



EUROPEAN
CLUSTERS ALLIANCE

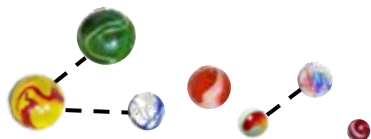
Clusters: Driving the Green and Digital Twin Transitions

10/12/2021

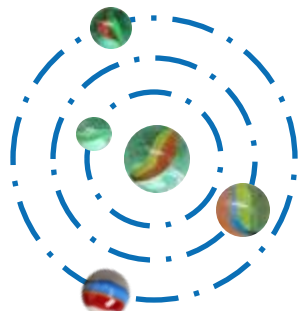


We need to study a complex reality and quickly identify disruptions and possible solutions

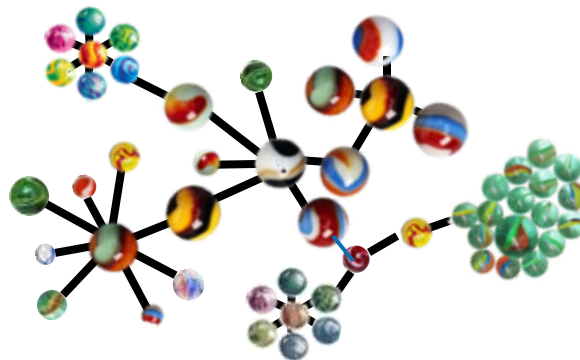
Stage 1
Islands of Excellence
driven by individuality



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

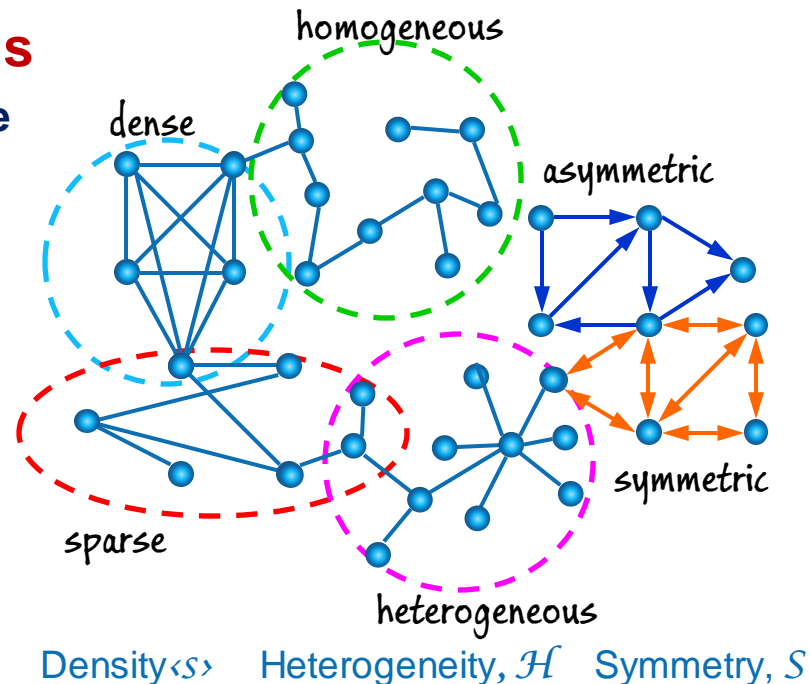
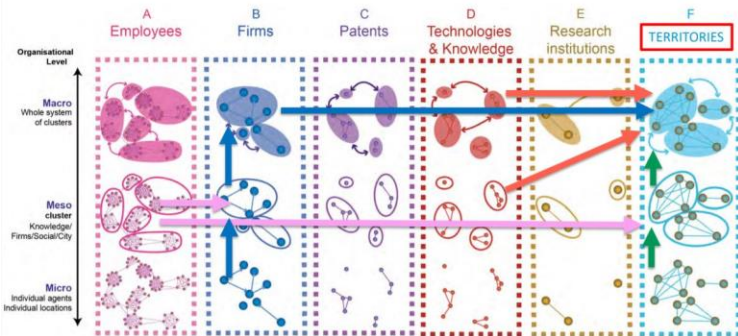
We need resilient and flexible ecosystems

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

EU Industrial Forum Transition Pathways

1.

Support the Commission in its systematic analysis of the ecosystems and the risks and needs of industry as it embarks on the twin green and digital transitions and the strengthening of its resilience.



2.

For the most relevant ecosystems and together with other relevant stakeholders support the development of transition pathways.



