# A Policy Manifesto

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Based on the views that were expressed during the conference 'Towards a more competitive industry in Europe' on April 22 in Brussels.



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"Dum inter homines sumus, colamus humanitatem" —

"As long as we are among humans, let us be humane"

Seneca



### **1. POLICY CONTEXT**

In January 2025 the European Commission published the Competitiveness Compass<sup>1</sup>, the first major initiative of its second term, aiming to reinforce the EU's competitiveness by bridging the innovation gap in European industry. It also addresses the decarbonisation challenges, in particular price increases and volatility, and promotes the diversification of the continent's supply chains by reducing excessive dependencies.

Following the publication of the Competitiveness Compass, the Commission introduced in February 2025 the Clean Industrial Deal<sup>2</sup>, which offers a framework for decarbonising the heavy industry and promotes the sustainability of European industry, without although impacting its competitiveness. The strategy aims at having a positive impact across all the production stages, while emphasising on energy-intensive sectors and the clean tech industry.

These two initiatives complement, reconsider, and enhance the effectiveness of two pre-existing flagship initiatives, namely the European Green Deal<sup>3</sup> and the Net Zero Industry Act<sup>4</sup>. In particular, they accomplish it by introducing more targeted measures in key areas of the initial initiatives such as, balancing the environmental objectives with the EU's market competitiveness or focusing on cutting emissions in energy-intensive fields that are crucial for achieving the European Green Deal targets.

In reaction to these developments, the Université de Lorraine organised in Brussels an event titled 'Towards a more competitive industry in Europe: The role of research and skills in driving EU's competitiveness', bringing together a multidisciplinary panel with representatives from the European Commission, European partnerships, the private sector, and academia. The event featured a keynote speech and three roundtables, each dedicated to the distinct challenges that undermine the Unions future prosperity.

<sup>2</sup> <u>https://commission.europa.eu/document/download/9db1c5c8-9e82-467b-ab6a-</u> 905feeb4b6b0\_en?filename=Communication%20-%20Clean%20Industrial%20Deal\_en.pdf

<sup>&</sup>lt;sup>4</sup> <u>https://eur-lex.europa.eu/resource.html?uri=cellar:6448c360-c4dd-11ed-a05c-01aa75ed71a1.0001.02/DOC\_1&format=PDF</u>



<sup>&</sup>lt;sup>1</sup> <u>https://commission.europa.eu/document/download/10017eb1-4722-4333-add2-e0ed18105a34\_en</u>

<sup>&</sup>lt;sup>3</sup> <u>https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC\_1&format=PDF</u>

The discussions focused on the rapid industrial developments taking place, and notably on the anticipated Al-driven transformation, due to the need to integrate the technology throughout the production process as a means of boosting European competitiveness. In light of this transformation the Commission has shifted its focus from Industry 4.0 to a human-centric industry 5.0, to secure that the human factor will not become obsolete, thus adhering with the EU's founding principles.

However, as highlighted during the last round table, a series of different factors (e.g., demographic decline, broader implementation and commercialisation of AI agents etc.,), necessitate to secure that the workforce acquires all the necessary soft and hard skills so as not to be excluded.

The event addressed all of these critical issues, and the following pages of this document articulate the main discussion points along with a series of recommendations that derived from the discussion.

### 2. REFINING EUROPEAN PRODUCTIVITY: TOWARDS A EUROPEAN COMPETITIVENESS MODEL

The discussion began with the current state of European productivity and the urgent need to boost it given its direct link to competitiveness. Focusing on the factors hampering EU's productivity growth, these could be summarised in the high energy costs, the skills shortages, the low number of STEM graduates, and the low presence of EU institutions that remain at the frontier of academic excellence among the worldwide rankings. The majority of these factors are also mentioned in the Draghi<sup>5</sup> report.

As a result, to overcome these challenging factors, Europe should consider to differentiate from its main global competitors, as the ambition to compete in terms of pure industrial antagonism with the US, China, and even India in the future, might be unrealistic. Instead, the EU should focus on its own competitive advantages, such as the strong values embedded in the industry 5.0 vision, the amount of public and private wealth, the great

<sup>&</sup>lt;sup>5</sup> <u>https://commission.europa.eu/topics/eu-competitiveness/draghi-report\_en#paragraph\_47059</u>



potential of the single market<sup>6</sup>, and the robust scientific base and longlasting research culture existing in Europe.

