Clusters driving the Green and Digital Transition

Saint-Ouen (Paris Region) 22nd-23rd November 2021







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The role of EISMEA in the management of EU programmes relevant for clusters

Luisa Prista | Head of Department Innovation ecosystems, SMP / Entrepreneurship & Consumers, EISMEA

Contents

EISMEA portfolio and its importance in supporting SMEs through clusters

- Joint Clusters Initiative (Euroclusters) open call
- Interregional Innovation Investments (I3) Programme new opportunities
- Conclusions

EISMEA Portfolio: Horizon Europe, SMP and ERDF

European Innovation Council

 Support to innovations with breakthrough and market creating potential

European innovation ecosystems

 Connecting with regional and national innovation actors

€ 10.5 billion, incl. up to € 500 million for ecosystems

Pillar 3 of Horizon Europe –
Open Innovation:
stimulating market-creating
breakthroughs and ecosystems
conducive to innovation

Single Market Programme

• Enterprise Europe Network

Clusters

Erasmus for Young Entrepreneurs

Standardisation and Market surveillance

Consumer Safety

Interregional Innovation Investments (I3)

€ 570 million

 Commercialisation and scaling up of innovation projects for the development of Interregional value chains

COSME
Pillar
€ 1 billion

The role of EISMEA in supporting SMEs through Clusters

Under COSME and Horizon 2020

- ✓ European Cluster Collaboration Platform (ECCP)
- ✓ Horizon 2020 "Innosup-01"

Key figures:

- 120 promoted European
 Strategic Cluster partnerships,
 530 different organisations
 covering 29 countries
- 340 cluster organisations from over 1000 registered at the ECCP
- 25 partnerships cofounded under the Horizon 2020 Innosup-01 actions

Under SMP

✓ Joint Clusters Initiatives (Euroclusters)

- Call opening: 29 September
- Deadline: 30 November

Under ERDF

New opportunities

- ✓ Interregional Innovation Investments (I3)
- Call opening: 23 November
- Deadline: 1 February

Joint Cluster Initiatives (Euroclusters) – Main features

WHAT

FOR WHOM

HOW

HOW MUCH

Help in the implementation of cluster of the updated industrial organisations or the strategy (green, digital, resilient) consortia of cluster organisations or the networks teaming upon other types of organisations.

Consortia of cluster organisations or their EU networks teaming up with other types of organisations supporting green and digital transition and building social and economic resilience

Through creating vital
collaboration networks at
EU-level and developing
and implementing
supporting measures for
SMEs

Total Budget: EUR 42 Million

Max. grant amount: EUR 1,4 Million

Duration: up to 3 years



30 November 2021

Deadline for submission



Joint Cluster Initiatives (Euroclusters) - Objectives

NETWORK FOR RESILIENCE

Resilience preparedness/business continuity plans

INNOVATE FOR STRETEGIC AUTONOMY

New-to-firm products/services identified

ADOPT PROCESSES & TECHNOLOGIES TO REINFORCE TRANSFORMATION

Business process innovations adopted

TRAIN TO FOSTER UPSKILLING & RE-SKILLING

- Train Cluster managers
- Develop portfolio of services regarding reskilling & upskilling by clusters to SMEs

GO INTERNATIONAL

Services portfolio to implement internationalization actions

Communicate

Communication outreach

Joint Cluster Initiatives (Euroclusters) – Themes & priorities

Proposals will focus on one of the 15 strands of the Call:

▶ Open Strand: this strand invites proposals focused on cross fertilisation of various industrial ecosystems with no specific focus on one industrial ecosystem.

14 Industrial Ecosystem Strands:

- Tourism,
- Mobility-Transport-Automotive,
- Aerospace & Defence,
- Construction,
- Agri-food,
- Energy Intensive Industries,
- Textile,
- Creative & Cultural Industries,
- Digital,
- Renewable Energy,
- Electronics,
- Retail,
- Proximity & Social Economy, and
- Health.



Interregional Innovation Investment Instrument (I3) - Main features

Main indicators: Interregional, Innovation, Investment, Cohesion/territorial, Value chain

Cohesion policy instrument

Introduces a strand dedicated to less developed regions

ERDF Regulation

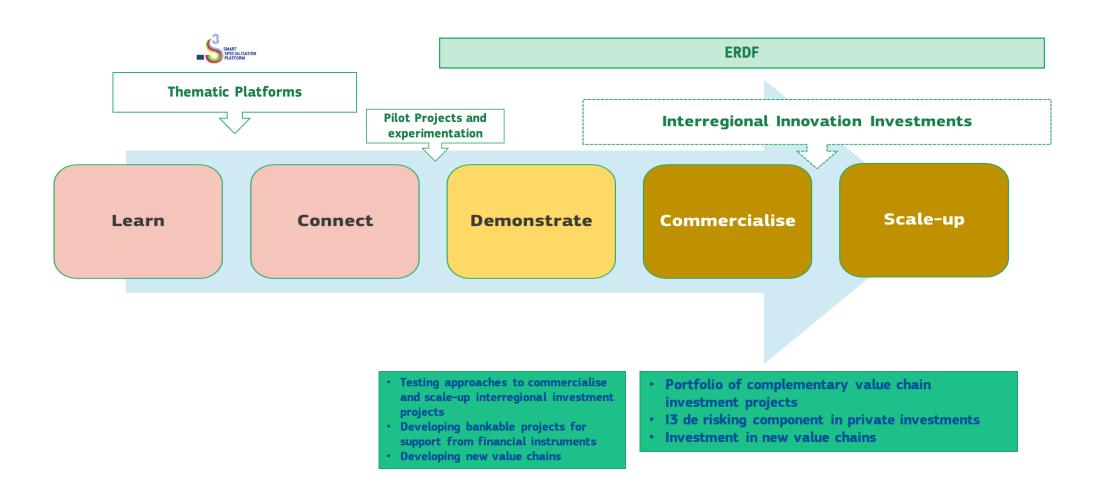
Smart specialisation

- Placed-based transformation embedded in the local economy
- Over 180 smart specialization strategies in Europe

Interregional approach

Addresses
coordination failure
that occurs in
commercialising
new innovation
products &
services developed
by actors from
different regions

Interregional Innovation Investment Instrument (I3) - Main features



Interregional Innovation Investment Instrument (I3)

WHAT

Commercialisation and scaling up of innovation projects for the development of Interregional value chains

FOR WHOM

Interregional Q-Helix ecosystems: researchers, businesses, civil society and public administrations involved in smart specialisation strategies established at national or regional levels

HOW

Implemented under direct and indirect management.

HOW MUCH

ERDF (Art, 13) EUR 570 Million (current prices)





EC supported by an executive agency

Interregional Innovation Investment Instrument (I3)

Total budget EUR 279,3 M

Strand 1: Innovation Actions (IA) for mature partnerships

Financial and advisory support for investments in interregional innovation projects

Green Transition

Digital Transition

Smart Manufacturing

EUR 250,8 M

Strand 2a: Simplified Innovation Actions (SIA) for less developed regions

Financial and advisory support for the development of value chains in less developed regions

Conclusions



Highlights:

- Alignment with the industrial strategy
- Alignment with the triple transition
- Shared value concept
- Need for digital skills
- STEM, in particular for women
- More knowledge about funding opportunities

Thank you!

- https://eismea.ec.europa.eu/funding-opportunities/calls-proposals/joint-cluster-initiatives-euroclusters-europes-recovery en
- https://clustercollaboration.eu/
- https://ec.europa.eu/regional policy/en/policy/themes/researchinnovation/i3/
- https://eismea.ec.europa.eu/programmes/interregional-innovationinvestments en
- https://eic.ec.europa.eu/eic-funding-opportunities/european-innovationecosystems en



Cluster policy instruments to foster green and digital transition and build capacity

European Expert Group on Clusters

22 November 2021

Marek Przeor & Peter Czaga, Unit D2, DG GROW, European Commission



15 Recommendations of the European Expert Group on Clusters

)

Leading the green transition

- 1) Use clusters as drivers of change, accelerators and enablers of the green transition through mobilising and facilitating cooperation among stakeholders in industrial ecosystems.
- 2) Use clusters to develop and implement circular economy strategies and action plans, detect opportunities for circular solutions and bring circularity in the business processes.
- 3) Recognise clusters as essential contributors to European alliances and missions relevant for the green economy mobilising their members and engaging in sustainable development.
- 4) Develop capacity-building programmes to help clusters provide sustainable advisory services and convince business about the importance of the green transition.
- 5) Use clusters as intermediaries to support the green transition and channel expertise and financing to SMEs for becoming more resource-efficient and carbon neutral.

Accelerating the digital transition

- 6) Mobilise clusters to participate in digital and green skills related initiatives such as the EU Pact for Skills and embedding them to local education and training structures while promoting STEM.
- 7) Increase cluster capacity to provide advanced business services shifting from knowledge-based intelligent manufacturing to data-driven/knowledge-enabled smart manufacturing.
- 8) Make clusters an integral part of Digital Innovation Hubs through incorporating clusters into their governance and operations in a continuous collaboration on the digital transition.
- 9) Use clusters to initiate new and to reinforce existing Public-Private Partnerships (PPPs) for boosting digital and advanced technologies value chains and technological platforms.
- **10)** Use clusters as strategic agents for the implementation of European digital policies and development of initiatives reaching out to SMEs and other users of digital solutions.

Building resilience

- 11) Use the collective intelligence of EU clusters to make value/supply chains more resilient, creating synergies and cooperation with SME and employer organisations to anticipate risks and prepare for new opportunities and challenges.
- 12) Develop an active role of clusters in local labour markets through building their capacities for reskilling and upskilling and participating in the implementation of the Pact for Skills.
- 13) Use clusters to identify and implement shared value initiatives to address societal challenges at a community level.
- 14) Reinforce activities to develop a strategic approach to international cluster collaboration and build a critical mass of SMEs, businesses and researchers to enter global markets.
- 15) Initiate cross-sectoral, interdisciplinary and transnational cluster collaboration to develop new products/services, which guarantee EU companies critical inputs and technology.



