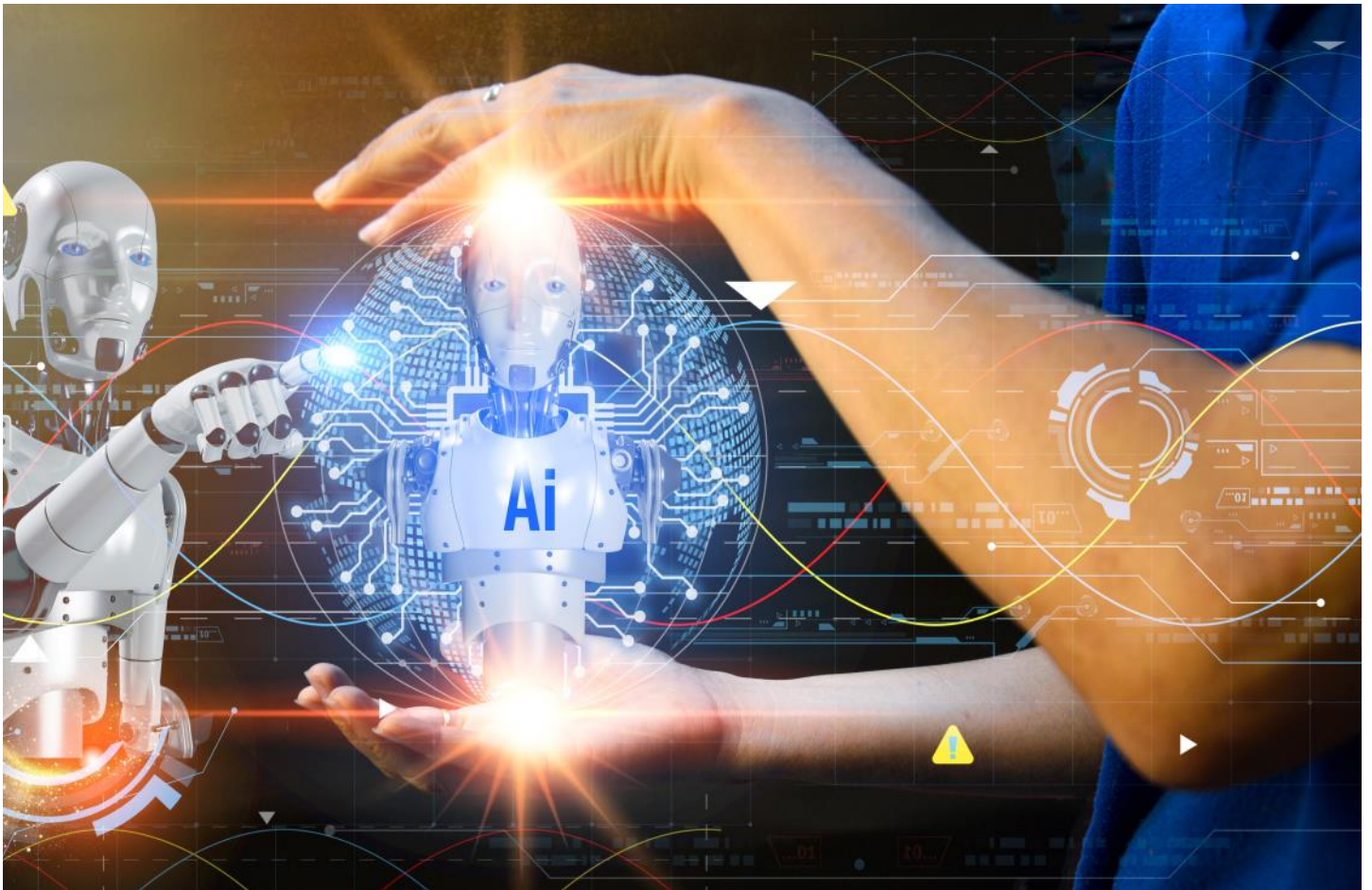


Newsletter

October 2024

INDUSTRY 5.0: QUO VADIS?



For over ten years, Industry 4.0 has been adopted as a concept to manage technological transformations in the industrial sector. But what is Industry 5.0?

