



“Clusters Driving the Green and Digital Transition”

Event co-organised by the European Cluster Collaboration Platform and Île-de-France Regional Council

Saint-Ouen, France – 22/23 November 2021

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An initiative of the European Union



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1 Agenda of the event “Clusters Driving the Green and Digital Transition”

The event “Clusters Driving the Green and Digital Transition” was co-organised by the European Cluster Collaboration Platform (ECCP) and the Île-de-France Regional Council over two days on 22 and 23 November 2021 in Saint-Ouen, France. The event focussed on the twin transition (green transition and digital transition) and the role that clusters could and should play in it.

It took place in a hybrid set-up, combining participants present on site with participants joining virtually, as a way to connect and make the clusters community stronger in spite of all the challenges generated by the COVID-19 pandemic.

This output paper provides a summary of the discussions held during the event. All event materials and presentations are available on the [ECCP website](#).

Table 1 gives an overview of the event's agenda:

Table 1: Agenda of the event

Agenda	“Clusters Driving the Green and Digital Transition”
Timing	Description
Day 1	Monday 22 November 2021
09:00 – 09:30	Registration and welcome coffee
09:30 – 10:15	Opening session (plenary) Welcome from the European Cluster Collaboration Platform (ECCP), purposes and expected results, presentation of the programme – <i>Speaker: Marek Przeor, European Commission, DG GROW.</i> Welcome from the Île-de-France Region – <i>Speaker: Lauréline Renault, Regional Council</i> Keynote speech from the European Commission: Role of clusters in the twin transition – <i>Speaker: Ulla Engelmann, Acting Director of the Networks and Governance directorate within DG GROW at the European Commission</i> The role of EISMEA in management of EU programmes relevant for clusters – <i>Speaker: Luisa Prista, Head of Department Innovation ecosystems, SMP / Entrepreneurship & Consumers, EISMEA</i>
10:15 – 11:15	Kick-off conference (plenary): Cluster policies to foster the twin transition Moderators: Peter Czaga & Marek Przeor, European Commission, DG GROW Speakers: Pierre Hausemer & James Wilson, ECCP Presentation of the Expert Group on Clusters' work and key recommendations regarding clusters leading the twin transitions, followed by a presentation of current state of the Policy Toolkit. Q&A and exchanges on actions and practices between policymakers and cluster managers.
11:15 – 11:45	Coffee break
11:45 – 12:55	Panel discussion (plenary): Clusters, cities and regions acting for the green transition Moderator: Merete Nielsen, Cluster Excellence Denmark

