

# Clusters become strategic agents of EU Recovery and Resilience plan implementation



EUROPEAN  
**CLUSTERS** ALLIANCE

East & North  
FINLAND  
Itä- & Pohjois-  
SUOMI



European Union  
European Regional  
Development Fund

Leverage from  
the EU  
2014–2020

**How can clusters accelerate regional ecosystems in the recovery of Finland?**

**25.11.20**

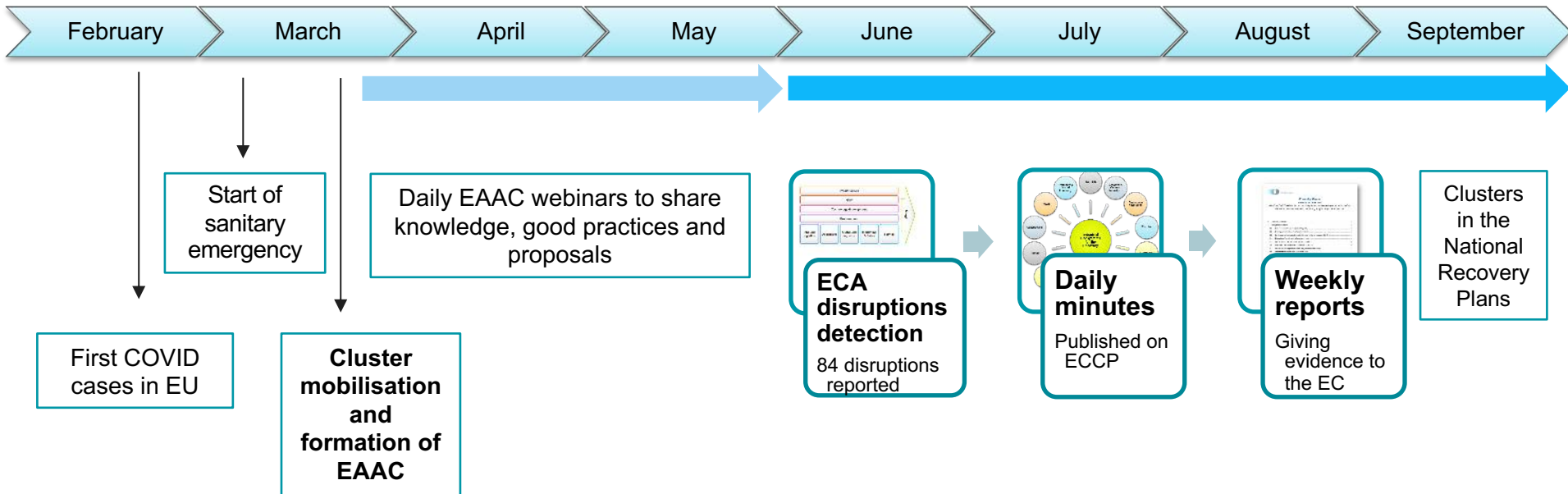
## The **European Clusters Alliance** joins

- **15 national associations** of clusters
- **800 clusters** organisations
- **Representatives** from countries without national clusters networks: Italy, Ireland, Greece...
- **138,000** of our most innovative businesses
- **Over 10,000 universities, research centers and public institutions**

