Industry 5.0 Community of Practice

Terms of Reference
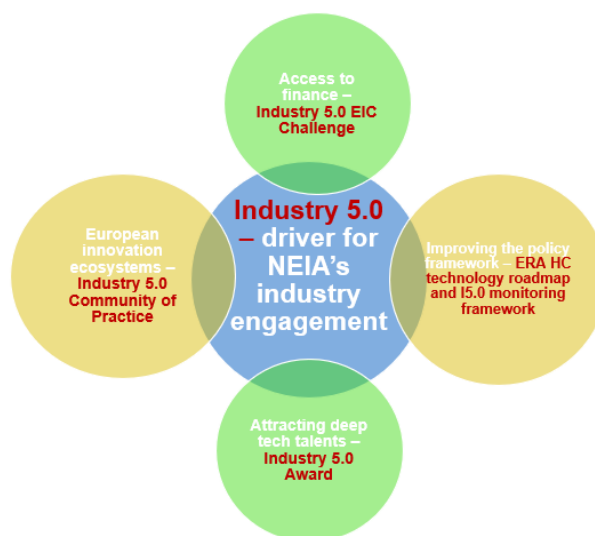
Industry 5.0 is an emerging paradigm for a future-proof industry that goes beyond efficiency and productivity by restoring and regenerating planetary resources, providing the European Union with economic, social and material stability (Industry 5.0 (europa.eu). It is based on three pillars: human-centricity, sustainability and resilience.

Industry is understood in the widest sense as human activity to produce or supply goods, services, or sources of income. As part of the implementation of the New European Innovation Agenda (NEIA), Industry 5.0 can contribute to accelerating deep tech innovation[1] within the European innovation ecosystem and provide a targeted support to deep tech start-ups. It supports shift of traditional industries towards a new paradigm of industry as powerful lever to help the planet (industry that remains within the planetary boundaries), leaves no one behind and actively contributes to wellbeing and planetary regeneration.

Picture: Industry 5.0 – driver for industry engagement in NEIA's flagships. Industry 5.0 Community of Practice could further support European Innovation ecosystems (bringing together a broad range of the ecosystem's stakeholders).

With an increasing number of actions, initiatives, and projects driven by Industry 5.0 in Europe and beyond, the concept is gradually shifting from awareness raising to implementation. However, there is still a lack of awareness and a big gap in the shift to harnessing the technology potential from a values-driven standpoint, beyond efficiency towards wellbeing, environmental and social regeneration. In parallel with the green

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[1] Deep tech innovations are cutting-edge technological solutions combining fields of science and engineering in the physical, biological and digital spheres.

transition, a successful digital transformation and technology conversion of companies require new business and governance models built on lean management, worker empowerment, and their active involvement in co-designing digital and technological change. The "from efficiency to resilience" shift is the essence of Industry 5.0 and can bridge the gap in building a positive link between society and industry.

The Industry 5.0 Community of Practice (CoP 5.0) will bring together a broad range of European innovation ecosystem stakeholders to share good practices, co-create actions to implement Industry 5.0, contribute to the New European Innovation Agenda (NEIA) implementation, and provide a platform for members to network and establish new collaborations. It will help create a value proposition for stakeholders at the local, regional, national, and European levels to promote and apply Industry 5.0 principles and practices. It will facilitate an opportunity for stakeholders to share ideas, foster synergies, and receive support in transforming traditional business models into more impactful ones.

The development of CoP 5.0 is set to follow a step-by-step approach, beginning with a 1-year piloting phase (Q3 2023 - Q3 2024), which will lead to the eventual establishment of a fully functional Community of Practice at the end of 2024.

The Industry 5.0 Community of Practice will contribute to the following **objectives**:

1. **Inspiration** – CoP 5.0 will contribute to further awareness-raising, particularly at the local and regional levels, and support the shift to a new paradigm of companies and value chains as living systems, focusing on sustainability, human centricity and resilience. This strand might contribute to mapping the Industry 5.0 landscape in Europe.

2. **Motivation** – CoP 5.0 will contribute to building incentives and creating a value proposition for stakeholders and, in particular, for companies to shift their business models towards Industry 5.0. Practical contribution to building a monitoring framework for Industry 5.0 could be a good starting point in this context.

3. **Experimentation/exploration** – CoP 5.0 will serve as a knowledge and experience-sharing hub. It will stimulate mutual learning and exchange of information to experiment the shift to Industry 5.0. In addition to analytical reports, this strand might include experiments on access to loans, insurance, procurement awards, soft power of marketing, permits.

