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COMMISSION STAFF WORKING DOCUMENT
IMPACT ASSESSMENT REPORT

Accompanying the document

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
establishing a framework of measures for strengthening the Union innovation ecosystem
and amending Regulation (EU) 2017/1001 (European Innovation Act)

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1.	INTRODUCTION: POLITICAL AND POLICY CONTEXT	4
1.1.	Low private R&D spending, insufficient scaleup funding & capital market fragmentation in the EU	6
1.2.	Fragmented and complex rules for companies operating across the EU	8
1.3.	EU fragmentation of research systems across Member States	8
2.	PROBLEM DEFINITION AND PROBLEM DRIVERS FOR THE EIA	9
2.1.	How likely is the problem to persist?	23
3.	WHY SHOULD THE EU ACT?	25
3.1.	Legal basis	25
3.2.	Subsidiarity: Necessity of EU action	25
3.3.	Subsidiarity: Added value of EU action	26
4.	OBJECTIVES: WHAT IS TO BE ACHIEVED?	27
4.1.	General objectives	28
4.2.	Specific objectives	28
5.	WHAT ARE THE AVAILABLE POLICY OPTIONS?	29
5.1.	What is the baseline from which options are assessed?	30
5.2.	Description of the policy options	32
5.3.	Options discarded at an early stage	37
6.	WHAT ARE THE IMPACTS OF THE POLICY OPTIONS?	39
6.1.	Estimates of economically affected population	39
6.2.	Costs and benefits by stakeholder by measure	41
6.2.1.	Costs for Measure 1 - Promote valuation of IP	41
6.2.2.	Benefits for Measure 1 - Promote valuation of IP	45
6.2.3.	Costs for Measure 2 – Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement	50
6.2.4.	Benefits for Measure 2 – Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement	52
6.2.5.	Costs for Measure 3 – Preference for EU-made solutions in R&D procurement for public buyers	55
6.2.6.	Benefits bundled with indirect economic costs for Measure 3 – Preference for EU-made solutions in R&D procurement for public buyers	57
7.	HOW DO THE OPTIONS COMPARE?	60
8.	PREFERRED OPTION	65
9.	HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?	70
	ANNEX 1: PROCEDURAL INFORMATION	72
1.	LEAD DG, DECIDE PLANNING/CWP REFERENCES	72
2.	ORGANISATION AND TIMING	72
3.	CONSULTATION OF THE RSB	73

5. EVIDENCE, SOURCES AND QUALITY.....	85
ANNEX 2: STAKEHOLDER CONSULTATION (SYNOPSIS REPORT)	87
ANNEX 3: WHO IS AFFECTED AND HOW?	91
1. SUMMARY OF COSTS AND BENEFITS	91
2. RELEVANT SUSTAINABLE DEVELOPMENT GOALS	94
ANNEX 4: ANALYTICAL METHODS	96
ANNEX 5: COMPETITIVENESS CHECK	135
1. OVERVIEW OF IMPACTS ON COMPETITIVENESS	135
2. SYNTHETIC ASSESSMENT	135
3. COMPETITIVE POSITION OF THE MOST AFFECTED SECTORS.....	137
ANNEX 6: SME CHECK	138
ANNEX 7: SUPPORTING GRAPHS AND TABLES	141
ANNEX 8: MACROECONOMIC MODELING - JRC B.7	161
ANNEX 9: ANALYSIS OF RESPONSES TO THE EIA CALL FOR EVIDENCE – JRC T.5.....	165
ANNEX 10: TARGETED CONSULTATION SURVEY EVIDENCE FOR MEASURES RELATIVE COSTS AND BENEFITS	168
ANNEX 11: POLICY MAPPING (OVERVIEW OF THE STATUS QUO).....	178
ANNEX 12: ANALYSIS OF RESPONSES TO THE STARTUP AND SCALEUP STRATEGY CALL FOR EVIDENCE	185
ANNEX 13: MONITORING AND EVALUATION FRAMEWORK.....	187
ANNEX 14: POLICY MAPPING (DETAILED LIST OF MAPPED POLICES)	193

Glossary

Term or acronym	Meaning or definition
Innovation	It means the implementation of a new or significantly improved product, service or process, marketing method, or organisational method in business practices, workplace organisation or external relations
EU public procurement directives'	It means Directives 2014/24/EU, 2014/25 EU, 2014/23/EU and 2009/81/EC;
Innovation procurement	Innovation procurement is an umbrella term covering both public procurement of R&D services and public procurement of innovative solutions (PPI).
Public Procurement of Innovation (PPI)	It refers to the procurement by public authorities of innovative goods, services, or works that are not yet widely available on the market, with the aim of improving public services or addressing societal challenges.
R&D procurement	It refers to the procurement by a public buyer of research and development services aimed at developing, testing or validating new or significantly improved solutions. It may include the development and acquisition of prototypes, demonstrators or limited test volumes, but its objective is the procurement of R&D services rather than the acquisition of products or services for commercial-scale deployment.
Pre-commercial procurement (PCP)	It refers to the procurement of research and development (R&D) services involving risk-benefit sharing under market conditions, where the procurer does not reserve all the results and benefits of the R&D exclusively for its own use.

1. INTRODUCTION: POLITICAL AND POLICY CONTEXT

For over two decades the EU has grappled with the paradox that its excellent research is not resulting in equally excellent commercialisation of innovative products and services on its internal market. Different measures have been tried to overcome the barriers, and the “valley of death” along the innovation lifecycle that entrepreneurs and industries are facing.

The effect of this **innovation gap** is manifold. It prevents disruptive innovations from reaching the market and creating new growth industries, indispensable for creating global champions, growth and jobs and fiscal revenues to fund the EU social model. It also makes the EU economy less productive compared to other economies, because of later introduction of new technologies into public and private sector entities.

Over the past two decades the EU’s economic growth has lagged behind both the United States and China. The EU-US gap in the level of GDP at constant 2015 prices has widened from 17% in 2002 to 30% in 2023.¹

The main reasons behind the EU’s GDP growth underperformance are a weakening productivity growth, an ageing workforce and different working patterns, with employees in Europe generally working fewer hours and taking longer holidays than in the United States.^{2 3}

Productivity growth in the EU depends heavily on research and innovation: research and innovation drive around two-thirds of productivity growth in the EU⁴, driven not only by R&D activities but also by non-R&D intangibles such as skills, software, organisational capital, and technological efficiency gains from how labour and capital are combined.⁵

This is why the President of the Commission has underlined the need to place research and innovation at the core of the EU economy, in order to achieve the Commission’s political priority for 2024-2029 to strengthen the **EU’s sustainable prosperity and competitiveness.**

Nevertheless, the EU's innovation output in 2025 remained below that of leading global innovators, notably the United States, South Korea, and Japan.⁶ **The EU’s innovation capacity is held back by a number of barriers along the innovation lifecycle.** Figure 1 provide a simplified visualization of where the most important barriers reside along the EU innovation lifecycle. The problems in “blue” are those currently addressed by other EU initiatives, while

¹ Draghi, M. (2024). The Future of European Competitiveness - A Competitiveness Strategy for Europe.

https://commission.europa.eu/document/97e481fd-2dc3-412d-be4c-f152a8232961_en

² Darvas, Z. (2023). The European Union’s remarkable growth performance relative to the United States. Bruegel (Brüssel)(<https://www.bruegel.org/analysis/european-unions-remarkable-growth-performance-relative-united-states>).

³ Draghi, M. (2024). The Future of European Competitiveness - A Competitiveness Strategy for Europe.

https://commission.europa.eu/document/97e481fd-2dc3-412d-be4c-f152a8232961_en

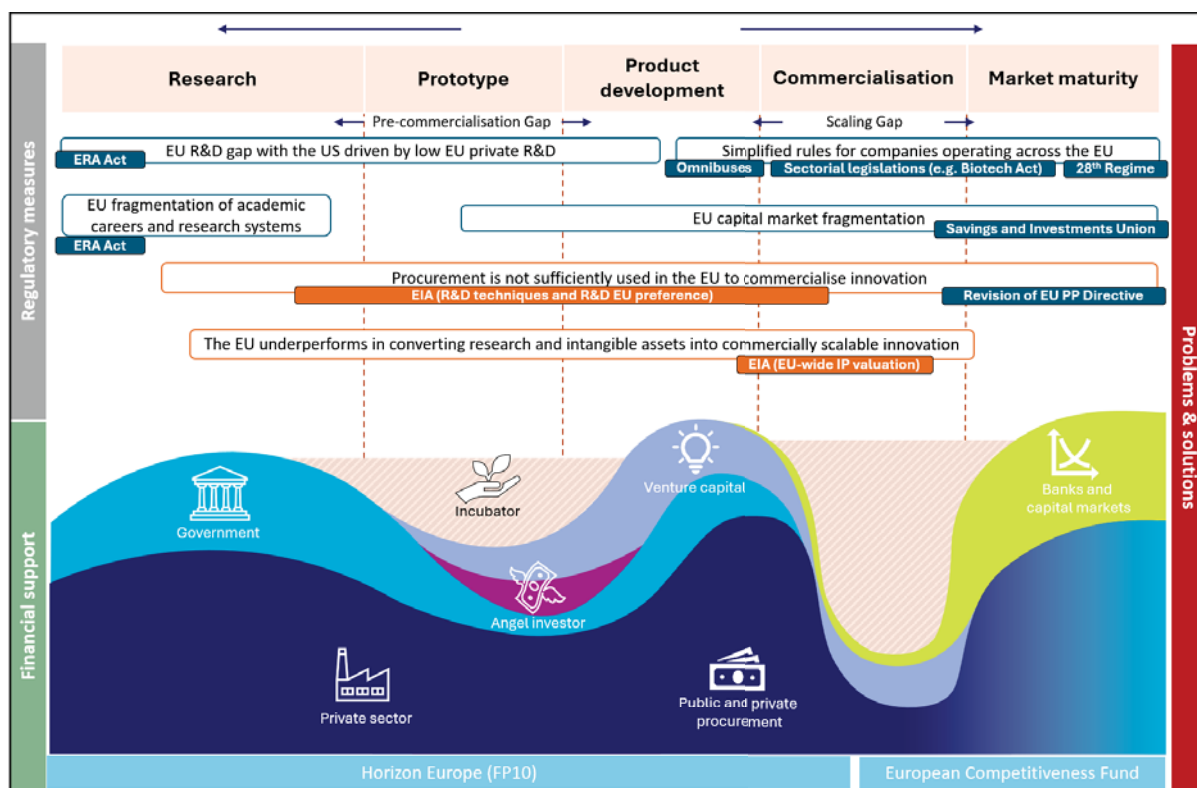
⁴ European Commission: Directorate-General for Research and Innovation. (2022). Science, research and innovation performance of the EU 2022: building a sustainable future in uncertain times. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/78826>.

⁵ Roth, F., & Mitra, A. (2025). EU competitiveness: the critical role of intangible assets in labour productivity growth. Journal of Economic Policy Reform, 1-20.

⁶ Bello, M., Ravanos, P. and Tessarin, M., Tracking country innovation performance: The Innovation Output Indicator 2025, Publications Office of the European Union, Luxembourg, 2026, <https://data.europa.eu/doi/10.2760/0461350>, JRC145507.

the problems in “orange” are those that the EIA aim to address. Below it will follow a more detailed explanation of such problems and initiatives. The problems numbered 1 to 4 in Figure 1, addressed by the EIA, are explained in more detail in Chapter 2.

Figure 1: Position of the European Innovation Act within The European innovation lifecycle



Source: RTD A5

The **innovation lifecycle** describes how ideas progress from early research to mature, market-ready products. Each stage involves different actors and risks: uncertainty and failure risks are highest at the beginning and decline as innovations mature. In the early phases (research and initial prototypes), where ideas are highly uncertain and rarely resemble viable businesses, public funding dominates. As prototypes mature, incubators, business angels and venture capital progressively step in to support market entry. At later stages, when products are proven and revenues are more predictable, banks, capital markets and public procurement of innovative solutions finance scale-up and expansion.

European innovative companies commonly face two “**valleys of death**” during the innovation lifecycle. The **pre-commercialisation gap** arises when innovations are no longer basic research but remain too risky or fragmented to attract private investment. The **scaling gap** occurs later, when firms have viable products but struggle to expand due to high capital needs, regulatory complexity and limited access to late-stage finance. These gaps explain why market forces alone often fail to carry innovation through the full cycle and why targeted public intervention is needed to translate research into competitive, scalable solutions.

Several problems - identified by the **Letta Report⁷**, the **Draghi Report⁸**, and the **2024 Science, research and innovation performance (SRIP) Report⁹** - **reinforce these gaps in the EU** and interrupt or slow down the innovation cycle. Addressing these problems requires a **comprehensive set of legal, financial and policy measures**.

The following summarises the main such problems, also listing the main EU initiatives aiming to address them. Section 2 will then set out the remaining problems (not addressed by other initiatives) to be addressed by the EIA.

1.1. Low private R&D spending, insufficient scaleup funding & capital market fragmentation in the EU

Despite being a strong global player in research and innovation, the EU continues to lag behind its main competitors in R&D investment, primarily due to lower private sector contributions. The public and private investment into R&D in the EU is 2.2% of GDP, below that of the US (3.5%), Japan (3.3%) and South Korea (4.9%).¹⁰ Behind this gap there is the sectoral composition of the EU economy: it is dominated by mid-tech industries such as automotive, whereas the US economy has a larger share of high-tech sectors including health, ICT hardware, and ICT services. Since high-tech sectors typically have much higher R&D intensity, their greater weight in the US economy translates into substantially higher private R&D investment overall. This structural imbalance is often referred to as the EU's "*middle-technology trap*".¹¹ **Evidence of the EU's "middle technology trap" can be seen in the stagnation of its corporate leadership:** for more than twenty years, the top three EU companies have repeatedly been automotive firms, with almost no turnover at the top. In stark contrast, R&D leaders have changed in the US over time. In the early 2000s, the top three US companies spanned the automobile and pharmaceutical industries. By the 2010s, they had shifted to the software and hardware sectors; and in the 2020s, the top-three companies included Alphabet and Meta, global leaders in the digital sector. This dynamic business evolution has been notably absent in the EU.

The EU also faces a persistent shortage of risk finance for innovation compared to the US. Venture capital investment in the EU is around seven times lower than in the United States, limiting the capacity of European start-ups and scale-ups to grow rapidly and compete globally. This gap reflects, in part, the EU capital market fragmentation, the limited role of institutional investors such as pension funds and insurance companies, which in the EU allocate a much smaller share of their portfolios to high-risk, high-reward innovation finance than their US counterparts. As a result, innovative firms in Europe continue to depend disproportionately on

⁷ Letta, E. (2024). Much more than a market – Speed, Security, Solidarity. Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens. <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf>

⁸ Draghi, M. (2024). The Future of European Competitiveness - A Competitiveness Strategy for Europe. https://commission.europa.eu/document/97e481fd-2dc3-412d-be4c-f152a8232961_en

⁹ European Commission: Directorate-General for Research and Innovation. (2024). Science, research and innovation performance of the EU, 2024: a competitive Europe for a sustainable future. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/965670>.

