European Economic and Social Committee

# OPINION

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## European Innovation Stress Test

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Introducing a European Innovation Stress Test
(Exploratory opinion)

**INT/1045**

Rapporteur: **Olivier JORIS**

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| Referral | Presidency of the European Council, 10/7/2023 |
| Legal basis | Article 304 of the Treaty on the Functioning of the European Union |
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| Section responsible | Single Market, Production and Consumption |
| Adopted in section | 20/12/2023 |
| Adopted at plenary | 17/1/2024 |
| Plenary session No | 584 |
| Outcome of vote<br>(for/against/abstentions) | 223/0/2 |

## 1. Conclusions and recommendations

1.1 Innovation will be critical for achieving Europe's green and digital transitions towards sustainability, for strengthening Europe's Open Strategic Autonomy and for delivering on the UN's Sustainable Development Goals. As such, it should be a key strategic priority for the 2024-2029 European Commission.

1.2 Framework conditions have a big impact on innovation. Principal framework conditions which support innovation include:

- knowledge creation and dissemination;
- skills and competencies;
- macro-political and economic factors;
- social attitudes;
- markets and demand;
- public finance – fiscal support;
- scale and nature of capital markets.

1.3 The European Union presents both strengths and weaknesses for innovation. Europe needs policies and legislation which overcome these weaknesses. It needs to build on its innovation strengths by developing policies which support and do not unintentionally stifle innovation.

1.4 Innovation can be fostered from early childhood through lifelong learning as a cornerstone of our future prosperity and progress, it will be important to actively foster a mindset of curiosity, problem-solving and resilience, including through STEM education. Collaboration between educational institutions, businesses and SMEs should be encouraged to demonstrate that innovation is attainable.

1.5 The EESC welcomes the initiative by the Belgian Presidency to evaluate introduction of a European Innovation Stress Test which would stimulate and help to retain innovation in the EU and is strongly convinced of its importance.

1.6 Building on existing effective EU/national research and innovation policies, the introduction and systematic use of a European Innovation Stress Test should provide valuable & comprehensive guidance for new EU policy initiatives. **This should help ensure that framework conditions make the EU the most attractive region for innovation**.

1.7 Systematic use of a European Innovation Stress test should ensure that new policies and legislation contribute to routine implementation and use of existing policy initiatives, including innovation deals and the Better Regulation Toolbox #20-23, in accordance with the Innovation Principle.

1.8 The EESC proposes that **the Innovation Stress Test should include the following ten key requirements, against which each new legislation and policy initiative should be evaluated.**

**Does it:**

a) protect consumers and the environment, as well as recognise the need for innovation to enable the EU's green and digital transitions towards sustainability, help to create more and better jobs for the benefit of society and stimulate the economy? (Yes)

b) ensure joined-up policymaking so that existing and future policies are employed in ways which create investor confidence and stimulate innovation, but do not create barriers for continued and new innovation investment in the EU? (Yes)

c) ensure clear understanding by innovators and investors? (Yes)

d) comply with use of the European Commission's Better Regulation toolbox? (Yes)

e) actively include consultation and involvement of innovators and investors across the full spectrum, from start-ups to international organisations, to ensure policies do not or will not unintentionally undermine investor confidence to invest or keep investing in EU innovation? (Yes)

f) recognise legitimate concerns regarding potential conflicts of interest and provide transparency on these issues for all involved in the process, including policymakers, public and private sectors and civil society? (Yes)

g) take account of the best available and most up-to-date weight of scientific evidence? (Yes)

h) negatively impact availability of skills, human capital and education needed for innovation, research and development? (No)

i) result in actions which could generate a gender imbalance? (No)

j) conflict with existing or future tax incentives for innovation or research and development in Europe? (No)

**If answers to these questions are not fully consistent with those given above, explanation or mitigation should be required.**

1.9 The EESC recommends that the current and next European Commission should **introduce a new Innovation Stress Test. It should be systematically used for evaluating each new legislation and policy initiative. The European Commission should monitor both its implementation and impact and reflect on its use for evaluating existing legislation. There may also be value in EU Member States doing likewise.**

## 2. General comments

2.1 <u>Innovation and why it is so important</u>

2.1.1 This exploratory opinion was requested by the upcoming Belgian Presidency of the Council. It is complemented by supplementary opinion CCMI/219 on the *European Innovation Stress Test: the example of the pharmaceutical sector*. Due to the strategic importance of innovation for society (including quality of life and the ageing population), long-term competitiveness, jobs, growth and both the green and digital transitions, its conclusions and recommendations should be taken into account in the preparation of the Strategic Agenda for the European Commission 2024-2029.