European Expert Group on Clusters 2021 activities: how to operationalise 15 Recommendations?

- 3 working groups: Green, Digital, Resilience
- 15 webinars (one on each recommendation) were held to discuss advice for implementation measures and good practices (March-May)
 - Actions for policy makers (intelligence, networking and business services)
 - Actions for cluster managers (intelligence, networking and business services)
 - Examples of good practices
- Harvesting Report commented and updated (June-October)
- Adoption of work deliverables at the Expert Group meeting on 09 December



Work deliverables in 2021

- Cluster Policy Toolkit (set of good practices for policy makers/cluster managers ongoing)
- European Cluster Panorama Report (location and characteristics of clusters and regions they are in)
- Cluster Mapping tool
- Smart Guide on Capacity Building (recommendations for cluster managers)
- <u>Toolbox on interregional investment and case studies</u> (a result of the Technical Assistance Facility for Industrial Modernization and Investment)
- Country factsheets including Advanced Technologies for Industry ATI
- Discussion papers on:
 - · Cluster business models fit for accelerating the twin transitions
 - Developing EU cluster capacities to manage shock
 - · Building strong clusters in structurally weak regions
- Euroclusters call
- Evaluation of 2014-20 COSME/INNOSUP cluster initiatives



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Leveraging clusters for resilience, green and digital transition: **ECCP Policy Toolkit**

Pierre Hausemer | VVA & ECCP

James Wilson | Orkestra, Deusto Business School & ECCP

Policy Institutions on the ECCP

- National and regional policymakers are key stakeholders in the cluster community and can now profile themselves on the ECCP
- The ECCP aims to help policymakers leverage the collaborative power of clusters by creating an idea space for exchange and innovation
 - ✓ Policy information
 - ✓ Funding calls
 - ✓ Good practices
 - ✓ Capacity building
 - ✓ Knowledge exchange



to register a profile!

Country Factsheets: A key ECCP Resource for Policy Makers

- 53 factsheets published on the ECCP + summary report
- Hot off the press: Factsheets now updated for 2021
- Factsheets now integrated into ECCP interactive mapping tool





Out of 53 countries analysed, 29 have cluster policies (out of which, 17 are in the EU $\frac{1}{2}$), either at national, regional or both levels.



National and regional cluster policies in Europe follow a very similar approach, focusing mostly on cluster competitiveness and development of cluster excellence or on the development of cluster organisations.



Policy objectives: National cluster policies focus on the development of existing cluster organisations, showing the advanced state of the cluster ecosystem.



Policy instruments: The policies identified for this report are implemented through financial instruments, technical assistance or a mix of both types of instruments.



Budget for cluster policies: In total, the 53 countries provided an estimated overall budget of EUR 10.2 billion for cluster policies, of which approximately EUR 4.3 billion was provided by EU countries and EUR 5.9 by third countries.

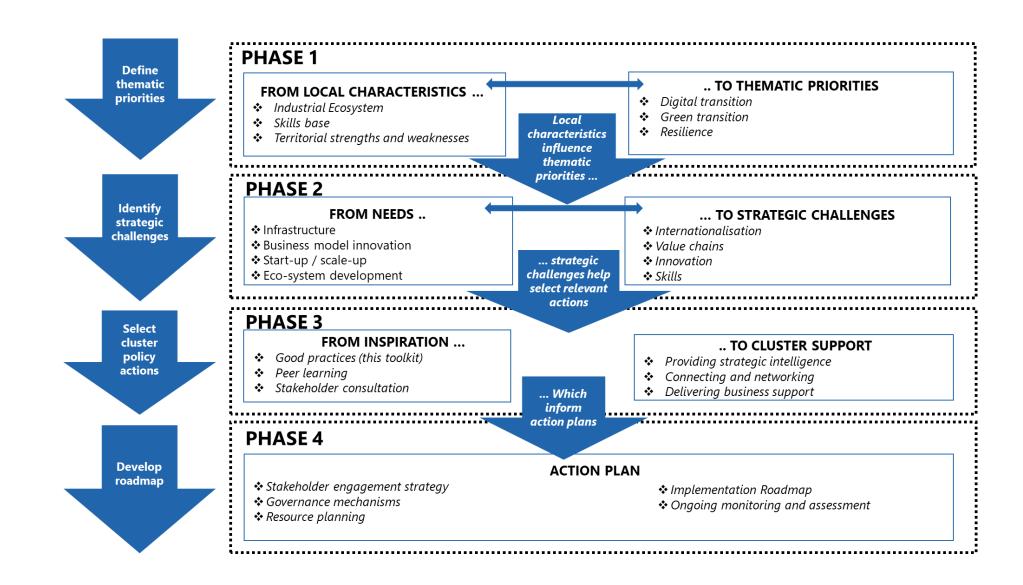


Policy results: the results of cluster policies are overall positive. However, there is room for further improvement, especially by increasing collaboration, better promotion of results and diversification of support instruments.

Why a Cluster Policy Toolkit?

- Why: Help policymakers leverage power of clusters through identification, design and implementation of effective cluster policies that can lead to systemic change
- What: Dynamic searchable database with inspiring examples of cluster policies from 53 countries
- How: Structured with needs of policymakers in mind and can be searched by theme, by strategic challenge by type of cluster support or by type of territory

The toolkit is a roadmap to cluster policy action



The toolkit helps address strategic challenges

The toolkit is structured around four strategic challenges that regions face in the twin transition and where clusters can play a major role:

- Innovation bringing together local stakeholders to develop new ideas and make them a reality
- Skills leveraging existing skills in the local territory more effectively and build the skills required in the future
- Value chains connecting local actors to build an ecosystem that covers entire value chains
- Internationalisation expanding networks beyond the confines of the local territory to leverage on global innovation, skills and value chains

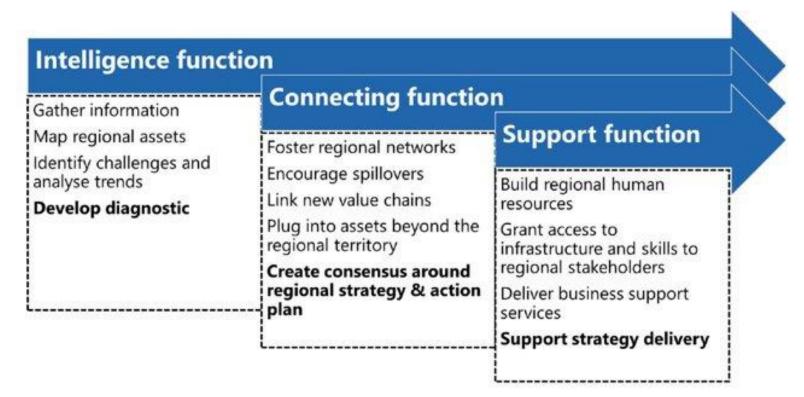
Policymakers are best placed to analyse the strategic needs of their territories. They can use the toolkit to identify inspiring practices from other places for each of these challenges

The toolkit builds on the key functions of clusters

Clusters are a tool for the transformation of the industrial system through three primary functions. They are:

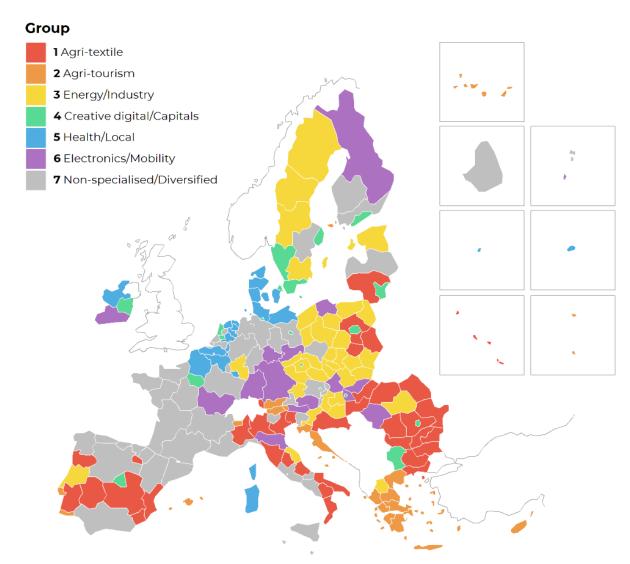
- 1. Sources of market (and non-market) intelligence
- 2. Brokers of collaborative stakeholder **networks**
- 3. Providers of business services

Effective cluster policies are targeted to supporting cluster organisations in the delivery of these functions



2. Region Type

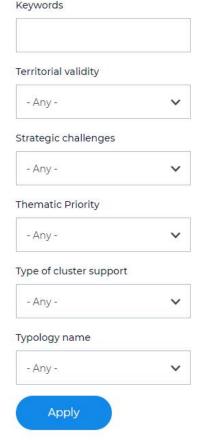
- Statistical data on employment highlights different specialization profiles across EU-27 regions
- The forthcoming European Cluster Panorama presents a typology of 7 groups of regions that share similar specialization profiles in industrial ecosystems
 - ✓ Agri-textile (37 regions)
 - ✓ Agri-tourism (22 regions)
 - ✓ Energy / industry (35 regions)
 - ✓ Creative / Digital / Capitals (19 regions)
 - ✓ Health / Local (21 regions)
 - ✓ Electronics / Mobility (17 regions)
 - ✓ Non-specialized / Diversified (50 regions)



Source: Forthcoming European Cluster Panorama Report

ECCP Policy Toolkit Beta Version

- Searchable database of inspiring examples of policy practice related to clusters that will complement existing ECCP tools and resources
- Currently 164 examples
- Conceived as a living tool that can be continually updated
- Users can combine filters to find examples relevant for them
- <u>LINK</u>



Policy Toolkit Database



A*STAR Partners' Centre (A*PC)



AgroHub



Al for the Netherlands

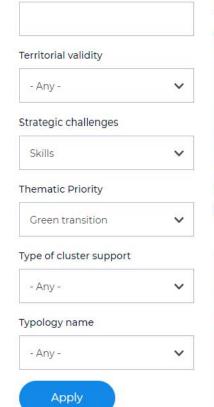


Alliance Free Economic Zone (Alliance FEZ)

Policy Toolkit Demonstration

- I am looking for examples of policies that seek to tackle green transition through addressing skills
- 21 of the 164
 examples are tagged
 with both green
 transition and skills,
 giving me a targeted
 list to browse and
 select from









Circular Flanders



Circular Economy Project Management System

Original title

Standard XP X30-901

Description of measure

The CEPM has been developed by the French Standardisation Association (AFNOR). Its objective is to help companies to grasp the circular economy concept and implement circular economy projects. The main beneficiaries are companies, who can purchase it for around EUR 260. The document proposes a 3 x 7 matrix covering 3 dimensions of sustainable development (environment, economy, society) and 7 areas of action of the circular economy. The main success factor is the collaborative approach followed by the working group composed of 50 stakeholders (associations, companies, policymakers, clusters). The International organisation for Standardization has approved the creation of a technical committee on the subject (ISO TC 323), under French leadership, to develop an international standard, which represents for France an opportunity to lead a strategic issue.