¹⁰ European Commission: Directorate-General for Research and Innovation. (2024). Science, research and innovation performance of the EU, 2024: a competitive Europe for a sustainable future. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/965670>.

¹¹ Fuest, C, D Gros, P-L Mengel, G Presidente and J Tirole (2024), "EU Innovation Policy: How to Escape the Middle Technology Trap", Report by the European Policy Analysis Group, Institute for European Policymaking at Bocconi University.

a bank-based financial system, which is less suited to financing intangible, high-risk assets typical of breakthrough innovation.¹²

Measures to address these problems: at EU level, these problems are mainly addressed through funding programmes such as **Horizon Europe, Invest EU, Digital Europe, Innovation Fund, and in particular the EIC (including the recently established Scaleup Europe Fund)**. In addition, the **forthcoming Advance Materials Act or Biotech Act** target strategic technologies to help the EU move beyond medium-technology specialisation. While **reforms under the Savings and Investments Union** aim to deepen EU capital markets and channel more private savings into equity, venture capital and scale-ups.

Remaining gap: Despite important progress through the European Innovation Council and the growth of private venture capital markets, **a significant scale-up financing gap persists in the EU**. While funding rounds of EUR 50-100 million are now more common, rounds above EUR 100 million remain comparatively rare, especially in capital-intensive and deep-tech sectors.¹³

Forthcoming initiatives, including the Savings and Investment Union and reinforced national scale-up schemes, are expected to mobilise additional capital, but are likely to address only part of the structural shortfall. There are remaining bottlenecks to the speed and scale of commercialisation of research results in the EU, which negatively affect the ability to attract innovation investments to the Union. Those bottlenecks are: fragmented and complex rules across Member States on valuation and monetisation of intellectual property as a guarantee for investments. Together, these **barriers increase costs, dampen incentives for public and private R&D investment, and weaken the scalability of innovative firms across the Single Market**.

Furthermore, while the EU Public Procurement Directives harmonise procedures for contracts above defined financial thresholds, they do not cover R&D procurement where **either the benefits do not accrue exclusively to the public buyer or the services are not wholly remunerated by it**. Such R&D procurement, including pre-commercial procurement (PCP), is therefore governed by national rules. Moreover, under the Commission proposal for the Public Procurement Act (PPA), all forms of R&D procurement would be excluded from its scope. However, as the proposal remains subject to the legislative process, the scope and provisions of the PPA ultimately adopted by the European Parliament and the Council may differ from those currently proposed.

The absence of harmonised R&D procurement rules has contributed to divergent practices across Member States, legal uncertainty, and limited use of cross-border R&D procurement, which is often necessary to achieve the financial critical mass required for the development of modern technologies. The European Innovation Act therefore focuses on R&D procurement precisely because they lie outside the harmonised EU framework, thereby complementing rather than duplicating existing EU legislation, while enhancing legal certainty and strengthening policy coherence in support of cross-border innovation.

¹² European Commission: Directorate-General for Research and Innovation. (2024). Science, research and innovation performance of the EU, 2024: a competitive Europe for a sustainable future. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/965670>.

¹³ Startup and Scaleup Strategy, European Commission

1.2. Fragmented and complex rules for companies operating across the EU

Regulatory fragmentation across Member States makes it difficult for innovative companies, including startups and scaleups, to operate efficiently and grow within the Single Market. **Different national legal systems, especially in areas like taxation, company law and securities law**, as well as fragmented digital systems create barriers for investors, limiting the flow of capital. Innovative companies also face difficulties navigating varying labour laws, high failure costs and administrative burdens, adding uncertainty and costs for both founders and investors.

Measures to address these problems: some of these problems are expected to be **addressed at the EU level in the forthcoming proposal for the 28th regime corporate legal framework, EU Inc.**, which will introduce an optional common corporate framework for companies using the EU Inc. legal form, digital corporate rules and procedures throughout their lifecycle and an enabling framework to invest into such companies. It also provides rules applicable to employee stock options issued by EU Inc. companies, including the moment of their taxation, and a simplified insolvency regime for such companies that are innovative startups. The introduction of the European Business Wallets¹⁴ will play a crucial role in simplifying the administrative and digital landscape for innovative companies, making it possible for them to operate more efficiently and effectively across the EU, by providing a secure and harmonised digital environment for identity verification, data exchange, and document management.. The administrative burden is being further reduced by various **omnibus legislations**.

1.3. EU fragmentation of research systems across Member States

The EU produces almost one-fifth of the world's scientific publications, ranking ahead of the US and second only to China¹⁵. In terms of high-quality publications (the 10% most cited), the EU is on par with the US, but lags behind China.

The innovation potential of the EU remains underused, as researchers and innovators do not fully exploit economies of scale and cooperate with other partners across the EU¹⁶. Collaboration networks for R&I activities rarely extend across national – or even regional – borders. Today, about 70% of all co-owned patents are the result of collaboration within the same region and almost one-in-five are created by partners in different regions of the same country. Only around 13% of the co-patents filed each year involve organisations located in two different European countries. By contrast, in the US, R&I collaborations across States are much more common, accounting for almost one-third of collaborations overall. All in all, the US has almost 2.5 times more R&I collaborations than the EU.

Measures to address these problems: at EU level, this problem is mainly **addressed through Horizon Europe and the European Research Area (ERA), including the forthcoming ERA Act**, which incentivise and structurally support cross-border R&I collaboration and

¹⁴ Proposal for a Regulation on the establishment of European Business Wallets | Shaping Europe's digital future.

¹⁵ Draghi, M. (2024), The future of European competitiveness. Part B: In-depth analysis and recommendations, European Commission, Brussels.

¹⁶ Draghi, M. (2024), The future of European competitiveness. Part B: In-depth analysis and recommendations, European Commission, Brussels.

researcher mobility. In addition, **the EIT and Important Projects of Common European Interest (IPCEIs) promote large-scale, transnational innovation ecosystems** that help overcome national and regional fragmentation.

Remaining gap: Despite progress under the European Research Area in promoting the free circulation of researchers and cross-border research collaboration, significant **fragmentation persists in the valuation methods and monetisation opportunities of intellectual property.**

As a result, **bottlenecks remain in the stages following basic research, particularly in the transition from laboratory results to prototyping and early commercial development.** This fragmentation contributes to a structural under-exploitation of publicly funded research. In 2019, only 43% of patented inventions originating from universities and public research organisations in the EU reached the implementation or operational stage, while SMEs achieved roughly twice that rate.¹⁷ This indicates that substantial potential for knowledge diffusion and economic impact remains untapped.

2. PROBLEM DEFINITION AND PROBLEM DRIVERS FOR THE EIA

The **European Innovation Act** is intended to address the specific problems causing the EU innovation gap, which are not addressed by other existing or forthcoming measures. The scope of the **European Innovation Act has therefore been framed by** the mission letter of Commissioner Zaharieva and a number of policy documents adopted by the Commission such as the **Competitiveness Compass¹⁸ and the EU Startup & Scaleup Strategy¹⁹.**

The purpose of this Impact Assessment is to provide an ex-ante, evidence-based analysis of remaining problems causing the European innovation gap. It identifies a specific set of problems – not addressed by other initiatives - that hinder innovative companies from scaling up within the EU Single Market, examines their underlying drivers, and identifies and assesses the impacts of the policy options available to address those problems.

2.1 General problem

The general problem of the EU is the lack of speed and scale for innovative products and services to commercialise within the EU, thereby contributing to counter stagnation of EU GDP growth.

There is a set of persistent regulatory and market failures that arise at specific stages of the innovation lifecycle, in particular during testing, product development, and early market entry.

¹⁷ EPO (2020), Valorisation of scientific results, p. 22.

¹⁸ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: A Competitiveness Compass for the EU, COM(2025)30 final, <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52025DC0030>.

¹⁹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: The EU Startup and Scaleup Strategy - Choose Europe to start and scale, COM(2025)270 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025DC0270>.

Figure 2 summarises the problems and consequences of the EU innovation gap.

Figure 2. Problem tree EIA

Problems	Problem Drivers	Consequences
1. The EU underperforms in converting research and intangible assets into commercially scalable innovation.	1.1 IPR valuation models in the EU are not standardised, while being complex and expensive	1. The bankability and scalability of intellectual property remain weak, limiting its use as collateral and its potential for scaling
2. Public Procurement is not sufficiently used in the EU to support research and innovation	2.1 Lack of legal certainty on how to procure R&D services	2. Innovative ideas are not taken up through procurement, limiting early demand and revenues that are critical for firms to bridge the “valley of death”
	2.2 Procurement practices favour incumbents and limit the participation of innovative companies in R&D procurement procedures	
	2.3 Fragmentation and barriers to cross-border R&D procurement	
	2.4 Europe’s strategic autonomy depends on research & innovation but is insufficiently considered in R&D procurements	

There are a number of sub-problems at different steps and levels of the innovation cycle that are driving the problem.

Problem 1: The EU underperforms in converting research and intangible assets into commercially scalable innovation and tech leaders.

The Draghi report highlighted that Europe’s innovation deficit isn’t a lack of ideas or research capacity, but a systemic inability to turn those ideas into commercially successful products. Despite representing only about 7% of the world’s population, the EU produces roughly 20% of global scientific publications and has a strong (yet eroding) position in patenting. In 2021, it accounted for 17% of the world’s patent applications, compared with a share of 21% for the US and 25% for China. The EU share in patents is not reflected in patenting for important technologies, and it does not necessarily lead to industrial applications.²⁰

Indeed, the EU disciplinary composition of its scientific and innovation output is skewed toward less technology-intensive fields, such as social sciences and humanities, while the United States leads in health and biomedical sciences and China in natural and applied sciences.

²⁰ Draghi, M. (2024), The future of European competitiveness. Part B: In-depth analysis and recommendations, European Commission, Brussels.

A similar pattern appears in patenting: EU activity lags behind the US and China in several key enabling technologies and is more concentrated in mature, lower technology-intensity domains, which typically offer more limited potential for productivity growth and global competitiveness. As a result, the EU represents only 6% of R&D expenditure among leading firms in software and computer services, while US firms account for 74%.²¹

The European Investment Bank (EIB) Report 2025 confirms this gap by explaining that EU firms are less successful than US firms at scaling and commercialising innovation, especially in deep tech and breakthrough sectors. Innovation is now largely driven by intangible assets, with over 90% of corporate value in leading firms coming from intellectual property (IP). Yet in the EU, intellectual property is still rarely used as collateral in debt financing. Because financial institutions focus on tangible assets and traditional accounting, IP-rich companies struggle to secure funding. As a result, EU start-ups raise around 50% less capital than US peers by their tenth year. This mismatch has created a major growth financing gap for asset-light, innovative firms, estimated at up to EUR 18 billion per year.²²

The European Innovation Scoreboard (EIS) 2025 confirms this pattern across multiple indicators: the EU performs strongly in research and knowledge-creation metrics, but records comparatively weaker results on indicators related to commercialisation and scale-up of innovation. The gap is most pronounced in high-growth firm levels; the EU currently has only 111 unicorns, while the United States has 687 and China has 162. Finally, the EU ranks last among all global competitors for the level of innovative SMEs collaborating with others, a critical factor for scaling breakthrough innovation.²³ Relocation patterns of high-potential European startup and scaleups firms, which predominantly move to the United States, provide additional evidence of impediments to scaling innovation in Europe.²⁴

Intellectual property is inherently difficult to value because it is intangible, uncertain, and highly context-dependent: its future returns depend on market adoption, legal protection, complementary assets, and firm capabilities, all of which are hard to predict and verify. Difficulties in valuing IP makes commercialisation harder because it blocks one of the key bridges from ideas to markets: financing and transactions. When a patent portfolio, software, data, or know-how cannot be valued credibly, lenders are reluctant to accept it as collateral, investors struggle to price equity, and partners cannot agree on licensing terms. Hence, firms either under-invest, sell early, or fail to scale.²⁵

²¹ SRIP 2024, EIB 2025 report

²² European Investment Bank. (2025). Investment Report 2024/2025: Innovation, integration and simplification in Europe. Luxembourg: EIB.

²³ European Commission (2025), European Innovation Scoreboard 2025, Publications Office of the European Union, Luxembourg.

²⁴ Startup relocation, in particular to the US, is a symptom that illustrates bottlenecks for those firms to scaleup successfully in the EU, while it raises concerns about weakening the EU's innovation ecosystem and competitiveness.

S Weik, A-K Achleitner, R Braun, 'Venture capital and the international relocation of startups', Research Policy, Volume 53, Issue 7, (2024)

S Weik, A-K Achleitner, R Braun, Venture capital and the international relocation of startups, Research Policy, Volume 53, Issue 7, 2024,

M Colombo, R Compañó, C Domnick, V Ponferrada, A Quas, B. Tofan What do we know about startup relocation? JRC Science-to-Policy Brief, forthcoming (2026).

²⁵ European Commission: Directorate-General for Research and Innovation. (2022). Science, research and innovation performance of the EU 2022 : building a sustainable future in uncertain times. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/78826>.

In the EU this problem is often more pronounced than in the US because the IP valuation ecosystem is less mature and less standardised, with fewer widely used valuation practices, thinner transaction comparable, and more fragmented markets and legal frameworks across Member States. In the US, by contrast, there is broader use of patents and other IP as financing and deal-making assets, supported by deeper capital markets, more specialised intermediaries, and more established valuation and collateralisation practices, which makes it easier to translate intangible assets into funded and scalable commercial products.²⁶

Stakeholder consultation confirms this gap: 80% (93) of EIA Open Public Consultation participants that expressed an opinion agreed that there is a prudent attitude toward IPR-backed financing from banks and institutional investors. 73 % (84) agreed that there is a lack of trustworthy, widely accepted standards for valuing IPR. 81% (96) agreed that there is a lack of experience with IPR valuation among startup/scaleup in the EU. 84% (108) agreed that creating a trustworthy EU wide accepted methodology for IPR valuation and providing templates and guidance on how to apply it would be a good step forward. 62% (72) agreed that creating an EU wide IPR marketplace with sufficient critical mass and liquidity would be a good step forward.

Problem driver 1.1: IPR valuation models in the EU are not standardised, while being complex and expensive

The EU's underperformance in translating research and intangible assets into commercially deployed innovation is partly linked to EU capital market fragmentation; however, this driver is being addressed through the Savings and Investment Union agenda and related financial market initiatives. **The EIA therefore concentrates instead on the remaining key drivers within its scope**, notably the heterogeneous, complex and expensive IPR valuation models that hamper the bankability and scalability of intellectual property in the EU, and the lack of sufficient incentives and capacity for publicly funded institutions to manage IPR and commercialise research results.