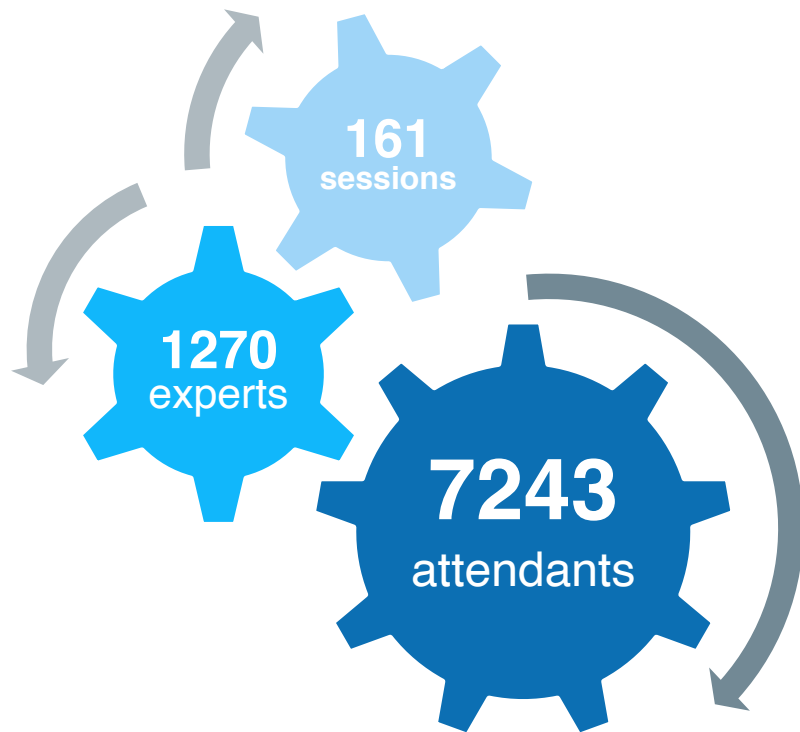
### Clusters matter



[https://www.clustercollaboration.eu/sites/default/files/EU Initiatives/eccic\\_european panorama of clusters and industrial change 2019.pdf](https://www.clustercollaboration.eu/sites/default/files/EU%20Initiatives%20ECCIC%20European%20panorama%20of%20clusters%20and%20industrial%20change%202019.pdf)

