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NOTE

From: General Secretariat of the Council
To: Delegations
Subject: Tackling the EU's innovation paradox

European Research and Innovation Area Committee (ERAC) delegations will find attached a background note on the “Tackling the EU’s innovation paradox,” prepared by the Hungarian Presidency, with a view to the ERAC meeting on 24-25 October 2024.

Background note

Tackling the EU's innovation paradox

Research and innovation is crucial to boost Europe's competitiveness and is a main driver of productivity and growth. Europe is traditionally proud of its excellent science and outstanding publications. However, the EU seems to be gliding into an innovation paradox: researchers from all over the Union create massive amount of world-class knowledge, yet these findings fail to live up to their real potential to produce benefits for society. Due to the insufficient pace of turning these results into products and services, Europe fails to leverage on the competitive advantage of the great ideas created by great minds. Only around 40% of European companies report that they invest in R&I, compared to 56% in the US¹. The lower intensity of investments into new innovations goes hand in hand with a slower pace of technology adoption.

Even if the industrial innovation base is well established, Europe is lagging behind in certain advanced technologies and digital technologies like AI, cybersecurity, blockchain or quantum. The EU is slow in predicting future trends and fails to invest enough in more radical innovations and strategic productivity-enhancing technologies.² The mid-tech sectors, characteristic for Europe, compete by applying the latest technological advances to production, but they do not require the same R&D intensity or offer the same growth potential as high-tech industries that produce the newest technologies. As Draghi highlights in his report EU innovation activities are primarily concentrated in sectors with medium-to-low R&D intensity. This might push the EU into a 'middle technology trap'³.

Over the past two decades, the innovation capacity of the European Union has consistently lost pace with the United States, while China has also made remarkable strides, tripling its performance during the same period. According to Draghi, what was once a competition for global leadership in innovation primarily between the US and Europe, until about 15 years ago, has now evolved into a three-way race, with China rapidly catching up and outpacing both the US and the EU in growth. Europe's position is further weakened by its limited access to venture capital resources, holding only 5% of the global share, compared to 52% in the US and 40% in China, exacerbating its lag in research and innovation.

There is a significant number of start-ups created in Europe but they often struggle with scaling up. On the one hand this results in the EU having a lower number of unicorns, on the other hand European start-ups looking for venture capital investments from other world regions, mainly from the US. Losing most promising innovative talents leads to a further widening of the transatlantic R&D gap.

As the conclusions of the recent Draghi-report pointed out, urgent actions are required. Alliances between different actors of the innovation ecosystem need to be strengthened as research collaboration is not widespread enough. Europe needs to become the best place to launch a start-up or to transform a great scientific discovery into a cutting-edge product. Although there are numerous innovation clusters in the EU, they generate less value than their counterparts in Asia and

¹ EIB, EIB Investment Report 2023/2024: Transforming for competitiveness, 2024.

² EC, 2024. Science, research and innovation performance of the EU – 2024 - A competitive Europe for a sustainable future

³ Fuest, C., Gros, D., Mengel, P-L., Presidente, G., and Tirole, J., EU Innovation Policy: How to Escape the Middle Technology Trap, Report by the European Policy Analysis Group, Institute for European Policymaking at Bocconi University, 2024.

the US. The EU significantly lags behind in high-tech sector-driven clusters and is mainly specialised in more traditional industries.

Due to the challenging times that lie ahead, a well-designed and persistent strategy is required for maximizing the innovation capacity, thus the societal impact of research results, as the Draghi-report also points out.

Against this backdrop, ERAC delegations are invited to reflect on the following questions:

1. Do you already have or are you planning national strategies to overcome the innovation paradox? How can core European values, such as sustainability, openness, cooperation contribute to overcoming the innovation paradox?
2. How to encourage more investments in advanced and digital technologies on the national and European level? How to find a balance between top-down directionality and bottom-up blue-sky research to advance European R&I performance and to avoid the middle-technology trap?
3. What do you think about the proposals in the Draghi report, especially regarding the need for a stronger EU-level strategy, coordination, funding, and interventions to enhance European innovation competitiveness? How does this align with national R&D strategies?