The effective use of intellectual property rights (IPR) as a financing and commercialisation asset depends on reliable, transparent, and comparable valuation approaches. However, current evidence shows that IPR valuation practices remain non-standardised, methodologically diverse, and costly, creating uncertainty for both firms and financial market participants. The World Intellectual Property Organization (WIPO) notes that IP valuation requires case-specific judgement and that in practice there is a lack of a single framework with a set of commonly agreed methodologies for valuating different types of IPR. As a result, lenders and investors apply divergent valuation methods and assumptions, leading to inconsistent outcomes and legal and financial uncertainty in IP-backed transactions.²⁷

This lack of standardisation translates into limited practical use of IP valuation by firms, especially SMEs. According to a joint study by the European Patent Office and EUIPO, in the

²⁶ European Commission (2025), Commission Staff Working Document accompanying the EU Startup and Scaleup Strategy: Choose Europe to start and scale, SWD(2025) 138 final, Brussels, 28 May 2025

²⁷ World Intellectual Property Organization (2025). Moving IP Finance from the Margins to the Mainstream.

absence of recognised and trusted models, financial institutions tend to apply strong discounts to IP valuations, reducing their usefulness as collateral and discouraging both borrowers and lenders. The problem is compounded by the limited development of secondary markets for IP-backed loans, which further reduces liquidity and increases perceived risk.²⁸

Available evidence provided by the World Intellectual Property Organization (WIPO) also shows that valuation practices vary widely across investors and jurisdictions. Some market participants rely on simplified checklist approaches, while others require deep technical and legal assessments supported by specialised external providers, often located outside the borrower's jurisdiction. These specialised valuation services are frequently expensive, with reported costs often exceeding €100,000 per case, creating a disproportionate burden for startups and SMEs.²⁹ High transaction and assessment costs, combined with methodological complexity, reduce the practical usability of intangible assets (including IPR) in attracting external finance.³⁰

Some Member States have introduced initiatives addressing **intellectual property valuation** as a distinct policy area. These initiatives vary in form and scope, ranging from analytical work to practical guidance. Examples include Austria's 2024 study *IP Financing in Austria*, which analyses the use of intellectual property in financing and balance-sheet treatment, and Belgium's federal *Practical Guide to valorise IP to raise funds*, which provides information to SMEs on different financing options and the role of intellectual property valuation within those options.

A European Commission Expert Group on Intellectual Property Valuation has identified lack of confidence in existing IPR valuation methods as a primary barrier to IP transactions, monetisation, and commercialisation in the EU.³¹ In addition, analysis from the OECD shows that the absence of reliable and predictable liquidation channels (notably underdeveloped secondary markets for IP assets) makes it difficult for lenders to recover value in case of default. This structural illiquidity leads financial institutions to heavily discount IP collateral or avoid it altogether.³²

Taken together, this evidence indicates that the absence of broadly accepted and operational IPR valuation models in the EU increases transaction costs, reduces legal and financial certainty, and limits the capacity of firms (particularly innovative SMEs) to leverage IP assets for financing and commercialisation.

Problem 2. Public Procurement is not sufficiently used in the EU to support research and innovation

²⁸ EPO & EUIPO (2023). Patents, trade marks and startup finance. Funding and exit performance of European startups, Munich (Germany) and Alicante (Spain).

²⁹ World Intellectual Property Organization. (2024). Unlocking IP-Backed Financing Series – Country Perspectives: Switzerland's Journey. WIPO. <https://www.wipo.int/publications/en/details.jsp?id=4710&plang=EN>

³⁰ Brassell, M. and K. Boschmans (2019), "Fostering the use of intangibles to strengthen SME access to finance", OECD SME and Entrepreneurship Papers, No. 12, OECD Publishing, Paris, <https://doi.org/10.1787/729bf864-en>.

³¹ (2014). Final report from the Expert Group on Intellectual Property Valuation. Publications Office. <https://data.europa.eu/doi/10.2777/72196>.

³² [https://one.oecd.org/document/DSTI/ICCP\(2014\)17/CHAP9/FINAL/en/pdf](https://one.oecd.org/document/DSTI/ICCP(2014)17/CHAP9/FINAL/en/pdf)

Public procurement is the process through which public buyers purchase works, supplies and services to deliver public services, address societal challenges, maintain infrastructure and support administrative functions. The EU Public Procurement Directives (most notably Directives 2014/24/EU, 2014/25/EU and 2009/81/EC) define the entities and contracts subject to EU procurement rules and the applicable procedures and exemptions.

In general, the Directives apply where a contracting authority or contracting entity purchases works, supplies or services from an economic operator and the estimated contract value reaches the applicable financial threshold, unless a specific exclusion applies. For R&D services, they apply only where the benefits accrue exclusively to the public buyer for use in its own affairs and the services are wholly remunerated by it.

As a result, a substantial share of R&D procurement, including pre-commercial procurement, falls outside their scope. Moreover, the forthcoming revision of the EU public procurement framework, the Public Procurement Act, is expected to exclude all forms of R&D procurement.

R&D procurement concerns the procurement of research and development services rather than the acquisition of products or services for commercial-scale deployment. It may nevertheless include the development and acquisition of prototypes, demonstrators or limited volumes of first products or services for testing and validation purposes.

For example, a city may launch an R&D procurement to develop environmentally sustainable asphalt. During the testing phase, a section of existing asphalt may be replaced with the newly developed material, and the city may retain that test section at the end of the procurement. This would not constitute commercial deployment, as removing the tested asphalt merely to restore the previous material would serve no practical or economic purpose. By contrast, any subsequent purchase of the new asphalt for additional roads or locations would constitute commercial procurement and would therefore fall under the EU Public Procurement Directives or their expected replacement, the Public Procurement Act³³.

A further real-world example is the Danish hospital disinfection R&D procurement launched in 2014. Through this process, Blue Ocean Robotics developed an autonomous ultraviolet disinfection robot capable of eliminating 99.99% of viruses and bacteria. The participating hospitals retained the robots used during the testing phase, but this did not constitute commercialisation, as their retention formed part of the R&D procurement and testing process. Commercial procurement occurred only subsequently, when other Danish hospitals purchased the solution through separate procedures under the EU public procurement framework. The project also supported the subsequent creation and growth of UVD Robots, which reportedly reached a valuation exceeding DKK 850 million, employed more than 200 people and attracted USD 48.7 million in venture funding.

Importantly, the procurement of innovative solutions (PPI) for commercial deployment may include limited R&D elements without constituting R&D procurement. This is because, despite the presence of such elements, the objective of the procurement is to develop and acquire a product or service for commercial use, rather than to procure R&D services as

³³ This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process.

such. It therefore remains within the scope of the EU Public Procurement Directives or their expected replacement, the Public Procurement Act³⁴.

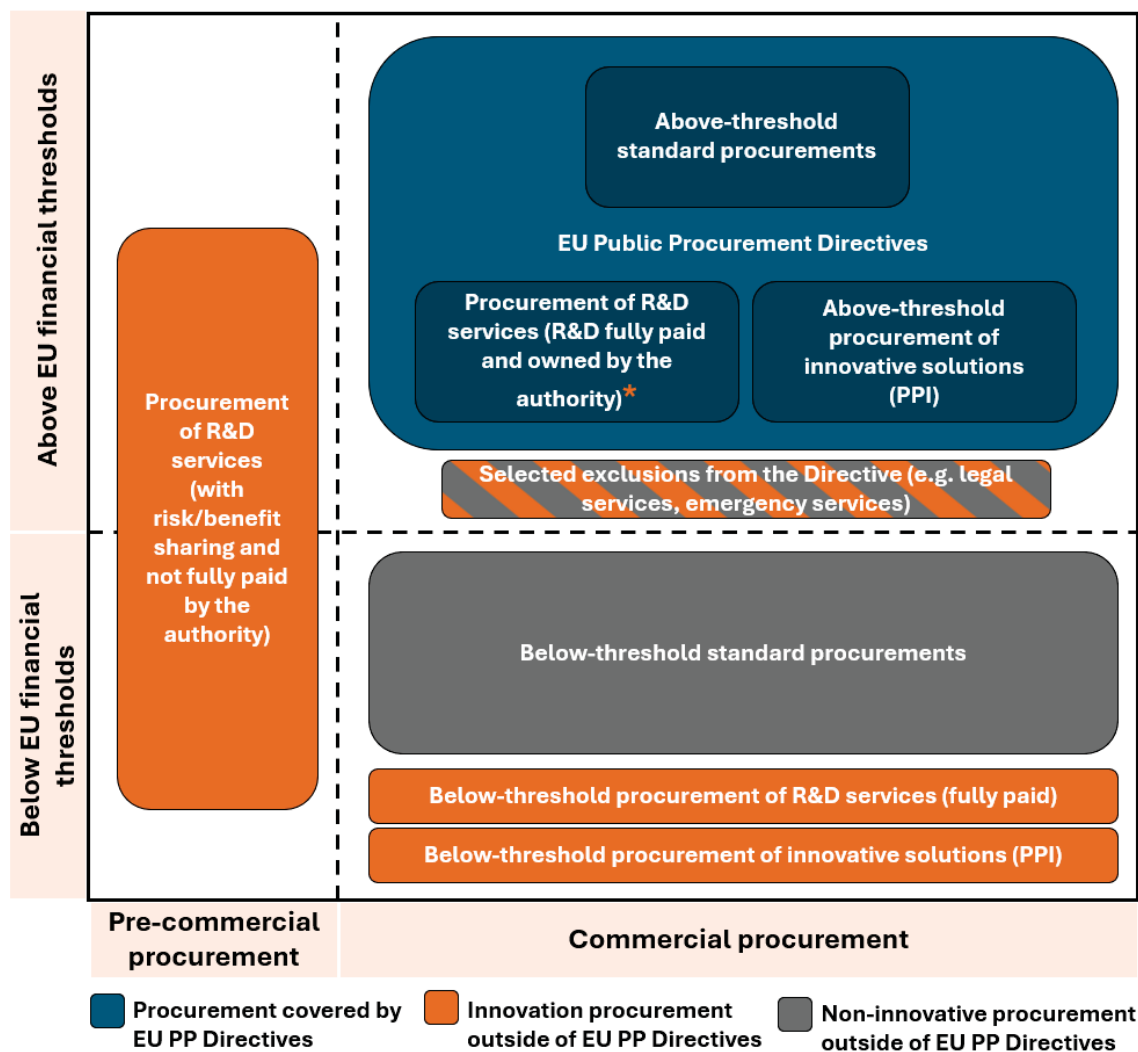
A pre-commercial procurement (PCP) is a type of R&D procurement in which public buyers share the risks and benefits of developing, prototyping and testing innovative solutions with suppliers. The European Commission's 2007 PCP Communication defines PCP specifically as an R&D procurement involving risk-benefit sharing under market conditions and competitive development in phases. In practice, this means that suppliers retain part of the benefits and intellectual property rights, while the public authority does not fully finance the R&D costs. Because of this risk-benefit sharing, PCP falls under the exclusion provided in Article 14 of EU Public Procurement Directive 2014/24/EU and is therefore outside of its scope.³⁵

Figure 4 provides a schematic overview of the procurement types falling within and outside the scope of the current EU Public Procurement Directives and the Commission proposal for their revision, known as the Public Procurement Act (PPA). Under the PPA Commission proposal, all types of R&D procurement would fall outside the scope of the PPA, irrespective of whether the R&D services are fully remunerated by the contracting authority and whether risks and benefits are shared between the contracting authority and the provider. By contrast, the procurement of innovative solutions would remain within the scope of the proposed PPA, as is currently the case under the EU Public Procurement Directives. However, as the proposal remains subject to the legislative process, its final scope and provisions may differ from those currently proposed.

³⁴ This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process.

³⁵ More specifically: Pre-commercial procurement was defined in the PCP communication COM(2007)799 and associated staff working document SEC(2007)1668. PCP is exempted from the EU public procurement directives according as it is implemented in line with the conditions for the exemptions for R&D services in article 25 of Directive 2014/23/EU, article 14 of Directive 2014/24/EU, article 32 of Directive 2014/25/EU and article 13(f)(j) of Directive 2009/81/EC.

Figure 4: Public procurement typology: financial thresholds and innovation stages



* At the time of writing, excluded from the scope of the Commission proposal to revise the EU Public Procurement Directives, known as the Public Procurement Act (PPA). However, as the proposal remains subject to the legislative process, its final scope and provisions may differ from those currently proposed.

Source: Science, Research and Innovation Performance of the EU (2026) report

Public procurement³⁶ alone accounts for roughly 17 % of EU GDP (EUR 2.8 trillion per year)³⁷, meaning governments are among the largest buyers in the economy. Large private firms also spend significant amounts on procurement. The EU private procurement (B2B) market was valued at €6,5 trillion or 36% of GDP in 2024.

Innovation procurement is the purchase of R&D or innovative solutions, i.e. new or significantly improved products, services, or processes that are not yet widely available as they

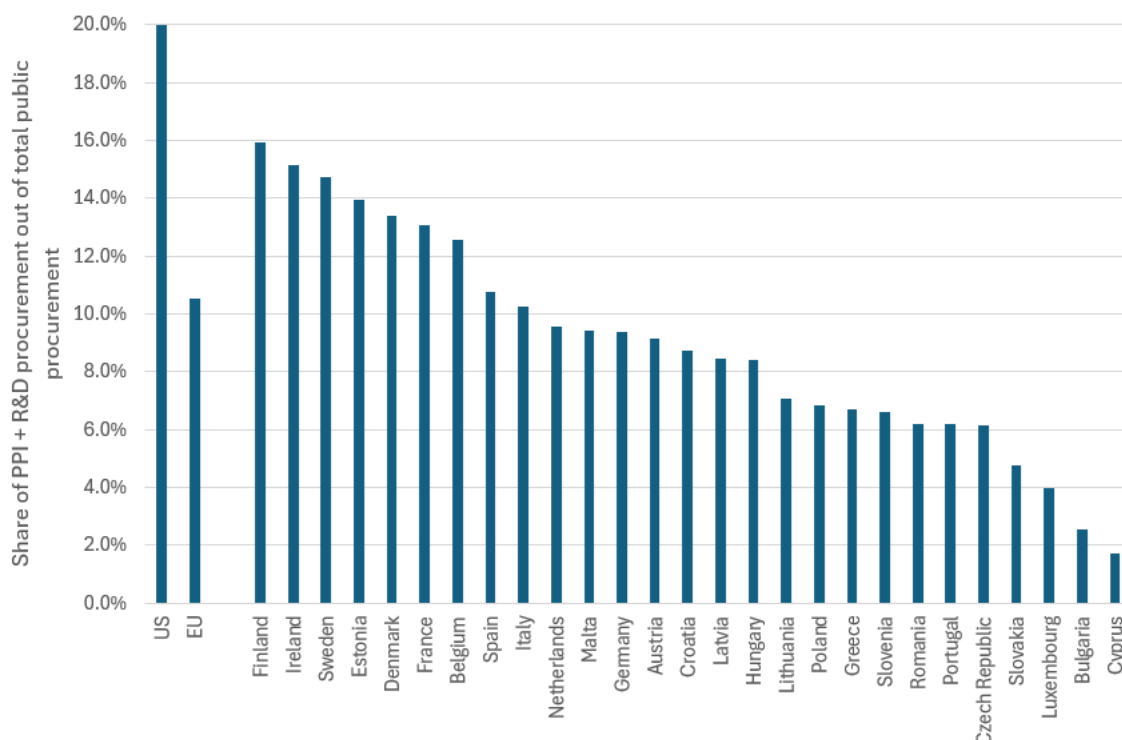
³⁶ From the classical and utilities sectors to the defence sector, all included.

