



ClusterFY

Interreg Europe



European Union
European Regional
Development Fund

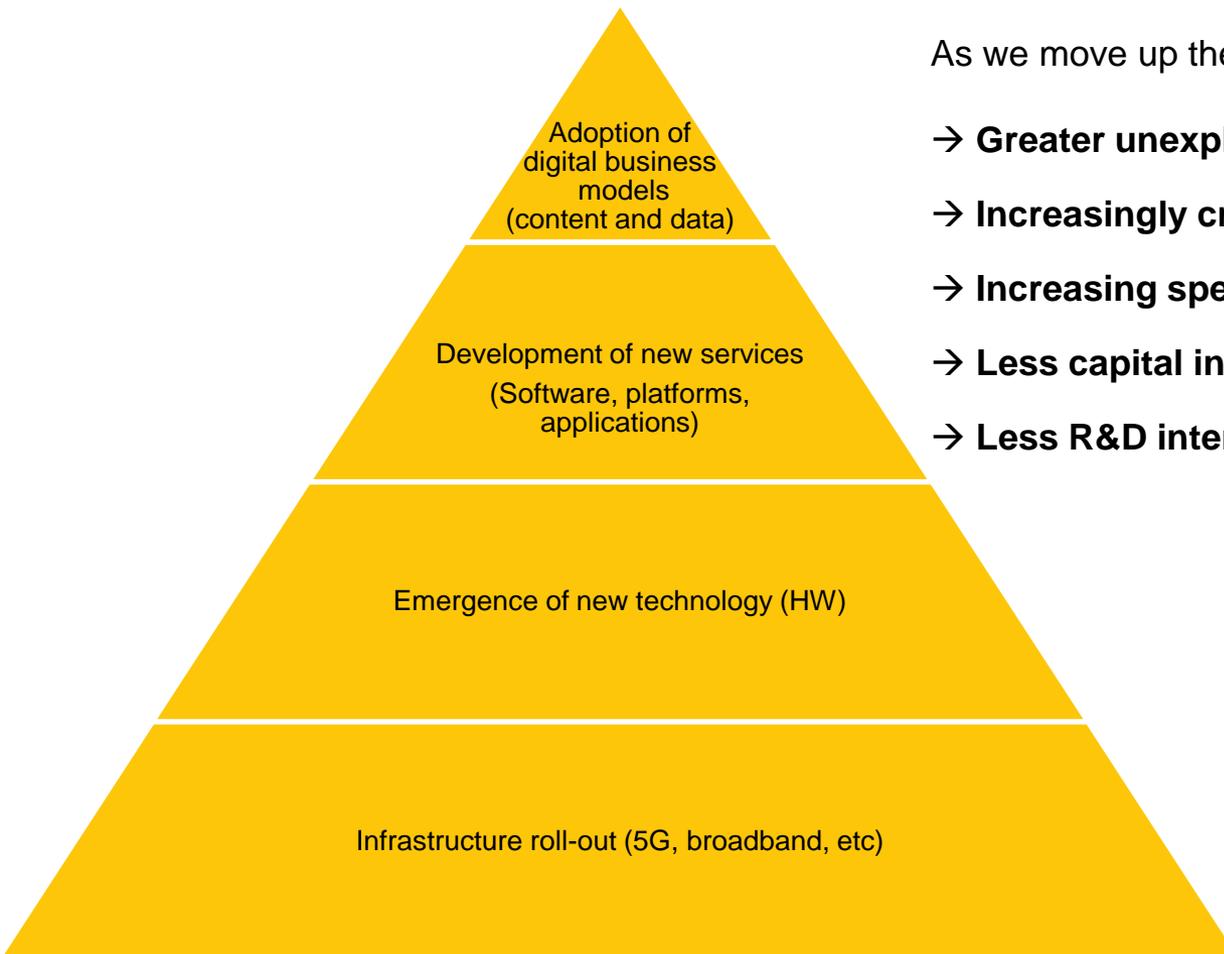
The role of clusters in the digital transformation and the relation between clusters and EDIHs

Artur Bobovnický, PhD.
Slovak Innovation and Energy Agency – SIEA

Are we ready? (for)