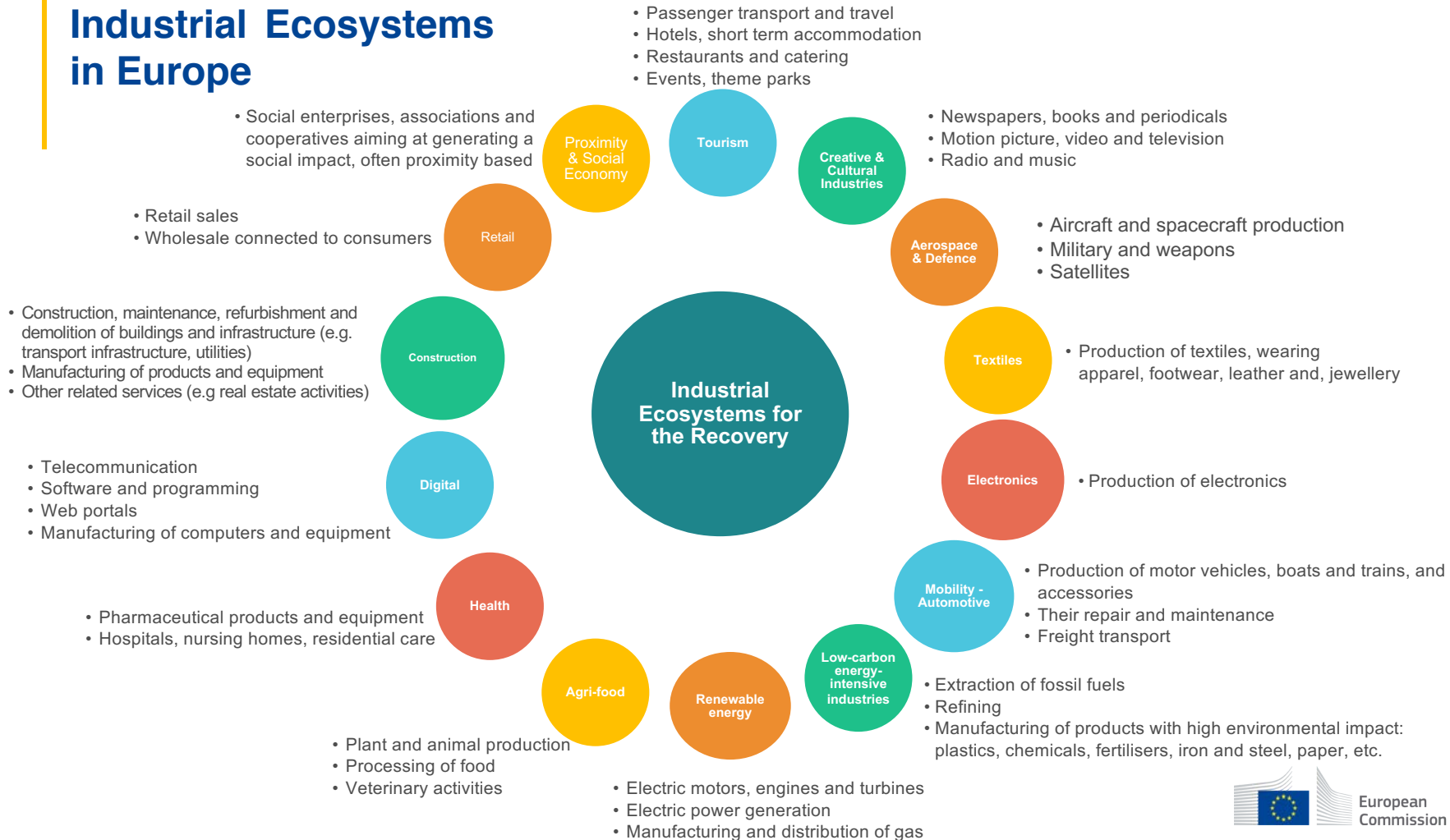


## European Alliance Against Coronavirus Summary of previous videoconferences sessions



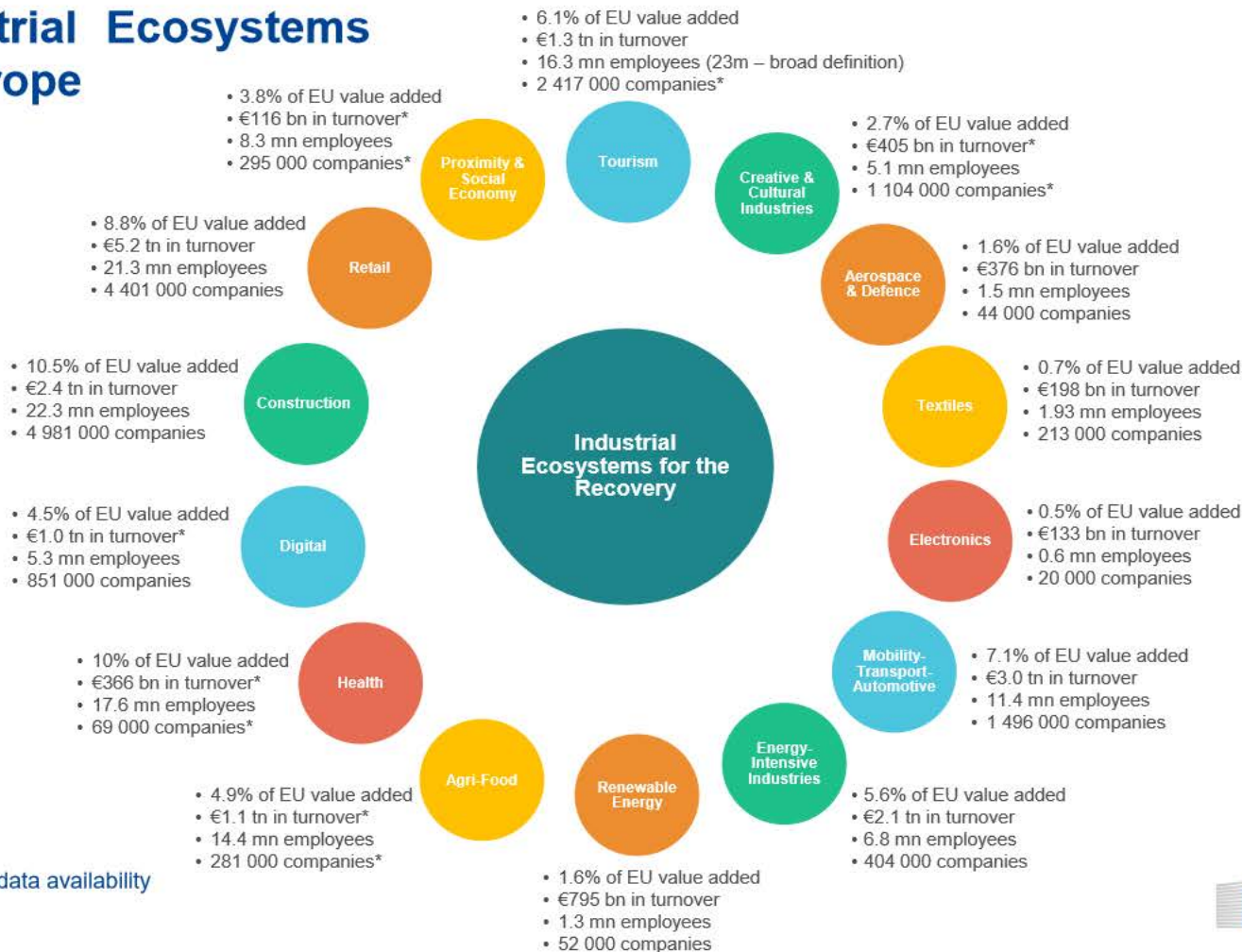
<https://www.clustercollaboration.eu/news/european-alliance-against-coronavirus-list-previous-recordings>