Country



Territorial validity

National

Thematic Priority **Green transition**

Recommendations of the EU expert group on clusters



LEAD GREEN TRANSITION: Use clusters as intermediaries to support the green transition

Strategic challenges



Type of cluster support



Business services

Link to further information (original language) https://www.afnor.org/en/news/practical-guide-circular-economy/

Policy Toolkit Demonstration

- Now I want to refine the search a little more to find examples that are focused on the intelligence function of clusters
- This narrows down the results to 7 examples that can be explored

Policy Toolkit

Displaying 1 - 7 of 7



Territorial validity - Any - Strategic challenges Skills Thematic Priority Green transition

Type of cluster support

Intelligence

Typology name

Apply

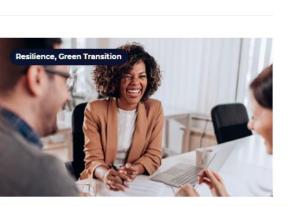
- Any -





Innovation Networks Denmark

Resilience, Green Transition, Digital Transition





Innovation Networks Denmark

Original title

Innovationsnetværk Danmark Programmet

Description of measure

Lauched by the Ministry of Higher Education and Science, the aim of Innovation Networks Denmark is to create platforms for companies and research institutes to exchange knowledge and enter into collaboration project. The Innovation Networks have different set of skills and activities which include: matchmaking and creating collaboration between companies, researchers, the public sector, technological service providers and other partners; initiating specific development projects within the relevant professional field of the network; arranging conferences, seminars and workshops on themes of interest for the members of the network; helping with fundraising and with the preparation of applications for funding; publishing newsletters and other types of information about trends, research results, etc.; hosting internationalisation initiatives, e.g. study trips. Total grant is about EUR 10 millions per year allocated under a 4 year grants with possibilities of extensions and about EUR 0.5-0.7 millions per network per year. This measure does not directly target clusters but has the potential to facilitate the growth and collaboration among organisations that are cluster members (SMEs, research institutes and other innovation actors).

Country



Territorial validity

Regional

Thematic Priority

Resilience Green transition Digital transition

Recommendations of the EU expert group on clusters

- BUILD RESILIENCE: Use the collective intelligence of EU clusters to make value/supply chains more resilient
- LEAD GREEN TRANSITION: Recognise clusters as essential contributors to European alliances and missions
- 🗭 ACCELERATE DIGITAL TRANSITION: Mobilise clusters to participate in digital and green skills related initiatives

Strategic challenges

Internationalisation Innovation Value chains Skills

Type of cluster support

Business services Networking Intelligence





Policy Toolkit Demonstration

- Any -

- Any -

- Any -

- Any -

Typology name

Apply

Strategic challenges

Thematic Priority

Type of cluster support

Creative digital / Capitals

Alternatively, I could start by looking for examples that might be especially relevant for my region, which is a capital region, specialized in the creative industries

Policy Toolkit Displaying 1-8 of 8 Keywords **Policy Toolkit Database** Territorial validity







Cluster Excellence Denmark (CED)





NewCO Helsinki

Original title

Yritysten ja yrittäjyyden vauhdittamiseen, digitaalisten palveluiden kehittämiseen ja koronaepidemiasta palautuminen - NewCo Helsinki

Description of measure

The City of Helsinki has invested EUR 9.7 millions for enterprises to recover from the impacts of the COVID-19 pandemic, and boost entrepreneurial activities for the years 2021-2024. The NewCo Helsinki service aims to improve people's general understanding of the coronavirus situation's effect on commerce as well as come up with concrete actions to provide immediate assistance to business owners in distress. Although this policy is not directly targeted at clusters, it constitutes a support to cluster beneficiaries (SMEs) and can open doors for collaboration with clusters on business support services.

Country



Territorial validity

Regional

Thematic Priority

Resilience Digital transition

Recommendations of the EU expert group on clusters





Strategic challenges



Type of cluster support



Region

FIIB (Helsinki-Uusimaa) - Creative digital / Capitals

Clusters driving the Green and Digital transitions

Saint-Ouen (Paris region) | 22nd - 23rd November 2021







Thank You

Your feedback is extremely welcome!

PANEL DISCUSSION - Clusters, cities and regions acting for the green transition

Moderator: Merete Nielsen, *Cluster Excellence Denmark*

Panellists:

- Antonio Novo, European Cluster Alliance
- Yann Wehrling, Île-de-France Region's Vice President in charge of ecological transition
- Laurent Monnet, Deputy Mayor of Saint-Denis in charge of ecological transformation, Delegate Territorial Counsellor of Plaine Commune in charge of Nature in the City
- Augustin Becquet, CEO of Recommerce Group, President of EUREFAS (The European Refurbishment Association)
- Marline Weber, Institut National de l'Economie Circulaire, EU Circular Economy Stakeholder Forum coordination group
- **Ulla Engelmann**, Acting Director of the Networks and Governance directorate, European Commission, DG GROW







Clusters driving the Green and Digital Transition

Saint-Ouen (Paris Region) 22nd-23rd November 2021

Breakout session 1







Session Overview

The aim of this session is to deepen our collective understanding of the ways in which clusters can contribute to green transition through fostering circular economy initiatives

- Clusters and green transition in Europe: Framing of the session
 James Wilson
- Insights on clusters and circular economy transitions: Towards a new greener normal
 Merete Daniel Nielsen



- Discussion
- Summary: Key lessons



Clusters driving the Green and Digital transitions

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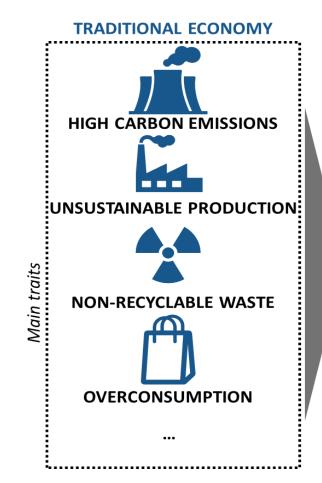


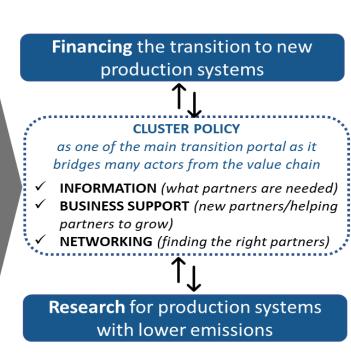
Clusters and green transition: Framing the session

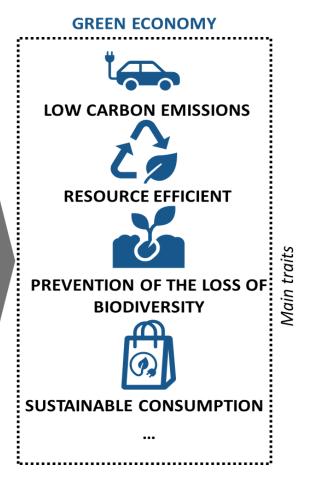
James Wilson | Orkestra, Deusto Business School & ECCP

Why clusters are key for green transition

As hubs of collaboration between large and small firms, research organisations and the public sector, cluster organisations can play a central role in catalysing the transition towards new, more sustainable value chains

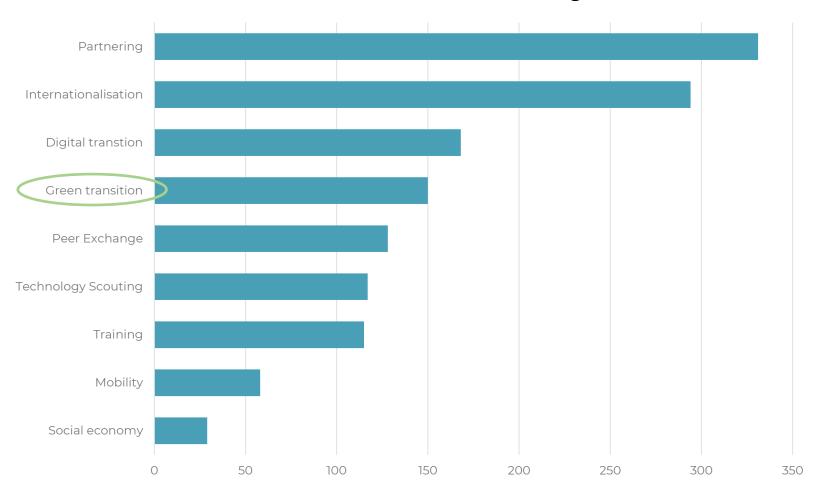






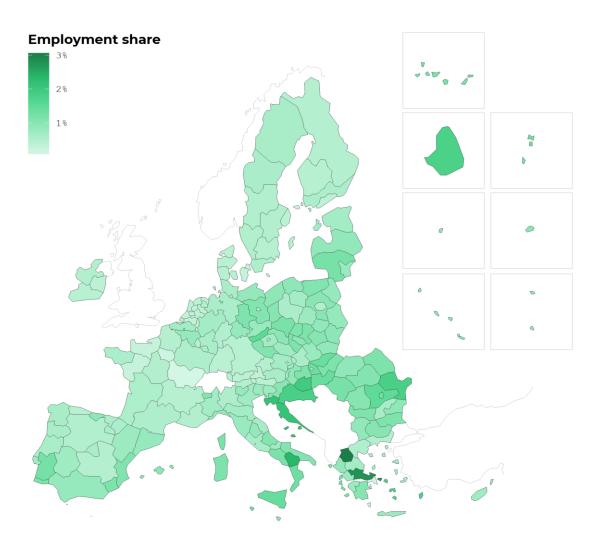
Green transition is on the radar of European clusters