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	<p>Panellists:</p> <ul style="list-style-type: none"> • Clusters as agents of change for the green transition – <i>Antonio Novo, European Cluster Alliance</i> • A Region’s perspective on the green transition – <i>Yann Wehring, Île-de-France Region’s Vice President in charge of ecological transition</i> • A city’ perspective on the green transition: Plaine Commune – <i>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</i> • A company’s perspective – <i>Augustin Becquet, CEO of Recommerce Group, President of EUREFAS (The European Refurbishment Association)</i> • Fostering the real uptake of circular economy – <i>Marline Weber, Institut National de l’Economie Circulaire, EU Circular Economy Stakeholder Forum coordination group</i> • European Commission’s actions to foster the green transition – <i>Ulla Engelmann, Acting Director of the Networks and Governance directorate, European Commission, DG GROW</i> 		
12:55 – 13:00	Presentation of the afternoon programme (plenary)		
13:00 – 14:00	Lunch		
14:00 – 15:30	<table border="0"> <tr> <td style="vertical-align: top;"> <p>Capacity-building session 1 (breakout room): Clusters & circular economy</p> <p>Moderator: James Wilson, ECCP</p> <ul style="list-style-type: none"> • Feedback from Member States cluster representatives • Q&A </td> <td style="vertical-align: top;"> <p>Capacity-building session 2 (breakout room): Cluster business models fit for accelerating the twin transition</p> <p>Moderator: Pierre Hausemer, ECCP</p> <ul style="list-style-type: none"> • Feedback from Member States cluster representatives • Q&A </td> </tr> </table>	<p>Capacity-building session 1 (breakout room): Clusters & circular economy</p> <p>Moderator: James Wilson, ECCP</p> <ul style="list-style-type: none"> • Feedback from Member States cluster representatives • Q&A 	<p>Capacity-building session 2 (breakout room): Cluster business models fit for accelerating the twin transition</p> <p>Moderator: Pierre Hausemer, ECCP</p> <ul style="list-style-type: none"> • Feedback from Member States cluster representatives • Q&A
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15:30 – 17:30	Optional: Site visits as illustration of circular economy initiatives		
Day 2	Tuesday 23 November 2021		
09:00 – 09:15	Registration and welcome coffee		
09:15 – 09:30	Opening of Day 2 (plenary): Wrap-up of day 1		
09:30 – 10:45	<p>Panel discussion (plenary): Clusters, cities and regions leading the digital transition</p> <p>Moderator: Marc Pattinson, Research and Innovation Expert, Interreg Europe Policy Learning Platform</p> <p>Panellists:</p> <ul style="list-style-type: none"> • Clusters as agents of change for the digital transition – <i>Antonio Novo, European Cluster Alliance</i> • A Region’s perspective – <i>Alberto Pezzi, DGI - Acció - Government of Catalonia</i> • From the industry’s perspective – <i>Thierry Gautreau, Industry 4.0 and companies transformation support, CETIM</i> • EU cluster involved in fostering the digital transition – <i>Bianca Muntean, Transilvania IT Cluster</i> • European Digital Innovation Hub (EDIH) – <i>Role of clusters in the European Digital Innovation Hubs (EDIH) – Thierry Louvet, Europe and International Affairs Director at Systematic Paris Region Cluster, partner of Digihall EDIH</i> 		

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	<ul style="list-style-type: none"> European Commission’s actions to foster the digital transition – <i>Marek Przeor, Team Leader – Cluster Policy, European Commission, DG GROW</i> 		
10:45 – 11:10	Coffee break		
11:10 – 12:40	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Capacity-building session 3 (breakout room): Implementing Industry 4.0. priorities at local level</p> <p>Moderator: Tahmina Shafique, ECCP</p> <ul style="list-style-type: none"> Feedback from Member States cluster representatives Q&A </td> <td style="width: 50%; vertical-align: top;"> <p>Capacity-building session 4 (breakout room): Financing the twin transition for & through clusters</p> <p>Moderator: Patricia Valdenebro, TCI Network</p> <ul style="list-style-type: none"> Feedback from Member States cluster representatives Q&A </td> </tr> </table>	<p>Capacity-building session 3 (breakout room): Implementing Industry 4.0. priorities at local level</p> <p>Moderator: Tahmina Shafique, ECCP</p> <ul style="list-style-type: none"> Feedback from Member States cluster representatives Q&A 	<p>Capacity-building session 4 (breakout room): Financing the twin transition for & through clusters</p> <p>Moderator: Patricia Valdenebro, TCI Network</p> <ul style="list-style-type: none"> Feedback from Member States cluster representatives Q&A
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12:40 – 12:55	<p>Closing of the event (plenary)</p> <p>Announcement of main events on clusters to take place in 2022 and 2023</p>		
12:55 – 14:00	Lunch		

2 The event at a glance

Almost 40 participants attended the event physically. These were mainly members of the European Expert Group on Clusters, representatives of the ESCP-4x Partnerships, and local cluster organisations from the Île-de-France region. In addition, over 60 participants representing clusters and policymakers from all over Europe joined online to one or several of the agenda items over the course of the two days.

On Day 1, the event was launched with a keynote speech by Ulla Engelmann, Acting Director of the Networks and Governance directorate within DG GROW at the European Commission, who emphasised the role of clusters in the twin transition and the relevant activities of the ECCP. This was followed by a kick-off conference on the question how cluster policies can foster the twin transition. In this conference, representatives of the European Commission and the ECCP looked at the Expert Group's recommendations and how to operationalise them, and presented the upcoming ECCP Policy Toolkit which is a searchable database with inspiring examples of cluster policies from 53 countries. In a subsequent panel discussion, experts representing clusters, companies and policymakers at local, regional and EU level discussed how clusters, cities and regions can act for the green transition.

