EUROPEAN CLUSTER COLLABORATION PLATFORM

# Advancing the Transition: Key Developments in the Chemical Industry

## Summary

EU Clusters Talks
10 July 2024, 8:30 – 9:45 CET

An initiative of the European Union

# Advancing the Transition: Key Developments in the Chemical Industry

The European Cluster Collaboration Platform, on behalf of the European Commission, organised the **EU Clusters Talk "Advancing the Transition: Key Developments in the Chemical Industry" on 10 July, 8:30 – 9:45 CET**, to present the first achievements in the implementation of the Transition Pathway for the Chemical Industry as well as to discuss the role of clusters to support the transition.

**Agenda of the meeting**

Moderation: Jennifer Baker

1. News from the European Cluster Collaboration Platform
   *Nina Hoppmann, team member of the European Cluster Collaboration Platform*
2. Transition Pathway for Chemicals
   *Algreit Dume, DG GROW, European Commission*
3. Panel debate
   *Malgorzata Woch, European Projects and Collaboration Manager, AXELERA*
   *Susan Costello, Network Director, Bio Pharma Chem Skillnet*
   *Monika Bańka, Network & Policy Coordinator European Chemical Regions Network*
   *Athanasios G. Konstandopoulos, Chief Scientific Advisor CHORUS Cluster, Professor of Chemical Engineering, Aristotle University*
4. Funding opportunities
   *Nina Hoppmann, team member of the European Cluster Collaboration Platform*

**Key messages**

- The implementation of the transition pathway for chemical industry is on progress, which means significant **advance** in driving the sector's transformation.
- Stakeholder **collaboration** is crucial for the successful implementation of the pathway.
- Current challenges for the sector are the high costs of raw materials, maintaining competitiveness in a global world, as well as digitalisation and upgrading and reskilling of professionals.
- Collaboration across industry, academia, and state agencies is vital for addressing **skills** gaps and driving innovation in green chemistry, and digitalization. Maintaining existing knowledge while upskilling through centralized resources and modern training is key to the industry's transformation.
- The transition pathway has its complexities and requires effective prioritisation and contingency planning, particularly in relation to funding programmes

# 1. News from the European Cluster Collaboration Platform

After the introduction by moderator Jennifer Baker, the following news items were presented:

1. Invitation to register for the Drop-In Session 10 July with Interactive Q&A with ECCP experts.
2. Invitation to register for the next C2Lab in Strasbourg, France, on 25-26 September 2024; Info Session on 11 July
3. Invitation to register for the next Cluster Booster Academy, 3-4 March 2025 with previous online sessions
4. Save the date for the upcoming Clusters meet Regions in Chisinau, Moldova, on 10-11 October, Palma de Mallorca, Spain, on 24-25 October, Heilbronn, Germany, on 13-14 November and Charleroi, Belgium, on 27-28 November
5. Apply for EU Singapore Matchmaking on 22-24 October 2024
6. Apply for EU India Matchmaking in Bengaluru on19-21 November 2024

# 2. Transition Pathway for Chemical Industry

### Algreit Dume, DG GROW, European Commission

Algreit Dume presented the **Transition Pathway for the Chemical Industry**, published in 2023, which aims to drive the **transformation of the EU chemical sector** by balancing sustainable competitiveness with the green and digital transition. The pathway is a comprehensive roadmap that outlines approximately 190 actions, categorized under eight key pillars essential for the industry's transformation: sustainable competitiveness, investment and funding, research and innovation, regulatory frameworks, access to energy and feedstocks, infrastructure, skills development, and the social aspects of the transition.

The pathway was co-created by the European Commission in collaboration with EU Member States, industry stakeholders, NGOs, and other relevant parties. It is designed to help the EU chemical industry maintain its competitive edge while simultaneously addressing environmental and digital challenges. The document sets out short-term, medium-term, and long-term goals, with actions planned up to 2050 to align with the EU's broader climate and sustainability objectives.

The speaker emphasized the importance of translating this strategic document into **concrete actions**. To achieve this, the European Commission has established a dedicated expert group and task forces focusing on high-priority topics such as energy and feedstock supply, and the creation of markets for sustainable products. The initiative aims to de-risk investments and support the development of partnerships that can drive the industry's transformation.

In July 2023, the Commission launched a **Call for industry-led initiatives**, which is still open, to support the transition, resulting in over 112 projects being submitted, which are now published on the Commission's website. Algreit Dume highlighted the need for continuous input from the industry to inform policymaking and ensure that the implementation of the pathway remains aligned with real-world challenges and opportunities.