4. **Uptake and scale-up** – CoP 5.0 activities could lead to new collaborations at different levels with partners such as SME Assembly, Enterprise Europe Network, EU industrial clusters, Digital Innovation Hubs. Accelerating the process of Industry 5.0 implementation in Europe could create a more coherent policy framework across multi-level governance.

Deliverables

CoP 5.0 endeavours will yield several outcomes that aim to address and reflect the aforementioned objectives. The following **deliverables** will be released at the end of the piloting phase:

- **Inventory of Industry 5.0 pilot projects/actions and their progress/maturity level classification** ("Industry 5.0 readiness level") This will provide an important input/building block to mapping the Industry 5.0 landscape in Europe. It will leverage the existing repository of good practices developed through Industry 5.0 projects. This deliverable will contribute to the "inspiration" strand of the CoP 5.0 objectives;

- CoP 5.0 will actively contribute to co-development of a **prototype diagnostic tool for Industry 5.0**. This qualitative assessment visual tool will assist companies/organizations in evaluating their Industry 5.0 performance based on the triple pillars of human-centricity, resilience, and sustainability. Throughout the CoP 5.0 piloting phase, several focused workshops will be conducted with Industry 5.0 stakeholders[2] to incorporate practitioners' feedback and on-the-ground experience into the first prototype diagnostic tool. The co-development phase will be followed by a validation phase. The tool has the potential to serve as a vital foundation for future Industry 5.0 KPI development and will contribute to the "motivation" aspect of the CoP 5.0 objectives;

- **Analysis with a thematic focus** that encompasses the following topics: a) lessons learned from initiatives supporting Industry 5.0 awareness raising and adoption (such as company peer groups, cross-organisational learning and value chain intelligence approaches); b) application of deep tech start-ups concept under the NEIA framework; and c) contribution to NEIA's flagships by enhancing skills and worker empowerment in the prioritised deep tech areas such as training provision across regions, skills intelligence, connection to the skills dataspace etc.[3] This deliverable will contribute to the "experimentation/exploration" strand of the CoP 5.0 objectives.

Objective	Deliverable	Time

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[2] Extended format: CoP 5.0 members and other relevant Industry 5.0 stakeholders

[3] NEIA flagships

Inspiration	Inventory of Industry 5.0 pilot projects/actions and their progress/maturity level classification	**Q3 2024**
Motivation	Co-development of a prototype diagnostic tool for Industry 5.0	**Q3 2024**
Experimentation/exploration	Analysis with a thematic focus	**Q3 2024**
Uptake and scale-up	New collaborations and partnerships	**ongoing**

Afterwards, a **summary report** will be conducted with the above-mentioned deliverables as its key building blocks (October 2024) to provide an overview of CoP 5.0 achievements throughout the piloting phase and outline its possible future orientations in order to further accelerate implementation of Industry 5.0 principles in practice.

Starting from end 2024, the piloting phase of CoP 5.0 will transition into a full-fledged mode. Multiple new deliverables might be developed in parallel in 2025, based on CoP 5.0 Members' recommendations, to contribute towards the aforementioned objectives of CoP 5.0 and to support industry 5.0 acceleration. The decision to develop these deliverables will depend on the experiences gained during the CoP 5.0 piloting phase and the availability of resources.

Membership

A dedicated Call for Expression of Interest in joining the Industry 5.0 Community of Practice will set the ground for the selection of members. The Call will be open to a broad range of Industry 5.0 stakeholders from EU Member State and countries associated with Horizon Europe. Participation in the Community of practice will not be remunerated.

Structure and Meetings

The Industry 5.0 Community of Practice will be organized into thematic working groups, feeding into the objectives of the Community of Practice. Work of thematic working groups will be coordinated by Chairs/Co-chairs approved by CoP 5.0 members. The individual work-streams will be monitored by DG RTD. The co-development of a prototype diagnostic tool for Industry 5.0 will be coordinated by DG RTD's Industry 5.0 Unit. During the piloting phase in Q3 2023 – Q3 2024, DG RTD's Industry 5.0 Unit will provide secretariat and support for CoP 5.0.

Annual plenary sessions will be held in Brussels once a year, with operational work and meetings of thematic working groups conducted online.

The current structure and set up of the Industry 5.0 Community of Practice will be tested during the piloting phase in Q3 2023 – Q3 2024, and might be updated based on the resource requirements and needs to progress on the scaling up of the Industry 5.0 concept at EU level.

Communication

Various channels will be used for communication within the CoP, including emails, online workshops, and face-to-face discussions during annual plenary sessions. Members are encouraged to share their ideas, best practices, and lessons learned through these channels.

Amendments

The Secretariat reserves the right to amend these Terms of Reference as necessary, with input from CoP 5.0 members. Any changes will be communicated to members in a timely manner.