2.1.2 This opinion sets out how the introduction of a European Innovation Stress Test could be used to stimulate and retain innovation in the EU. To make this new test both practical and relevant, it addresses the most important considerations for policy initiatives which could influence innovation investment decisions in the EU.

2.1.3 In this context, innovation primarily encompasses new and improved products, services, production processes and ways of organising and doing business, including both radical and incremental changes, using all forms of tangible, technological and intellectual advances.

2.1.4 Framework conditions for innovation are important for private and public sector organisations of all sizes, from individual innovators, universities, spin-offs, start-ups, small and medium-sized enterprises (SMEs), and larger national and international organisations, across the full spectrum, from traditional low-tech sectors to fast-growth high-tech sectors.

2.1.5 Innovation requires moving discoveries forward to the market and incorporating them into new products and services, with the expectation of a return on investment.

2.1.6 Innovation is one of the principal factors in improving productivity, which is a key driver for growth, the creation of more and better jobs, high living standards and prosperity. In this context, it will be important to promote innovation at regional and local level, taking into account potential geographical imbalances.

2.1.7 Innovation will be critical for achieving Europe's green and digital transitions towards sustainability, for strengthening Europe's Open Strategic Autonomy and EU core values and for delivering on the UN's Sustainable Development Goals.

2.1.8 In the commercial context, innovation is primarily undertaken and financed by the private sector. It flourishes when public policies and hence societies create conditions in which managers and entrepreneurs are encouraged to take business risks, create new sources of wealth and employment and find new ways of meeting previously unfulfilled needs.

2.1.9 The EESC stresses the high value of timely engagement by social partners when developing policies and legislation which could impact innovation.

## 2.2 <u>A brief overview of existing EU innovation policies and tools</u>

2.2.1 Public authorities play an important role in creating a business environment which is supportive of innovation. Specifically, they establish **"framework conditions"** which shape the scale and nature of innovation within societies. They form part of the overall business environment and create incentives (or obstacles) for innovators and organisations to invest in innovation.

2.2.2 Principal innovation framework conditions include:

- **knowledge creation and dissemination** – investment in knowledge and innovation; the scale, nature and effectiveness of the "research base"; dissemination through value chains; access to technologies and infrastructure;

- **skills and competencies** – availability of a skilled and educated workforce, including the ability to retain and attract new and critical expertise and skills form third countries;
- **macro-political and economic factors** – predictability, the rule of law, property rights, fiscal and monetary policies;
- **social attitudes** – towards potential and perceived risks, risk-taking, risk management, enterprise and profits, new technologies (fear or acceptance), the role and nature of regulation;
- **markets and demand** – size, nature, confidence and trust, new opportunities, demanding customers, competitive intensity, barriers to entry, and use of best technologies;
- **public finance** – fiscal support; the availability of public innovation funding, tax incentives for innovation and levels of retained earnings;
- **scale and nature of capital markets**.

2.2.3 Increasingly, policymakers are also focusing on the availability of certain advanced forms of **infrastructure** that support enabling technologies, such as digital information technologies.

2.2.4 **Regulation and policies in general** – especially how societies react to and manage potential risks from novel technologies – play a critical role in shaping framework conditions for innovation[1]. The risks associated with not innovating can sometimes be forgotten, but they also play a critical role in shaping framework conditions. As a result, regulation and policies can either stimulate or impede innovation.

2.3 Strengths and weaknesses of existing EU policies and tools

2.3.1 The EU's framework conditions for innovation have major strengths, most notably the scale of the **single market**, the strength of Europe's public and private scientific research base, its advanced infrastructure, and the human and financial capital of its small and large-scale businesses.

2.3.2 The EU institutions have adopted a series of **policies** implementing Article 173 of the Treaty on the Functioning of the European Union (TFUE), which addresses the competitiveness of EU industry, as part of the flagship Innovation Union initiative.