The afternoon session started with two parallel capacity-building sessions. The first session was on clusters and the circular economy, where it was emphasised that circular economy is a transversal topic impacting all types of clusters and that the behaviour of customers is a key factor, as at the moment only a small share of customers are willing to buy responsible products. The second session was on making cluster business models fit for accelerating the twin transition, where transition pathways for clusters and funding structures, cost structures and value proposition of cluster business models were discussed. Afterwards, the participants embarked on one of four optional site visits within the Paris region where they had the opportunity to get to know practical examples of cluster actors implementing strategies to foster the twin transition.

Day 2 kicked off with another panel discussion, this time centred on the second pillar of the twin transition – the digital transition and the role that clusters, cities and regions can play in it. The discussion centred on the question what SMEs need to deal with the digital transition, and the support clusters can provide. Clusters were described as the ideal facilitator because they know their members, speak their language and have their trust. The panel discussion was again followed by two parallel capacity-building sessions. One focused on implementing Industry 4.0 priorities at local level and retraced the four phases of the industrial revolution, including examples of sustainable clusters that have shown the capability to transform throughout this continuous development by relying on technological innovation, their local specificities and adapted policymaking. The other session focused on financing the twin transition for and through clusters, looking at the challenges clusters identify in financing the twin transition and new ways of financing that are or can be used by cluster organisations to enable the twin transition.

The event was closed by the European Commission who emphasised the importance of clusters for succeeding with the twin transition and highlighted upcoming events and activities of the ECCP to support and connect European cluster organisations and take cluster collaboration in the EU to the next level.

3 Synopsis of the event “Clusters Driving the Green and Digital Transition”

3.1 Opening session

The audience was welcomed to the event by **Mr Benoît Esmanne** (European Commission, DG GROW) who thanked the physical and online participants to the event and presented the opening session speakers.

Mr Marek Przeor (European Commission, DG GROW) welcomed the participants on behalf of the European Commission. He emphasised the importance of the event's topic, “Clusters Driving the Green and Digital Transition”, with clusters being in an active ‘driving’ role.

Ms Lauréline Renault (Île-de-France region) thanked the audience on behalf of Jean-Didier Berger, Île-de-France Region's Vice-President in charge of Finances, Public Policy Evaluation and European Funds, and highlighted the region's commitment to support green and digital transformation of companies.

Ms Ulla Engelmann, Acting Director of the Networks and Governance directorate within DG GROW at the European Commission, opened the event with a keynote speech on the role of clusters in the twin transition. She mentioned the activities and deliverables of the ECCP, among which the Recommendations report from the Expert Group on Clusters and the Policy Toolkit. She highlighted the need for its promotion towards policymakers. She encouraged national and regional policymakers to use it to make the green and digital transitions a reality.

This was followed by an overview of the role EISMEA in management of EU programmes relevant for clusters, provided by **Ms Luisa Prista** (EISMEA). Ms Prista presented EISMEA's portfolio and the funding instruments supporting SMEs through clusters: Horizon Europe, Single Market Programme (SMP), European Regional Development Fund (ERDF).

Speakers:

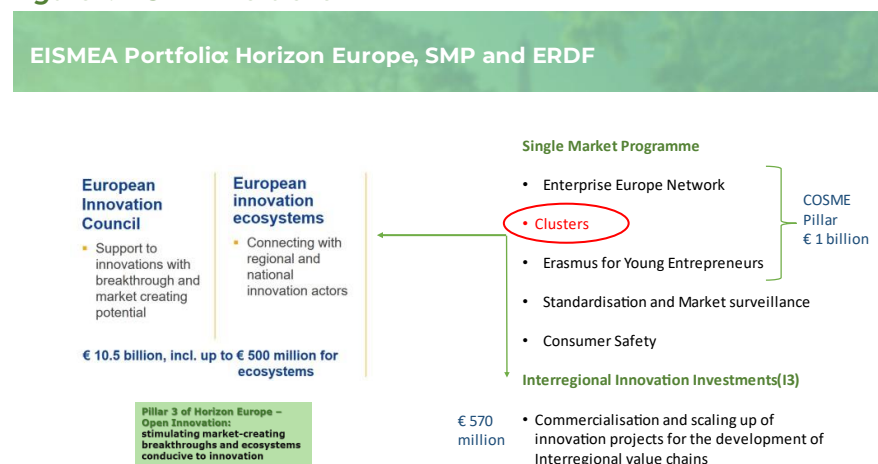
Marek Przeor, European Commission, DG GROW & Jan-Maarten De Vet, ECCP Project Director