Collaboration interests of EU-27 cluster organisations



Source: ECCP data from cluster organisation profiles

Green transition is a transversal cluster issue



- The share of employment in sectors classified as 'green' is relatively low across Europe (0.7% on average)
- But almost 40% of cluster organisations registered on the ECCP work in green sectors and/or technologies

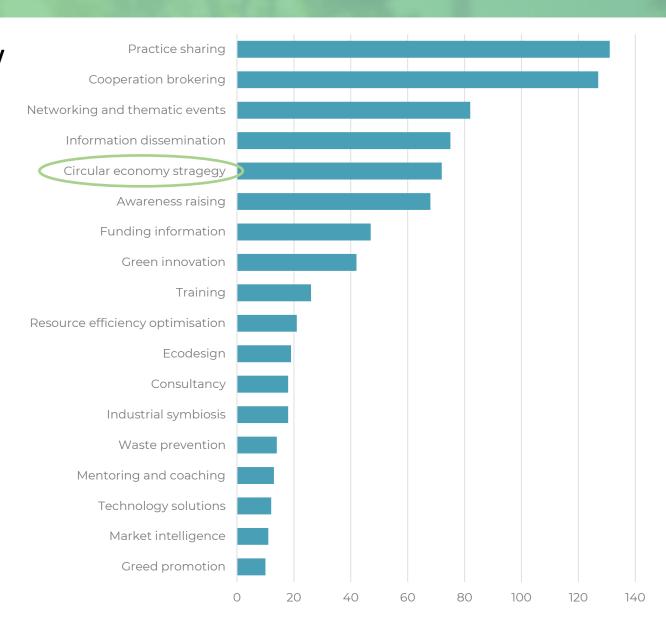
 And over 60% say that they support companies to be green ...



Source: ECCP, based on data from Eurostat and national statistics offices

Circular economy is on the radar of European clusters

Top 15 resource efficiency services provided by European cluster organisations



Source: ECCP data from cluster organisation profiles

Clusters driving the Green and Digital transitions

Saint-Ouen (Paris region) | 22nd - 23rd November 2021







Insights on clusters and circular economy transitions: Towards a new greener normal

Merete Daniel Nielsen | Cluster Excellence Denmark & TCI Network

IS CIRCULAR ECONOMY A POSSIBILITY DURING A PANDEMIC?

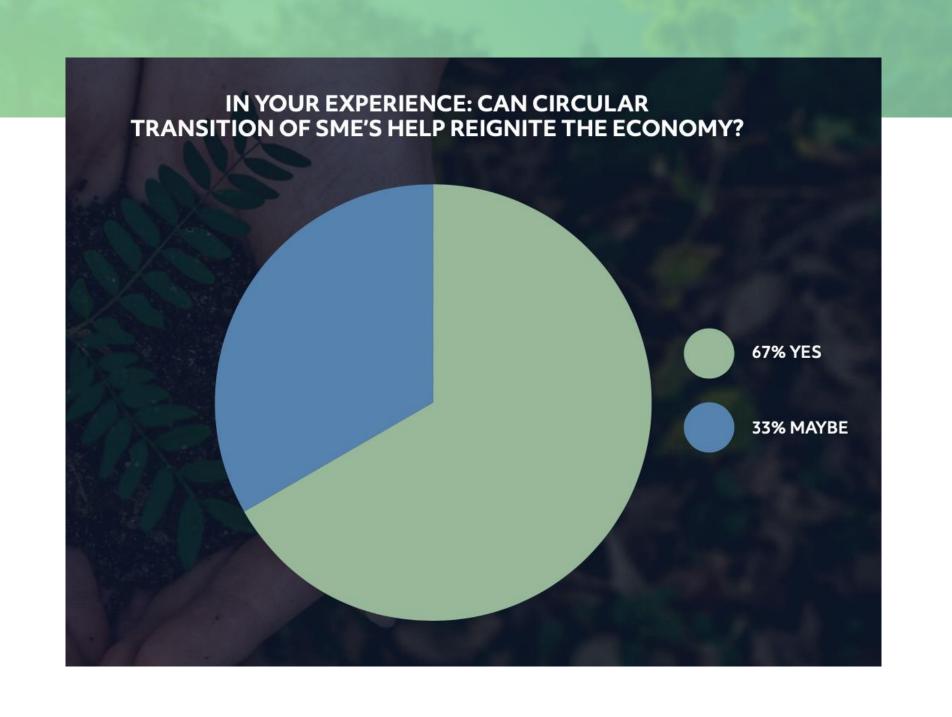


How the pandemic has changed priorities around green transition

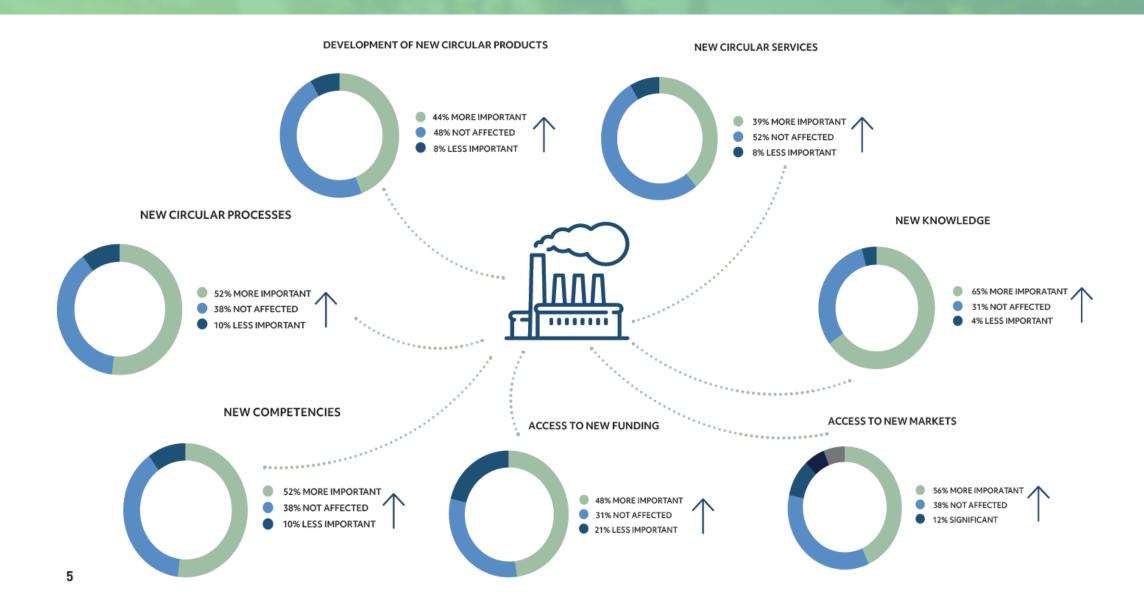
Global survey (done together with TCI Network) with almost 50 cluster organisations from 17 countries responding

Cases (done together with ESCA) from Russia, Germany, Spain, Sweden and Denmark to show how clusters are working with green transition is different sectors and with different methods.

 $\frac{www.clusterexcellencedenmark.dk/Files/Images/Filer%20til%20d}{irekte%20visning/circular%20economy%20in%20times%20of%20}{covid-19.pdf}$



HOW HAS THE PANDEMIC AFFECTED SME'S NEEDS FOR CIRCULAR SUPPORT?

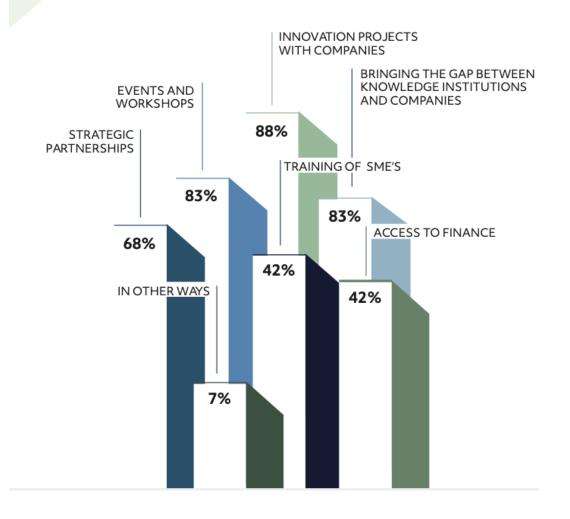


WHY GREEN TRANSITION ALSO CAN BE GOOD FOR BUSINESS

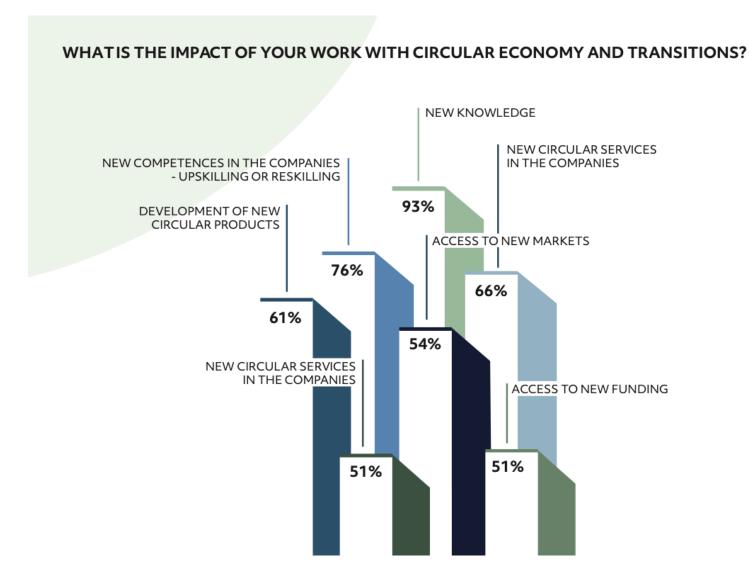


Key activities

HOW DOES YOUR CLUSTER WORK WITH CLUSTER ECONOMY AND CIRCULAR TRANSITION?