2.3.3 **Dedicated institutions and programmes** have been created to foster R&D. Horizon Europe is the largest research funding programme in the world, supported by other initiatives (such as the European Institute of Innovation and Technology (EIT), the European Innovation Council (EIC) and by bodies dedicated to advising on innovation-related decision-making (such as the Research, Innovation and Science Expert Group (RISE) and the Expert Group on the Economic and Societal Impact of Research and Innovation (ESIR)).

1 https://www.businesseurope.eu/sites/buseur/files/media/reports_and_studies/2016-12-02_impact_of_eu_regulation_on_innovation_-_repository_of_industry_cases.pdf.

2.3.4 Innovation-friendly **policy instruments** include Innovation Deals[2], Better Regulation toolbox tools #20-23[3] and the Innovation Principle[4]. The systematic use and monitoring of the Innovation Stress Test should support and contribute to implementation of these existing policy instruments.

2.3.5 The **New European Innovation Agenda**[5,6] aims to position the EU at the forefront of innovation against the backdrop of the post-COVID-19 recovery, the European Green Deal and the conflict in Ukraine. The European Commission seeks to leverage regulatory experimentation ("sandboxes"), regional ecosystems, human talent and access to finance. These goals were relaunched in 2023 under the Green Deal Industrial Plan[7]. Since 2021, the EU has also pursued the Digital Decade policy[8].

2.3.6 Despite these important commitments and policy initiatives which set out to support European innovation, the EU's innovation performance has improved at a lower rate than key global competitors such as the US and China and there is a worrying trend of losing ground against them.

2.3.7 The EU's overall approach also exhibits a number of **significant and worrying weaknesses**. It lacks coherence and consistency over the long term. It does not fully reflect the strengths and structural weaknesses of the EU's economy. It fails to fully recognise the impact of the regulatory framework, including implementation mechanisms, on shaping incentives to invest in innovation. It pays insufficient attention to the importance of large and globally active companies as key investors in innovation which need to decide where in the world to invest in innovation, and it places insufficient emphasis on supporting investment in incremental innovation.

2.3.8 Despite strengths in European education and research, Europe has a track record of failing to capitalise on these skills and knowledge in an increasingly competitive global economy. Innovation can be fostered from early childhood through lifelong learning. STEM education and actively encouraging hands-on problem-solving and creativity within curricula could further support innovation. Encouraging collaboration between educational institutions, businesses and SMEs would help to demonstrate that innovation is attainable.

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2 https://research-and-innovation.ec.europa.eu/law-and-regulations/ensuring-eu-legislation-supports-innovation/identifying-barriers/signed-deals_en.

3 https://commission.europa.eu/law/law-making-process/planning-and-proposing-law/better-regulation/better-regulation-guidelines-and-toolbox_en.

4 https://research-and-innovation.ec.europa.eu/system/files/2022-07/ec_rtd_factsheet-innovation-principle.pdf.

5 https://ec.europa.eu/commission/presscorner/detail/en/IP_22_4273.

6 OJ C 100, 16.03.2023, p. 89.

7 https://ec.europa.eu/commission/presscorner/detail/en/ip_23_510.

8 https://digital-strategy.ec.europa.eu/en/policies/europes-digital-decade.

2.3.9 There are increasing concerns, especially following publication of the August 2022 US Inflation Reduction Act[9], that even leading European companies may be electing to invest in innovation and lay down foundations for future jobs and expertise in other parts of the world. Europe's response is critical in this respect.

2.3.10 Overall, if the EU's innovation performance does not improve sufficiently and it does not become a more attractive location for investment, its long-term prosperity and prospects for achieving the green and digital transitions are under serious threat.

2.3.11 There are also significant structural and procedural weaknesses:

- the speed of technological innovation now often exceeds the speed of regulation in the EU. For that reason, EU policies which set out to prescribe how innovation should be delivered and which technologies may or may not be employed, can be outdated by the time they are implemented. This cycle of **regulation chasing innovation** creates uncertainty, especially for SMEs, and undermines investor confidence;
- progressive implementation of **novel regulatory approaches** to managing potential and perceived technological risks creates systemic uncertainty and erodes investor confidence;
- **knowledge creation and dissemination** – despite encouragement from the European Commission, the EU as a whole has failed to achieve the target of spending 3% of GDP on R&D by 2020[10];
- financial weaknesses – EU **capital markets** are fragmented and lack relative scale and sophistication when compared with the US.