DIGITAL TRANSFORMATION

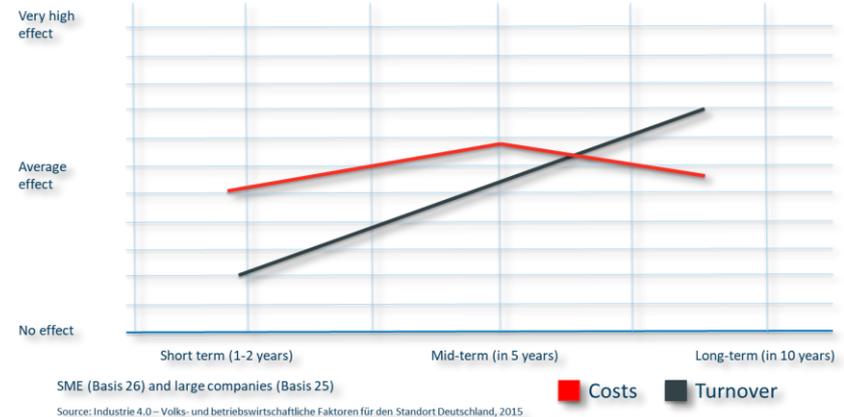
Four levels to the digital transition



As we move up the pyramid:

- **Greater unexploited (economic and social) potential**
- **Increasingly cross-sectoral**
- **Increasing speed of change**
- **Less capital intensive**
- **Less R&D intensive, less focused on technology**

How SMEs perceive digital transformation (barriers)



To make the digital transition a success, there is a need for

New networks/alliances

- Across value chains
- Across sectors
- Across geographies / regions

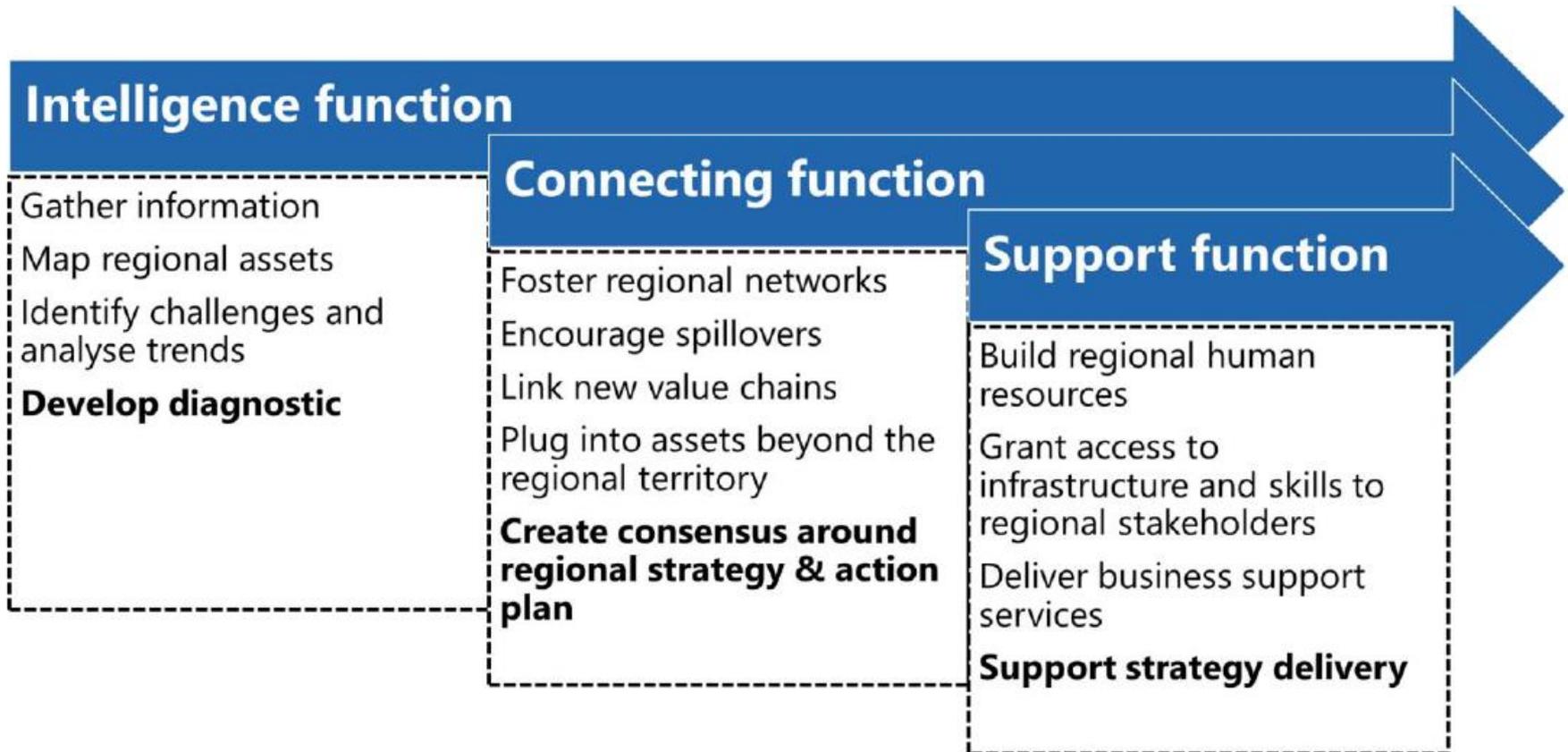
Flexible support to increase ability to adapt to market developments (resilience)