Impact of clusters on green transition



Clusters driving the Green and Digital transitions

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Practical & Policy Experiences

Bron Innovation, Sweden | Lars Persson Skandevall Tuscany Fashion Cluster, Italy | Enrico Venturini Agency for Science, Innovation & Technology, Lithuania | Vidmantas Vaitulevičius Ministry of Development, Labour & Technology, Poland | Marta Mackiewicz Slovak Innovation and Energy Agency, Slovakia | Artur Bobovnický Matériaupole, France | Arnaud Bousquet

lonon.

GovTech Sweden

Sustainability Industry















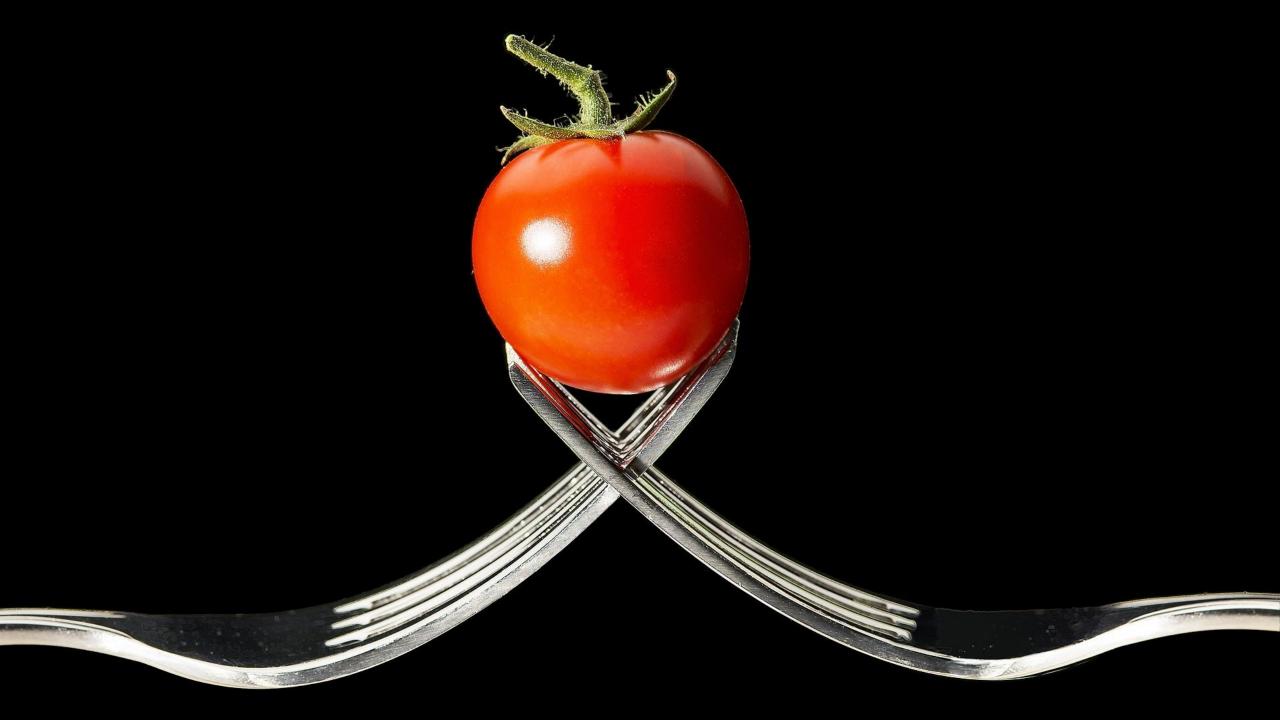
Refining – Maximixe value

Farming – Minimize climate impact

Logistics – Reduce transports

Innovate – From a tree to...





lonon.

www.broninnovation.se







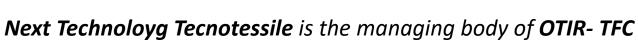


OTIR2020-Tuscany Fashion Cluster

The cluster for the fashion and textile system to support the development of collaborative activities and R&D diffusion among companies in the fashion sector.

Management

Excellence



More than 450 members active in the fashion sector of Tuscany Region

OUR ACTIVITIES:

- ☐ Support and strengthen the regional **technological transfer** and the exploitation of new sustainable technologies, products and services
- ☐ Support **R&D** collaborative activities
- ☐ Support the cooperation between companies and between companies and the system of research, both public and private
- ☐ Organization, sharing and dissemination of **strategic information** in favor of businesses, with a view to economic intelligence
- ☐ **Provision of technology transfer infrastructures** in the District: industrial and applied research laboratories, technology demonstrators
- Organization of **seminars and conferences** to facilitate **sharing of knowledge**, networking and transnational cooperation



Main industrial sectors included in the cluster













International Partnerships

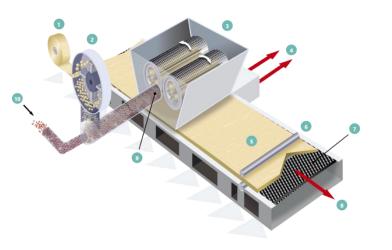
<u>Circular Process for Eco-Designed Bulky Products and Internal</u>
<u>Car Parts</u>

https://www.ecobulk.eu/

ECOBULK through a large scale demonstration effort will contribute to "closing the loop" of composite products in the automotive, furniture and building sectors by promoting greater re-use, upgrade, refurbishment and recycle of products, parts, and materials.









The Cluster has involved **Technoplants**, an important company of in the technologies for non woven sector within the ECOBULK project

International Partnerships

EXTRATEX European TEXtile-TRAnsport Sustainability
paradigm for industrial clusters Excellence in cross-sector
innovation





www.extratex.eu-vri.eu

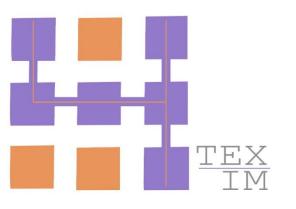
EXTRATEX brings together clusters from textile, automotive, plastic and Safety and Security in industry. Within the **ClusterXChange** scheme a virtual exchange to Slovakia (SPK) and a physical exchange to Czech Republic (CLUTEX) have been implemented.

The Partnership has focused the first virtual exchange to SPK on **new materials**, **advanced plastic processing**, **biodegradable materials**, **recycling**



The Cluster has brought companies to the second physical exchange to Czech Republic which focused on advanced technologies and production, smart materials, cross-sector collaboration development







International Partnerships

TEX4IM Textile Cluster for Industrial Modernisation

www.tex4im.eu/

TEX4IM set up a sustainable incubator and accelerator system for the generation of joint investment projects in TC and other related or cross-linkable sectors.

The partnership through the TEX4IM system was able to gather 24 project proposals (5 from Tuscany region), developing new ideas regarding advanced textile materials, circular economy, new business models for TC value chains

Example of the ideas from the cluster

Recycling cashmere with brushing technology

Innovative technology system to realize green and natural fur

FINAL RESULTS: 10 mini business plans, 5 full business plans prepared for the best project proposals

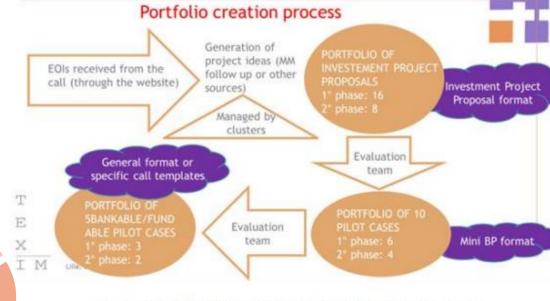
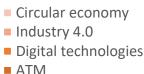


Fig. 2 - TEX4IM Portfolio of investment projects selection process



16%

19%

28%

Thanks for your attention!

Contact: Enrico Venturini

E-mail: enrico.venturini@tecnotex.it

NEXT TECHNOLOGY Tecnotessile Società Nazionale di Ricerca r.l. Via del Gelso, 13 59100 Prato -Italy Tel. +39-0574-634040 www.tecnotex.it www.tuscanyfashioncluster.it



KEY ACTORS in Circular economy & Clusters: Lithuania's case

Vidmantas Vaitulevičius

MITA

KEY ACTORS in Circular economy & Clusters

MITA

INOLINK – clusters
INOSTART - startups
INNOVATION VOUCHERS

APVA

Climate change programme Environment protection programme Waste management programme

LVPA

ECOINOVATIONS
BIOPOWER PROMOTION
INOKLASTER LT

Clusters

Biopower plant development cluster CleanTech cluster Circular Economy Cluster

FACTS and Figures

According to 2018 data:

- ~84,900 business enterprises;
- Less than 800 participate in clusters;
- 57 clusters in total;
- On average 13 enterprises;
 (including universities) in cluster;

The Closed circle

Too few companies participate in clusters





Clusters aren't seen as actors in green transition

Too small clusters





No impact to decision makers

How to break the circle?