3.

Support the analysis of strategic dependencies.



4.

Identify cross border and cross ecosystem investment needs and cooperation opportunities.



5.


Advanced Manufacturing

[Read More](#)



What does the Industrial Forum do?

The Industrial Forum - set up by the Industrial Strategy - consists of a wide array of stakeholders, including industrial representations, Member States authorities, NGOs, research institutions and social partners representing different industrial ecosystems. The Forum's key tasks are to assist the Commission in tracking the implementation of the March 2020 Industrial Strategy and the May 2021 Industrial Strategy Update and contributing to the Commission's work on industrial ecosystems in the context of the recovery, and their green and digital transformation, with a focus on cross-border and cross-ecosystem collaboration.


Industrial Stakeholders



Public Authorities



Society Organisations



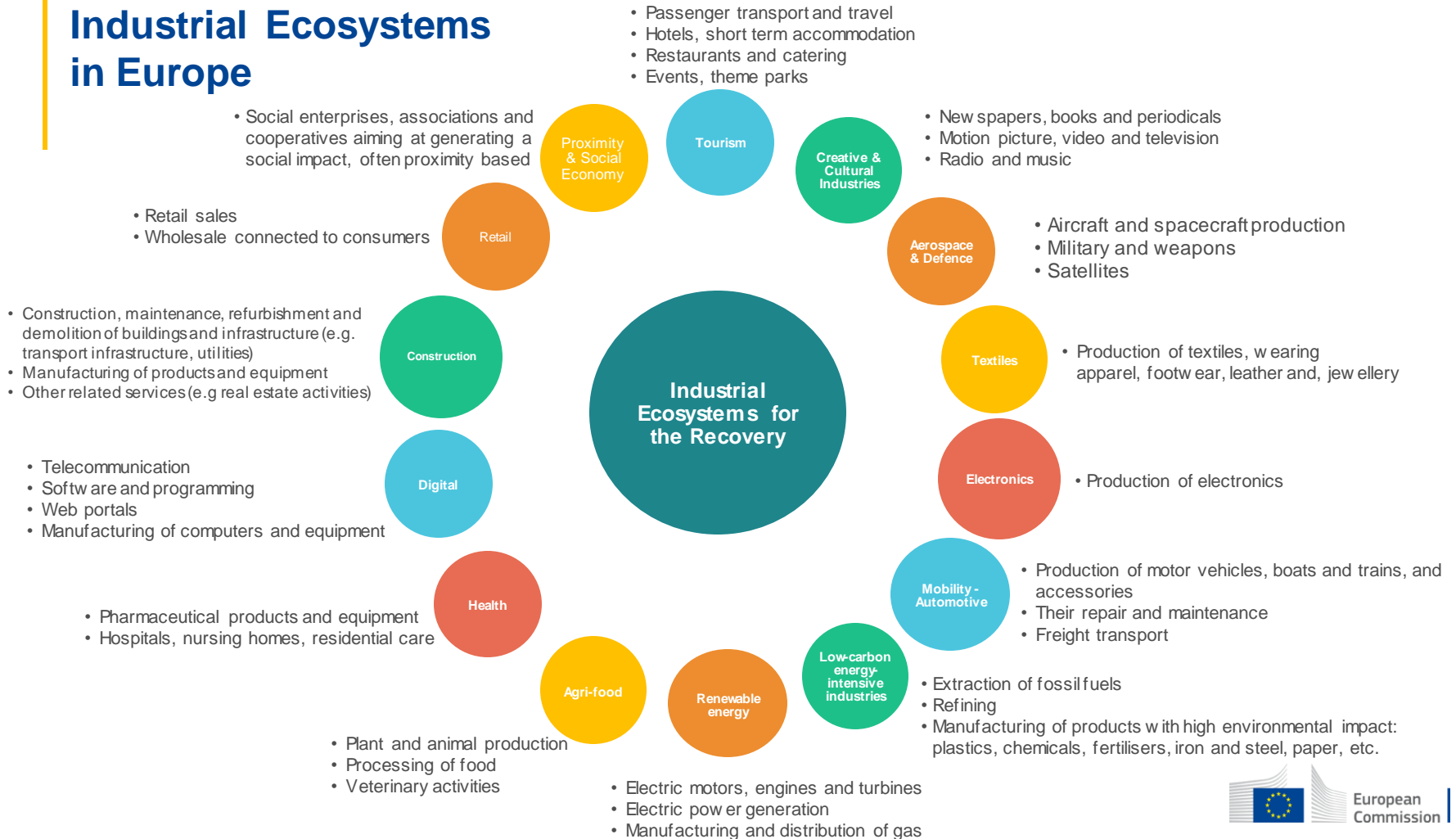
Investors

Industrial forum's mission and tasks

The New Industrial Strategy for Europe announced the launch of the Industrial Forum as a new, inclusive and open mechanism for co-designing solutions with stakeholders, supporting the Commission in its systematic analysis of the ecosystems and assessing the risks and needs of the European industry as it embarks on the twin, green and digital transition. The Industrial Forum shall contribute to the coordination of recovery efforts as a forum for Member States and industry to exchange best practices aiming at the transformation of industrial ecosystems. The Industrial Forum will build on, contribute to and complement the work carried out by the COMPET Council and the High-Level Group for Competitiveness. It will offer a sounding board for stakeholders and showcase the state of the European competitiveness – and the progress towards industrial transformation, bringing together the views of industrial stakeholders, public authorities, civil society organisations and investors.

