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Industry 5.0: People at the heart of business

Summary

EU Clusters Talks
4 October 2023, 8:30 – 9:45 CET

An initiative of the European Union

Industry 5.0: People at the heart of business

The European Cluster Collaboration Platform organised this EU Clusters Talk on 4 October 2023, 8:30 – 9:45 CET, to learn about the conceptual approach, discuss how it is perceived by industry, and see how it can be translated into practice.

Agenda of the meeting

Moderation: Jennifer Baker

1. News from the European Cluster Collaboration Platform
   Nina Hoppmann, team member, European Cluster Collaboration Platform
2. The concept Industry 5.0
   Sean O'Reagain, Deputy Head of Unit, DG RTD, European Commission
3. Panel debate
   Diego Carballo, European Project Manager, Aerospace Valley
   Sebastian Rynkiewicz, President, Metal Processing Cluster
   Tautvydas Pipiras, Project Manager, Lithuanian Innovation Centre
4. Funding opportunities
   Nina Hoppmann, team member of the European Cluster Collaboration Platform

Key messages

- Industry 5.0 has three core pillars: human centricity, sustainability, and resilience.
- While the concept might be perceived by the industry as a new "revolution", the underlying values are already applied.
- The employees need to be engaged in the tech-related decisions of the companies.
- What is needed is an effective communication that puts the people at its centre. The speakers refer to a practical approach to integrate the concept into the daily work.
- Skilling the workforce to harness the potential of technologies is crucial.
- There is competition for workers with the needed skills, so companies need to work on their attractiveness and competitiveness.

1. News from the European Cluster Collaboration Platform

Nina Hoppmann, team member, European Cluster Collaboration Platform

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

1. After the first open calls published by the Euroclusters, SMEs are starting their projects for a green, digital, and resilient Europe. Find articles about this in the ECCP news.
2. Invitation to join upcoming "Clusters meet Regions" events in France, Czech Republic, Germany, Romania, and Poland
3. Register to attend the EEN Townhall talk about Single Digital Gateway on 23 October
4. Invitation to stream the EU Industry Days in Málaga, Spain, on 4-6 October 2023

2. The concept Industry 5.0

Sean O'Reagain, Deputy Head of Unit, DG RTD, European Commission

Sean O'Reagain presented the Industry 5.0 concept, which emphasizes a shift in the industrial sector to become more adaptable and responsive to the changing global environment, like supply chain issues, raw material shortages, the COVID pandemic, and geopolitical disruptions. It is not considered a "revolution" but is recognises the power of industry to achieve societal goals beyond jobs and growth.

Industry 5.0 has three core pillars:

- **Human Centricity**: This focuses on the engagement and empowerment of workers in the digitalisation process. It underscores the importance of valuing workers as investments, building on their creativity, and capitalising on the digitally literate new generation.
- **Sustainability**: Industry 5.0 seeks to leverage digitalisation for better resource efficiency, promoting a full lifecycle perspective and aligning with the United Nations sustainable development goals.
- **Resilience**: Given the geopolitical and climatic changes, businesses must adopt flexible technologies and business models that allow for rapid adaptation to disruptions. This also means upskilling the workforce and making supply chains more adaptable.

Sean O'Reagain shared that about a year after the launch of the Industry 5.0 initiative, European industry leaders confirm its relevance. The approach helps improve safety and well-being, reduce costs due to resource efficiency, empower workers, attract talent, adapt training, and be competitive.

Looking at the role of policy, Sean O'Reagain said that there is a need for **coordinated policy** across various areas such as education, employment, and social policy. This includes promoting human-centric approaches and greener industries through tax policies, ensuring that all regions are part of the transition, and putting appropriate social security systems in place.

Regarding current actions and real-world implementations, he shared that Industry 5.0 is quickly gaining traction. The venture capital sector has shown interest, and the European Institute of Technology has modified its manufacturing flagships to align with Industry 5.0. Moreover, Industry 5.0

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modules are being introduced in universities across Europe. To accelerate the adoption, they put in place a "Community of Practice", a "Regenerative Business Compass", an Industry 5.0 Award, develop ten demonstration pilot plans on human-centricity, and publish case studies.

3. Panel debate

The panellists discussed the perception of the concept Industry 5.0 by the companies, what it means in the real-world application, the need to equip the workforce with the skills to handle new technologies, and the importance of social innovation.