³⁷ Directorate-General for Research and Innovation & PwC. (2026). EU innovation procurement observatory: final study report. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/1638226>.

are still in their early adoption phase and are not deployed yet by more than 20% of the customers in the EU³⁸.

Innovation procurement accounts for around 10% of total public procurement in the EU27, corresponding to approximately €298.5 billion (including both R&D procurement and the procurement of innovative solutions), or 1.76% of EU GDP.³⁹ However, the EU lags behind global peers: the share reaches about 20% in the United States and 25% in South Korea. Matching U.S. levels of intensity would imply an additional €300 billion annually directed towards innovative solutions. (See Figure 5)

Figure 5. Public innovation procurement as a share of total public procurement (2022)



Source: Author owns elaboration based on European Commission: Directorate-General for Research and Innovation & PwC. (2026). EU innovation procurement observatory: final study report. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/1638226>.

Within this total, R&D procurement in the EU27 amounts to €17.3 billion, representing 0.61% of total public procurement and 0.1% of GDP, and approximately 6.1% of total innovation procurement.⁴⁰ This compares to around \$50 billion annually in the United States, where federal agencies allocate approximately 7.5% of their procurement budgets to R&D, reflecting a more systematic use of procurement to support early-stage innovation. DARPA is a leading example of buying R&D to trigger high-risk, high-reward R&D for defence

³⁸ See definition of innovation in the context of public procurement in the EU public procurement directive 24/2024/EU and in the EU's 2021 guidance notice on innovation procurement.

³⁹ Directorate-General for Research and Innovation & PwC. (2026). EU innovation procurement observatory: final study report. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/1638226>.

⁴⁰ Directorate-General for Research and Innovation & PwC. (2026). EU innovation procurement observatory: final study report. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/1638226>.

innovations for which no market yet exists. Operating outside traditional procurement rules through Other Transaction Authority (OTA), it contracts flexibly with startups, universities, and consortia. Its approach is outcome-oriented, milestone-based, and mission-driven, focusing on creating breakthrough technologies through pre-commercial procurement rather than optimizing cost or efficiency in known markets. Many important innovations such as the Internet (ARPANET), Global Positioning System (GPS), stealth technology, and autonomous vehicles all stemmed from DARPA projects.⁴¹

US global leadership in supercomputing is thanks to R&D procurements implemented by the Department of Energy and the Department of Defense: IBM, Cray, HP, Silicon graphics and Sun microsystems were all startups when they started their first R&D procurements in the 1950s. In the biotech sector, Amgen and Genentech brought their first blockbuster products to the market thanks to procurements by the National Institutes of Health (NIH) and the Biomedical Advanced Research and Development Authority (BARDA).

In the EU, legal barriers discourage experimentation with emerging technologies and favours well-established solutions, making it difficult for innovative startups and scaleups to compete and bring novel approaches into the public sector.^{73 42 43 44} **Different studies show how procurement frameworks remain highly heterogeneous and uncoordinated across EU Member States.** Diverging rules, standards, and procedures for pre-commercial and innovation procurement create a fragmented landscape that limits cross-border opportunities. This lack of alignment makes it challenging for innovative companies to scale solutions across different national markets, undermining the potential for a true single market for innovation-driven procurement.^{45 46 47 48}

At national level, **pre-commercial procurement (PCP)** is used in a **limited number of Member States**, primarily through **programmes or pilot schemes** rather than through national legal frameworks that provide the legal certainty needed to convince procurers to apply it widely on their own, reflecting its exclusion from the scope of the EU public procurement directives. Structured use of PCP can be observed in countries such as **Spain, Poland, Sweden, Germany**, where it is integrated into the public procurement of innovation framework and supported through national funding instruments, and **Italy**, where PCP has been implemented through targeted calls supported by national innovation agencies. **Finland** and the **Netherlands** have also applied PCP-type approaches through innovation agencies and sectoral programmes, notably in health, energy and digital public services. In most other Member States, PCP is

⁴¹ European Commission: Directorate-General for Research and Innovation. (2024). Science, research and innovation performance of the EU, 2024 : a competitive Europe for a sustainable future. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/965670>.

⁴² Suresh, K. (2022). Analysing Incentive Issues and Failures in Innovation Procurement. SSRN Electronic Journal.

⁴³ Uyerra, E., Edler, J., Garcia-Estevez, J., Georghiou, L., & Yeow, J. (2014). Barriers to innovation through public procurement: A supplier perspective. *Technovation*, 34(10), 631–645.

⁴⁴ Georghiou, L., Edler, J., Uyerra, E., & Yeow, J. (2014). Policy instruments for public procurement of innovation: Choice, design and assessment. *Technological Forecasting and Social Change*, 86, 1–12.

⁴⁵ L. Rubini, M. Andov, and A. Biondi, *Regulating for a Sustainable and Resilient Single Market: Challenges and Reforms in the Areas of State Aid, Competition, and Public Procurement Law* (Brussels: European Trade Union Institute, 2023)

⁴⁶ M. Andhov, A. Biondi, and L. Rubini, “Regulating for a Sustainable and Resilient Single Market: Challenges and Reforms in the Areas of State Aid, Competition, and Public Procurement Law,” ETUI Research Paper (2023)

⁴⁷ P. C. Gomes, *EU Public Procurement and Innovation: The Innovation Partnership Procedure and Harmonization Challenges* (Cheltenham: Edward Elgar Publishing, 2021)

⁴⁸ G. M. Racca and C. R. Yukins, eds., *Joint Public Procurement and Innovation: Lessons Across Borders* (Cheltenham: Edward Elgar Publishing, 2020)

applied on an **ad hoc basis**, rather than through permanent national schemes. Joint cross-border PCPs have been supported mainly by the EU's R&I funding programs. No mapped national measures were identified that establish systematic arrangements for **joint cross-border pre-commercial procurement**.

Private procurement refers to purchases by firms that are not public buyers, undertaken to develop products, operate production processes, and maintain infrastructure and services across the EU economy. Unlike public procurement, there is currently no EU or national framework encouraging private buyers to adopt innovation-friendly procurement practices, beyond existing requirements related to environmental sustainability. Available surveys and studies indicate that, compared to the United States, private buyers in the EU are less mature in procuring innovative solutions from other firms and tend to prioritise cost reduction and process standardisation over innovation-oriented sourcing. Studies indeed show that private buyers in the US are more mature in buying R&D from other companies (they procured €3,3Bn of R&D from other companies in 2024) than private buyers in the EU (who procured 2,5Bn of R&D from other companies in 2024).

Problem driver 2.1 - Lack of legal certainty on how to procure R&D services

The limited use of public procurement for innovation is partly linked to framework conditions under the Public Procurement Directives, which are subject to separate review. The EIA correspondingly focuses on pre-commercial procurement instruments operating outside those directives⁴⁹.

Public authorities can use procurement of R&D services, including pre-commercial procurement (PCP), to support the development of innovative solutions that are not yet market ready. However, in practice these instruments are used only to a limited extent in the EU, partly due to legal and procedural uncertainty.

Pre-commercial procurement falls outside the scope of the EU public procurement Directives and international procurement agreements and instead relies on Treaty principles and basic principles in the State aid rules to avoid State aid in procurements. Specifically, the Research, Development and Innovation Framework (RDIF) set out the conditions under which pre-commercial procurement does not involve State aid. This regulatory positioning has led to multiple legal interpretations and complex compliance requirements. A Commission study quantifying the impact of PCP in Europe finds that this combination of legal complexity, fragmented interpretation, and procedural uncertainty has been a significant factor behind the underuse of PCP, particularly in the ICT sector.⁵⁰

More recent benchmarking confirms that the legal treatment of PCP varies widely across Member States. According to the 2024 benchmarking of national innovation procurement frameworks, only two Member States have a clear PCP definition in national legislation that is

⁴⁹ According to the November 2025 Commission report on the evaluation of the 2024 EU public procurement directives, in 2023 30% of public procurement in the EU was subject to the EU public procurement directives. 70% of public procurement in the EU does not fall under the scope of the EU public procurement directives.

⁵⁰ (2015). Quantifying the impact of Pre-Commercial Procurement (PCP) in Europe based on evidence from the ICT sector : final report. Publications Office. <https://data.europa.eu/doi/10.2759/113472>.

applicable nationwide and aligned with the EU-level definition in the Commission's PCP Communication⁵¹. In other Member States, PCP is addressed only through non-binding guidelines or partial legal provisions, such as R&D service exemptions in procurement law, resulting in uneven legal clarity and operational approaches across jurisdictions.⁵²

Taken together, this evidence indicates that the fragmented and unclear legal framework for procuring R&D services increases risk and administrative burden for contracting authorities. This reduces incentives to use PCP and related R&D procurement approaches, thereby limiting public sector capacity to stimulate innovation through demand-side instruments.

Problem driver 2.2 - Procurement practices favour incumbents and limit the participation of innovative companies in procurement procedures

Current procurement practices in many cases favour established suppliers and make it difficult for startups and other innovative companies to participate effectively in public tenders. **Tender specifications are often highly prescriptive** and frequently reused from past procedures, describing specific solutions rather than the problem to be solved. This approach advantages incumbent vendors and reduces the scope for alternative or innovative solutions to compete.^{53 54 55}

Award and selection practices further reinforce this effect. Contracting authorities often rely heavily on minimum turnover requirements and prior track record criteria when assessing eligibility. While intended to reduce risk, these requirements disadvantage startups and scaleups, which may offer innovative solutions but lack extensive prior track record. At the same time, procurement decisions frequently prioritise lowest upfront cost over higher potential lifecycle value, which discourages solutions with higher initial prices but stronger long-term performance or efficiency benefits.^{56 57}

In addition, procurers often require companies to fully transfer their intellectual property rights to the procurer, which can deter innovation-driven companies whose business models depend on retaining and commercialising their IP. **Rigid contract structures with little flexibility and little financial incentives for companies to update solutions during contract implementation** further reduce incentives for companies to propose innovative approaches.

⁵¹ COM (2007)799 final and SEC (2007) 1668 defined pre-commercial procurement

⁵² European Commission (2024). Synthesis report for the benchmarking of national policy frameworks for innovation procurement, Directorate General for Research & Innovation.

⁵³ Startup and scaleup strategy, EC

⁵⁴ Uyerra, E., Edler, J., Garcia-Estevez, J., Georghiou, L., & Yeow, J. (2014). Barriers to innovation through public procurement: A supplier perspective. *Technovation*, 34(10), 631-645.

⁵⁵ Uyerra, E., Edler, J., Garcia-Estevez, J., Georghiou, L., & Yeow, J. (2014). Barriers to innovation through public procurement: A supplier perspective. *Technovation*, 34(10), 631-645.

⁵⁶ Herron, T. (2025). Understanding SME Constraints in Public Procurement: A Capability-Based Synthesis of Barriers and Treatments. *SCIENTIA MORALITAS-International Journal of Multidisciplinary Research*, 10(2), 356-378.

⁵⁷ OECD (2017), Public Procurement for Innovation: Good Practices and Strategies, OECD Public Governance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264265820-en>.

Together, these practices reduce effective competition, favour incumbents, and limit the participation of innovative companies in public procurement markets.

Problem driver 2.3 - Fragmentation and barriers to joint cross-border innovation procurement

Joint and cross-border innovation procurement can generate significant benefits, including pooling of demand, economies of scale, shared risk, and faster diffusion of innovative solutions across markets. However, in practice, cross-border public procurement within the EU remains limited, and joint cross-border innovation procurement is rare.

Available evidence shows that cross-border procurement in the Single Market accounts for only a small share of total procurement value: around 3% of contract value awarded to suppliers from other Member States. This low level of cross-border participation is linked to diverging national legal transpositions of procurement rules, additional national restrictions on cross-border purchasing, and conflicting language and documentation requirements. These differences increase legal and operational complexity for contracting authorities and suppliers seeking to participate across borders.⁵⁸

Evidence on joint cross-border innovation procurement projects confirms the scale of the problem. A 2020 survey among European public procurers revealed only 10 out of 41 respondents had previous practical experience with joint cross-border public procurement projects. Reported barriers include legal complexity, lack of experience among contracting authorities, and difficulties in coordinating funding and procedures across jurisdictions. These constraints are also highlighted by the EC Expert Group on innovation procurement, which finds that cross-border joint procurement remains operationally and legally challenging in practice.^{59 60}

Academic analysis reaches similar conclusions, noting that despite recognised benefits, cross-border procurement remains uncommon due to legal coordination challenges, high transaction costs, and incompatible national systems and processes.⁶¹

Taken together, this evidence indicates that regulatory, administrative, and technical fragmentation across Member States creates persistent barriers to joint cross-border innovation procurements. This limits the ability of public buyers to aggregate demand and reduces the scale and effectiveness of innovation procurement as a policy instrument across the Single Market.

⁵⁸ Becker, Jörg et al. (2019). Contribution to Growth: European Public Procurement – Delivering Economic Benefits for Citizens and Businesses” (Study for European Parliament IMCO Committee) – Policy study on cross-border procurement. https://www.europarl.europa.eu/RegData/etudes/STUD/2018/631048/IPOL_STU%282018%29631048_EN.pdf

⁵⁹ EC Expert Group on innovation procurement (2025). Overcoming legal barriers for the uptake of innovation procurement in the EU, final report November 2025

⁶⁰ Kubinec, J. & Kostolny, M. (2020). Joint cross-border public procurement in Europe, Analysis of the iProcureNet survey and case studies, iProcurement.

⁶¹ Malatinec, T. (2021). Cross-Border Public Procurement in the European Union. EU agrarian Law, 10(2), 2021. 7-12. <https://doi.org/10.2478/eual-2021-0007>

Problem driver 2.4 - Europe's strategic autonomy depends on innovation but is insufficiently considered in procurements

Recent policy and academic work highlight that Europe's strategic autonomy increasingly depends on its capacity to develop and retain critical technologies and innovation capabilities. Research shows that “technology sovereignty” has become a central rationale for innovation policy, as dependencies in key technologies can limit economic resilience, security, and policy choice.⁶² European Parliament studies similarly conclude that competitiveness and security rely on strengthening Europe's position in key enabling and strategic technologies, which requires sustained innovation and industrial capability building.⁶³

64

Overdependency on solutions from third countries is particularly problematic for solutions that are based on critical technologies that need to be procured by public and private procurers that are critical entities, because critical entities need to be able to ensure service continuity in the critical infrastructures that they operate and in the essential services that they provide to the EU economy and society. Both US and Asia (e.g. China) have a systematic approach that requires all their critical entities to give preference in their procurements to suppliers that produce delivered goods, services or works substantially domestically. The EU lacks such an approach both for public and private procurers that are critical entities. As a result, critical entities in the EU have become over reliant on critical technologies from third countries.