## "Europe should differentiate from its main global competitors by promoting its own distinct antagonistic model"

Building on these strengths, **the EU should develop its own distinct economic and industrial model to compete those promoted by the US and China**. Should Europe achieve to compete on its own terms, particularly by fostering innovation in areas such as sustainability and human-centricity, areas that its global peers currently lag behind, this could offer a significant competitive advantage.

Nevertheless, taking as granted that prioritising such values is an exclusive European perception, could lead to a fundamental mistake. In fact, it is now apparent that the EU's competitors have the advantage of long-term planning and if, at some point, they decide to implement the same values there is increased risk that they catch up in due time. Therefore, Europe should ensure that **apart from a structured long-term planning it can retain the necessary agility** for implementing corrective actions.

However, beyond the European level and the role of the Commission, the discussion also emphasised the different governance levels that can positively impact the Union's competitiveness. For example, the pivotal role of the national governments was underscored, and particularly the need for better coordination among national industrial policies. However, addressing these challenges exclusively at the European and national levels is unrealistic. Therefore, local and regional stakeholders should be engaged and mobilised, as the impact of the transformations and existing challenges can differ greatly from one region to another.

<sup>&</sup>lt;sup>6</sup> Which the Commission intends to further exploit with its new policy initiatives like the upcoming 28th legal regime for start-ups. See the Commission's upcoming initiative on the 3S Strategy (i.e., A strategy for a Single, Simple, Seamless Market)



For this reason, **adaptability should be deemed as a critical competence at all levels** (individuals, private and public sector, institutional etc). As the discussions underscored, it is a competence of intrinsic value in the current highly competitive and rapidly changing landscape.

## "Europe must also become significantly more agile across all levels governing its policy implementation and operational aspects"

To further enhance its adaptability, **Europe must also become significantly more agile across all levels governing its policy implementation and operational aspects**. For example, in the case of upskilling and reskilling the workforce, should this process not be followed by prompt implementation, employees may end up with acquiring skills that are eventually outdated and no longer useful.

#### 3. ENHANCING THE ATTRACTIVENESS OF EUROPEAN MANUFACTURING CAREERS

More broadly, **Europe should seek to increase its citizens technological awareness**, particularly on emerging technologies bearing significant transformative potential. Following the Commission's plan to designate the Al implementation as its main innovation and competitiveness driver<sup>7</sup>-as advocated by the Draghi report- it is indeed critical to ensure such awareness, which is capable of decreasing the existing and constantly growing techno-skepticism, but also ensuring that the human factor remains integrated and not excluded. Conversely, failing to raise public awareness may lead to perilous dangers, as **people could lose their awareness of the system**, with unforeseen potential consequences.



<sup>&</sup>lt;sup>7</sup> Ibid at Fn 1

Moreover, an improvement on the levels of technological awareness among the public can also benefit the overall industrial awareness, and most importantly attractiveness, resulting in ammending a common misperception regarding the modern working conditions in European manufacturing. In this regard, **reprofiling the image of European industry is essential**, in terms of clearly communicating that manufacturing no longer requires only heavy manual labour and long shifts. On the contrary, necessitates a range of interdisciplinary skills, including digital and technical competences, as factories are now increasingly ICT-oriented infrastructures due to the ongoing industrial digitalisation. Such a reframing bears the potential to improve the attractiveness of careers in the manufacturing sector across the EU, while offering invaluable solutions to the lack of skilled labour of all levels.

## "Reprofiling the image of employment within the European industrial and manufacturing sector is essential"

When it comes to funding collaborative research the discussion focused primarily on HORIZON EUROPE Pillar 2 projects and **the need for implementing a distinct innovation driver to better incentivise and mobilise researchers towards innovation**. Moreover, by drawing examples from the experience of the panelists, although in many cases these projects succeeded in delivering a prototype or pilot unit, the existing framework appears to lack mechanisms to support their transformation into marketready solutions. Therefore, researchers should be offered the necessary legislative framework and freedom to think holistically, with entrepreneurial spirit, and beyond delivering pilot units. In light of this discussion, a concrete suggestion that came up **advocated the launch of dedicated calls in which the end goal is to deliver a market-ready product**.