# Industrial Ecosystems in Europe





# Industrial Ecosystems in Europe



**Warning:**

Preliminary data

\* Underestimation due to data availability



Fields marked with \* are mandatory



To help repair the economic and social damage brought by the coronavirus pandemic, kick start European recovery, and protect and create jobs, the European Commission is proposing a major recovery plan for Europe which was announced on 27 May 2020 in the Communication COM(2020) 456: **Europe's moment: Repair and Prepare for the Next Generation**. It states very clearly that the supply chains and production lines have been disrupted and the trade in goods and services have been interrupted. The crisis has broken up parts of our productive tissue and has affected crucial supply chains. This disruption of production and decline in demand in one Member State will have a significant impact in others. The EU should reduce its dependency on external suppliers and increase its resilience to global supply issues.

Survey on disrupted supply and value chains via **EU Survey**



### Channeling signals from the ground

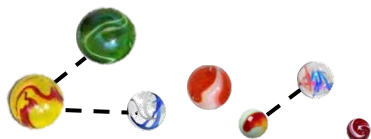
Disruptions in the European value chains and industrial ecosystems, solutions and setting up of EU Rapid Alert Function

2020 May - August

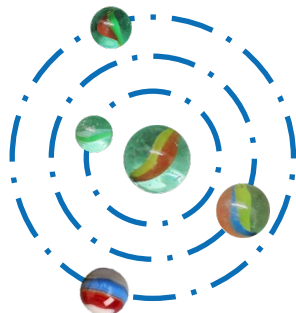
Coworking via MS Teams to write **reports** for DG GROW, European Commission

**We need to study a complex reality  
and quickly identify disruptions  
and possible solutions**

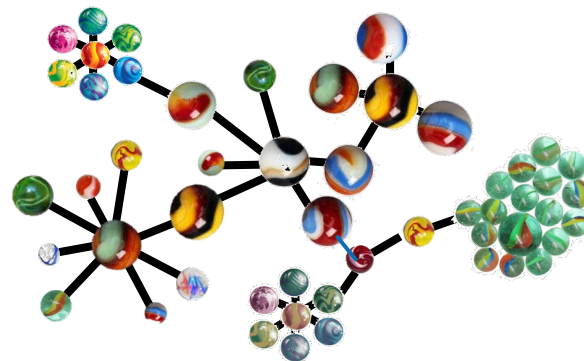
**Stage 1**  
**Islands of Excellence**  
**driven by individuality**



**Stage 2**  
**Industrial Value Chains**  
**driven by specialization**



**Stage 3**  
**Co-Evolving Ecosystems**  
**driven by synergy**



**Keystone Agents**

Relatedness between different sectors directly or indirectly related.  
What is often crucial are the companies that are in between fields.