- Entrepreneurship
- Business model innovation
- (access to) finance is less important at the top of the pyramid

Emphasis on education and skills especially when it comes to adoption of new business models

CLUSTERS AND DIGITAL TRANSFORMATION

Clusters can support this through their



ECEG Recommendation Report

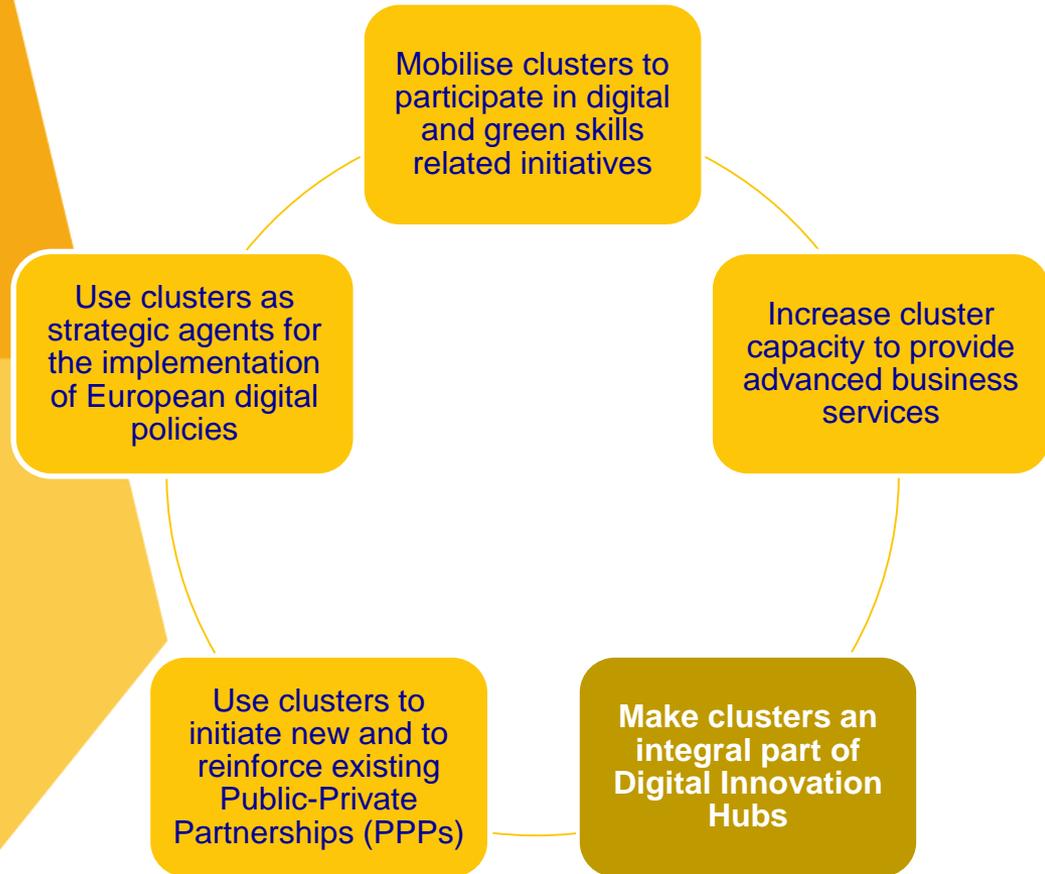
The Expert Group has developed its Recommendation Report during 2019-2020 through the iterative process. The Expert Group held five meetings: 18 October 2019, 06 February 2020, 26 June 2020, 13 October 2020, and 15 December 2020