Diego Carballo highlighted the concerns of SMEs towards the adaptation of Industry 5.0, particularly since many are still adapting to Industry 4.0. The primary apprehension lies in the **perception of Industry 5.0**; instead of viewing it as an advancement, it is seen new paradigm. This can make it challenging for SMEs to assimilate into their current strategies. That is why he advocates for a pedagogical approach in introducing Industry 5.0. The main objective is not to push the term "Industry 5.0" itself, but rather to **emphasize the underlying values**, which are resilience, human-centricity, and sustainability. By initiating dialogues around these core values, some businesses might already be inadvertently implementing aspects of Industry 5.0, while others might be intrigued by the potential benefits. In the aerospace industry, the Sustainable Development Goals (SDGs) are the guidelines for the companies. Large aerospace companies are bound to these goals, and their SME suppliers will eventually align with them as well.

Sebastian Rynkiewicz confirmed that the concept is seen by industry as an evolution. While technology is widely seen as the main challenge, the realisation of projects confirms that the real challenge is the human-centric approach. The technology acceleration is very quick, now we see a lack of personnel for the technological transformation. Many companies are not at the level of Industry 4.0. Therefore, their understanding of Industry 5.0 is to be practical in every step and integrate technology into the "normal life". For this, both good practices and failures are of help. He emphasises the **importance of exchanges** on the problems with collaboration partners. He gave an example of the implementation of an AI system in a company. While the challenge in the past was the implementation itself, now they struggle with adapting it to the needs of the workers. He highlighted that **people need to be engaged** in the process.

Tautvydas Pipiras confirmed that even though business owners and employees might feel overwhelmed by the concept, there is a noticeable shift, albeit **unconsciously**, towards the principles of Industry. The agri-food industry is undergoing changes driven by external factors, which are a new consumer awareness for more conscious food products, the need for innovation and modernisation, and the aging of the work force in the sector. Upcoming generations are more tech-savvy. He envisions a future where human intervention in farming is reduced to decision-making based on data, rather than manual labour. This transition involves leveraging technology for tasks like driving tractors, making it more appealing to younger individuals.

The speakers agreed that the **training** of the workers is central to the approach. While a strong emphasis is usually laid on technologies themselves, it's equally important to equip workers with the **necessary skills** to harness these technologies. There's a need for collaboration between educational institutions, industries, and governments to address this gap. Furthermore, initiatives that promote

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lifelong learning and continuous training will be essential. By doing so, we can ensure that the workforce is prepared and adaptable, able to harness the benefits of Industry 5.0 while still keeping human-centric values at the forefront. Sean O'Reagain added that there is **competition for skilled talent** across sectors, and the industry must make itself attractive for the younger generation with the necessary skills.

The speakers also highlighted the benefits of **collaboration between multiple sectors**, for example the food and digital innovation industries, to gain new insights and transfer knowledge. Technologies like satellite data and drone usage in agriculture requires the joint effort of space and agri-food sectors. The data collected needs to be easily interpreted by the farmers for effective application.

Additionally, the speakers agreed that the companies need to investigate their **long-term development** and continued **motivation** of their employees. People are encouraged to stay in the company when they learn something new, which is why Tautvydas Pipiras thinks about industry 5.0 as a long-term resilience for the company in social, environmental, and technological terms. Additionally, there is a rising interest in **social innovation**. Companies are looking at ways to involve workers in the transformation process, ensuring their active participation. It is essential to remember that technology serves us, and its implementation should always be in the interest of enhancing human potential and societal well-being.

Talking about the policy approach required for supporting industry 5.0, Sean O'Reagain explained that the concept is already being incorporated into diverse areas such as workplace health and safety and sustainable corporate governance at European level. This suggests a broad understanding of its applicability. The notion of "governance 5.0" to back "industry 5.0" is intriguing. Engagements with policymakers will be crucial to determine how it can be embraced across various policy domains.

4. Funding opportunities

Nina Hoppmann, team member of the European Cluster Collaboration Platform

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

1. [Assessing and strengthening the complementarity between new technologies and human skills](#); deadline 7 February 2024
2. [Beyond the horizon: A human-friendly deployment of artificial intelligence and related technologies](#); deadline 7 February 2024
3. [Collaborative intelligence – combining the best of machine and human (AI Data and Robotics Partnership)](#); deadline 19 March 2024
4. Opportunities for SMEs: Calls from Euroclusters; published on [European Cluster Collaboration Platform](#)
5. Invitation to come to [upcoming C2Labs](#) in Slovenia and Lithuania to work on project proposals

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