Source: Athanasios G. Konstandopoulos, CERTH



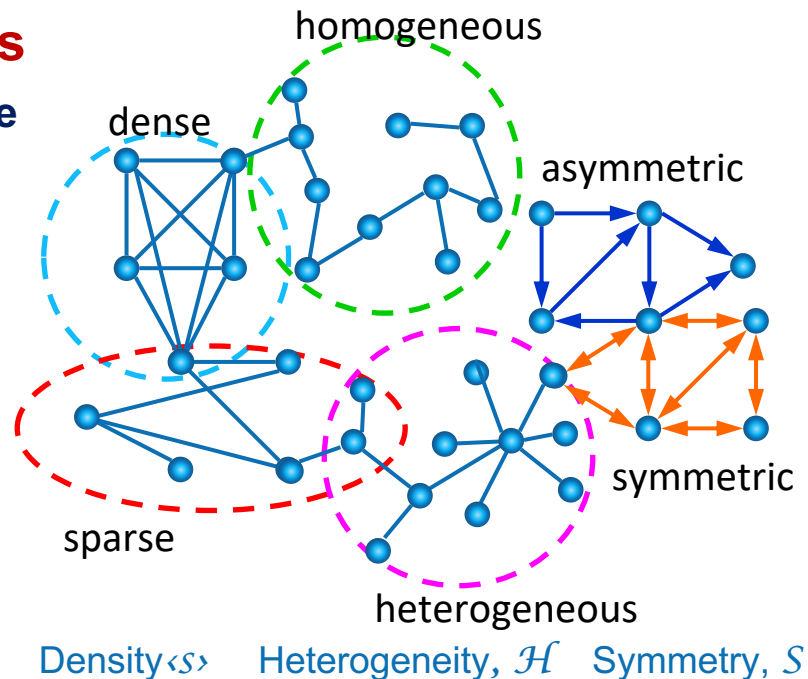
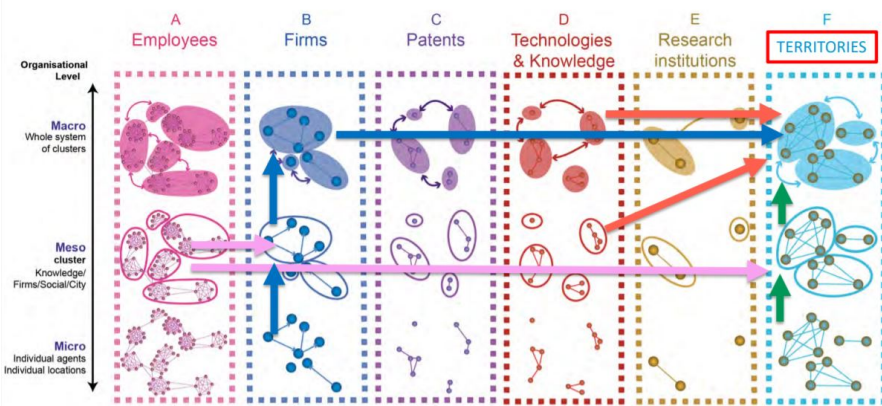
## We need resilient and flexible ecoystems

### Structural and Intrinsic Determinants of Resilience

- Resilience is an intrinsic property of the network!
- Network Density  $\langle s \rangle$ , Heterogeneity,  $\mathcal{H}$  and Symmetry,  $S$  determine Resilience,  $\beta_{\text{eff}} = \langle s \rangle + S\mathcal{H}$  (Gao et al. 2016, Nature)