- An Expert Sub-group on Clusters and Skills was established and held four meetings: 24 January 2020, 24 April 2020, 16 June 2020, and 08 October 2020
- Six drafting groups were established, and each produced a paper on a specific issue relevant to cluster policy.
- Two input papers were delivered by an external consultant: 1) the role of clusters in supply chain adjustment, 2) supporting skills for industry through clusters.
- Three working webinars discussed the role of clusters in facilitating the **digital transition** (14 September 2020), the **green transition** (18 December 2020) and the strengthening of **resilience** (23 September 2020).

https://clustercollaboration.eu/sites/default/files/news_attachment/European%20Expert%20Group%20on%20Clusters%20-%20Recommendation%20Report.pdf

- Renewed mandate until 31 December 2022 to provide recommendations, advice, and expertise to the European Commission on how to better use clusters as a strategic tool of industrial policy, interregional collaboration and for integrating SMEs into European and global value chains

Accelerate the digital transition



Make clusters an integral part of Digital Innovation Hubs

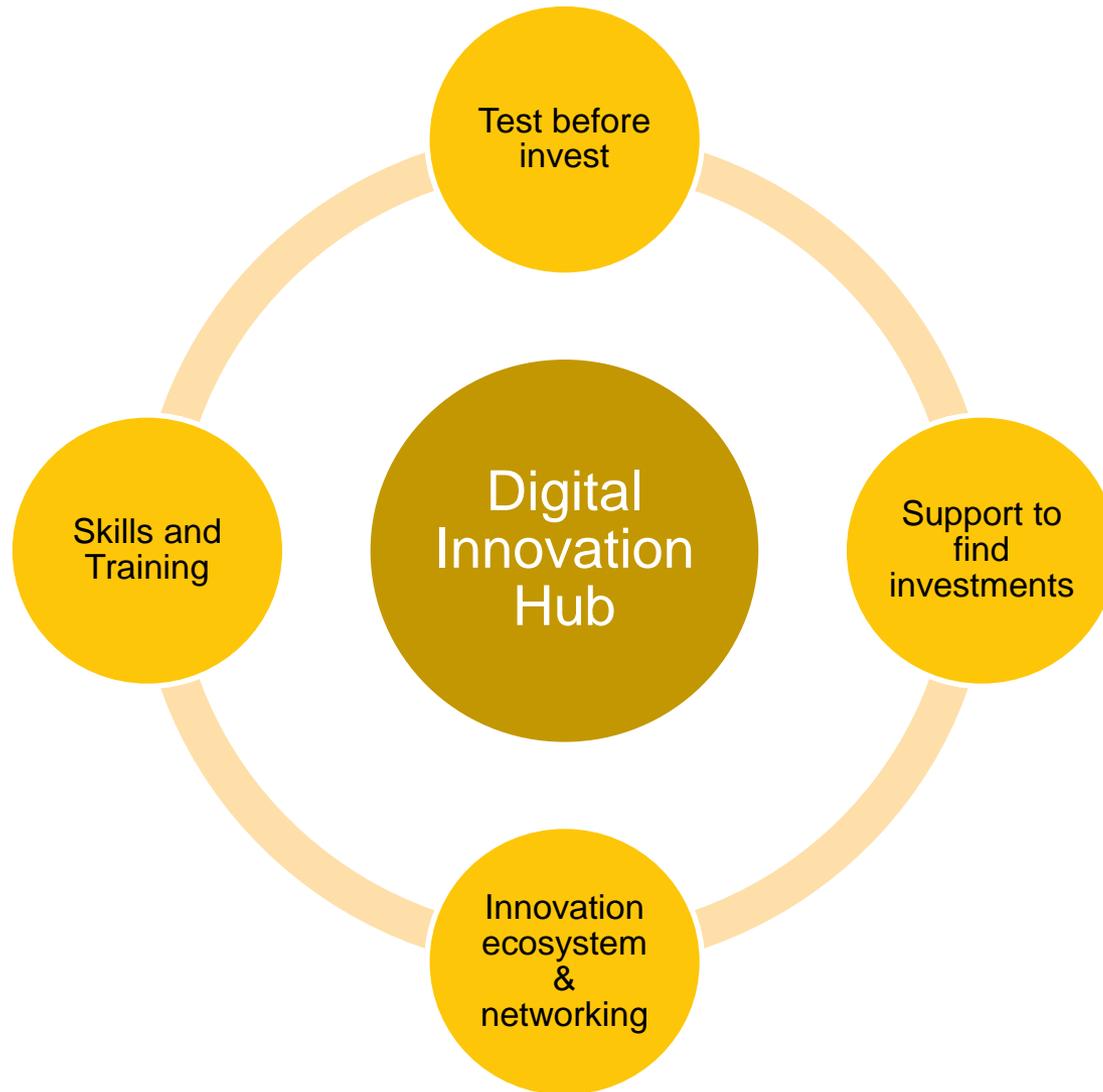
EUROPEAN DIGITAL INNOVATION HUBS

EDIH

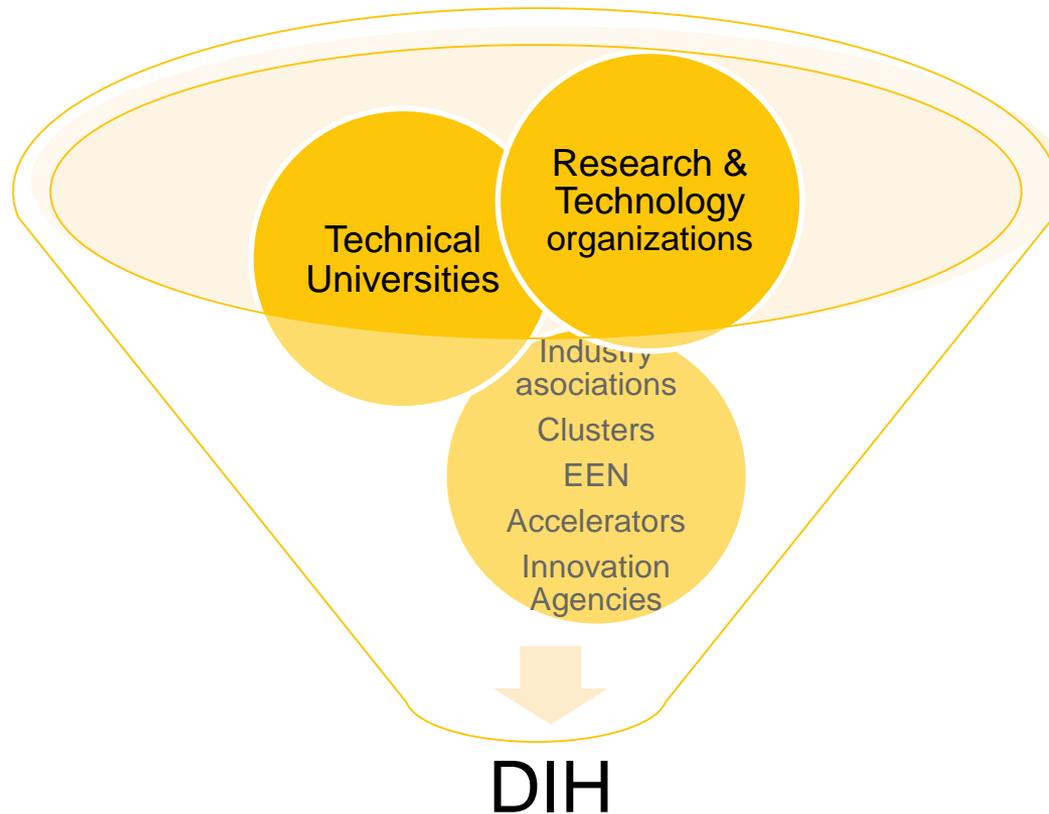
- is a single organisation or a coordinated group of organisations with complementary expertise, with a not-for-profit objective
- will play a central role in the Digital Europe Programme to stimulate the broad uptake of :
 - Artificial Intelligence,
 - High Performance Computing (HPC)
 - Cybersecurity
 - other digital technologies

by industry (in particular SMEs and midcaps) and public sector organisations in Europe and their digital transformation