Industry 5.0 does not represent a new industrial revolution; rather, it continues the current digital industrial transformation, expanding upon the principles of Industry 4.0. This new model

emphasises the so-called 'three P's': people, planet, and prosperity.

It offers a transformative perspective on industry, significantly highlighting the human aspect as a critical and creative factor in industrial processes. The three core elements which define Industry 5.0 are human-centricity, sustainability and resilience.

Human centricity prioritises workers' demands and interests in the production process, including taking their feedback into account when introducing new technologies. Industry 5.0 is inspired by 'Society 5.0', a concept introduced in Japan in 2017 with the aim to evolve into a digital society.

Sustainability, on the other hand, emphasises circular approaches for reusing, repurposing and recycling materials, following a circular-by-design approach that moves away from the make-waste economic model. In this context, Industry 5.0 will be essential for achieving Europe's climate ambitions. Resilience in Industry 5.0 focuses on supply chain diversity, on a more adaptable, modular and decentralised production capacity, and on flexible manufacturing systems to address a wide range of production risks, including geopolitical conflicts, energy and raw material problems, climate-related challenges, and pandemics. And as technologies evolve, the threat of cyberattacks is likely to increase as well, making cybersecurity a priority in order to prevent large-scale automated systems from failing.

Therefore, Industry 5.0 embodies a new model of industrialisation in which humans collaborate with advanced technology and AI-powered robots to improve workplace operations. It facilitates improved process automation and real-time data analysis, allowing people to work alongside robots to optimise processes and personalise customer experiences. For instance, "cobots" (collaborative robots) interact with humans to optimise energy management and product lifecycles. However, such cooperation hinges on recognising that technology complements human abilities, and that human-machine collaboration should focus on continuous learning. Hence, the human-centered nature of Industry 5.0 necessitates

strong digital skills. It is essential to ensure digital education at all levels, from students to workers. Businesses must evolve into 'learning organisations', cultivating environments that maximise workers' technological capabilities. As a result, the broad integration of digital technology in education and training will increase access to learning opportunities which prioritise human involvement in decision making. Continuous upskilling and reskilling for current workers are crucial in order to decrease market polarisation, as well as the gender and age-related digital divide, and to ensure the high-quality employment.

The Consultative Committee on Industrial Change supports the Industry 5.0 approach and has been exploring through an own initiative opinion how it can be implemented. To start with, the notion of Industry 5.0 requires additional development in order to clearly explain its economic, social, political, legal, and technological implications. The CCMI supports authorities and social partners in building a clearer conceptual, economic, and legal framework, as well as action plans for wider adoption of Industry 5.0 concepts, while taking into account potential social consequences.

If properly implemented, Industry 5.0 has the potential to transform perception of work, creating numerous job opportunities and boosting EU competitiveness.



About the author:

Pietro Francesco De Lotto

President of the EESC Consultative

Commission on Industrial Change (CCMI)

How AI can help businesses and regulators to manage better the EU's regulatory overload

The European Union's regulatory maze is under increasing scrutiny as businesses and policymakers alike recognize that we have reached saturation point. In their respective reports on the Single Market and EU competitiveness, former Italian prime ministers Enrico Letta and Mario Draghi, called for the urgent reduction of the regulatory burden weighing on European companies, which hampers both economic growth and decarbonization efforts.

The Regulatory Overload

At a federal level, the United States enacted 3,500 pieces of legislation and around 2,000 resolutions between 2019 and 2024. By comparison, the European Union passed a staggering 13,000 acts in the same period, as highlighted by Draghi in his report. This sheer volume of regulation places an immense strain on businesses, particularly small and medium-sized enterprises, which often lack the resources to navigate these complex regulatory frameworks.

The EU lacks a standardized methodology to assess and measure this regulatory burden. Without a proper overview, it's difficult to identify where the most significant challenges lie. This lack of transparency further complicates the ability and efforts to streamline and simplify the rules businesses must follow.

A New Approach Is Needed

We need a fresh, innovative approach to regulation. The current system forces entrepreneurs to sift through hundreds



of pages of legal texts in order to identify which rules apply to their businesses. This task, which is often outsourced to lawyers or consultancies, is a growing burden for companies, requiring both time and financial resources. For SMEs, this burden is disproportionately high, as SME entrepreneurs often have to do this work themselves.