### Criticality

- Driven vs. Self-Organized



Source: Athanasios G. Konstandopoulos. CERTH

RECOVERY AND RESILIENCE FACILITY

# GUIDING PRINCIPLES FOR NATIONAL RECOVERY AND RESILIENCE PLANS



#EUSolidarity #StrongerTogether



European  
Commission



RECOVERY AND RESILIENCE FACILITY

# FLAGSHIP AREAS FOR INVESTMENTS AND REFORMS

## POWER UP

CLEAN TECHNOLOGIES AND RENEWABLES

## RENOVATE

ENERGY EFFICIENCY OF BUILDINGS

## RECHARGE AND REFUEL

SUSTAINABLE TRANSPORT AND CHARGING STATIONS

## CONNECT

ROLL-OUT OF RAPID BROADBAND SERVICES

## MODERNISE

DIGITALISATION OF PUBLIC ADMINISTRATION

## SCALE-UP

DATA CLOUD CAPACITIES AND SUSTAINABLE PROCESSORS

## RESKILL AND UPSKILL

EDUCATION AND TRAINING TO SUPPORT DIGITAL SKILLS

#EUSolidarity #StrongerTogether

# Q&A on Resilience and Recovery Facility

## *What will be considered as an 'investment' or 'reform' for the purpose of the Recovery and Resilience Facility?*

The Recovery and Resilience Facility will support investments and reforms that will have a lasting, positive impact on the economy and society. The measures should address challenges identified in the context of the European Semester, facilitate the green and digital transitions and strengthening the growth potential, job creation and economic and social resilience of the Member State.

The Facility is consistent with a broad concept of investment as capital formation in areas such as **fixed capital, human capital and natural capital**. Fixed capital relates to investments in for example infrastructure, buildings, but also some intangibles like research and development, patents or software. Human capital is accumulated by means of spending on health, social protection, education, training and skilling. Natural capital is enhanced by actions aiming at increasing the share of renewable natural resources, protecting or restoring the environment, or by mitigating/adapting to climate change.

Reforms should also be read broadly as relating to actions or processes aimed at making lasting improvements to the functioning of markets, institutional structures, public administrations, or relevant policies, such as the green and digital transitions.

Source: [Questions and answers: Commission presents next steps for €672.5 billion Recovery and Resilience Facility in 2021 Annual Sustainable Growth Strategy](#)



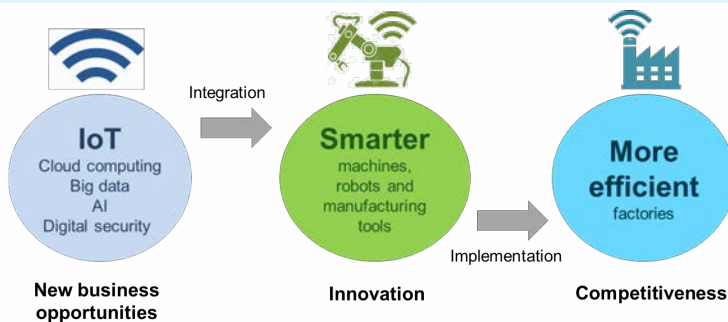
## Why should clusters be included in the Recovery Initiatives?

The European Clusters Alliance calls for the recognition of clusters **as a strategic agent** for the drafting and implementation of the European recovery initiatives.

We call to **reinforce cluster's support from the European Commission, and cluster's presence and participation** in the different stages of the initiatives.

### 1 Clusters are a key tool for the successful and quick implementation of innovation projects

Clusters can build the **bridge to the European SMEs and large companies** for the development and execution of innovation projects, as shown by INNOSUP-1 project **IoT4Industry** which aims to modernize production capabilities:



### IOT 4 INDUSTRY

With **5** million euros and **2** open calls,  
**7** clusters managed to fund  
**40** projects in **20** industrial sectors,  
involving **112** organisations,  
incl. **84** SMEs.



# Why should clusters be included in the Recovery Initiatives?

## 2 Clusters can help to properly allocate the funds for economic value creation

Clusters have **real-time information** on economic and technological developments and needs of companies. They can make the investment in the recovery sustainable by **saving resources and sharing knowledge, good practice, and expertise**.