Lastly, it should be noted that while the Commission's recent decision to increase the 2025 HORIZON EUROPE Work Programme<sup>8</sup> budget may have a positive impact in fostering more synergies and more innovation in collaborative projects, it remains uncertain what concrete measures will be taken for the development of a comprehensive start-up and scale-up strategy (e.g. ''3S Strategy''<sup>9</sup>).

#### 4. SKILLS DEVELOPMENT AND THE HUMAN-CENTRIC TRANSFORMATION

When it comes to human-centricity, the discussion made evident the strong emphasis that Europe puts on this aspect, underscoring the critical need for skills development as a means of ensuring alignment with its core values. As a consequence, and to address this challenge more effectively, it is essential to ensure that all the relevant parties share the same understanding of human-centricity as well as its potentially beneficial impact on competitiveness.

The dialogue clarified the three types of human-centricity, as identified by the *Communities of Practice*<sup>10</sup> 2024 final report. Once these types were presented, the discussion then focused on how each can serve as a competitiveness driver. A key takeaway of this part of the discussion was the recognition that 'there is no one single path to competitiveness'; it rather requires a multifaceted approach in which each initiative contributes its unique added value to the EU's overall competitiveness.

Building on the human-centric approach in industry, the discussion unavoidably turned on the urgent need to upskill and reskill the European workforce, comprising a pivotal area if the Commission truly aims to position human-centricity as a competitiveness driver<sup>11</sup>. As noted during the final round table, there is a common misperception in the public dialogue to

<sup>&</sup>lt;sup>11</sup> Ibid at Fn 1. Also see the 'ERA industrial technologies roadmap on human-centric research and innovation fo the manufacturing sector' available at: <u>https://op.europa.eu/en/web/eu-law-and-publication-detail/-/publication/4a5594d1-4ee3-11ef-acbc-01aa75ed71a1</u>



<sup>&</sup>lt;sup>8</sup> EU invests €7.3 billion from Horizon Europe to enhance its competitiveness and talent growth See: https://ec.europa.eu/commission/presscorner/detail/en/ip\_25\_1146

<sup>&</sup>lt;sup>9</sup> Ibid at Fn 5

<sup>10</sup> https://research-and-innovation.ec.europa.eu/document/download/8aea695d-2b97-4366-812f-971b7ebbfda8\_en?filename=cop-5-final-report.pdf&prefLang=nl

focus exclusively on digital skills. However, **as AI is an interdisciplinary field**, **it necessitates a diverse set of competences**, a combination of both hard and soft skills. In this context, the publication of the 'A Union of skills'<sup>12</sup> initiative makes evident the Commission's devotion to address the challenge.

## "Al is an interdisciplinary field therefore necessitates a diverse set of competences"

Furthermore, the final round table discussion mainly focused on two main issues: i) the role of industry and academia in skills development, and ii) the added value that AI can bring throughout the whole process.

On the first point, the role of short, targeted modules developed by academic institutions was highlighted as a solution bearing a dual advantage. It would remain accessible to a wide audience while being flexible enough to be tailored to specific industry needs or other third-party requests. Such a model could also address the concerns of academia regarding cost absorption by opening a new profitable collaboration with industry actors.

When the discussion focused on the industry, the role of 'leadership' was underscored. In particular, beyond SME's, which may lack the capacity to fully cover such a process, it is essential that larger companies recognise that upskilling and reskilling their employees comprise strategic investments rather than expenditures. Moreover, it is also the role of leadership to **encourage employees to integrate AI technologies in their daily workflows**. It is through consistent deployment, practical application, and satisfaction of the 'curiosity' aspect that employees' skepticism or reluctance can be overcome.

On the second point, regarding the AI's contribution to the development of training modules, multiple interesting points were raised from the panel experts. As previously discussed, a high degree of adaptability is needed,

<sup>&</sup>lt;sup>12</sup> <u>https://employment-social-affairs.ec.europa.eu/document/download/915b147d-c5af-44bb-9820-c252d872fd31\_en?filename=Communication%20-%20Union%20of%20Skills.pdf</u>



and this is an area where AI can provide added value throughout the whole process of training modules development, either as a complementary or a standalone tool. From identifying learning needs, to content creation, to real-time evaluation and provision of feedback to the user, the AI agents can fully support any learning process. This perspective aligns as well with the broadly shared sentiment by the panelists and attendees which all agreed that, 'AI should be FOR humans'.