Digital tools could offer a solution. In the 21st century, it's unacceptable to expect businesses to manually parse through dense legal language. Instead, regulation should be translated into clear, easy-to-understand language. Seven years ago, the Czech Chamber of Commerce pioneered an initiative, creating a system where every law is accompanied by a simple table that outlines the duties for entrepreneurs. This "innovation", set to become mandatory for Czech legislators from January next year, distils long legal texts into a concise and easily digestible format.

The Czech Model: A Blueprint for the EU

The Czech system represents a potential model for the EU. By appending a table of duties to every new law, entrepreneurs can quickly understand their obligations without wading through pages of complex legal jargon. This not only benefits businesses but also helps regulators gain a clearer understanding of the duties they are imposing, reducing the risk of overlaps, contradictions, and duplications.

The Case for Artificial Intelligence

In addition to simplifying regulations, artificial intelligence can

play a critical role in creating models that further streamline the regulatory process. By leveraging AI, the EU can develop systems that automatically assess regulatory burdens, identify potential areas for simplification, and ensure that new laws do not unnecessarily complicate business operations. At the same time, these technologies are being developed globally, and if not used by the us, somebody else will use it to see the loopholes in the regulation.

A Regulatory Stock-Taking Exercise

The business community has long called for such a stock-taking exercise, and it appears the time has finally come. Draghi who called for the EU to act quickly to stop the competitiveness haemorrhage recommends that the first six months of any new EU mandate be dedicated to this task. By conducting a regulatory inventory, the EU can pinpoint which rules are most problematic and take steps to reduce or eliminate them.

The Financial Impact

In the Czech Republic alone, the cost of legislative duties for entrepreneurs amounts to nearly €3 billion. The Czech legal framework includes 30,000 laws and roughly 100,000 specific duties, a heavy burden for businesses to manage. By simplifying these obligations, significant savings could be achieved - not only for entrepreneurs but also for the state. The money saved could be reinvested in innovation, job creation, and decarbonization efforts, areas that are critical for Europe's future competitiveness.

A Path Forward for the EU

The time has come for a more systematic approach to regulation in the EU. National examples, such as the Czech Republic's simplified regulatory system, should serve as a source of inspiration for EU-wide reform.

Reducing red tape would free up resources for critical areas such as decarbonization, ensuring that Europe remains a leader in the global push toward a more sustainable future.



About the author:

Stefano Mallia

President of the EESC Employers' Group



About the author:

Zdeněk Zajíček

President of the Czech Chamber of Commerce

AI made in Europe – possible but needs work

The AI Act is a key piece of EU and indeed global legislation. It is the first comprehensive legal framework regulating artificial intelligence globally. The use of AI is expanding and already influences many aspects of our daily lives. For instance, it influences the information people see online based on their interests, including targeted advertisements.

It is also being used in the health sector to help diagnose and treat diseases such as cancer. To be able to do so, however, AI applications need to be trained. They need to be fed many images of, for example, cancerous cells to eventually recognise them independently.

Successful training relies on data – enormous amounts of data. But the way the training is done influences the quality of the outcome, of the trained model or AI application. If it is fed the wrong data or images, it will misidentify healthy cells as cancerous ones.

Ensuring the quality of training data, of training methods and ultimately, the final product is therefore crucial and the basis of the EU seeing a need for regulation. It is nonetheless a tricky undertaking because AI is a fast-developing field.

Many of today's applications and use cases did not exist at the inception of the regulation in 2021. ChatGPT, for instance, only came out in November 2022 and has undergone several changes and modifications since then. Keeping up with the technological developments is therefore a big challenge for the regulatory framework.

The EESC's exploratory opinion on the "AI Act and beyond" looks at the implementation phase of this new legislation, in particular with regard to the so-called General-purpose AI (GPAI). General-purpose AI refers to an AI model that displays significant generality and is capable of competently performing a wide range of distinct tasks regardless of the way the model is placed on the market and that can be integrated into a variety of downstream systems or applications. General-purpose AI systems (GPAIS) can therefore perform many tasks, including ones that they were not originally trained for. This definition of GPAI includes – as an umbrella term – foundation models and large language models, making generative AI one type of foundation model and hence also GPAIS.