Lauréline Renault, Regional Council of the Île-de-France Region

Ulla Engelmann, Acting Director of the Networks and Governance directorate within DG GROW at the European Commission

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

Figure 1: EISMEA Portfolio



She presented key figures of how EISMEA supported SMEs through clusters over the years. Under COSME and Horizon 2020, the ECCP and Horizon 2020 Innosup-01 actions were funded, which resulted in:

- **120** promoted European Strategic Cluster Partnerships, **530** different organisations covering **29** countries;
- **340** cluster organisations from over **1,000** registered in the ECCP;
- **25** Partnerships co-founded under the Horizon 2020 Innosup-01 actions.

She also presented two upcoming opportunities for clusters, notably the Joint Cluster Initiatives (Euroclusters) funded under the SMP (deadline 30 November 2021) and the Interregional Innovation Investments (I3) funded under ERDF (deadline 1 February 2021).

3.2 Kick-off conference: Cluster policies to foster the twin transition

The event opening was followed by the kick-off conference on the topic of how cluster policies can foster the twin transition. **Mr Marek Przeor** (European Commission, DG GROW) presented the Recommendations from the European Expert Group on Clusters:

Moderators: **Peter Czaga** & **Marek Przeor**, European Commission, DG GROW
Speakers: **Pierre Hausemer** & **James Wilson**, ECCP

Figure 2: 15 Recommendations of the European Expert Group on Clusters



15 Recommendations of the European Expert Group on Clusters

b

Leading the green transition	Accelerating the digital transition	Building resilience
<ol style="list-style-type: none">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 .	<ol style="list-style-type: none">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 .	<ol style="list-style-type: none">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 Commission

He gave an overview of the 2021 activities to operationalise these 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 2021)
 - Actions for policy makers (intelligence, networking and business services)

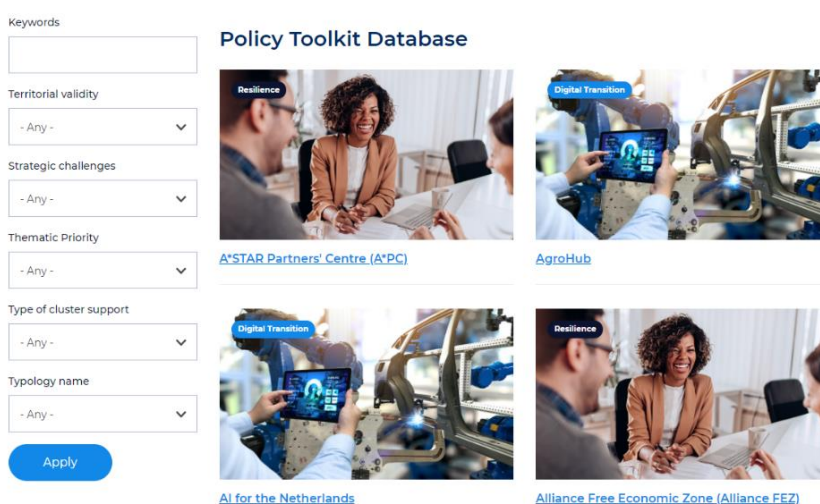
- Actions for cluster managers (intelligence, networking and business services)
- Examples of good practices
- Harvesting Report commented and updated (June-October 2021)
- Adoption of work deliverables at the Expert Group meeting on 9 December.

He also gave an overview of the work deliverables in 2021.