The Industrial Forum is conceived as a new, inclusive and open mechanism engaging with a wide range of stakeholders. This website is intended to further facilitate the interaction between the Commission and the stakeholders and help them co-create proposals and solutions to implement the digital and green transition pathways set forth by the European Commission's Industry Strategy. The intensified dialogue between the Commission, the Industrial Forum and the industry experts will also reduce Europe's strategic dependency and enhance the regular monitoring of the European industry's progress towards the digital and green transition in the different ecosystems.

Industrial Ecosystems in Europe





Fostering cooperation among industry clusters since 2015





ECCP services



New design, look and feel and better user experience on all devices



More comprehensive cluster mapping and chance for direct interaction



In Focus areas including EU priorities and industrial ecosystems



Upgraded knowledge sharing opportunities and events



Capacity building webinars and Matchmaking events

Integration to boost green transition



'Towards Green Transition' Technical Assistance Facility

Apply [here](#).

And much more...



European Clusters working in the Bio sector

The **European Clusters Alliance** joins

- **18 national associations** of clusters
- representing more than **800 clusters** organisations
- **150,000** of our **most innovative businesses**

We have representatives in the

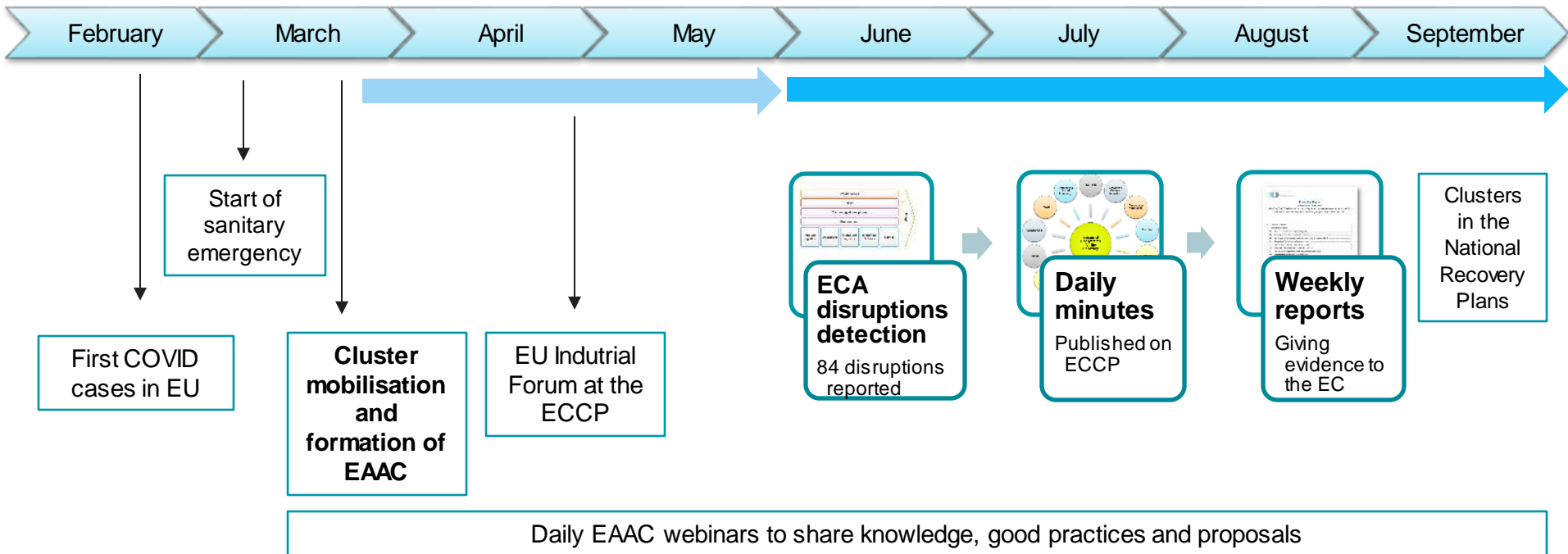
- **European Economic and Social Committee**
- **EU Industrial Forum**
- **EU expert group for the Interregional Innovation Investments**
- **EU expert group on clusters**