Such models play an important role in the B2B context. They are developed by companies that have and command large volumes of data and computing power and are then being sold as building blocks to other companies to develop their specific use cases and applications on the back of them.

From a European point of view, unfortunately, many of the

major GPAI developments are being spear-headed by actors outside the EU's jurisdiction. Ensuring compliance with European values, such as sustainability, respect for social and human rights and for the environment, data protection and transparency, therefore becomes more difficult to enforce. The models also need to respect patentability, copyright and intellectual property rules.

There are many cutting-edge companies, start-ups and research organisations in the EU active in the AI and GPAI ecosystem, ranging from cloud service providers, laboratories for chip development, to those running data centres and developing ChatGPT-type models and services. Thus, the EU has the talent, the technological know-how and the entrepreneurial spirit needed for "AI made in Europe". But a lack of investment, a lack of the relevant IT infrastructure, the continuous fragmentation of the internal market which hinders scaling-up, impede the competitiveness of Europe's AI actors.

To prevent the market being continuously dominated by large, often non-European, digital companies, it is essential to mobilise the tools of competition policy (assessing the potential abuse of a company's dominant position, merger control) to prevent, identify and address critical behaviour and situations. Coordinated European and national investment in innovation is needed to help develop EU value chains and value creation in AI. Competition authorities in the EU need to leverage their capacities and ensure that so-called hyper-scalers do not abuse their B2B or B2G market position. Public authorities can support European providers of GPAI and AI applications by procuring their products, demonstrating their trustworthiness to further users and clients.

The EU should also support companies in accessing markets beyond Europe, by amongst other actions, promoting standards developed in the EU internationally. Lastly, statistical data on the status quo of these models in Europe, their development and their impact is scarce. To improve this, the topic should be covered in the Eurostat ICT survey. The collected data could then very well be used for the evaluation and potential adaption of the AI Act.

About the author:

Sandra Parthie

President of the Single Market, Production and Consumption Section (INT)

Rapporteur of the opinion "[INT/1055 General-purpose AI: way forward after the AI Act](#)"

Member of the EESC Employers' Group



The Digital Europe Programme: Learning by doing

Digital decade 2030 targets have been set quite clearly and ambitiously. The only thing to discuss is whether enough tools and funding mechanisms have been made available to Member States, companies and civil society organisations in order to achieve those goals.

I recently visited the United States, where I visited several tech giants. Innovation, digitalisation and technologies are part of their DNA. During conversations there, I heard complaints about overregulation in the EU, particularly in the area of data privacy. Fragmented implementation of EU regulations in Member States creates uncertainty and different rules under which companies are able to operate. Harmonisation and simplification are lacking. We hear the same complaints from EU companies competing in the EU single and global markets with US tech giants.

The Digital Europe Programme (DEP) is a beacon of hope on our journey towards the Digital Decade 2030 goal. As a new EU funding programme, it is dedicated to bringing digital technology to businesses, the general public and public administrations. With a focus on advancing the digital transformation and strategic capacities within the European Strategic Investments cluster, it embodies the EU's commitment to creating a resilient, inclusive and digitally sovereign European Union in the 21st century. With a total budget of €7.6 billion for 2021-2027, the programme is a powerful tool in our quest for digital excellence.

To prepare the EESC's evaluation report, we visited five countries. We used the methodology typically used by EESC to work on such reports, assessing effectiveness, relevance and civil society involvement. The DEP covers six key areas of funding priorities, but we focused on two: European Digital Innovation Hubs (EDIH) and advanced digital skills. We also covered one horizontal priority, that of including girls and women in tech. Our country visits revealed a resounding consensus on the success of the DEP as an innovation and digital transformation driver. Most respondents agreed that the DEP was crucial for driving innovation and the digital transformation of the economy, specifically focusing on SMEs. With its comprehensive coverage across EU Member States, the European Digital Innovation Hubs programme was seen as a particularly successful approach to achieving the Digital Decade goals. Its success provides extensive coverage across the EU and reassures the public about the DEP's potential, instilling a sense of confidence in its future.

At the same time, we heard much criticism of: the lack of involvement of civil society organisations in implementing the DEP; Member States' different rates of progress in



implementing it; the low profile of the programme and the fact that the public was unaware of its existence; fragmentation; and the Member States' lack of strategic approach to fulfilling the DEP's potential. These challenges, while significant, are not insurmountable, and with the right strategies and support the DEP can overcome them and continue to drive digital transformation in the EU.