MERCI!

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Clusters driving the Green and Digital transitions

Saint-Ouen (Paris region) | 22nd - 23rd November 2021







Discussion

Which clusters can best support circular economy transition?

Are cluster organisations doing enough?

What is stopping them from doing more?

What policy actions could help?

Clusters driving the Green and Digital Transition

Saint-Ouen (Paris Region) 22nd-23rd November 2021

Breakout session 2







Clusters driving the Green and Digital transitions

Saint-Ouen (Paris region) | 22nd - 23rd November 2021







Cluster business models fit for accelerating the twin transition

Pierre Hausemer | ECCP Tahmina Shafique | ECCP

Agenda

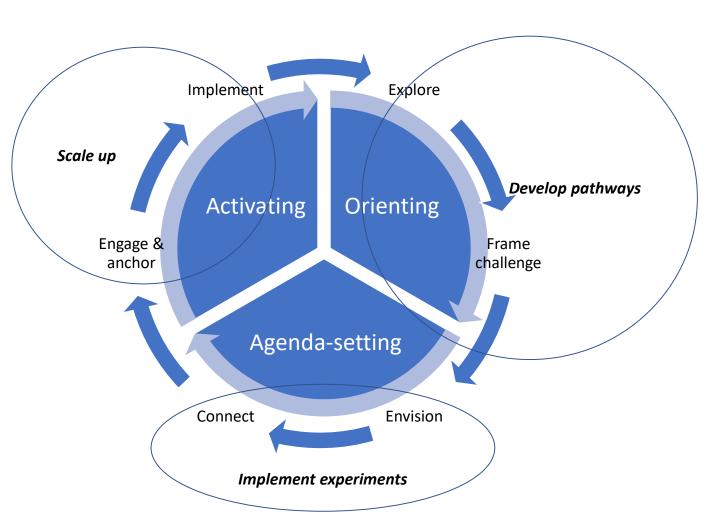
- Cluster business models and the twin transitions: a brief introduction
 - What are the key transition pathways required for the twin transitions?
 - What are the different cluster business models and how are they evolving?
 - What is needed to enable clusters to develop business models that support the transition pathways?
- Examples of cluster business models that have helped accelerate / foster economic transition
- Questions for discussion and exchange

Why focus on cluster business models?

- The twin transitions require a profound and systemic transformation of our economies
- Across all industrial ecosystems, we need to
 - foster innovation,
 - redesign value chains,
 - develop skills,
 - Engage in new collaborations and ways of doing things
- Clusters are uniquely placed to support the delivery of these transitions at the level of companies, sectors and ecosystems
- Cluster business models must be fit to support SMEs in:
 - Identifying the actions needed to achieve the twin transitions,
 - Developing tailored action plans for competitive and sustainable industrial ecosystems and
 - Supporting implementation of these plans at systems and company levels.
- Understanding cluster business models to make them fit to support the twin transitions will improve competitiveness and enhance sustainability.

What are transition pathways?

- A systemic transition requires deep change at different levels acting in parallel
- Steps for managing systemic transition:
 - Setting up the transition arena (a network where stakeholder come together to define current challenges and long-term vision);
 - 2. Narrowing down the vision into concrete transition paths;
 - 3. Implementing transition experiments to explore the transition path;
 - 4. Anchoring, evaluating and monitoring results
 - 5. Scaling up the experiments
- Pathways are place based strategies tailored to the status quo & the context in which they are developed



What are cluster business models?

- Cluster business models describe the way a clusters monetises the value that it provides
- 3 elements:
 - Funding structure
 - Private, project, public
 - Evolves over time
 - Varies across clusters
 - Cost structure
 - Legal form
 - Board and operational team
 - Management of fixed / variable costs
 - Relationships with banks & financial modelling
 - Value proposition
- Challenges:
 - Value in long term but funding needs and sources are short-term or time-limited
 - Clusters can generate significant externalities
 - Often too small, too local and too focused on the short term to achieve systemic change

Value added (Rangen)	Function (EOCIC)
Trust-based collaboration platforms	Intelligence (market research, knowledge transfer, consultancy and project management services)
Private-public partnerships, developed by design	Collaboration (networking, linking new value chains)
Magnets that attract talent, capital, researchers, and companies	Business support (incubation and acceleration, central services, internationalisation support, market access services)
Collaboration networks built around the industries of the future	
Solving industry-level challenges and opportunities	
Economic Engine by connecting members and partners	

Building cluster business models that support transition pathways

Step in the transition pathway	Business model aspects (function and funding)	Description of the activity
Priority definition	Functions: Intelligence and collaboration Funding: mostly long term public funding	Support policy makers & industry in definition of digitisation and decarbonisation priorities by providing insights on the current state of play of industrial ecosystems.
Identification of strategic challenges	Functions: Intelligence and collaboration Funding: mostly long term public funding; some membership funding for collaborative activities to identify eco-system specific challenges	Focus on key enablers and barriers to digitalisation and decarbonisation of industry, namely economic, socio-demographic, environmental, regulatory and political features of ecosystems.
Development of tailored actions	Function: business support Funding: project-based, with a mix of public and private sources, including from outside the cluster membership itself	Identify feasibility (in short-, mid-, long- term) of targets based on specificities of each ecosystem and value chains in their geographical area. This insight could then be used to design and implement transition experiments with the support of the cluster
Support in the design of twin transition pathways	Functions: Collaboration and business support Sources: mix of public and private with an emphasis on private sector funding	Support transition from on-field experiments, help assess what works, find replication and scale up opportunities and link transition experiments with the overall digitisation and decarbonisation pathways.

What is needed to enable clusters to develop business models that support transition pathways?

- Cluster business models need to become more mission oriented and aim for systemic change – not just "service providers"
- They need support in
 - Improving short- and long-term funding structure to enable focus on mission;
 - Tailoring and aligning services to regional, national and European objectives / needs
 - Training cluster managers to mobilise managerial / entrepreneurial skills
 - Inter-cluster linkages and investment to link visions to wider ecosystem / value chains
 - Understanding of value added as placebased vehicles of systemic change toward the twin transitions.
 - Demonstrating impact on systemic transitions and on members



- → What are your needs?
- → How can the ECCP support this?

Examples of cluster business models that have helped accelerate / foster economic transition

Learning from you!

- Please provide examples of clusters whose business models support systemic transition in practice:
 - Clear mission orientation
 - Sustainable funding models
 - Innovative cost management practices
 - Skilled cluster managers
 - Demonstrable impact
- Why are they successful? How did they overcome their challenges?
- What is needed to lead to systemic change (drivers / obstacles)?

- Where do you see the role for clusters and/or the ECCP in the development of a transition management framework? On which step of the transition pathway should the focus of clusters lie?
- Where does the key challenge lie to help clusters support the twin transitions: funding, costs, the definition of a?
- Where do you see the drivers and obstacles to the successful deployment of cluster business models for transition management in Europe?
- What is the role of place-based characteristics (economic, socio-demographic, environmental, regulatory/legal, political...) in achieving systemic change?

Clusters driving the Green and Digital Transition

Saint-Ouen (Paris Region) 22nd-23rd November 2021







Panel discussion - Clusters, cities and regions leading the digital transition

<u>Moderator</u>: Marc Pattinson, Research and Innovation Expert, Interreg Europe Policy Learning Platform

Panellists:

- Antonio Novo, President, European Cluster Alliance
- Alberto Pezzi, DGI Acció Government of Catalonia
- Thierry Gautreau, Industry 4.0 and companies transformation support, CETIM
- Nawelle Nurmukhamedov, Project Manager Innovative Mobility, Versailles Grand Parc
- Bianca Muntean, Transilvania IT Cluster
- Thierry Louvet, Europe and International Affairs Director at Systematic Paris Region Cluster, partner of Digihall EDIH
- Marek Przeor, Team Leader Cluster Policy, European Commission, DG GROW







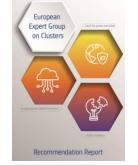


Clusters, cities and regions leading the digital transition

European Expert Group on Clusters

22 November 2021

Marek Przeor, Unit D2, DG GROW, European Commission



5 Recommendations of the European Expert Group on Clusters

Accelerating the digital transition

- **6) Mobilise clusters to participate in digital and green skills related initiatives** such as the EU Pact for Skills and embedding them to local education and training structures while promoting STEM.
- 7) Increase cluster capacity to provide advanced business services shifting from knowledge-based intelligent manufacturing to data-driven/knowledge-enabled smart manufacturing.
- 8) Make clusters an integral part of Digital Innovation Hubs through incorporating clusters into their governance and operations in a continuous collaboration on the digital transition.
- **9) Use clusters to initiate new and to reinforce existing Public-Private Partnerships (PPPs)** for boosting digital and advanced technologies value chains and technological platforms. (The portfolio of European Partnerships includes 49 candidates)
- **10)** Use clusters as strategic agents for the implementation of European digital policies and development of initiatives reaching out to SMEs and other users of digital solutions.

