The Platform Builders

1. Do you agree that AI-driven data analytics can help cluster organizations to identify emerging trends and opportunities/challengers in their industries much faster than traditional methods?
2. How often do you use different generative AI-tools (ChatGPT, Claude, Bard etc) in your day-to-day cluster's activity and how useful this experience was for the cluster members?
3. What features would your digital cooperation platform absolutely need?
4. What challenges have you encountered with current digital platforms?
5. Which tool would be most critical for enhancing cross-border cooperation?

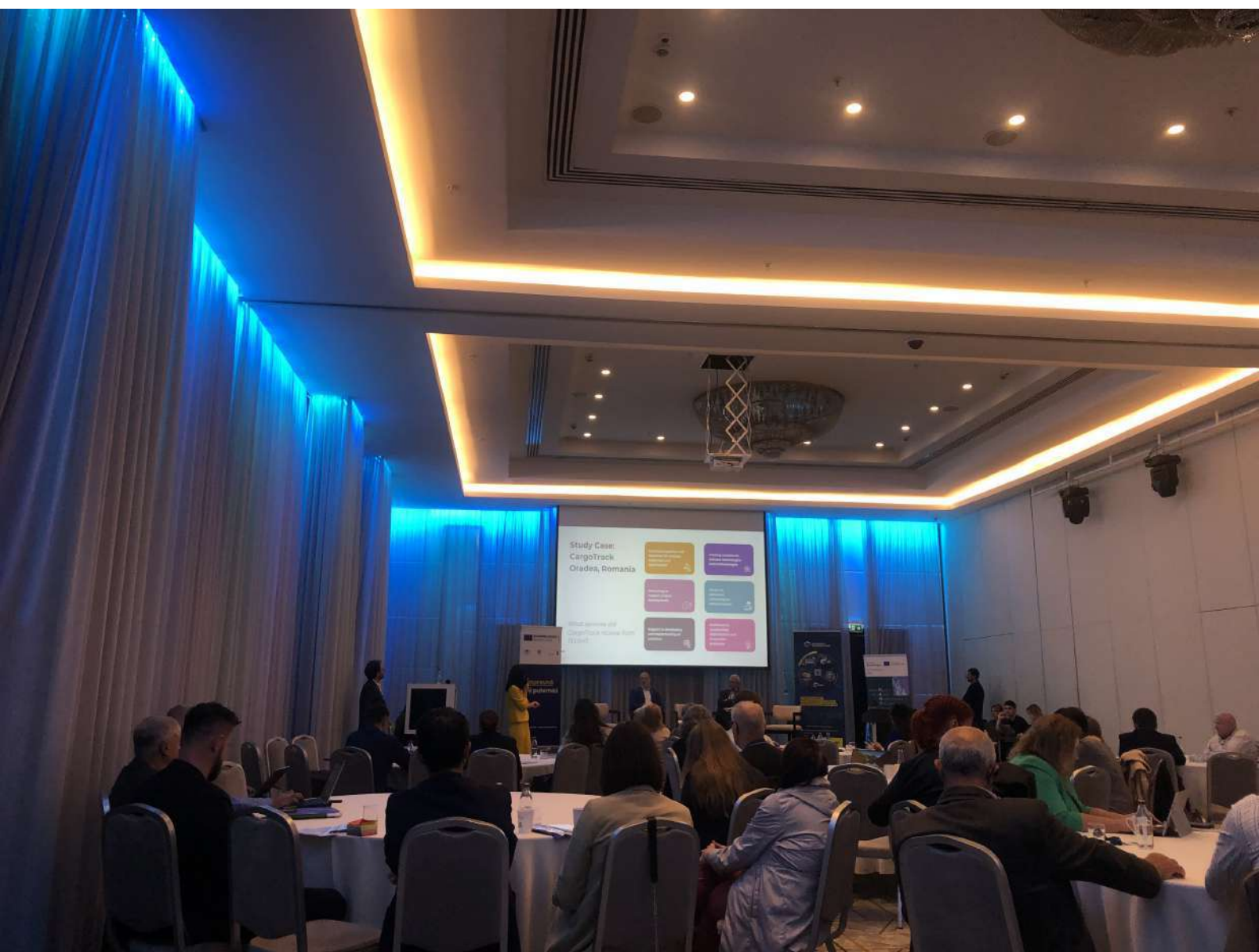
# Challenge 3: The AI Power-up and The Future Vision

1. How can AI help clusters find the perfect partners?
2. What AI functionalities would make managing a large-scale cooperation project easier?
3. What challenges do you think AI might introduce, and how can we overcome them?
4. What is the greatest unmet need in current cluster cooperation?
5. Which regions or clusters would you like to cooperate with, and why hasn't it happened yet?
6. What does the future of international cluster cooperation look like to you?















### Challenge 1: The Great Cooperation Debate

- What is the core challenge? Challenge you face in understanding with other countries?
- How often do you engage with international partners, and what drives this engagement?
- What support does your organisation need to improve efforts?





### Challenge 1: The Great Cooperation Debate

- What is the most significant challenge to OpenCooperation and other initiatives?
- How often do you engage with non-cooperative cultures, and what kind of engagement?
- What support do you think is needed for wider dissemination?