So, what's the next step on our journey in the digital transformation?

I propose 16 actions for the European Commission to consider for improving the existing programme, starting with raising the programme's profile at EU, national and regional levels – not only focusing on EDIH as a better-known programme, but also on other priority areas. Such activities should increase the number of projects and allow us to achieve the Digital Decade targets more quickly. From a philosophical point of view, ownership of the programme is seen as a problem. Regulation is straightforward – it is a centralised managed programme by the European Commission. Issues arise from Member States not sharing this ownership and not using the available funding strategically. Changes in the co-funding rate and better coordination among the different sources of funding are needed to prevent fragmentation and secure greater harmonisation. By raising the programme's profile and increasing transparency we can ensure that all stakeholders are well-informed and engaged in securing the programme's success. I think the DEP is a good and much-needed programme for EU competitiveness both now and in the future! As with every new programme, we are learning by doing, and this programme has great potential!



About the author:

Katrina Zarina

Rapporteur of INT/1054 "[INT/1054 The Evaluation of the Digital Europe Programme](#)"

Member of the EESC Employers' Group

Why do we need a more ambitious competitiveness agenda?

Europe is experiencing a serious competitiveness crisis as a result of high energy prices, lengthy environmental permitting, excessive bureaucracy and unilateral environmental ambitious. While there has been a significant change of tone since 2023 and the new political guidelines of the European Commission put a lot more emphasis on the need to regain competitiveness, we are still lacking a sense of urgency.

In fact, someone living outside the EU, reading the European Commission Clean Transition Dialogues Communication, would have the impression that everything is more or less fine and that only a few minor adjustments to the current trajectory would be sufficient to put Europe back on the path of sustainable competitiveness.

This is the main objective of the opinion on the clean transition dialogues, recently adopted at the EESC Plenary. While the EESC does recognise that progress has been made in laying the foundations for a more competitive Europe, it states in the most unequivocal terms that the EU needs to be far more ambitious if it wishes to halt what Mario Draghi's report has clearly described as a gradual but steady decline.

Perhaps the most novel element of the opinion is the acknowledgement that while fully supportive of the objectives of the European Green Deal, certain aspects of the policy have in fact had negative repercussions for EU employment and competitiveness and have increased global emissions through carbon leakage. This is because the EU methodology for assessing progress towards our climate targets only measures production emissions and does not take into account consumption emissions. In other words, if clean European production is lost and is replaced by more carbon-intensive production elsewhere, then according to the European Commission methodology, EU emissions are decreasing whereas the reality is that global emissions have increased. As such, the EESC calls for a more accurate approach to measuring progress towards our climate targets that takes into account the carbon footprint of imported goods, as opposed to only looking at the production of emissions in Europe.

Another important aspect of the opinion is the need to speed up licensing and especially the part linked to the environmental impact assessment (EIA). While the Net Zero Industry Act lays down the foundations for a speedier permitting procedure in selected technologies, the environmental impact assessment is specifically excluded from this provision. This is entirely counterproductive, given that the EIA is often the most time-consuming element of the



licensing process. As such, the opinion makes the case for introducing time limits for environmental objections and argues for a review of cost protection, given that, in certain cases, individuals and organisations can file objections and bear no related costs as these are covered by the public authorities.

Thirdly, the opinion urges the EU institutions to not implement the Carbon Border Adjustment Mechanism (CBAM) unless a satisfactory solution is found for exports and adequate anti-circumvention measures are secured. If these issues are not addressed before implementation, there is a serious risk of EU companies losing ground in non-EU market to global competitors. This is particularly important as, unfortunately, once a market is lost, it is not easy to get it back.

The opinion is complemented by many other proposals that have also been flagged by the Draghi report such as the need to reduce bureaucracy, strengthen investments in distribution and transmission grids and introduce a just transition framework that delivers large-scale reskilling and upskilling for workers.

Europe finds itself at a crucial crossroads where the status quo is no longer a viable option, being instead a recipe for a slow and steady decline. And at this crucial juncture, it is important that all institutional actors convey this sense of urgency in the clearest of terms. This is exactly what this opinion seeks to convey.