Sector	
<input checked="" type="checkbox"/>	(Todo)
<input checked="" type="checkbox"/>	Active pharmaceutical ingredients
<input checked="" type="checkbox"/>	Basic pharmaceutical products
<input checked="" type="checkbox"/>	Biopharmaceuticals
<input checked="" type="checkbox"/>	Health
<input checked="" type="checkbox"/>	Human health activities
<input checked="" type="checkbox"/>	Medical and veterinary science
<input checked="" type="checkbox"/>	Medical devices
<input checked="" type="checkbox"/>	Public health and well-being
<input checked="" type="checkbox"/>	Social innovation with regards to health and ...

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2020



European Alliance Against Coronavirus

Detecting disruptions in European Value Chains



EUROPEAN CLUSTERS ALLIANCE

European Alliance Against Coronavirus

Frena la curva, Plano de Acção E@D, Coronavirus Makers, MyLifeDesign, EESC, SocEnt, REGIO, GROWTH

A grid of 16 small portraits of individuals from the alliance.

Open exchange of the European Alliance Against Coronavirus in **daily webinars** about disruptions, trends and challenges to fight the crisis and prepare the recovery



Identification of disrupted supply and value chains

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**




European Commission

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

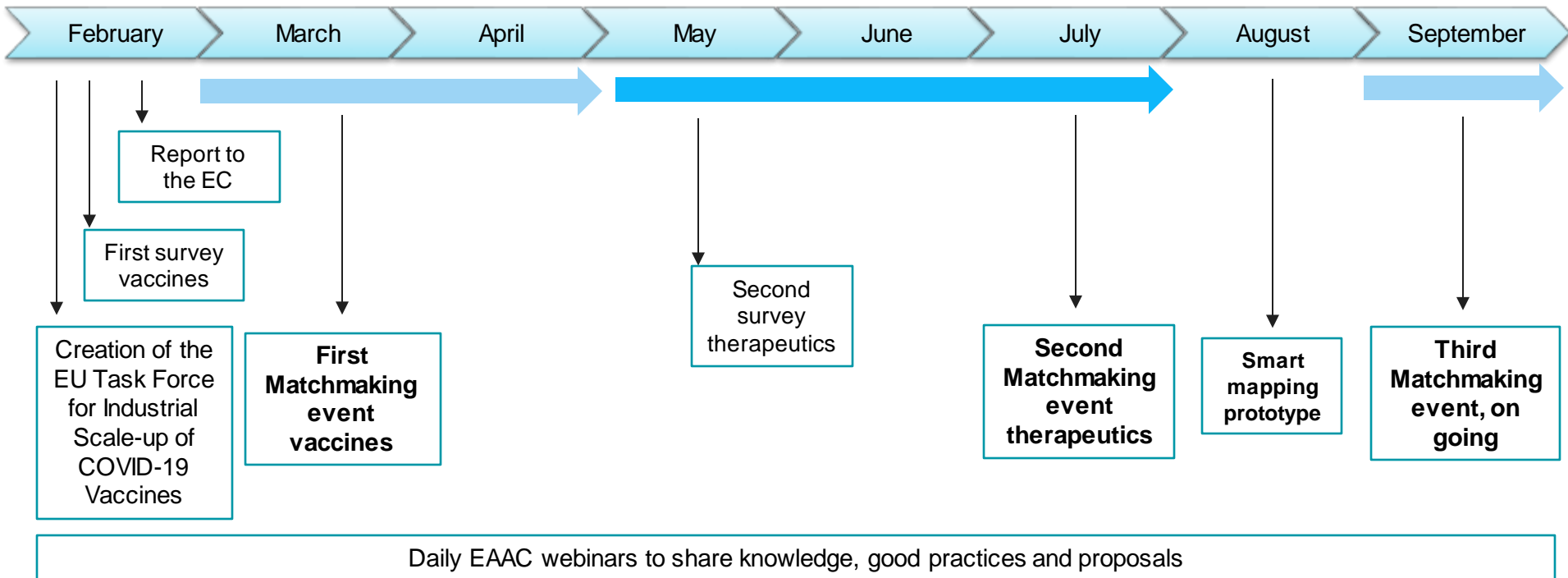
October – 2020

LogMeIn, REI

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

<https://data.europa.eu/doi/10.2873/491386>

2021





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Clusters driving the twin transition