Digital Compass: the European way for the Digital Decade

Skills

ICT Specialists: 20 million + Gender convergence Basic Digital Skills: min 80% of population

Public Services

Key Public Services: 100% online e-Health: 100% availability medical records Digital Identity: 80% citizens using digital ID



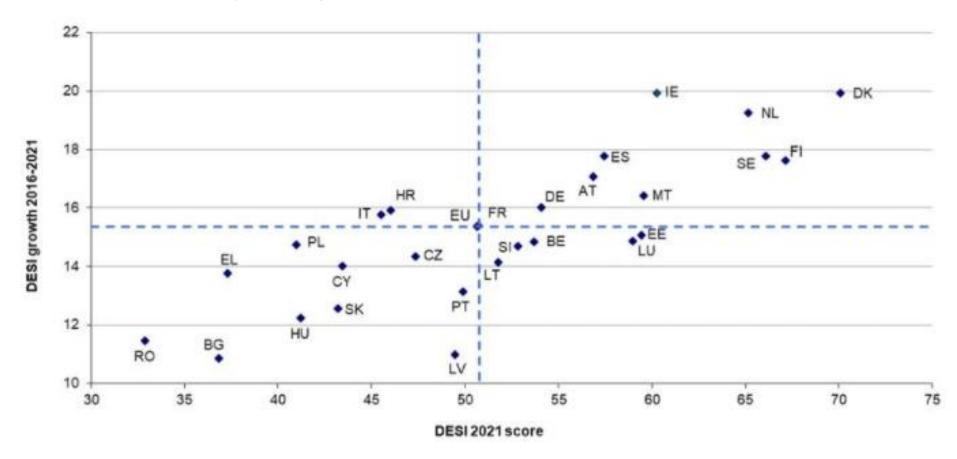
Infrastructures

Connectivity: Gigabit for everyone, 5G everywhere Cutting edge Semiconductors: double EU share in global production Data - Edge & Cloud: 10,000 climate neutral highly secure edge nodes

Business

Tech up-take: 75% of EU companies using Cloud/AI/Big Data Innovators: grow scale ups & finance to double EU Unicoms Late adopters: more than 90% of European SMEs reach at least a basic level of digital intensity

Digital Economy and Society Index – Member States' progress, 2016-2021



Source: DESI 2021, European Commission.

Funding

- ERDF, ESF+
- Digital Europe Programme
- Horizon Europe
- Invest EU
- 20% of Recovery and Resilience Facility

Clusters driving the Green and Digital Transition

Saint-Ouen (Paris Region) 22nd-23rd November 2021

Breakout session 3







Clusters driving the Green and Digital transitions

Saint-Ouen (Paris region) | 22nd - 23rd November 2021







Capacity-building session 3: Implementing Industry 4.0. priorities at local level

Tahmina Shafique | ECCP Work Package Leader – Capacity **Building of Cluster Actors**

Objectives of this session

Develop a **harmonised understanding** on need to widen I4.0

Collect and share lessons learnt from 14.0 experiences and identify their relevance for update

Identify **factors of importance** for a successful roll-out

Widening I4.0 – a new concept 'Industry 5.0' - 'From a shareholder to stakeholder value'

- Vision that aims beyond efficiency and productivity as the sole goals -> reinforces the role and the contribution of industry to society
- Wellbeing of the worker at the centre of the production process
- Uses new technologies to provide prosperity beyond jobs and growth while respecting the production limits of the planet
- Complements the existing I4.0 approach by putting R&I at the service of the transition to a sustainable, human-centric and resilient European industry



Why widening 14.0?

- Industries active role in providing solutions to challenges for society
 - (including the preservation of resources, climate change and social stability)
- Integration of benefits for industry, for workers and for society.
- Empowering workers addresses evolving skills/training needs
 - (increases the competitiveness and attracts talents)
- Good for our planet
 (favours circular and more efficient production models)
- Revising existing value chains and energy consumption practices

(increases resilience concerning external shocks)



15.0 - reflections on the concept from a local level

Input from Alberto Pezzi / DGI - Acció - Government of Catalonia



New and old paradigms in competitiveness policy

Alberto Pezzi



Snr Manager Competitive Strategy

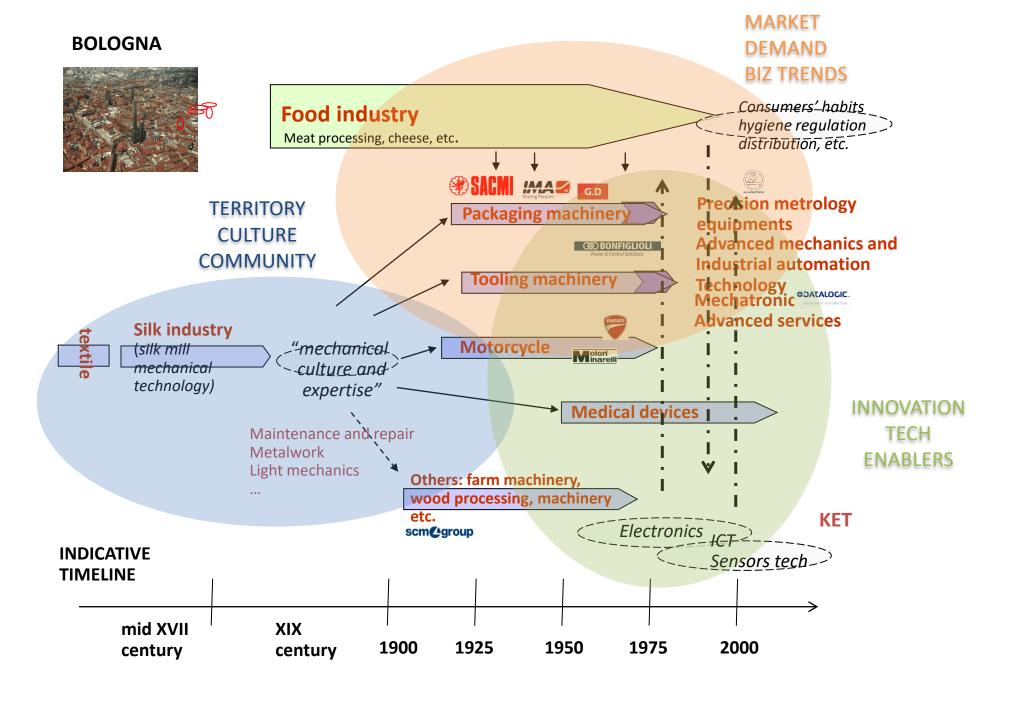




Member of the Board of Advisors

Member of the European Expert Group on Clusters





SHARED VALUE CONCEPT



"... policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates"

M.E. Porter and M. Kramer, HBR, 1-2, 2011

- SV is about <u>creating a common ground for</u> economic and societal values
- SV is not anecdotic, <u>it should be embedded in firm strategy</u>

A GREAT EXAMPLE OF INTER-CLUSTER COOPERATION PROJECT WITH SHARED VALUE CREATION



Improvement of local environment by reducing water contamination









Leather tanning workshops in Igualada (Barcelona) begin XVIII century Source: J. Nadal, Atlas de la Industrialización en España 1750-2000, Barcelona 2003

MÉS INFORMACIÓ / CONTACTE

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Additional info on the EUROPEAN EXPERT GROUP ON CLUSTERS: https://ec.europa.eu/transparency/expert-groups-register/screen/expert-groups/consult?do=groupDetail.groupDetail&groupID=3636

Download the RECCOMENTATION REPORT



Status quo

Tour de table in the room:

- Name and organisation
- I4.0 strategy: yes/no
- Status of I5.0 within your organisation

Voting for the virtual audience:

Question 1: Do you have an I4.0 strategy/policy?

- Yes
- No

Question 2: What is your position regarding an I5.0 strategy/policy?

- I have not heard about it before this event
- I know what it is, but have not taken action yet
- I am considering to develop an I5.0 strategy/policy
- I have started the process of an I5.0 strategy/policy

Discussion

Discussion points for the room:

- Do you see a need for an amendment of I4.0?
- How do industry stakeholders react to I5.0?
- What actions have already been put in place to make amend I4.0 and to strengthen its implementation?

Questions to the speaker?

Learnings from I4.0 – reflections from two cases

Guiding questions to the speakers

• What were your key challenges in implementing an I4.0 strategy/policy so far?



- What would you do differently if you could start again?
- What were the main impacts of your actions?
- What can we learn from the I4.0 experience to make a widened I4.0 approach (e.g. I5.0) a success?

Reflections from clusters

■ Input from Luisa Bouzoubaa / Pôle EMC2







EUROPEAN CLUSTER FOR MANUFACTURING TECHNOLOGIES

Luisa Bouzoubaa



competitivity cluster
since 2005
dedicated to manufacturing
technologies

An ecosystem with **800 members** including 50 % SMEs

innovation and transformation projects

Industry-driven
Association

FOUNDING MEMBERS

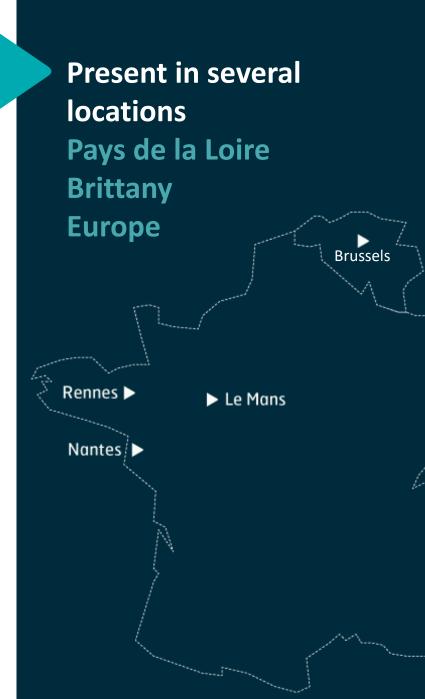












EMC2 KEY FIGURES

Since 2005

- **+800** members
- +1900 projects supported
- +650 labelled projects

(including +100 european projects)

+360 financed projects representing +1,7
 Mds€ including 800 M€ of public funding

in 2020

- **396** members
- **219** supported projects
- 92 labelled projects
 (including 20 european projects)
- **39** financed projects



Focus on INNOVATION AND TRANSFORMATION PROJECTS



Access to a

network



Access to

key technologies



Privileged access to **funding**



Access to methodological expertise

A technological roadmap that meets the industry of the future challenges







4 Strategic Business Units (SBUs)



SBU INDUSTRIAL PERFORMANCE

- Advanced materials & processes
- Product quality control and improvement
- Automation, flexibility and securing of production systems



SBU SUSTAINABLE INDUSTRY

- Structures lightening
- Circular economy in the industry
- Energy efficiency of the plant