Europe's strategic autonomy is already pursued by some sectoral legislation (such as the Net-Zero Industry Act, the Critical Raw Materials Act, the proposed Critical Medicines Act, and the forthcoming Industrial Accelerator Act) by mainly addressing security of supply and dependency risks in specific sectors. However, those Acts only start reinforcing EU strategic autonomy when the innovation cycle is already finished and when Europe is already overly dependent on solutions made in third countries because suppliers have already setup commercial scale production capacities outside the EU. At this stage it is typically too late and too costly for suppliers to move back production capacity to the EU for individual procurement contracts, especially for critical technologies which involve expensive R&I and production capacity investments. Unlike the US and Asia that start reinforcing strategic autonomy in a systematic way across all public procurements from the R&D stage onwards and continue to do so across the innovation cycle up to commercial scale production, in the EU there is no established innovation-centred approach to apply a EU preference in public procurement to support early-stage technological development and long-term strategic innovation capacity in the EU.

⁶² Edler, J., Blind, K., Kroll, H., & Schubert, T. (2023). Technology sovereignty as an emerging frame for innovation policy. Defining rationales, ends and means. *Research Policy*, 52(6), 104765.

⁶³ EPRS/STOA (European Parliament) (2021), Key enabling technologies for Europe's technological sovereignty. [https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU\(2021\)697184](https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU(2021)697184)

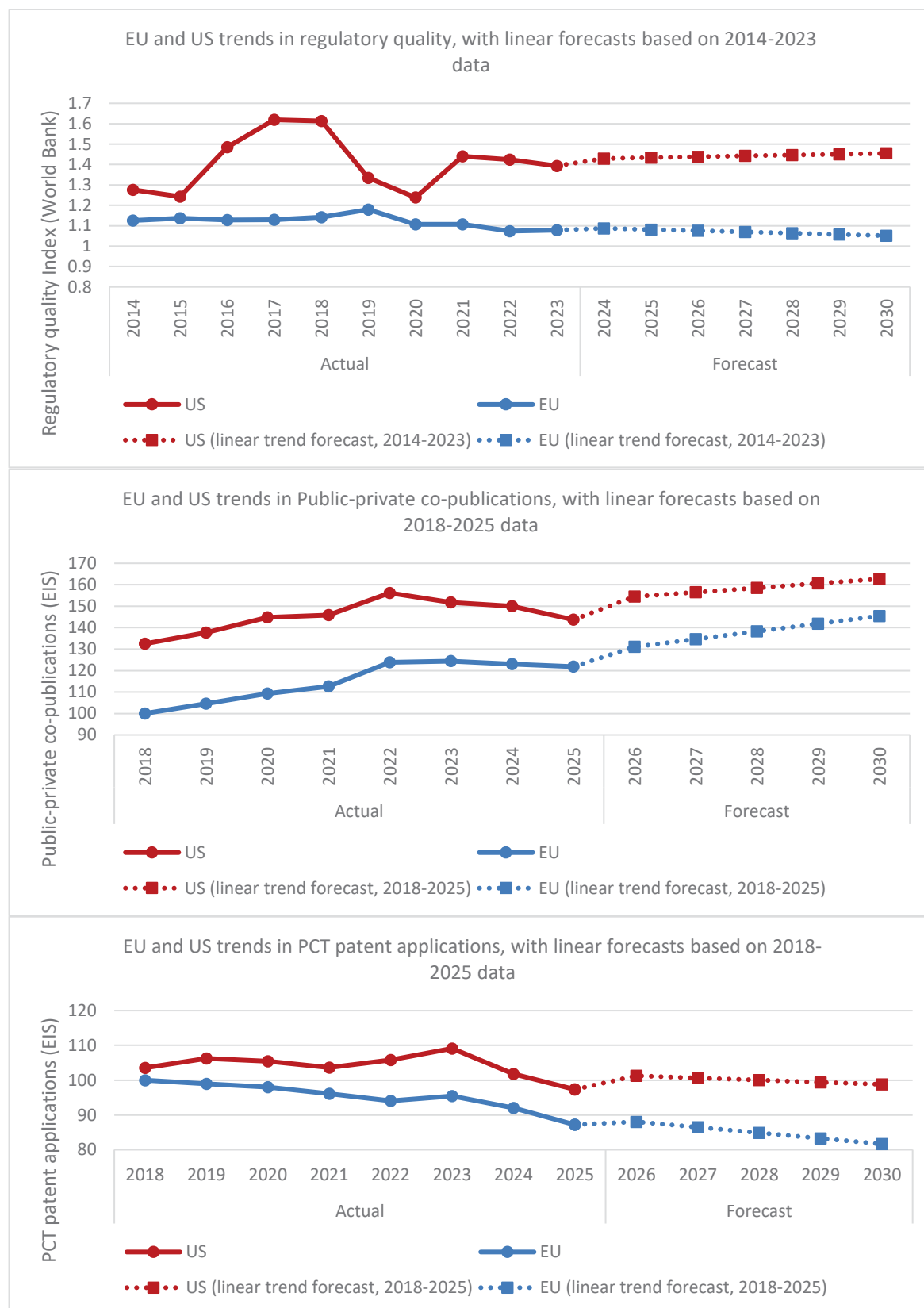
⁶⁴ European Parliament study (2025), “Strategic autonomy and European competitiveness: Security now comes first. [https://www.europarl.europa.eu/thinktank/en/document/ECTI_STU\(2025\)764371](https://www.europarl.europa.eu/thinktank/en/document/ECTI_STU(2025)764371)

2.1. How likely is the problem to persist?

Across the problem areas examined, current trends suggest that the problems identified are unlikely to resolve themselves without significant external intervention capable of altering the present trajectory. Figure 6 presents the historical trends and naïve linear forecasts for the EU and the US for the available and relevant economic indicators that can be used to proxy the scale of the problem. In all cases, the EU-US gap has been historically persistent and, under a simple linear extrapolation⁶⁵, is expected to continue. These projections should be interpreted with caution, as linear forecasts do not account for structural breaks or policy changes; they serve only to illustrate that, absent EU intervention to modify current framework conditions, the gap is unlikely to close on its own.

⁶⁵ A simple linear extrapolation is a basic estimation method used to project values beyond the observed data range by assuming that the existing trend continues at the same constant rate. In practical terms, it means taking an observed change over time (or across units) and extending that same straight-line relationship forward to produce an approximate estimate where direct data is not available. It does not introduce additional behavioural assumptions or model dynamics; it only assumes proportional continuation of the measured trend.

Figure 6. Historical trend and linear forecast for EU vs US economic indicators



3. WHY SHOULD THE EU ACT?

3.1. Legal basis

The appropriate legal basis for the European Innovation Act (EIA) is Article 114 TFEU, which empowers the Union to adopt measures for the approximation of the laws, regulations or administrative provisions of the Member States which have as their object the establishment and functioning of the internal market. This reflects the core objective of the EIA: to remove the regulatory and structural barriers that hinder the testing, commercialisation and diffusion of innovation, within the Single Market.

The choice of legal basis is further supported by the fact that the identified problems produce a direct and demonstrable impact on the proper functioning of the Single Market. The fragmented approaches to pre-commercial procurement and valuation of intellectual property rights, impede cross-border movement of goods, services and capital within the Single Market. Diverging national rules on pre-commercial procurement constitute barriers that prevent companies from participating in and offering their innovative products and solutions to public buyers in different Member States. The absence of a harmonised methodology for valuing intellectual property assets creates divergent conditions across Member States for the use of such assets in company financing, notably as collateral for debt financing. This fragmentation undermines companies' access to capital within the Single Market, impeding their cross-border growth and investment.

The final decision on the most appropriate legal basis will however be subject to a centre of gravity test done on the basis of a draft legal text.

3.2. Subsidiarity: Necessity of EU action

The innovation gap cannot be overcome by Member States acting alone. This because innovation ecosystems and markets for innovative companies are increasingly cross-border in nature yet remain fragmented along national lines. In addition, the objectives of the initiative to increase commercialisation and diffusion of innovation require a critical mass, both in terms of support and in terms of potential customers, that individual Member States cannot achieve in isolation.

EU action is the most feasible way to address the identified problems. While some there buyers in some Member States that conduct pre-commercial procurements applying the national rules and procedures, these procedures are often incompatible, making implementation of cross-border pre-commercial procurements especially difficult. At the same time, diverging national approaches undermine the ability of innovators and innovative companies to participate in pre-commercial procurements in other Member States. No single Member State can establish a pre-commercial procurement procedure applicable in the entire Single Market. Therefore, only an action at the Union level can achieve the necessary level of harmonisation opening pre-commercial procedures to all companies established in the Single Market and enabling the implementation of cross-border pre-commercial procurements by buyers from two

or more Member States. Any single Member State would face difficulties in establishing an IP valuation framework recognised by lenders in the entire Single Market. Therefore, developing a common EU valuation framework is necessary to ensure that IP assets can serve as effective collateral on a cross-border basis.

An action at the EU level would achieve the necessary level of harmonisation through establishing framework conditions at the EU level that support commercialisation and diffusion of innovation in the Single Market, thus leveraging the potential of the internal market for innovators and innovative companies to develop, test, and find customers for their innovations.

In this respect, only **EU-level frameworks can provide the scale and level playing field Europe's innovators need**. EU-wide harmonised frameworks for accessing key resources, including markets and financing can generate the necessary economies of scale and ensure a level playing field for Europe's most innovative companies. This reduces duplication, strengthens spillovers, and positions Europe to compete effectively with global innovation leaders such as the United States and China.

3.3. Subsidiarity: Added value of EU action

EU-level action generates clear added value by improving efficiency, fairness, and global impact.

1. **Efficiency gains** arise from the optimal allocation of resources across the wider European landscape, enabling better matching of talent, capital, and ideas throughout the Union rather than within fragmented national ecosystems. This broader matching unleashes innovation potential that would otherwise remain untapped in smaller or less connected markets, thereby fostering stronger growth and allowing additional resources to be directed towards priority policy objectives.^{66 67}
2. **Fairness** stems from granting all innovative companies across the EU equal access to resources and a consistent set of rules. This prevents firms in Member States with less supportive framework conditions from being disadvantaged for reasons unrelated to their own merit. Ensuring such fairness allows all deserving innovators to benefit equally, rather than only those located in the most advanced ecosystems.^{68 69}

⁶⁶ European Commission: Directorate-General for Research and Innovation, Balland, P.-A., Di Girolamo, V., Benoit, F., Ravet, J., & Hobza, A. (2025). Divided we fall behind: why a fragmented EU cannot compete in complex technologies, Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/8548441>

⁶⁷ Oyun Erdene Adilbish, et al. (2024). Europe's Productivity Weakness: Firm-Level Roots and Remedies. IMF Working Papers. <https://doi.org/10.5089/9798229001441.001>

⁶⁸ Quas, A., Mason, C., Compañó, R., Testa, G., & Gavigan, J. P. (2022). The scale-up finance gap in the EU: Causes, consequences, and policy solutions. *European Management Journal*, 40(5), 645-652.

⁶⁹ Ferrando, Annalisa; Lekpek, Senad (2018): Access to finance and innovative activity of EU firms: A cluster analysis, EIB Working Papers, No. 2018/02, European Investment Bank (EIB), Luxembourg

3. **Global impact** is achieved by giving EU innovation output the scale and weight needed to compete with international competitors and to engage with major global priorities such as the green and digital transition or artificial intelligence.^{70 71}

4. OBJECTIVES: WHAT IS TO BE ACHIEVED?

To address the problems and drivers identified in the previous sections, it is important to set out a clear hierarchy of objectives. The general objectives reflect the broader EU policy goals and strategic priorities that the EIA contributes to. The specific objectives translate these into more concrete aims, directly targeting the main problems identified in section 2. Figure 7 summarises the objectives of this initiative.

Figure 7. EIA intervention logic

Problems	Problem Drivers	Specific Objectives	General Objective
1. The EU underperforms in converting research and intangible assets into commercially scalable innovation.	2.1 IPR valuation models in the EU are not standardised, while being complex and expensive	1. Lower valuation costs, and increase licensing and transfer of IPRs in the EU in the next 4 years	Improve the functioning of the Single Market for innovation by reducing barriers to the commercialisation and scale-up of innovative solutions
2.Public Procurement is not sufficiently used in the EU to support research and innovation	2.1 Lack of legal certainty on how to procure R&D services	2. Increase spending on procurement of R&D services in the next 5 years	
	2.2 Procurement practices favour incumbents and limit the participation of innovative companies in R&D procurement procedures		
	2.3 Fragmentation and barriers to cross-border R&D procurement	3. Increase the procurement of EU-based R&D solutions in the next 5 years	
	2.4 Europe's strategic autonomy depends on research & innovation but is insufficiently considered in R&D procurements		

⁷⁰ Fratto, C., Gatti, M., Kivernyk, A., Sinnott, E., & Wielen, W. V. D. (2024). The scale-up gap: Financial market constraints holding back innovative firms in the European Union. European Investment Bank (EIB), Luxembourg

⁷¹ European Commission: Directorate-General for Research and Innovation, Ambrosio, F., Brasili, A. and Niakaros, K., European scale-up gap – Too few good companies or too few good investors?, Publications Office of the European Union, 2021, <https://data.europa.eu/doi/10.2777/886042>

4.1. General objectives

The general objective is to **improve the functioning of the Single Market for innovation by reducing barriers to the development, testing and scale-up of innovative solutions, thereby speeding up their commercialisation in the EU.**

This objective derives directly from the problems identified in Chapter 2. All four problems addressed by the EIA concern barriers that prevent the Single Market from realising its full potential to bring innovative ideas from development to market across borders. They reflect fragmented or inconsistent framework conditions across Member States: including divergent testing and experimentation rules, non-standardised IPR valuation practices, uneven, and differing interpretations of pre-commercial procurement. Together, these factors reduce efficiency and predictability for innovators operating cross-border. The EIA therefore aims to address these framework inefficiencies and improve the functioning of the Single Market for innovation.

Progress toward this objective is operationalised through the specific objectives set out below and monitored through defined monitoring indicators.

4.2. Specific objectives

Specific objectives translate the high-level general objectives into more concrete and operational aims. They are directly linked to the identified problems and describe the targeted changes that the EIA seeks to achieve through EU action. While general objectives capture the ultimate purpose of the intervention, specific objectives clarify how the proposed measures will contribute to those broader goals.

SO1. Lower valuation costs, and increase licensing and transfer of IPRs in the EU in the next 4 years

This specific objective aims to reduce the cost and complexity of intellectual property rights (IPR) valuation and to increase the licensing, transfer, and financing use of IPR assets in the EU over the next four years.

The objective is to improve comparability, transparency, and practical usability of IPR valuation approaches across the EU, thereby lowering transaction costs and uncertainty in IP-related transactions. This is expected to facilitate more licensing agreements, technology transfer operations, and financing transactions involving IP assets, supporting the commercialisation and scale-up of innovation.