2.3.12 These structural and procedural weaknesses are exacerbated by additional policy, legislative and regulatory failings:

- there is sometimes a lack of policy coherence and integration at EU level and across all levels of government (EU, national, regional);
- new and controversial approaches to regulating technological risks can undermine the availability of upstream technologies and of materials as well as the confidence of potential investors in innovation. Regulations which are too prescriptive can exacerbate this problem;
- the European Commission has developed better regulation policies and tools, but these are at times overlooked. There is no existing governance in place ensuring systematic monitoring and implementation of these tools;
- there is a lack of clarity regarding the role of scientific advice for policymaking.

It is important to note that in March 2023 the European Commission introduced a competitiveness check[11] to address many of these concerns.

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9 https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-and-us-business-investment#:~:text=The%20Inflation%20Reduction%20Act%20(IRA,and%20strengthen%20long%2Dterm%20growth.

10 https://sciencebusiness.net/news-byte/eu-rd-spending-hits-23-gdp-economies-shrink-during-pandemic.

2.3.13 The upcoming Belgian Presidency of the EU Council offers an important opportunity to steer the next European Commission to **build on these strengths, to carefully analyse all identified weaknesses and to set out a roadmap to improve the EU's innovation policy landscape.**

2.4 Introduction of a stress test

2.4.1 The EESC welcomes the initiative by the Belgian Presidency to evaluate introduction of a European Innovation Stress Test, and it is strongly convinced of its importance.

2.4.2 If framework conditions are not sufficiently attractive for key players in the innovation value chain, innovation will either not happen, will fail or will relocate to other regions of the world. When considering new EU policy initiatives, it will therefore be important to understand and consider how decisions are made whether or not to invest in innovation, and which are the most important factors in encouraging investors to invest here in the EU. Framework conditions also impact Europe's ability to train, retain and attract critical expertise and skills.

2.4.3 Building on existing effective EU/national research and innovation policies, the introduction and systematic use of a European **Innovation Stress Test** should provide valuable comprehensive guidance for new EU policy initiatives, to help ensure framework conditions make the EU the most attractive region for innovation. **The Innovation Stress Test should include ten key requirements, against which each new legislation and policy initiative should be evaluated. Does it:**

a) protect consumers and the environment, as well as recognise the need for innovation to enable the EU's green and digital transitions towards sustainability, help to create more and better jobs for the benefit of society and stimulate the economy? (Yes)
b) ensure joined-up policymaking so that existing and future policies are employed in ways which create investor confidence and stimulate innovation, but do not create barriers for continued and new innovation investment in the EU? (Yes)
c) ensure clear understanding by innovators and investors? (Yes)
d) comply with use of the European Commission's Better Regulation toolbox[12]? (Yes)
e) actively include consultation and involvement of innovators and investors, across the full spectrum, from start-ups to international organisations, to ensure policies do not or will not unintentionally undermine investor confidence to invest or keep investing in EU innovation? (Yes)
f) recognise legitimate concerns regarding potential conflicts of interest and provide transparency on these issues for all involved in the process, including policymakers, public and private sectors, and civil society? (Yes)
g) take account of the best available and most up-to-date weight of scientific evidence? (Yes)
h) negatively impact availability of skills, human capital and education needed for innovation, research and development? (No)

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11 OJ C 100, 16.03.2023, p. 76.

12 https://commission.europa.eu/system/files/2023-09/BR%20toolbox%20-%20Jul%202023%20-%20FINAL.pdf.

i) result in actions which could generate a gender imbalance? (No)

j) conflict with existing or future tax incentives for innovation or research and development in Europe? (No)

**If answers to these questions are not fully consistent with those given above, explanation or mitigation should be required**.

2.4.4 The EESC recommends that the current and next European Commission **should introduce a new Innovation Stress Test. It should be systematically used for evaluating each new legislation and policy initiative. The European Commission should monitor both its implementation and impact and reflect on its use for evaluating existing legislation. There may also be value in EU Member States doing likewise.**

Brussels, 17 January 2024.

Olivier RÖPKE
The president of the European Economic and Social Committee

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