SBU DIGITAL INDUSTRY

- Cyber-physical systems
- Data management
- Digital twin of the plant



SBU HUMAN-CENTRED INDUSTRY

- Support to the operator
- Evolution of skills and transmission of know-how
- New methodology and collaborative practices









THE HUMAN-CENTERED INDUSTRY OF TOMORROW

A practical guide







THE HUMAN-CENTERED INDUSTRY OF TOMORROW

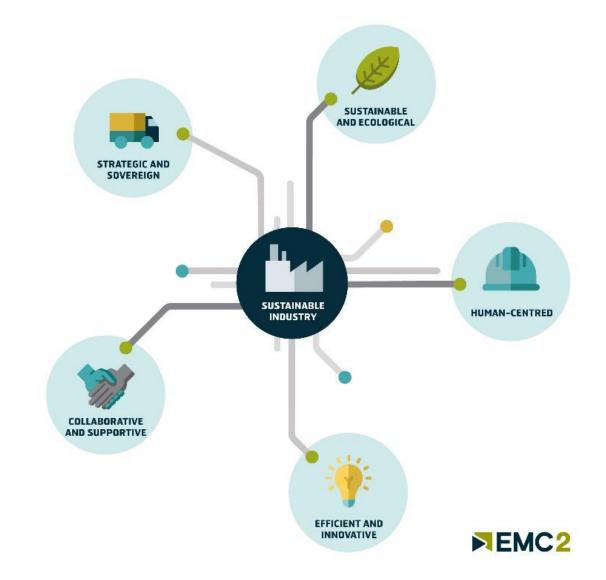
1. HUMANS AS CREATORS OF VALUE

2. HUMANS AS ARCHITECTS OF TRANSFORMATION

3. HUMANS AS ACCELERATORS OF INNOVATION

ENGAGEMENT FOR A SUSTAINABLE INDUSTRY

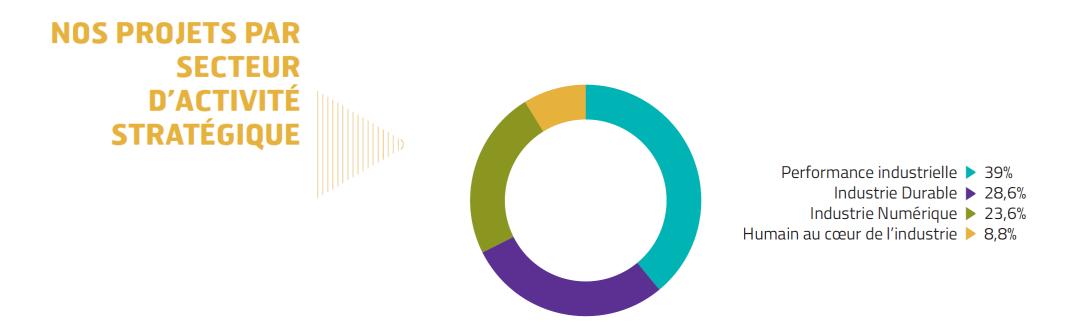
WITH A MANIFESTO "for a sustainable industry" BASED ON 5 AXES



ENGAGEMENT OF OUR ECOSYSTEM

- A manifesto launched in July 2020, and signed by more than 80 companies
- Specific conferences and animations (e.g Matinées Techno) to support exchange and innovation project ideas development
- Support our members in transformation projects to help modernisation, digitalisation, and to initiate their environmental transition.

ENGAGEMENT OF OUR ECOSYSTEM



SUSTAINABLE INDUSTRY & HUMAN-CENTRED INDUSTRY

represent 37,4% of the projects supported in 2020



Boost our members digital transformation



A "TAILOR-MADE" SUPPORT PROGRAMME

for companies of all maturities and size in the manufacturing sectors

AWARENESS RAISING AND DIAGNOSIS

OF ISSUES
AND NEEDS





DIVA has been certified as a *European Digital Innovation Hub* by the European Commission.

JOIN THE FABTECH COMMUNITY



EUROPEAN CLUSTER FOR MANUFACTURING TECHNOLOGIES

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+33(0)2 28 44 36 00 contact@pole-emc2.fr www.pole-emc2.fr







The EMC2 cluster has been awarded the Gold label by the European Cluster Excellence Initiative and is thus ranked among the 60 best performing European clusters





Clusters driving the Green and Digital transitions

Saint-Ouen (Paris region) | 22nd - 23rd November 2021







Capacity-building session 3: Implementing Industry 4.0. priorities at local level

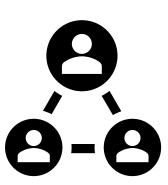
Ilaria Massari | General Manager, Rei - Reindustria Innovazione



Learnings from 14.0

Audience reflections on the key questions:

- What were your key challenges in implementing an I4.0 strategy/policy?
- What would you do differently if you could start again?
- What were the main impacts of your actions?
- What can we learn from the I4.0 experience to make I5.0 a success?





Next steps

Tour de table:

- What are you taking from this session?
- What will be your first concrete action after this session related to I4.0 (and/or I5.0) when you are back home?

Discussion:

- What support would you need <u>from the European</u> <u>Commission</u> in strengthening your I4.0 (or I5.0) ambitions?
- What support would you need <u>from your peers</u> to make I4.0/5.0 a reality?

Voting for the virtual audience:

Question: Will you start/continue working on an I4.0 policy within the next three months?

- yes
- No

Question: Will you widen your 14.0 policy to incorporate items as per 15.0 concept?

- yes
- No

Clusters driving the Green and Digital Transition

Saint-Ouen (Paris Region) 22nd-23rd November 2021

Thank you!







Clusters driving the Green and Digital Transition

Saint-Ouen (Paris Region) 22nd-23rd November 2021

Breakout session 4







Clusters driving the Green and Digital transitions

Saint-Ouen (Paris region) | 22nd - 23rd November 2021







Capacity Building Session "Financing the twin transition for & through clusters"

Patricia Valdenebro | CEO, TCI Network

Introduction

Purpose of the session:

To identify finance-related challenges and discover new ways of financing the twin transition (digital and green) for and through clusters.

Guiding questions

- Q1. What challenges do clusters identify in financing the twin transition?
- Q2. What new ways of financing are being used by clusters to enable the twin transition?

An example from Germany

Greentech.Ruhr Network (Germany) by Hub Manager Christina Zollmars

Working to collaboratively strengthen the Ruhr region's green economy, a work that led them to win the EEPA award in the category 'Supporting the Development of Green Markets and Resource Efficiency'

<u>EEPA 2020 Supporting the Development of Green Markets & Resource Efficiency: Greentech.Ruhr, Germany – YouTube</u>

Contributions from the physical & online audience

 VLAIO Flanders, Annie Renders (European Expert Group on Clusters)

Connect cluster initiatives to thematic platforms



Thematic platforms

Transition domains (industry 4.0, circular..)
Specific gov decisions (AI, CS, energy/climate)



7 Spearhead Clusters

Bottom up

- Create environment to **foster discovery** → market: make choices
- 'Entrepreneurial discovery' driving principle
- NOT: top down thematic boundaries, but join forces around regional strenghts, within bottom-up landscape
- Triple helix collaboration, valorisation

Good practice



Flemish industries: carbon circular and low in CO2 by 2050

- Ambitious industrial innovation programme, Flemish universities, research institutes and industries develop breakthrough technologies by 2040 to create new climatefriendly processes and products.
- Innovation will help Flemish industries make the big leap:
 carbon circular and low in CO2 by 2050.
- Coödinated by Catalisti = spearhead cluster
 Sustainable Chemistry
- 20mio €/y invested since 2019
- Close collaboration triple helix (KI, Comp, Gov)
- Current focus on research, to be transferred to industry

Contributions from the physical & online audience

• TEXTILS.cat, the Catalan cluster of advanced textile materials, Josep Casamada (Cluster Partnership for Excellence)

"We have recently launched a paid service within the cluster called "La Ruta" ("the road") with a set of dedicated joint services to support our members in the twin transition. Participating companies pay an extra annual fee to participate in this service where the key focus is the collaboration and experience sharing."

Outputs

Pull of good European practices in financing the twin transition for and through clusters:

- 1. Transformational projects
- 2. Added-value services
- 3. Mix of public and private funding
- 4. Public infrastructure projects
- 5. Cross-regional and cross-cluster funding schemes
- 6. Services commissioned by governments

4 main challenges of financing the twin transition for and through clusters

- 1. Lack of continuity of support schemes
- 2. State aid rules
- 3. Too dependent business models
- 4. Lack of experience in dealing with investors
- 5. Complexity or administrative burden of public support

Clusters driving the Green and Digital Transition

Saint-Ouen (Paris Region) 22nd-23rd November 2021

Closing







Upcoming ECCP activities 2022-2023

- □ 19 Matchmaking events (11 physical + 8 virtual)
- Input papers on administrative arrangements with 3rd countries
- □ Support Office for ClusterXchange
- Organisation, moderation and animation of fora
- □ Cluster Booster Academy
 - √ 1 per year (4 days)
 - ✓ boost collaboration between clusters by enhancing the skills of cluster managers
 - √ help clusters become greener, more digital and resilient
- □ Online EU Cluster sessions
 - ✓ 26 sessions (1h) per year, every 2 weeks
 - ✓ presentation of key EU developments, trends for the interest of the cluster community
- □ Clusters meet Regions
 - √ 15 cluster transnational workshops, hosted by Regions to discuss clusters role in regional policy
- □ Cluster Collaboration Labs
 - ✓ at least 4 sessions of 2 days to boost thematic collaboration between clusters, to stimulate and scale-up inter-regional cooperation in new cross-border value chains
 - ✓ facilitate investment ideas and prepare roadmaps for joint projects Interregional Innovation Investment Projects

-> Initiate



NEW

Cluster Booster Academy

Online EU Cluster Sessions

Clusters meet Regions

Cluster Collaboration Labs (C2LABs)