Progress toward this objective will be monitored through indicators covering the cost of IP valuations, the uptake of common valuation approaches, their use in transactions, and the use of IP assets in financing operations.

SO2. Increase spending on procurement of R&D services in the next 5 years

This specific objective aims to significantly increase the use of public procurement for R&D services in the EU over the next five years.

The objective is to strengthen the role of public demand as a driver of innovation by increasing the share of procurement budgets dedicated to R&D purchasing. This is expected to expand market opportunities for innovative firms, and support early deployment of new solutions.

Progress toward this objective will be monitored through indicators measuring the share of procurement expenditure dedicated to innovation and R&D procurements and the number and value of innovation-oriented procurement contracts awarded.

SO4. Increase the procurement of EU-based R&D solutions in the next five years

This specific objective aims to increase the uptake of R&D solutions developed and commercialised by EU-based companies through public procurement over the next five years.

The objective is to reinforce the contribution of public procurement to Europe's strategic autonomy by encouraging contracting authorities to take into account security, resilience and long-term innovation capacity when designing and awarding procurement procedures, in line with EU internal market and international obligations. This is expected to increase market opportunities for EU-based innovative firms in critical sectors, support the scaling of key technologies within the Union, and reduce strategic dependencies in areas of high economic and geopolitical relevance.

Progress toward this objective will be monitored through indicators measuring the share and value of procurement contracts awarded to EU-based innovative companies in identified strategic sectors, as well as the integration of resilience- and autonomy-related criteria in procurement procedures.

5. WHAT ARE THE AVAILABLE POLICY OPTIONS?

The Impact Assessment examines 3 potential measures designed to address the problem drivers identified in Chapter 2. Figure 8 provides an overview of the measures and their thematic focus. As several measures can be implemented through different instruments, target populations, sectors, levels of regulatory intensity and ambition, each measure is usually⁷² presented in up to four mutually exclusive versions (A, B, C, D).

The assessment is carried out at the level of each individual measure, with the different measure-versions representing alternative policy options for that measure. This approach is appropriate given the horizontal scope of the EIA and the heterogeneity of both the problem drivers and the measures addressing them. Depending on the specific problem driver and the characteristics of the measure, the most suitable implementing instrument, and level of regulatory intervention may differ substantially across measures.

⁷² Measure-versions are usually mutually exclusive, when they are not, an additional variant with the combination of the non-mutually exclusive variants is added.

Finally, the preferred option for the whole EIA is constructed as a composite package by selecting, for each of the 3 measures, the measure-version that performs best in terms of effectiveness, efficiency, and coherence. Since the EIA covers a wide range of heterogeneous problem drivers and instruments, assessing measures individually allows the analysis to identify the most appropriate intervention for each specific problem area. The preferred option therefore does not correspond to any single predefined bundle but is the coherent combination of the strongest-performing versions across all measures.

Figure 8: Summary of the analysed measures

Problems	Impact assessed measures
1. The EU underperforms in converting research and intangible assets into commercially scalable innovation.	1. Establishing IP valuation methodology and facilitating licensing
2. Public Procurement is not sufficiently used in the EU to support research and innovation	2. Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement
	3. Preference for EU-made solutions in R&D procurement for public buyers

5.1. What is the baseline from which options are assessed?

Under the baseline scenario, there would be no specific legislation at European level comprehensively addressing the innovation-specific problems discussed above. Existing EU initiatives and national measures would continue to apply in their current form, and no new intervention would be introduced to tackle the four main problems (described in Chapter 2) that hinder the optimal uptake and diffusion of innovation in the EU Single Market.

Implementation of ongoing programmes under the EU's Multiannual Financial Framework for 2021-2027 (e.g. Horizon Europe, Digital Europe, Invest-EU, Innovation fund, cohesion policy instruments) **would proceed as currently planned**, without additional coordination or harmonisation efforts targeting the barriers identified in Chapter 2. While some Member States may introduce incremental reforms, these efforts are likely to remain uneven and insufficiently coordinated to address EU cross-border regulatory and market fragmentation.

Incentivising commercialisation of research and innovation results

The EU would continue to rely on its initiatives related to intellectual assets, including the EU Intellectual Property Action Plan, the Unitary Patent and the Unified Patent Court, the IP SME Helpdesks, and existing guidance on intellectual property licensing. For results generated by EU-funded projects, Horizon Europe model grant agreements include standardised provisions on ownership, access rights and exploitation of results, which influence practices related to intellectual property management and technology transfer.

Without a mandate to EUIPO it would be more difficult to develop a **common EU-level methodology for the valuation of all types of intellectual property rights**, and the EU would continue to lack a valuation framework for the use of intellectual property as collateral in banking or investment.

Without EU-level action, the EU will continue to underperform in translating strong research and patent output into commercially successful innovation. The existing EU and Member State initiatives related to IP will not address the lack of a common, trusted methodology for valuing intellectual property rights. As a result, IP-rich firms, particularly startups and scaleups, will continue to face difficulties using intellectual property rights as collateral, limiting access to finance and scaleup opportunities.

Access to procurement markets

In the field of innovation procurement in the public sector, the baseline is a common EU legal framework on public procurement. Directive 2014/24/EU, Directive 2014/23/EU, Directive 2014/25/EU and Directive 2009/81/EC provide public buyers with 9 different procurement procedures that can be applied in ways compatible with innovation-oriented objectives. The directives also provide for **the possibility to divide contracts into lots, which can facilitate the participation of smaller companies, including SMEs or startups, in procurement calls**.

In the field of innovation procurement in the private sector, the baseline is fragmented EU legislation that regulates bits and pieces (e.g. on the protection of trade secrets, safeguarding confidentiality and avoiding unlawful practices in contracting) but EU and national legislation does not stimulate private procurers to organise their procurements in an innovation-friendly way or in way that reinforces EU strategic autonomy, also not for private procurers that operate critical infrastructures or provide services that are essential for the EU economy.

At the same time, the directives **do not provide an EU wide definition of R&D procurement or of procurement of innovative solutions**, and **do not require public buyers to use procurement practices that stimulate innovation in the available procurement procedures**. In addition, **pre-commercial procurement (PCP) is not regulated** under these directives and remains outside their scope. In addition, **the directives apply only to public procurements valued above certain thresholds** (EUR 215,000 for supplies and services, EUR 431,000 for utilities, 5,382,000 for works, EUR 700,000 for health contracts, EUR 900,000 for defence contracts). For procurements valued below those thresholds, national procurement rules apply which are different per country and also do not sufficiently encourage public buyers to use procurement practices that stimulate innovation.

The baseline also takes into account the Commission proposal to revise the EU public procurement framework through the Public Procurement Act (PPA). As currently proposed, the PPA would exclude all R&D procurement from its scope, while continuing to

cover the procurement of innovative solutions, including procurements that contain R&D elements without constituting R&D procurement as such. This assumption reflects the Commission proposal at the time of writing and is without prejudice to possible changes during the subsequent legislative process in the European Parliament and the Council.

Of **stakeholders that replied** 82% (116) agreed that public buyers should procure R&D and innovative solutions in a simpler way. 93% (144) agreed that a fast-track procedure for public procurements buying R&D and/or innovative solutions, with contracts awarded based not only on lowest price, but also on other criteria, would be a good step forward. 83% (124) agreed that a fast-track procedure for public procurements buying R&D and/or innovative solutions, which make wider use of functional or performance-based specifications, would be a good step forward. 86% (127) agreed that a fast-track procedure for public procurements buying R&D and/or innovative solutions, without legal hurdles that make it difficult for public buyers from different EU countries to procure R&D and/or innovative solutions collaboratively, would be a good step forward. 65% (123) agreed that when private buyers in the EU procure solutions, even if without public funding, they should adopt procurement practices that promote innovation and support the participation of start-ups and innovative companies. 80% of stakeholders also agreed that both public and private procurers that operate critical infrastructures should organise their procurements in a more innovation friendly way and in a way that safeguards EU strategic autonomy.

All 27 Member States have adopted policies (see Annex 11 & 14 on Policy Mapping) that refer to the stimulation of public or private innovation procurement. At the same time, only a limited number of Member States have introduced **dedicated procedures for pre-commercial procurement** and dedicated procurement practices to foster innovation in procurements outside the EU procurement directives.

The European Business Wallets will facilitate innovation procurement by enabling public and private buyers to securely verify suppliers' identities and credentials and exchange procurement documents efficiently. They will provide a digital infrastructure to store and manage procurement data, helping procurers track processes more easily.

Without EU-level action, innovation procurement will remain underused and fragmented, with public and private buyers continuing to prioritise cost and risk minimisation over innovation. In particular, the absence of a harmonised EU framework for pre-commercial procurement will keep its use uneven and largely ad hoc across Member States, limiting legal certainty and cross-border uptake. As a result, startups and scale-ups will struggle to find early adopters in the EU, slowing the commercialisation and scaling of innovative solutions and widening the gap with global competitors.

5.2. Description of the policy options

Measure 1: Establishing IP valuation methodology and facilitating licensing

Measure 1 would address the lack of standardisation, complexity and high costs of existing **intellectual property rights (IPR) valuation models** in the EU (problem driver 1.1) by establishing a centralised and trusted framework for IP-backed finance at Union level. By

mandating EUIPO to set up a Competence Centre for IP-backed finance, the measure would **leverage EUIPO's existing expertise**, data and digital infrastructure to develop a common IP valuation framework, set up a digital match-making platform to facilitate the licensing and transfer of all types of intellectual property rights, provide secondary market facilitation services (e.g. collaboration with brokerage services and IP auctioneers), support the design and implementation of financial instruments related to IP assets, provide training, awareness-raising and helpdesk services.

This would **increase the transparency, comparability and credibility of IP valuations** across Member States, **reduce information asymmetries** between IP holders and financial actors, and **lower transaction costs**. In parallel, support for the design of IP-backed financial instruments, skills development and helpdesk services would improve the readiness of financial institutions and innovators to engage in IP-backed finance. Together, these elements would aim to enable innovative, IP-rich but tangible-poor companies to access finance earlier and more reliably, thereby improving the allocation of capital to innovation, supporting scale-up, and contributing to a more integrated and competitive EU innovation and capital markets ecosystem.

The IP valuation framework would provide for a number of methodologies for valuation of different types of IPRs and for different purposes (e.g. collateral for financing or for licensing). The IP valuation framework would be aligned with International Valuation Standards and principles while adding purpose-driven and sector-specific guidance for all IP rights. The IP Valuation framework would also include the development of standardised templates and checklists for credit and investment use in order to translate the IP valuation results into a format that banks and investors can understand, trust, and use.

Of stakeholder replies 89% (141) of respondents agreed that Member States should adopt (where not yet in place) strategies to promote the commercialisation of publicly funded research, including intellectual asset management, spin-off creation, and go-to-market support. 76% (109) agreed that IPR policies in European Universities and RTOs are not sufficiently geared to fostering the commercialisation of academic research results. 90% (131) agreed that European universities and RTOs should have an IPR policy in place that clearly outline how they handle protection, licensing, and transfer of IP.

The digital marketplace would operate as a digital platform enabling IPR holders to offer their rights for transfer or licensing. An online EU-wide matchmaking platform that connects IP-rich companies with investors and the resulting transfer or licensing contractors would be done outside the platform.

Several versions of Measure 1 are envisaged, reflecting different levels of ambition and scope. Version A would mandate EUIPO, through the European Innovation Act, to develop an EU-wide IP valuation framework. Version B would focus on establishing an EU-wide digital marketplace functioning as a secondary market for IP transactions. Version C would assign EUIPO the role of an EU-wide IP competence centre providing advice, training and support on IP valuation. Version D would combine the valuation framework and the marketplace, while Version E would integrate all three elements, representing the most comprehensive approach to addressing barriers to IP-backed finance.

Measure 2: Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement

Measure 2 would contribute to **addressing the problem that public R&D procurement is not sufficiently used in the EU to develop and commercialise innovation** by tackling three interrelated problem drivers: lack of legal certainty on how to procure R&D services (problem driver 2.1), overutilisation of procurement practices that favour incumbents and limit the participation of innovative companies (problem driver 2.2), and fragmentation and barriers to cross-border R&D procurement (problem driver 2.3).

The measure establishes a dedicated procedure for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement. Two versions (A, B) of the measure were considered. Version A would recommend the use of innovation-friendly techniques for R&D procurement by public buyers, while Version B would make the use of such techniques mandatory for R&D procurement procedures carried out by public buyers. Across all versions, **a minimum EU financial threshold**, consistent with those used in other provisions of EU law is used, ensuring compliance with the principles of proportionality and subsidiarity.

By establishing **a dedicated procedure for R&D procurement**, including **cross-border R&D procurement**, the measure would clarify how public buyers can lawfully and effectively procure R&D services that fall outside of the EU public procurement directives and cooperate across borders, thereby reducing legal uncertainty and coordination barriers. **Importantly, the measure would not address defence R&D procurement.**

As noted in the problem definition chapter, pre-commercial procurement (PCP) is not subject to the EU Public Procurement Directives, while, under the Commission proposal for the Public Procurement Act (PPA), the remaining forms of R&D procurement would also be excluded from its scope⁷³. In the absence of a harmonised EU framework, national approaches to R&D procurement remain fragmented across the Union. The measure would address this fragmentation by establishing a harmonised procedure for R&D procurement, building on existing best practices. The procedure would apply exclusively to public buyers.

Innovation procurement techniques include start-up friendly selection criteria, innovation-oriented award and contract monitoring criteria, functional specifications, value engineering, innovation-friendly intellectual property arrangements, multiple sourcing provisions, place-of-performance requirements and other EU preference clauses.

Measure 3: Preference for EU-made solutions in R&D procurement for public buyers

Measure 3 would address the insufficient consideration of Europe's strategic autonomy in R&D procurement (problem driver 2.4) by introducing an EU preference for public buyers procuring R&D services. This would ensure that there are sufficient suppliers that produce critical technology-based solutions in the EU by the time that EU preference provisions in other EU sectorial acts (e.g. in the Industrial accelerator act, Critical medicines act) kick in

⁷³ This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process.

that focus on the procurement of widely commercially available solutions that fall under the EU public procurement directives. The EU preference would strengthen incentives for investment and scale-up in critical technologies, and reduce reliance on external providers. Over time, this demand-side signal would support the development of resilient EU value chains, enhance security of supply for critical technologies, and contribute to a more strategically autonomous and competitive European innovation ecosystem.

The measure would **build on approaches already used in recent Union legislation**, such as the Net-Zero Industry Act, the Critical Raw Materials Act, the Chips Act, as well as the forthcoming European Industrial Accelerator Act, which introduce EU-level tools to reduce strategic dependencies and strengthen Union supply chains in clearly defined sectors, but focus only on procurements that target commercial volumes of widely available solutions that are procured under the EU public procurement directives. The **objective of the measure would be to de-risk innovation procurements that precede large scale deployment contracts and ensure security of supply** by using the EU preference only where strategic dependencies are evidenced. The provision would be framed as an EU preference obligation with appropriate escape clauses, e: Global sourcing would remain possible where no suitable EU-made solution is available or when applying the EU preference would lead to disproportionate costs or technical incompatibilities for the procurers.