Furthermore, the speaker also informed about the publication in February 2024 of a **Guidance of Funding**, which outlines 11 EU funding programs relevant to the chemical industry's transformation.

This guidance aims to simplify access to funding by providing detailed information on open calls, budgets, and eligibility criteria. An upcoming transition pathways stakeholders support platform, set to be launched by early 2025, will further support industry collaboration by offering a centralized hub for resources, discussions, and matchmaking opportunities.

In conclusion, the speaker stressed the critical role of **stakeholder collaboration** in the successful implementation of the transition pathway.

# 3. Panel debate

The panelists agreed that some the main challenges the industry is currently facing are the high costs of raw materials and the pressure to remain **competitive** in a global market.

In terms of **value chain** characteristics of the chemical sector, the panelists put focus on its complexity due to the nature of its large-scale installations and heavy reliance on petrochemical-based raw materials as well as volatility and cyclicality, where fluctuating demand and material shortages can create shocks.

Athanasios Konstandopoulos, representing a cluster focused on sustainable energy and circular economy, highlighted that this could be particularly difficult for small and medium-sized enterprises (SMEs) and noted that competitive landscape sometimes forces companies to consider relocating outside the EU to remain viable.

In addition to the above, Malgorzata Woch stressed the significant role of innovation in the ongoing transition, highlighting that this process is both expensive and ambitious. The strong ecosystem of motivated companies, startups, and research centres often face challenges in securing the necessary **funding** to bring their innovative ideas to fruition, which is crucial for launching and scaling up new projects.

The panelists stressed the importance of environmental compliance noting that the industry must follow strict regulations while still making profit and keeping jobs secure. Monika Banka also missed a common approach among different regions and stakeholders, which creates challenges for the companies in the chemical industry that are struggling with the lack of predictability and the lengthy regulatory processes, which significantly impact their operations and decision-making.

They also suggested that **innovation** and **new technologies** could help tackle some of these challenges, especially in improving large-scale operations, although this will take considerable time and investment.

Malgorzata Woch highlighted the **essential role of clusters** in fostering innovation and driving the transition process within the chemical industry. Clusters bring together a diverse group of stakeholders, to collaborate on developing new products and processes, by creating an ecosystem where the competencies, skills, expertise, and technological capacities of different actors are identified and matched with relevant projects. Additionally, clusters can assist in securing necessary funding and provide support throughout the project development process. The speaker noted that, while the innovation and transition process is long, it is critical for achieving significant advancements.

Susan Costello emphasized the critical need for collaboration between industry, academia, and state agencies to address **skills** shortages and develop new skills essential for innovation. She highlighted the importance of research and development, especially in areas like green chemistry and sustainability, as key drivers of this innovation. While acknowledging that progress in developing these new skills can be slow, she stressed that it is crucial for driving change in the industry. The challenge of digitalization was also emphasized, particularly the need to enhance digital skills and talent development within the industry to support its ongoing transformation, as it was emphasized by Monika Banka, representing the European Chemical Regions Network.

Athanasios Konstandopoulos, on the other hand argued that the chemical industry already possesses many of the necessary skills, particularly among the existing workforce, which is well-trained and productive and that the real challenge is to maintain existing knowledge while also imparting chemical process expertise to digital specialists entering the field.

As final notes on this topic, Monika Banka proposed creating a centralized European "skills hub" to simplify access to **training** resources, suggesting that that a single gateway could provide links to various trainings, ensuring they remain useful and accessible long-term and Malgorzata Woch recommended to develop a catalogue of competency blocks using a mix of modern formats like podcasts and on-site training and emphasized the importance of upskilling for ongoing professional development.

In the final part of the debate, the panelists shared their impressions on the progress of the transition pathway. They agreed of its complexity and the need to establish clear prioritization as well the importance of having realistic contingency plans, crucial in project planning, especially when applying for EU funding.

# 5. Funding opportunities

Closing the EU Clusters Talk, Nina Hoppmann shared the following examples of funding opportunities:

1. Biotech routes to obtain bio-based chemicals/materials replacing animal-derived ones; deadline 18 September2024
2. Circular Economy, resources from Waste, Air, Water, Soil, Noise, Chemicals, Bauhaus; deadline 19 September 2024
3. Experimentation and exchange of good practices for value creation; deadline 25 September 2024
4. Opportunities for SMEs: Calls from Euroclusters; published on European Cluster Collaboration Platform