- **Full sectorial recovery plan proposed** to Regional Government of Galicia
- **Advanced Manufacturing Experts Development Plan** for skilling, digital transformation and exchanges between companies
- **Sectorial guide** of preventive measures to protect workers and adapt activity to COVID-19 emergency
- **Help programme for Romanian hospital members** to fight COVID-19 pandemic
- **Fund development** for urgently needed protection supplies and disinfection tunnels
- **Start-up from IMAGO-MOL ecosystem** to produce medical face shields

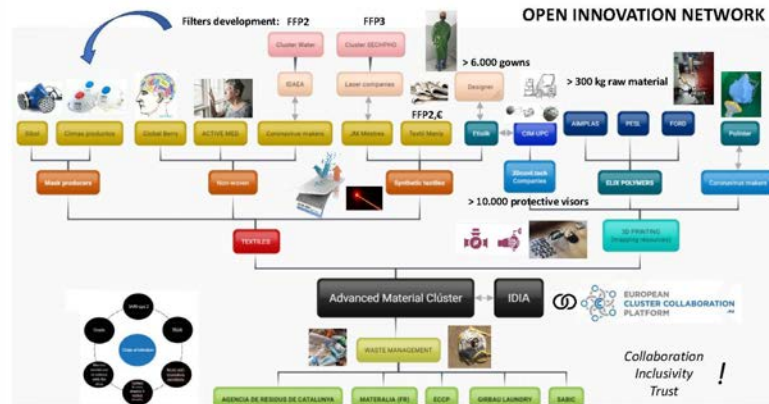


## 3 Clusters have proven to be strong and resilient partners

During the COVID-19 crisis, clusters have **quickly adapted their activities**. This agility is crucial to make European value chains across the 14 industrial ecosystems **more resilient**.



- **New networks** to produce **FFP2 and FFP3 masks**
- **New collaborations** for **filter development**
- **New 3D printing networks** between manufacturers, material suppliers, civic makers community
- **Coordination with ECA** to exchange on European level





EUROPEAN  
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## Why should clusters be included in the Recovery Initiatives?

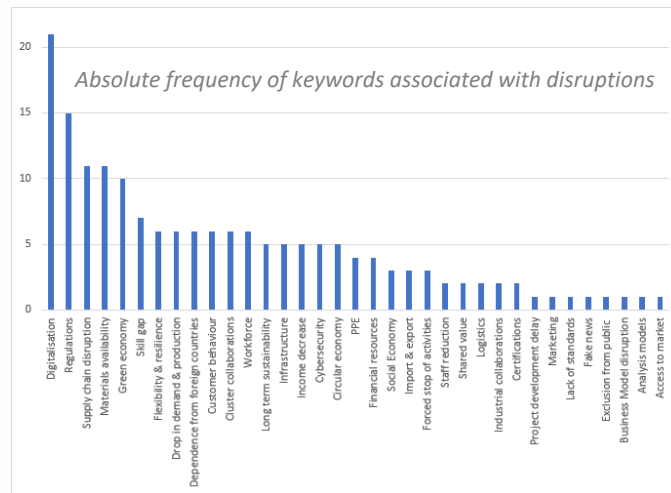
3

- **EU Rapid Alert Function:** European Clusters Alliance **detected and analysed 84 disruptions** in European value and supply chains
- More than 160 daily videoconferences allowed to rapidly **map the situation** of European industries and to **propose solutions** for the recovery

4

**Clusters bring valuable knowledge to the drafting of the recovery plans**

Clusters are **excellent facilitators to adapt policy instruments** to the needs and opportunities of the European industry.



**Seven clusters**, led by AFPC, **submitted recommendations** to the French Government for the national recovery plan. They suggested concrete actions, especially for **materials processing industries**, to help SMEs to launch innovations projects and to rethink industrial value chains to improve self-sufficiency.

In Flanders, Belgium, the recovery plans are drafted on regional level. **Clusters** contribute with suggestions for these recovery plans in the **economic advisory expert group**.