Importantly, the measure does not overlap with other existing or foreseen EU preference provisions in sectoral acts or in the EU Public Procurements Directives, as those only focus on procurements that are / will be covered by the EU public Procurement Directives, while the EIA focuses on procurements that are not / will not be covered by the EU Public Procurement Directives.

Three versions (A, B, C) of the measure were considered. Version A would introduce a non-mandatory preference for EU-made solutions in R&D procurement. Version B would introduce a mandatory preference for EU-made solutions in R&D procurement with flexibility clauses allowing non-EU suppliers to participate where there are no sufficient suitable tenderers within the Union or where compliance would impose disproportionate costs. Version C would introduce a strict mandatory preference for EU-made solutions in R&D procurement, with no exceptions for public buyers.

More specifically, under Alternative B, public buyers may decide not to restrict access to EU-based tenderers through the following **opt-out clauses**:

- where no suitable or sufficient EU-based suppliers are available, as demonstrated through a market search, preliminary market consultation, or a previously unsuccessful call for tenders;
- where restricting access would result in disproportionate costs or technical incompatibility. For assessing disproportionate costs, a price difference exceeding 20% between an EU-based offer and a third-country offer, based on objective and transparent data, may be considered excessive.

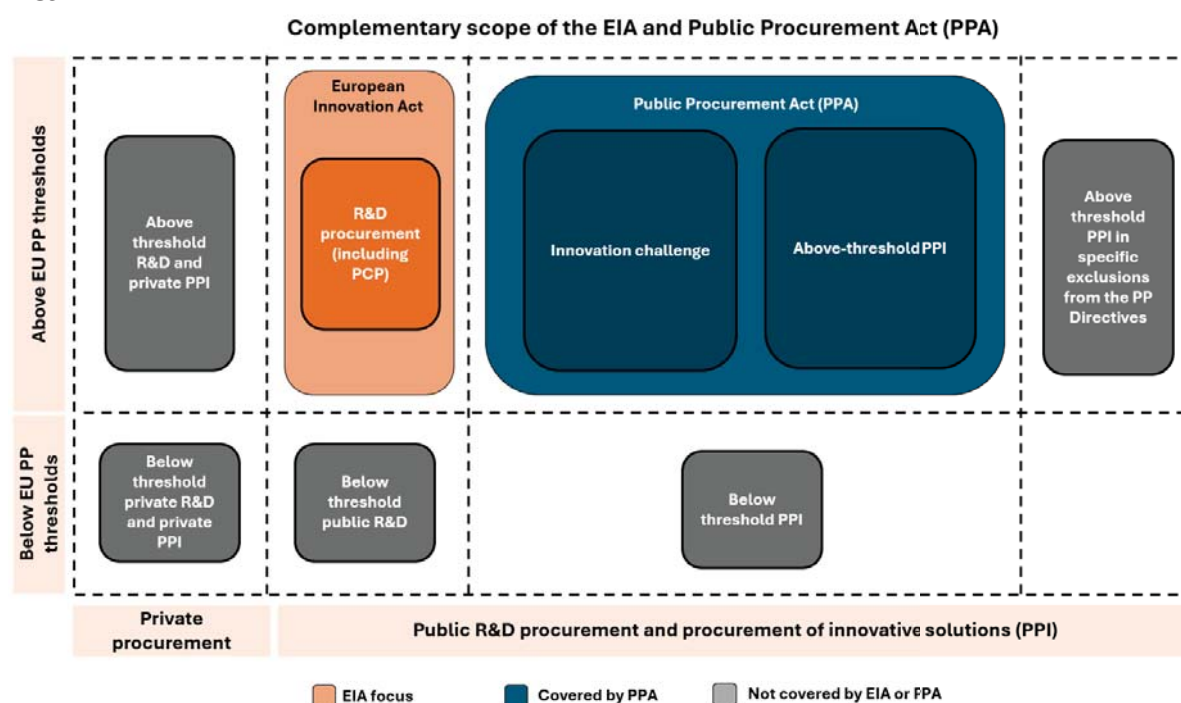
The rationale for these clauses is twofold. First, they aim to mitigate potential negative economic effects by ensuring that EU preferences are not applied where they would lead to

significant inefficiencies or where the EU market cannot meet demand. Second, they help ensure compatibility with international obligations.

Across all versions, **the EU preference could be applied to different types of contracts**, including supplies, works and services. **Implementation modalities** could combine price preferences with award-criteria weighting, for example by assigning higher scores under innovation-related criteria to offers demonstrating stronger contributions to innovation, manufacturing capacity and EU strategic autonomy contribution within the Union. Furthermore, across all versions, **a minimum EU financial threshold**, consistent with those used in other provisions of EU law, is used, ensuring compliance with the principles of proportionality and subsidiarity.

Figure 9 shows how the EIA procurement related measures (measure 2, and 3) would complement, without overlapping with, the revision of the EU public procurement framework, referred to as the Public Procurement Act (PPA)⁷⁴.

Figure 9. Scope of the European Innovation Act in relation to the Public Procurement Act



Source: Author own elaboration. Note: This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process. Unlike the existing EU Public Procurement Directives, which cover certain types of R&D procurement where the benefits accrue exclusively to the contracting authority for use in the conduct of its own affairs and the service is wholly remunerated by it, the Commission proposal for the revision of the EU public procurement framework, the Public Procurement Act (PPA), does not cover any type of R&D procurement. It would, however, continue to cover procurement of innovative solutions and procurements containing R&D elements that do not constitute R&D procurement as such.

⁷⁴ This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process.

Box 3. How would the EIA R&D procurement procedure work in practice?

In practice, **the EIA R&D procurement procedure could operate as follows:**

- i. A municipality seeks innovative solutions to improve flood prevention, detection, early warning and mitigation. It launches an EIA R&D procurement **preliminary market consultation** to understand the state of the art and identify potential technological approaches.
- ii. Based on the consultation, the municipality identifies the main market players and, where applicable, applies the EIA R&D procurement **EU preference** to reduce dependence on large non-EU suppliers.
- iii. The municipality uses the EIA R&D procurement **innovation-friendly exclusion and selection criteria** that facilitate the participation of startups and other innovative companies in the R&D procurement.
- iv. The tender is based on EIA R&D procurement **functional and performance requirements** that define the problem to be solved and the expected outcomes without prescribing a specific technical solution, design or technology.
- v. As the municipality has no intention of commercialising the R&D results, it allows **suppliers to retain ownership of the intellectual property generated**, while securing the necessary usage rights, thereby strengthening incentives to participate. If a prototype is developed, the municipality can acquire ownership of that prototype.
- vi. To prevent supplier lock-in and foster competition, the municipality applies the EIA R&D procurement **multiple sourcing** by awarding parallel R&D contracts to several competing suppliers, progressively reducing their number as the project advances. This increases the likelihood of achieving the best solution while generating knowledge spillovers that strengthen the EU innovation ecosystem.
- vii. Contracts are awarded on the basis of the best value for money, with **innovation-related award criteria** rather than lowest price alone.
- viii. If a promising new technology emerges during contract implementation, the **value engineering** EIA R&D procurement provisions allow the municipality to amend the contract and incorporate the improved solution.
- ix. **Key performance indicators** (KPIs) are used to monitor suppliers' progress throughout the project and identify the best-performing solution.
- x. By the end of the R&D procurement, the municipality has obtained an innovative solution tailored to its needs while promoting competition, **supporting innovative European firms, and contributing to EU technological sovereignty.**

5.3. Options discarded at an early stage

In line with the Better Regulation guidelines, a broad range of potential measures was initially identified and screened at an early stage of the analysis. This screening assessed their relevance

to the identified problems and objectives, proportionality, coherence with existing Union instruments, expected added value of EU action, and feasibility of implementation.

The measures listed below were examined but not retained for further development in the policy options, as they were found to be outside the appropriate scope of this initiative, duplicative of existing frameworks, insufficiently proportionate, or better addressed through non-legislative or alternative instruments.

Operational rules for applying definitions of startups, scaleups and innovation companies.

This measure concerned verification and operational eligibility procedures linked to the adopted Commission Recommendation of 18 March 2026 on the definition of innovative enterprises, innovative startups and innovative scaleups. It was discarded because, although the benefits and costs of the initiative are likely to accrue primarily to certain types of firms (e.g. those engaged in innovation activities, which are more likely to use IP valuation, pre-commercial procurement, or regulatory sandboxes), the measures themselves are not legally restricted to specific company categories. There are no formal eligibility criteria limiting access to these instruments. Introducing such operational eligibility rules would therefore fall outside the scope and rationale of the initiative.

Common definition, basic principles, and experimentation clauses for establishing regulatory sandboxes. This measure was identified as potentially beneficial to improve clarity and consistency in the use of regulatory sandboxes across the Union. By reducing fragmentation in national approaches, the measure would have increased legal predictability for innovators and competent authorities and facilitated the testing of innovative solutions under controlled conditions, enhancing later commercialisation activities. However, it was not retained, as it was considered would be more appropriately pursued through soft-law instruments outside the scope of this intervention.

National commercialisation and IPR ownership allocation strategies.

This measure was identified as potentially beneficial for promoting the commercialisation of publicly funded R&I results. However, it was not retained, as it was considered that such strategies would be more appropriately pursued through soft-law instruments outside the scope of this intervention.

Innovation friendly techniques and EU preference for all Innovation procurement. The procurement measures on innovation-friendly procurement procedures and EU preference were narrowed to focus exclusively on public R&D procurement to ensure better coherence with the Public Procurement Directives. Hence, the innovation-friendly procurement techniques applicable to other forms of procurement, such as public or private innovation procurement more broadly, was removed from the scope of the EIA. In addition, an EU financial threshold, consistent with those used in other provisions of EU law, was introduced, ensuring compliance with the principles of proportionality and subsidiarity.

Innovation procurement target for public buyers. This measure was identified as potentially beneficial, as it could incentivise Member States to allocate a higher share of public procurement expenditure to innovation procurement. However, it was ultimately not retained.

Since the measure was not limited to R&D procurement and also covered procurement of innovative solution (PPI), concerns were raised about potential overlaps with the ongoing revision of those Directives. It was therefore considered that another policy framework could be more appropriate for such an intervention. In addition, concerns were raised regarding the potential administrative and financial burden on Member States.

6. WHAT ARE THE IMPACTS OF THE POLICY OPTIONS?

In line with the European Commission's Better Regulation Toolbox and the OECD's guidelines on policy evaluation⁷⁵, when quantification is not feasible or would rely on highly speculative assumptions, a transparent qualitative assessment is favoured as it provides a more appropriate basis for decision-making. This approach is consistent with established evaluation theory and economic literature, which caution against unwarranted numerical certainty in the absence of reliable evidence.^{76 77 78}

Where quantification is feasible, costs and benefits are presented at aggregated EU level. Estimates are derived by combining average unit cost or benefit values with the estimated number of economically affected entities in the Union.

In practice, aggregate impacts are calculated by multiplying the average unit effect per entity by the number of entities expected to be affected. In line with the European Commission's Better Regulation Toolbox, a distinction is made between the legally eligible population and the economically affected population. The latter includes only those entities realistically expected to use or be impacted by the measure and therefore constitutes a subset of the former.

Although access to instruments such IP valuation services, or pre-commercial procurement is not legally restricted, their use is concentrated among firms engaged in innovation activities (e.g. R&D, IP generation, or product testing). Accordingly, entities unlikely to make use of these instruments are excluded from the quantification to ensure realistic estimates.

6.1. Estimates of economically affected population

For the purpose of the cost-benefit analysis, it is necessary to identify the population of entities that are economically affected by each measure. This differs from the legally eligible population. While the legally eligible population includes all entities that could, in principle, benefit from or bear costs under a measure, the economically affected population comprises only of those entities realistically expected to use or be impacted by it, and therefore constitutes a subset of the eligible population. This distinction is essential to ensure that quantified impacts reflect actual behavioural responses rather than purely theoretical legal eligibility.

In practice, although access to EIA measures (such as IP valuation services, and pre-commercial procurement) is not legally restricted, and all 33.5 million enterprises and

⁷⁵ OECD (2020), Improving Governance with Policy Evaluation: Lessons From Country Experiences, OECD Public Governance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/89b1577d-en>.

⁷⁶ Manski, C. F. (2013). Public policy in an uncertain world: analysis and decisions. Harvard University Press.

⁷⁷ Kahneman, D. (2011). Thinking, fast and slow. Farrar, Straus and Giroux.

⁷⁸ Scriven, M. (1991). Evaluation thesaurus. Sage.

approximately 250,000 public authorities in the EU are formally eligible, the estimation of costs and benefits focuses only on those entities likely to make use of these instruments. For IP valuation, it includes firms holding or generating intellectual property. For pre-commercial procurement, the economically affected population includes firms able to provide R&D services, not any company, as well as public buyers with specific needs for R&D solutions, rather than all contracting authorities.

The economically affected populations used in the cost-benefit analysis are presented below:

Innovative firms: The number of innovative firms used in this analysis is 373,722, of which 94% SMEs (n = 350,075) and 6% large enterprises (n = 23,646), based on Eurostat estimates from the 2022 Community Innovation Survey (CIS).⁷⁹

The Community Innovation Survey (CIS), coordinated by Eurostat, is a harmonised survey collecting firm-level data on innovation across EU countries and covers enterprises with 10 or more employees to ensure statistical reliability and comparability, as very small firms are more difficult to survey consistently. It follows the Oslo Manual definition, classifying firms as “innovation-active” if they have introduced a new or significantly improved product or process, or have ongoing or abandoned innovation activities during the reference period; estimates are then derived by extrapolating survey responses to the full business population using statistical weighting.

Startups: The total number used in this analysis is 35,000 startups, with a possible range between 27,000 and 41,000. This is based on the Invest Europe State of European Tech 2024 report, according to which there are approximately 35,000 early-stage startups in Europe, while 27,000 European companies received VC funding in the past 10 years.

IP rich firms within capacity of EUIPO: the number used for this analysis is 14,515 firms, of which 1,036 Startups, 10,398 SMEs, and 3,081 large enterprises. This is estimated based on the following facts:

- The number of innovative firms used in this analysis is 373,722, of which 94% SMEs (n = 350,075) and 6% large enterprises (n = 23,646), based on Eurostat estimates from the 2022 Community Innovation Survey (CIS).
- The number of startups used this study is 35,000 startups.
- The number of firms that register IP rights: 10% of EU SMEs; 60% of large firms in EU.⁸⁰
- The number of startup that that register IP rights is assumed to be 10%, namely the same as innovative SMEs.