- offer services such as



Who participate at DIHs



Clusters - part of DIH

- Clusters and Digital Innovation Hubs should connect and reinforce their respective efforts
- Groups of enterprises can contribute to strategic decisions, represent the voice of business actors, and, therefore, can make the activities of the Digital Innovation Hubs more relevant for local business and other actors of industrial ecosystems
- Clusters could be used as a lever to reach wide group of SMEs and mid caps in the most efficient way

Clusters - part of DIH

- There is a need to build trust and make hubs and clusters understand that taking an integral part in each other's functioning would strengthen their respective organisations and clients.
- The practical cooperation between cluster members and Digital Innovation Hubs can materialise in such areas like:
 - raising awareness among cluster members on digital transformation opportunities,
 - the development of internal and external capacities and capabilities for digital competencies,
 - offering vouchers for digitalisation,
 - organising demonstration projects
 - providing “non-commercial” information on potential technologies to be used.

Make clusters an integral part of Digital Innovation Hubs

BEST PRACTICES

Best Practice 1 - Romania

- The Transilvania Digital Innovation Hub is an initiative developed by the Transilvania IT cluster and by ARIES T, a non-profit organisation, in collaboration with relevant stakeholders.
- The Hub's mission is to identify collaborative projects for digitalisation of all the relevant stakeholders, such as companies, clusters that activate in various areas (creative industries, agriculture, furniture, energy efficiency and agriculture), research institutes, software companies, public authorities, and universities.
- The leading technologies that the Hub focuses on are artificial intelligence, big data, HPC and edge computing, cybersecurity, robotics and VR/AR.

<https://transilvaniadih.ro/>



Transilvania

DIGITAL INNOVATION HUB

Work is focused on bridging entrepreneurship, research, innovators and public administration, thus encouraging shared activities that gravitate around digital transformation with the aim of improving the community through digitalization.

Transilvania IT Cluster is the main orchestrator of Transilvania Digital Innovation Hub.

Transilvania IT Cluster counts over 115 members with a total of 8100 employees and over 440 mil EUR revenue.



TRANSILVANIA IT
CLUSTER



Best Practice – Slovakia 1

- ECDI CASSOVIUM – successful application for a restricted call of EC on ECDI partnering two universities – TUKE and UPJŠ and cluster Košice IT Valley (the only gold ESCA certified cluster in Slovakia).
- The Hub's mission is to focus on continuous improvement of industrial production and relevant public services through digitization aiming to contribute to sustainable energy, transport, tourism and the improvement of the quality of life and health.
<https://www.kosiceitvalley.sk/>

Best Practice – Slovakia 2

- ECDI EXPANDI 4.0 – successful application for a restricted call of EC on ECDI partnering National Center of Robotics (STU), SIEA, 3 leading companies for I4.0 and cluster Industry4UM (the only cluster focused on I4.0 Slovakia).
- The Hub's mission is to help companies respond dynamically to the challenges associated with digitization and thus increase the competitiveness of the Slovak economy. EXPANDI 4.0 aims making industry more resilient to unexpected global turbulence, climate and demographic trends and to increase the attractiveness and security of jobs for people working in the manufacturing sector through the intelligent application of digital technologies

<https://www.industry4UM.sk/>

Summary

- Clusters are recognized and looked after by industry leaders when they see the benefits of partnership (still rare)
- Policy makers and politics still lag behind the understanding of the cluster's role in economic development
- Clusters must take much more proactive role in identifying opportunities and search for partners



Clusters could bring enormous know-how in managing organizations with variety of stakeholders and interests to EDIH



EDIH is an unique opportunity and potential showcase of clusters' role in key areas of social and economic development



ClusterFY

Interreg Europe



European Union
European Regional
Development Fund

Thank you!