Figure 3: Policy Toolkit Database

Mr Pierre Hausemer and **Mr James Wilson** (ECCP) presented key resources for policymakers: 53 country factsheets and the Policy Toolkit. The Policy Toolkit aims to support policymakers to leverage the power of clusters through identification, design and implementation of effective cluster policies that can lead to

systemic change. It is a dynamic searchable database with inspiring examples of cluster policies from 53 countries. Currently 164 examples are listed in the Toolkit but it is conceived as a living tool that can be continually updated with more examples. The Toolkit is 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 (typology taken from the European Cluster Panorama). The Policy Toolkit will be made available on the ECCP in December 2021.



3.3 Panel discussions

Two discussions with a panel of experts representing clusters, companies and policymakers at local, regional and EU level were held to highlight the two parts of the twin transition: the green transition and the digital transition.

3.3.1 Panel 1: Clusters, cities and regions acting for the green transition

The first panel focussed on the role of clusters in the green transition. This panel was moderated by **Ms Merete Nielsen**, CEO of Cluster Excellence Denmark. The panellists were:

- Clusters as agents of change for the green transition – *Antonio Novo, European Cluster Alliance*
- A Region's perspective on the green transition – *Yann Wehring, Île-de-France Region's Vice President in charge of ecological transition*

- A city' perspective on the green transition: Plaine Commune – *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*
- A company's perspective – *Augustin Becquet, CEO of Recommerce Group, President of EUREFAS (The European Refurbishment Association)*
- Fostering the real uptake of circular economy – *Marline Weber, Institut National de l'Economie Circulaire, EU Circular Economy Stakeholder Forum coordination group*
- European Commission's actions to foster the green transition – *Ulla Engelmann, Acting Director of the Networks and Governance directorate, European Commission, DG GROW*

The panel was structured around two questions:

1. From your perspective – what is the key challenge around green transition?
2. From your perspective – what is the key solution to the challenges we are facing on green transition?

The discussion stressed that the alignment of actions at all levels was a priority, hence the creation of a Taskforce in transition pathways. Panellists explained the actions in their respective regions and cities, for instance the [Regional Strategy for the Circular Economy](#) (SREC) of the Ile-de-France region, published in September 2020, or the [Circular Economy Charter](#) of Plaine Commune. The discussion also focused on the importance of considering the end-to-end consequences of laws and include all types of costs – economic and social. Panellists stressed that repair was too expensive and advocated to make spare parts less expensive and more available. Finally, important French laws on the circular economy were reminded: the [Law Against Waste for a Circular Economy](#) (AGEC) and the [Climate and Resilience Law](#). The discussion highlighted three main areas of action: education and training, public procurement, economic incentives.

3.3.2 Panel 2: Clusters, cities and regions leading the digital transition

The second panel focussed on the role of clusters in the digital transition. This panel was moderated by **Mr Marc Pattinson**, Research and Innovation Expert, Interreg Europe Policy Learning Platform. The panellists were:

- Clusters as agents of change for the digital transition – *Antonio Novo, European Cluster Alliance*
- A Region's perspective – *Alberto Pezzi, DGI – Acció, Government of Catalonia*
- From the industry's perspective – *Thierry Gautreau, Head of Innovation, Design and Simulation, CETIM*
- EU cluster involved in fostering the digital transition – *Bianca Muntean, Transilvania IT Cluster*
- European Digital Innovation Hub (EDIH) – Role of clusters in the European Digital Innovation Hubs (EDIH) – *Thierry Louvet, Europe and International Affairs Director at Systematic Paris Region Cluster, partner of Digihall EDIH*
- European Commission's actions to foster the digital transition – *Marek Przeor, Team Leader – Cluster Policy, European Commission, DG GROW*

The panel was structured around the following guiding questions:

1. What type of services/programmes do you regard as priority measures to launch or accelerate the digital transition strategy you are seeking to deploy/support?
2. What type of interregional cooperation actions could help you/your organisation better deliver the digital transition agenda?
3. For private sector organisations/clusters: What do they expect from public actors to support the digital transition?
4. For public actors: What type of indicators/measures would you consider important to monitor and assess whether you are successful in achieving digital transition?

The discussion centred on the question what SMEs need to deal with the digital transition, and the support clusters can provide. It was emphasised that digitalisation needs are different for individual SMEs. At the same time, SMEs often are not aware of their precise needs and the solutions that would be available. This makes clusters the ideal facilitator because they know their members, speak their language and have their trust. While the role of ICT-centred clusters is rather to help their members provide their products and services to support the digital transition, the role of non-ICT clusters is to identify the needs of their members and possible solutions.