The **five key players of the Spanish innovation system** Clusters.es, APTE, Fedit, Ametic and ANCES work together to suggest funding schemes and projects for the economic recovery. The group has presented their manifesto to **different ministries** and a **strong and direct collaborative link** is currently being established.



### Clusters are geographic concentrations of industries

Clusters are **economic actors and associated institutions located near each other** that are related by **knowledge, skills, inputs, demand, and/or other linkages**.

- Clusters are not only a concept but a real economic phenomenon with **measurable economic effects**
- Clusters have a **positive impact on regional and industry performance**, including job creation, patenting, and new business formation
- **Drivers of the agglomeration of economic activity**, and thus the creation of clusters, can be input-output linkages, labour market pooling, knowledge spillovers, local demand conditions, specialised institutions, the organisational structure of regional business, and social networks

*Delgado, Mercedes/Porter, Michael E./Stern, Scott, 2013: Defining Clusters of Related Industries, Working Paper 20375 of the National Bureau of Economic Research*

The **Aviation Valley in southeastern Poland** is famous for its aerospace industry and pilot training centers. This region has a **heavy concentration of aerospace industry**, scientific research centers, educational and training facilities. The Aviation Valley Association represents over 170 companies. The **objectives** are

1. the organization and development of a low-cost supply chain,
2. the further development of aerospace research, aptitude and skill,
3. the creation of favorable conditions in order to enhance the development of aerospace industry enterprises in this region.

Clusters have reached a sufficient scale to develop specialised

- ✓ Expertise
- ✓ Services
- ✓ Resources
- ✓ Suppliers
- ✓ Skills





### Cluster organisations are legal entities

Cluster organisations provide and channel **specialised and customised business support services to stimulate innovation activities**, especially in SMEs.

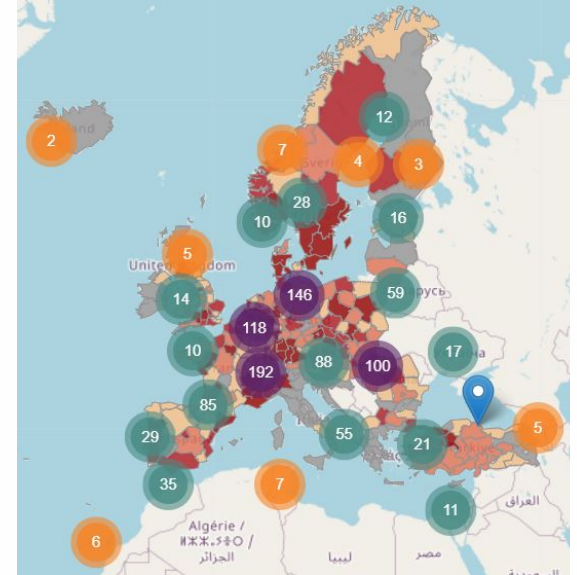
- Cluster organisations support the strengthening of **collaboration, networking and learning** in innovation clusters
- They usually **facilitate strategic partnering** across clusters, have experience in working cross-sectorial and between domains, and can set up multi-stakeholder projects
- Cluster organisations provide **trustful relations within triple helix constellations** among (regional) stakeholders and are knowledgeable about existing competencies, potentials and needs in the economic domain
- Cluster organisations come in **many shapes, sizes, structures**, and are developed top-down or bottom-up

*European Commission, 2016: Smart Guide to Cluster Policies, Guidebook Series: How to support SME Policy from Structural Funds*

*European Commission, 2020: S3 Cluster Organisations, Smart Specialisation Platform*

Services of cluster organisations include: ✓

✓ Improving business environment	✓ Human resource upgrading
✓ Innovation projects	✓ Internationalisation
✓ Networking and matchmaking	✓ Influencing legal framework
✓ Business / Market Intelligence	



Europe has a **rich landscape** of cluster organisations. There are around **1,000 European cluster organisations** registered on the European Cluster Collaboration Platform.



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