## "Ensuring that as many people as possible retain the same level of understanding is critical "

Given AI's transformative potential and its potentially unavoidable wide integration at all levels in the coming years, **ensuring that as many people as possible retain the same level of understanding is critical**. Therefore, the panelists advocated the introduction of data literacy courses and AI acculturation including all education levels starting even from the primary school (following the Chinese paradigm<sup>13</sup>). However, a key challenge to address in this case would be the limited capacity of the teaching staff to provide a holistic understanding of all the essential aspects surrounding the use of AI, such as ethical considerations or best practices. In this case, academia could play a leading role once again by delivering training programmes tailored for such needs.

Finally, an unforeseen broad consensus concluded the discussion when the majority of the panelists and the participants agreed that in fact, there is no single skill that the EU should prioritise above all other. It is rather the **acquisition of a diverse, multidisciplinary skillset that is essential.** 

<sup>&</sup>lt;sup>13</sup> <u>https://fortune.com/2025/03/10/china-school-children-ai-deepseek-liang-wengfeng-estonia-uk-america-south-korea/</u>



#### **5. POLICY RECOMMENDATIONS**

 Establishing and Defining a European Competitiveness Model Develop a distinct European competitiveness model that can outperform those of China and the US, based on the foundational, long-lasting European values as well as on distinct competitive advantages such as, strong research culture, human-centricity, and single market Fostering an AI and Data Sovereignty Apparatus Should Be a Strategic Priority Urgent need for cloud services and AI models 'Made in Europe' Enhancing Multi-Level Governance and Engagement (European, National, Regional, Local etc.,) Leverage the distinctive regional advantages to boost local industries and foster regional prosperity and growth Promoting a interdisciplinary Skills Development Open Culture Prioritise data literacy and establish a foundational AI understanding ensuring that all European citizens acquire it Empower academia to develop targeted, brief training modules that remain open to everyone and adaptable to industry needs Encourage and incentivise employees to test, practice, and experiment with AI technologies by incorporating them in their daily workflows **General Recommendation** The Commission has honored its commitment, demonstrating vigorous legislative activity since the beginning of its second term, by emphasising on the simplification of rules, which could also be described as a process of "deregulation through regulation". Currently, with only a few major legislative initiatives yet to be published or revised, it is deemed more crucial than ever to prioritise the meticulous implementation of all the existing initiatives and shift away from prolonged debates and speculative discussions on what we could do better or on what we have done wrong so far. Hence, the European communities should now emphasise on achieving the objectives set, and ensuring that these policies become effective with a real-world impact.



List of the speakers\* at the conference of 22 April 2025 'Towards a more competitive industry in Europe' that took place at Maison Irène et Fréderic Joliot-Curie, 100 Rue du Trône, Brussels

Xavier BAILLARD - Innovation Director at EIT Manufacturing

**Augustin CATHIGNOL** - Senior Expert for Data & AI and Reliability at Schneider Electric

**Giorgio DI PIETRO** - Unit B6 on Industrial Strategy, Skills and Technology Transfer, JRC

Karel HAEGEMAN - JRC Team Lead at European Commission

Benoit IUNG – Dep. director CRAN, Industry 5.0 referent at Uni. de Lorraine

Jean Baptiste LEGER - Industrial Digital Solutions Director at iQanto

Diana OGNYANOVA - Unit B4, Industry and AI in Science, DG RTD

Zeljko PAZIN - Executive Director at EFFRA

**Rehanna SCHWINNINGER-LADAK** - Deputy to the Director for Data, Head of Unit "Interactive technologies, Digital for Culture and Education " at DG CONNECT

**Damien TRENTESAUX** - Laboratory of Automation, Mechanics and Industrial and Human Computing at UPHF

**George TRIANTAFYLLOU** - Senior project manager at Athens Technology Center

**Emmanuel VINCENT** - ENACT AI Cluster Coordinator at INRIA / Université de Lorraine

**Barbara WASSON** - Director of the Centre for The Science of Learning and Technology (SLATE) at University of Bergen

\*All the speakers were informed of the exact structure and content of the document, and their consent was requested prior to publication.





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