3.4 Capacity-building sessions

In addition to the panel discussions that took place with the entire audience present, four smaller and more focussed capacity building sessions were organised, which with a subgroup of the audience participating.

3.4.1 Session 1: Clusters & circular economy

The aim of the first capacity-building session was to deepen the participants' collective understanding of the ways in which clusters can contribute to the green transition through fostering circular economy initiatives.

Data from the ECCP shows that the green transition, and more specifically also circular economy, are among the top interests of cluster organisations in the EU. These topics are also transversal issues not limited to 2clusters

active in traditional green industries but relevant for all types of clusters.

Six input speakers representing both cluster organisations and national responsible authorities provided practical examples of how circular economy services and initiatives can be implemented. Following this input, the session centred on four key questions:

- 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?

It was emphasised that circular economy is not a topic limited to certain types of clusters, but it is a general paradigm that can apply to all clusters. Not all cluster organisations and

Moderators: **James Wilson**, ECCP & **Merete Nielsen**, Cluster Excellence Denmark

Speakers: **Lars Persson Skandevall** (Bron Innovation), **Enrico Venturini** (Tuscany Fashion Cluster), **Arnaud Bousquet** (Matériaupole), **Vidmantas Vaitulevičius** (MITA) & **Marta Mackiewicz** (Polish Ministry of Development, Labour & Technology)

companies will be able to immediately see how to tackle and make use of the topic, which will sometimes require a change of mindsets. This can be facilitated to some extent from nudging by cluster organisations and/or policymakers, not all companies will be willing to change if there is no market need. The behaviour of customers is therefore important, and at the moment only a small share of customers are willing to buy responsible products. This also applies to public buyers – adapting public procurement requirements can therefore be a tool for increasing visibility and market demand of responsible products.

3.4.2 Session 2: Cluster business models fit for accelerating the twin transition

This capacity-building session aimed to answer to the following questions:

Moderators: **Pierre Hausemer & Tahmina Shafique**, ECCP

- 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?

Transition pathways were described as strategies for managing systemic transition. Those strategies are place-based and tailored to the status quo and context in which they are developed. Clusters are key actors to define priorities, identify strategic challenges, develop tailored actions and support the design of the twin transitions pathways.

3 key components of **cluster business models** were highlighted: funding structure, cost structure, value proposition.

Finally, activities were defined to build cluster business models supporting transition pathways. Physical and online participants answered to a poll on clusters' needs to build these business models for the transition pathways.

Figure 4: Transition pathways and clusters

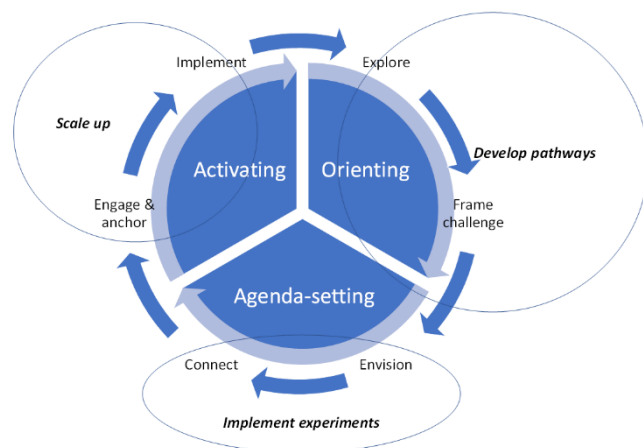


Table 2: Building cluster business models that support transition pathways

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.

During the discussions, it was emphasised that clusters were willing to move from service provision to become more mission-oriented and aim for systemic change. It was considered crucial for clusters to be properly trained to mobilise the right skills. The amount of public funding made available to companies and clusters for the recovery was highlighted as an opportunity to be seized.