About the author:

Konstantinos Diamantouros

Rapporteur of CCMI/237 "[The Clean Transition Dialogues – Stocktaking? A strong European industry for a sustainable Europe](#)"

EESC Employers' Group member

Fostering sustainable and resilient food systems at times of growing crises

The effects of the Covid pandemic, the Russian-Ukrainian war and extreme weather conditions on European agriculture have clearly shown that current crisis management measures are insufficient and not up to the task of coping with growing crises, which also lead to social tensions.

The Hungarian Presidency of the Council therefore considered it important to examine how food systems could become more sustainable and resilient. The related opinion also deals with a recurring issue that is becoming more pressing as climate change and the disruption it causes are becoming more intense.

We must be aware that in the face of increased weather disturbances, farmers – outdoor entrepreneurs that they are – must first and foremost adapt.

Adapt their methods, using different cultivation practices, new techniques, **new seeds, revolutionary plant protection products, etc.**

Adapt how livestock is raised using temperature-moderated buildings, better performing and more resilient animals protected by optimal health techniques, etc.

This requirement to adapt also applies to the **common agricultural policy (CAP)** so that it can offer protective tools to preserve and guarantee our food supply as well as the income of every actor in the food chain, which is inextricably linked with it.

In the opinion we highlight various tools to achieve this:

- ♣ **Crop insurance**, co-financed by farmers, Member States and the CAP;
- ♣ **Livestock insurance**, co-financed by farmers, Member States and the CAP;
- ♣ **Forward price-setting**, starting from the producers' production costs before starting trade negotiations between the industry and distribution or catering sectors;
- ♣ **Establishing a digital centre** for collecting data on prices and costs to bring transparency to the food supply chain;
- ♣ **Identifying ex ante criteria** to determine crises;
- ♣ **Increasing our production** to increase our self-sufficiency;



♣ **Strengthening cooperative or mutual tools;**

♣ **Regenerating soils;**

♣ **Continuing to improve water management;**

♣ **Obtaining mirror measures** in trade to combat unfair competition.

There are other, more traditional measures, such as labelling, contracting or providing an additional budget, which are not new but are equally essential.

The aim of this opinion is to contribute to the discussions launched at the EU AGRIFISH Council on 27 May 2024, in which Member States' agriculture ministers expressed their willingness to strengthen crisis management tools and stressed the need for crisis management to be flexible, resilient and more forward-looking, and for research and innovation to play a major role.

The shift that needs to take place in people's minds is just as great as the shift we are seeing in nature, but it requires a willingness to suffer less and a real plan!



About the author:

Arnold Puech d'Alissac

EESC Employers' Group Vice-President

Rapporteur of NAT/935 "[Fostering sustainable and resilient food systems at times of growing crises](#)"

Extraordinary Group meeting in Budapest:

Competitiveness demands a change in attitude and mindset

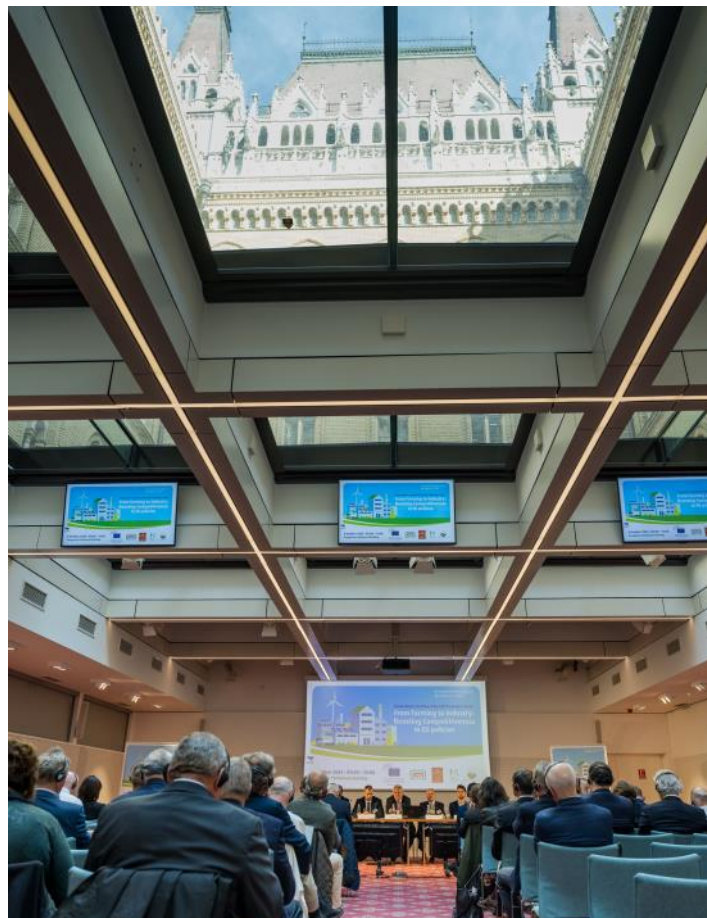
On 8 October, the EESC Employers' Group held an extraordinary meeting, in the framework of the Hungarian Presidency of the EU. The **conference From farming to Industry: Boosting competitiveness in EU policies** focused on competitiveness in two key sectors, agriculture and industry.