Accelerating advanced technology adoption through cluster organisations and developing next generation of cluster-based industrial policies

Policy Brief on Industrial and technology clusters and cluster-based policies in times of Covid-19

Why do clusters matter for advanced technology generation and adoption?

[Accelerating advanced technology adoption through cluster organisations and developing next generation of cluster-based industrial policies](#)



Advanced technology development is spatially concentrated and highly nurtured by technology clusters.

Clusters gather specialised technological skillsets and create a powerful magnet.

Related industries matter for technology diffusion and support knowledge spillovers to other sectors.

Clusters represent a critical mass to compete for technological leadership.

As a response to the pandemic, governments across Europe have bolstered their actions in supporting technology development and digital transformation, while also relying on the strengths and opportunities of existing cluster initiatives.

European policy context

European cluster initiatives (e.g. European Cluster Collaboration Platform)

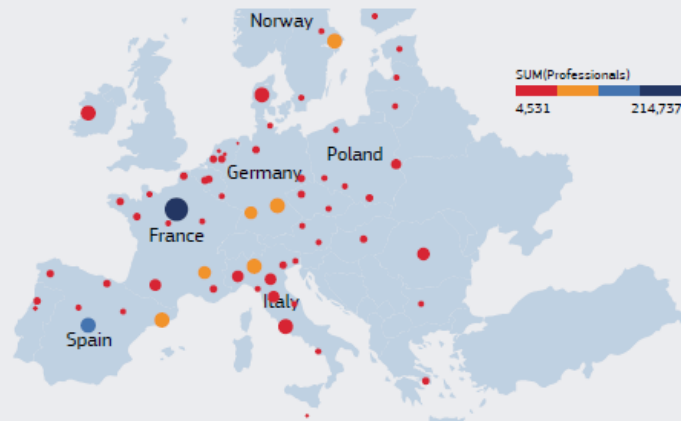
European Partnerships, Industrial Forum

Important projects of common European interest

National cluster policies

Modern national cluster policies include specific policy instruments, in particular the use of cluster initiatives. Examples are the supply chain reconfigurations in Finland and policies related to the technology/digital uptake in the Netherlands.

Concentration of professionals with advanced technology skills as published on LinkedIn (2021)



Source: Technopolis Group, based on LinkedIn data

The COVID-19 pandemic has impacted all three forces of cluster agglomeration including knowledge spillovers, labour market pooling and customer-supplier interactions



Cluster-based economic development policies need to play a stronger role in the recovery phase

While cluster organisations will play a critical role to improve the business environment, the final goal of industrial policy should be to nurture real clusters as the economic phenomenon of concentrations of related economic activities. Renewed industrial policies at European level and across Member States and regions should aim at improving the key framework conditions to create critical mass and improve the innovation milieu in order to be able to compete globally.

Recommendations for future cluster-based industrial policies are:



Policy-makers will need to monitor the key performance indicators of cluster transformation including changes in employment, skills and knowledge concentration but also trade and reconfigurations of industrial value chains.



Cluster-based policies need to reconsider the cluster portfolio and help stakeholders find the new 'adjacent possible', more specifically to identify new uses for existing expertise embodied in the current industries.



Industrial clusters need to renew themselves through impetus for new types of entrepreneurship. Entrepreneurship policies need to be more aligned to the needs of clusters.



Reskilling and upskilling will need to be tightly embedded into cluster policy agendas granting a role to clusters in the Pact for Skills.



Cluster policies will need to embed new business support packages.



Cluster policy-makers need to rethink the purpose of their cluster portfolio and need to strengthen related activities that address a specific societal challenge.



Cluster organisations need to help cluster members on their technological/digital transformation path by developing new, high quality business support services.

Covid-19 accelerated the digital transformation and certain aspects of technology diffusion. In such uncertain times, firms in strong clusters have better prospects and clusters are perceived as a force of resilience in times of economic crisis.



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