3.4.3 Session 3: Implementing Industry 4.0. priorities at local level

The third session centred on the question how Industry 4.0 and 5.0 priorities can be implemented by clusters organisations and companies. The objectives were to develop a harmonised understanding of the need to widen the understanding and application of Industry 4.0, to collect and share lessons learnt from I4.0 experiences and identify their relevance for updating, and to identify factors of importance for a successful roll-out.

Moderators: **Tahmina Shafique**, ECCP

Speakers: **Alberto Pezzi** (DGI – Acció – Government of Catalonia), **Luisa Bouzoubaa** (Pôle EMC2) & **Ilaria Massari** (Rei – Reindustria Innovazione)

The four phases of the industrial revolution, from 1.0 to 4.0, have taken place since the 18th century, starting from mechanisation through mass production and computerisation towards robotisation and smart manufacturing. In this technological context, the concept of Industry 5.0 emphasises the role of the human worker and the contribution of industry to the society.

Examples from the input speakers showed how sustainable clusters have the capability to transform throughout this continuous development by relying on technological innovation, their local specificities and adapted policymaking. Creating shared value for both companies and the society and work and create societal benefits beyond the cluster ecosystem. However, it was also pointed out that many clusters and companies are still in the process of implementing Industry 4.0, so already advancing with the Industry 5.0 concept could overstrain them. A poll among the session participants showed indeed that 55% had not heard of the concept Industry 5.0 before the session. Cluster can play a key role in supporting companies to operationalise this somewhat abstract concept.

3.4.4 Session 4: Financing the twin transition for & through clusters

The purpose of the session was to identify finance-related challenges and discover new ways of financing the twin transitions for and through clusters.

Moderator: **Patricia Valdenebro**, TCI Network

Speakers: **Anne Renders** (VLAIO Flanders, European Expert Group on Clusters) & **Josep Casamada** (AEI TEXTILS.cat. ESCP-4x)

The guiding questions of the session were as follows:

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

The session started with a poll on the different types of financing used by clusters. Annie Renders (VLAIO Flanders) presented two practices in Flanders:

- The [spearhead clusters](#), large-scale triple helix initiatives that receive financing for up to ten years to develop and implement the Flanders competitiveness programme.
- The [Flanders Industry Innovation Moonshot](#), large-scale industrial innovation programme to create climate-friendly processes and products by 2040.

Josep Casamda (AEI TEXTILS.cat) presented two EU-funded projects, [GALACTICA](#) and [CLAMTEX](#). He also presented a recently launched paid service, ‘La Ruta’ (‘the road’) supporting members in the twin transitions.

During the discussion, it was emphasised that the availability of private investment was different depending on the sectors, and that clusters needed to adapt their narrative and practices to attract this type of funding. One participant gave the idea of organising business idea competitions to attract business angels and investors or attract corporate investment from cluster members. Physical and online participants shared good practices on financing the twin transitions and compiled a series of main challenges.

Figure 5: Outputs from the session



3.5 Site visits

In addition to presenting and discussing examples of the role of clusters in the twin transition during the panel discussions and capacity-building sessions, the event gave the participants the opportunity to take part in one of four site visits. During the site visits, the participants could experience hands-on examples of how cluster actors work towards the twin transition objectives. The four site visits were:

- Tour 1: **Les Canaux**, a unique historic building renovated with a fully circular process, where the participants could witness how cluster initiatives can promote the development of circular economy initiatives, including a pitch of **Cap Digital**, a national cluster in digital and ecological transformation.
- Tour 2: **Cemex Group**, a global leader in the sustainable building materials industry, where participants visited the group's urban production facility and learned about innovative ways of generating new business opportunities with sustainable construction material.
- Tour 3: **Backacia**, digital solution dedicated to the reuse of construction materials and equipment, and a tour of **Station F**, France's biggest start-up campus, focussing on the same topics as the second tour.
- Tour 4: **Lizee**, a startup that enables brands and retailers to adapt to the shift in consumer behaviour with circular rental models.

3.6 Closing session

In the closing session, the European Commission presented upcoming EU events and opportunities to engage and increase the visibility of clusters, notably the Industrial Forum and the Industry Days taking place in the beginning of 2022.

The European Cluster Collaboration Platform will also offer several new activities in 2022 and 2023:

Figure 6: Upcoming ECCP activities