Opening the conference in Budapest, President Stefano Mallia, warned that the stakes are higher than ever. EU growth has been persistently slower than that of the US, while China has rapidly closed the gap with the EU. Indeed, from 2002 to 2023, the EU-US GDP gap has widened from just over 15% to a worrying 30%. One of the biggest challenges, he stressed, is the regulatory environment. From 2019 to 2024, the EU enacted approximately 13,000 legislative acts, compared to around 3,500 in the US. This regulatory overload has become a compliance cost for businesses, diverting resources away from innovation. Mallia warned against scrapping the European Green Deal. "It would be a mistake and will send the wrong message to investors and the market. This will return to haunt us, creating huge uncertainty which will come at a huge cost," he added. The Conference organised with the Confederation of Hungarian Employers and Industrialists, the Hungarian Chamber of Commerce and Industry, the National Federation of Consumer Co-operative Societies and Trade Associations as well as the National Chamber of Agriculture was held in the Hungarian Parliament.

The Deputy Speaker of the Hungarian Assembly, István Jakab, underlined that reciprocity with our global partners is a must. This is what will make us really competitive, he stressed. His words were echoed by Adam Nagy, Hungarian Deputy State Secretary for industry, who mentioned the Draghi report as a wake up call. "But now action is needed."

Action begins with stimulating investment, facilitating market access for new technologies and implementing skills and innovation programmes. Efforts to ensure secure and adequate access to key resources like clean energy at competitive prices in the internal market, by building a solid energy network, will be central to better position the industrial strengths of the EU during the transition.

What's true for farming is also true for industry, said speakers at the conference. They insisted on the need to move beyond old concepts. Farmers have the particular challenge of climate change more than in other sectors. The Common Agriculture Policy must be reformed in such a way that it fosters innovation. Improving efficiency is a priority for the Hungarian food industry, where many businesses are struggling to compete internationally, said Tibor Cseh, Director General of the Hungarian Farmers Association. There is a fundamental need for optimising operations, by



technological modernisation and robotisation. Achieving an internationally competitive production plant size in the manufacturing of mass-produced goods is another important challenge, added Tomas Eder, President of Association of Responsible Food Producers, CEO of Bonafarm Group.

The second panel focused on the fragmentation of the EU Single Market. Speakers underlined that competitiveness and entrepreneurship rhyme with attitude. There needs to be a mind shift towards making the EU mainstream competitiveness in every field.

Europe has the capacity, talent, and innovation to regain #competitiveness. But it will require strong political will and a focus on long term strategic objectives, added President Mallia. "We have the Draghi and Letta reports, now the onus is on EU institutions and member states to deliver change. But we must overcome the nationalist thinking. We need to think European. Mindset that needs to change in the national governments."

Editor

Daniela Vincenti | daniela.vincenti@eesc.europa.eu

Photo credits: Shutterstock/European Union

THE EESC IS NOT RESPONSIBLE FOR THE CONTENT OF EXTERNAL WEBSITES

Contact

European Economic and Social Committee, 99 Rue Belliard, 1040 Brussels
Tel. +32 (0) 2 546 82 07 | Fax: +32 (0) 2 2 546 97 54

© European Union, 2024

For any use or reproduction of the photos/illustrations, permission must be sought directly from the copyright holder(s).