⁷⁹ Eurostat Online data code: inn_cis13_bas. DOI : https://doi.org/10.2908/INN_CIS13_BAS

⁸⁰ European Union Intellectual Property Office (2022). *2022 Intellectual Property SME Scoreboard*; European Union Intellectual Property Office and European Patent Office (2021). *Intellectual property rights and firm performance in the European Union: Firm-level analysis report. Executive summary*.

By combining this information, we obtain: $(94\% \times 10\% \times 373,722) + (6\% \times 60\% \times 373,722) + (10\% \times 35,000) = (35,130 \text{ SMEs}) + (13,454 \text{ large companies}) + (3,500 \text{ startups}) = 52,084$ IP rich firms in total.

Subsequently, the number of IP-rich firms within EUIPO capacity is estimated using EUIPO (2025) data, according to which SMEs account for 29.6% of European patent holders, while large enterprises represent 22.9%.⁸¹ Yielding to: $(29.6\% \times 35,130) + (22.9\% \times 13,454) + (29.6\% \times 3,500) = (10,398 \text{ SMEs}) + (3,081 \text{ large companies}) + (1,036 \text{ startups}) = 14,515$ IP rich firms within capacity of EUIPO.

EU Innovation Procurement Volume: EUR 295 billion, corresponding to 10.5% of total public procurement. Based on EU benchmarking of innovation procurement study.⁸²

EU R&D Procurement Volume: EUR 17.28 billion, corresponding to 0,61% of the total amount of public procurement, and 6,1% of the innovation procurement. Based on EU benchmarking of innovation procurement study.⁸³

Public buyers of R&D procurement: the number used in this analysis is 1,500-2,000 public buyers. This estimate is based on a 2025 European Commission study indicating that more than 1,000 public buyers across Europe have already implemented PCPs. The analysis assumes 2,000 public buyers under Measure 2 Alternative B and 1,500 under Measure 2 Alternative A.

6.2. Costs and benefits by stakeholder by measure

6.2.1. Costs for Measure 1 - Promote valuation of IP

The estimated **costs for the EU public sector** are based on two elements: (i) the staff time required for IP valuation and promotion activities, and (ii) the monetisation of that time based on the salaries of the staff involved. Administrative and adjustment costs are grounded in evidence provided by the European Union Intellectual Property Office, which was consulted on the full-time equivalent (FTE) staff needed to implement the different measure options and the baseline scenario.

Under the baseline, administrative cost for the EU public sector is estimated using the Standard Cost Model, based on current EU IP Helpdesk services, assuming monthly inputs of 1 person-

⁸¹ EUIPO (2025, Table 5). [Intellectual property rights and firm performance in the European Union. Firm-level analysis report, January 2025](#). The report classifies firms into three categories: (i) those holding patents only at the European level, (ii) those holding patents only at the national level, and (iii) those holding both European and national patents. The shares reported in the main text refer exclusively to firms in the first category. However, firms holding both European and national patents could also be included in the calculation of benefits. Due to the lack of access to the underlying raw data, it is not possible to isolate and account for the number of firms in this category

⁸² European Commission: Directorate-General for Research and Innovation & PwC. (2026). *EU innovation procurement observatory : final study report*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/1638226>.

⁸³ European Commission: Directorate-General for Research and Innovation & PwC. (2026). *EU innovation procurement observatory : final study report*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/1638226>.

day (AD10), 3 person-days (AD6), and 2 person-days (AST/SC3), corresponding to 72 person-days per year (around 0.33 FTE), valued at EUR 40.5 per hour⁸⁴ (EUR 23,328 annually).

Under the measure, additional tasks would generate administrative costs for the EU public sector. These are assumed to require no additional FTEs for the EU IP valuation methodology (Alternative A), 2 FTEs per year for the secondary IP marketplace (Alternative B), and 8 FTEs per year for the IP competence centre (Alternative C). Alternatives D and E combine the previous components respectively as A+B and A+B+C.⁸⁵ Staff time is monetised using an average hourly rate of EUR 40.5.

Adjustment costs are estimated based on the staff required to establish the different components of the measure: 3–4 FTEs for the development of the EU IP valuation methodology (Alternative A), 4 FTEs for the development of the secondary IP marketplace platform (Alternative B), and 10 FTEs for the establishment of the IP competence centre, including training activities (Alternative C).⁸⁶ Staff time is monetised using an average hourly rate of EUR 40.5.⁸⁷

Table 4. Administrative and adjustment costs for EU public sector

Baseline (continuation of current scenario)	Alternative A – EUIPO EU wide IP valuation framework	Alternative B Give EUIPO EU wide IP marketplace	Alternative C – Give EUIPO EU wide IP competence centre	Alternative D (A + B)	Alternative E (A + B + C)
● Adjustment costs: No costs	● Adjustment costs: 3–4 FTEs per year over 2 years (1,320–1,760 person-days in total) × EUR 324 = EUR 427,680 – EUR 570,240	● Adjustment costs: 4 FTEs per year over 2 years (1,760 person-days in total) × EUR 324 = EUR 570,240	● Adjustment costs: 10 FTEs per year over 2 years (4,400 person-days in total) × EUR 324 = EUR 1,425,600	● Adjustment costs: Combination of A and B. It is conservatively assumed that it is the sum of A + B, which results in the range of EUR 997,920–1,140,480 The approach is conservative because the total cost under this alternative is likely to be some lower than the simple sum because of some overlapping activity,	● Adjustment costs: Combination of A, B and C. Following the conservative approach discussed under Alternative D, the simple sum of costs under A, B, and C leads to a range of EUR 2,423,520–2,566,080
● Administrative costs: 6 person-days per month × 12 months × EUR 324 = EUR 23,330 per year (72 person-days/year: 0.33 FTE/year)	● Administrative costs: No material increase once the methodology is established (broadly in line with the baseline level above) = EUR 23,330 per year	● Administrative costs: 2 FTE/year (440 person-days per year) × EUR 324 = EUR 142,560 per year	● Administrative costs: 8 FTE/year (1,760 person-days per year) × EUR 324 = EUR 570,240 per year	● Administrative costs. Following the same logic as used for the adjustment costs, the sum of A and B would imply around 2.33 FTE/year (2 FTE + 0.33 FTE), corresponding to approximately EUR 165,890 per year.	● Administrative costs: Sum of A, B and C leads to around 10.33 FTE/year, corresponding to approximately EUR 736,000 per year.

⁸⁴ The EU average hourly salary rate for the job category “Professionals” (Category 2 under the International Standard Classification of Organisations – ISCO) is EUR 40.5 per hour (incl. overhead).

⁸⁵ FTEs estimates are based on consultation with the EUIPO.

⁸⁶ FTEs estimates are based on consultation with the EUIPO.

⁸⁷ The EU average hourly salary rate for the job category “Professionals” (Category 2 under the International Standard Classification of Organisations – ISCO) is EUR 40.5 per hour (incl. overhead).

The estimated **costs for the businesses** are based on three elements: (i) the time (hours worked), IP-rich companies spend to value and license their IP, (ii) the monetisation of the time spent, which is based on the salaries of the staff performing the necessary activities, and (iii) the number of IP rich companies affected by the measures. This translates into the application of the following Standard Cost Model formula: $\text{Cost} = (\text{Hours worked} \times \text{salary rate}) \times \text{number of companies affected}$.

Under the baseline, IP-rich firms are assumed to spend around 40–80 hours per year on IP-related documentation and coordination activities, corresponding to approximately 20–40% of total administrative time across functions such as tax, HR, licensing, and compliance.⁸⁸ This includes activities such as maintaining inventories of registered rights, drafting short descriptions of inventions or software, and coordination between technical and legal teams. Staff time is monetised using an average hourly rate of EUR 40.5.⁸⁹

Under the measure, firms' administrative workload is expected to decline progressively across the different alternatives compared with the baseline. Under Alternative A, the reduction is estimated at around 20%, reflecting the simplification effects of a common IP valuation methodology. Under Alternative B, the introduction of an EU-wide matchmaking marketplace is assumed to reduce administrative effort by around 30%, as firms would no longer need to rely as extensively on dedicated expertise for buying and selling decisions. Under Alternative C, firms would benefit from advisory and training services for IP valuation, resulting, for simplicity, in a similar level of cost reduction as under Alternative B. Alternative D, which combines Alternatives A and B, is assumed to reduce administrative workload by around 50%, while Alternative E is estimated to achieve a reduction of approximately 75% compared with the baseline.

Table 5. Total Administrative costs (in absolute terms) by business type, per year

	Baseline (continuation of current scenario)	Alternative A - EUIPO EU wide IP valuation framework	Alternative B - Give EUIPO EU wide IP marketplace	Alternative C - Give EUIPO EU wide IP competence centre	Alternative D (A + B)	Alternative E (A + B + C)
Effort per year (hours)	40 – 80h	30 – 60h (-20%)	28-56h (-30%)	28-56h (-30%)	20-40h (50%)	10-20h (-75%)
Administrative costs for Startups	EUR 1.6 – 3.5 million (= (40– 80h) × 40.5 × 1,036)	EUR 1.2 – 2.5 million (= (30h– 60h) × 40.5 × 1,036)	EUR 1.1 – 2.3 million (= (28h– 56h) × 40.5 × 1,036)	EUR 1.1 – 2.3 million (= (28h– 56h) × 40.5 × 1,036)	EUR 0.8–1.7 million (= (20h– 40h) × 40.5 × 1,036)	EUR 0.4 – 0.8 million (= (10h– 20h) × 40.5 × 1,036)
Administrative costs for SMEs	EUR 17 – 34 million (= (40– 80h) × 40.5 × 10,398)	EUR 12.6 – 25.3 million (= (30– 60h) × 40.5 × 10,398)	EUR 12 – 23.5 million (= (28– 56h) × 40.5 × 10,398)	EUR 12 – 23.8 million (= (28– 56h) × 40.5 × 10,398)	EUR 8.4 – 17 million (= (20– 40h) × 40.5 × 10,398)	EUR 4.2 – 8.4 million (= (10 – 20h) × 40.5 × 10,398)

⁸⁸ [KfW \(2025\)](#); The study estimates that companies spend around 15 hours per month, corresponding to 180 hours per year, on administrative activities such as tax reporting, HR administration, licensing, and compliance.

⁸⁹ The EU average hourly salary rate for the job category “Professionals” (Category 2 under the International Standard Classification of Organisations – ISCO) is EUR 40.5 per hour (incl. overhead).

Administrative costs for large enterprises	EUR 5 – 10 million (= (40–80h) × 40.5 x 3,081)	EUR 3.7 – 7.5 million (= (30–60h) × 40.5 x 3,081)	EUR 3.5 – 7 million (= (28–56h) × 40.5 x 3,081)	EUR 3.8 – 7.4 million (= (28–56h) × 40.5 x 3,081)	EUR 2.5 – 5 million (= (20–40h) × 40.5 x 3,081)	EUR 1.2 – 2.5 million (= (10–20h) × 40.5 x 3,081)
TOTAL (all companies)	● EUR 23.5 – 47 million	● EUR 17.6 – 35.3 million	● EUR 16.5 – 32.9 million	● EUR 16.5 – 32.9 million	● EUR 11.7 – 23.5 million	● EUR 5.9 – 11.7 million

Tables 6 and 7 summarise the results, highlighting in green the net administrative cost savings generated by the measure for companies compared to the baseline.

Table 6. Summary of costs in absolute terms – Measure 1 (IP Valuation)

Costs - EUR	EU public sector	Business
Baseline		
Administrative costs (annual)	EUR 23,330	EUR 23,514,956 - 47,029,913
Adjustment costs (one-off)	EUR 0	0
Alternative A		
Administrative costs (annual)	EUR 23,330	EUR 17,636,217 - 35,272,434
Adjustment costs (one-off)	EUR 427,680 – EUR 570,240	0
Alternative B		
Administrative costs (annual)	EUR 142,560	EUR 16,460,469 - 32,920,939
Adjustment costs (one-off)	EUR 570,240	0
Alternative C		
Administrative costs (annual)	EUR 570,240	EUR 16,460,469 - 32,920,939
Adjustment costs (one-off)	EUR 1,425,600	0
Alternative D		
Administrative costs (annual)	EUR 165,890	EUR 11,757,478 - 23,514,956
Adjustment costs (one-off)	EUR 997,920–1,140,480	0
Alternative E		
Administrative costs (annual)	EUR 736,000	EUR 5,878,739 - 11,757,478
Adjustment costs (one-off)	EUR 2,423,520–2,566,080	0

Table 7. Summary of costs compared to baseline – Measure 1 (IP Valuation)

Costs - EUR	EU public sector	Business
Alternative A		
Administrative costs (annual)	EUR 0	from EUR -5,878,739 to - 11,757,478
Adjustment costs (one-off)	EUR 427,680 – EUR 570,240	EUR 0
Alternative B		
Administrative costs (annual)	EUR 119,230	from EUR - 7,054,487 to - 14,108,974
Adjustment costs (one-off)	EUR 570,240	EUR 0
Alternative C		
Administrative costs (annual)	EUR 546,910	from EUR - 7,054,487 to - 14,108,974
Adjustment costs (one-off)	EUR 1,425,600	EUR 0
Alternative D		
Administrative costs (annual)	EUR 142,560	from EUR -11,757,478 to -23,514,956

<i>Adjustment costs (one-off)</i>	<i>EUR 997,920–1,140,480</i>	<i>EUR 0</i>
Alternative E		
<i>Administrative costs (annual)</i>	<i>EUR 712,670</i>	<i>from EUR -17,636,217 to -35,272,434</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 2,423,520–2,566,080</i>	<i>EUR 0</i>

6.2.2. Benefits for Measure 1 - Promote valuation of IP

The benefits of the establishment of a standardised EU-wide IP valuation framework, a secondary IP marketplace, and an IP competence centre providing advisory and training services are estimated in terms of:

- **Firms' efficiency gain.** Efficiency gains are calculated as the difference between the administrative cost supported by companies in each Measure's Alternative compared to the baseline. This results in a total cost avoided by firms if the measure were implemented are estimated at EUR 5.9–11.7 million under Alternative A, EUR 7–14 million under Alternative B, and EUR 17.6–35.3 million under Alternative E.
- **Firms' increased access to IP backed finance.** Increased access to IP-backed finance for firms. Evidence from Dai et al. (2025)⁹⁰, using a difference-in-differences analysis of reforms in the Chinese patent collateral market, shows that measures increasing patent pledging can raise firms' likelihood of obtaining IP-backed finance by around 18.5%. In addition, European Union Intellectual Property Office (2023)⁹¹ finds that firms with EU-level IP filings are 5–6 times more likely to obtain early-stage funding than firms without such filings, compared with around 2.8 times for firms relying only on national patents. Based on this evidence, the analysis assumes a conservative increase in IP pledgeability ranging from 18.5% to 50%. Evidence from Bracht and Czarnitzki (2022)⁹² further shows that EU firms using patents as collateral can typically obtain EUR 1.0–1.4 million more in borrowing than comparable firms that do not. Applying these estimates to the increase in pledgeability among IP-rich firms within the expected capacity of the measure results in estimated additional IP-backed finance of EUR 2.7–10.2 billion per year.

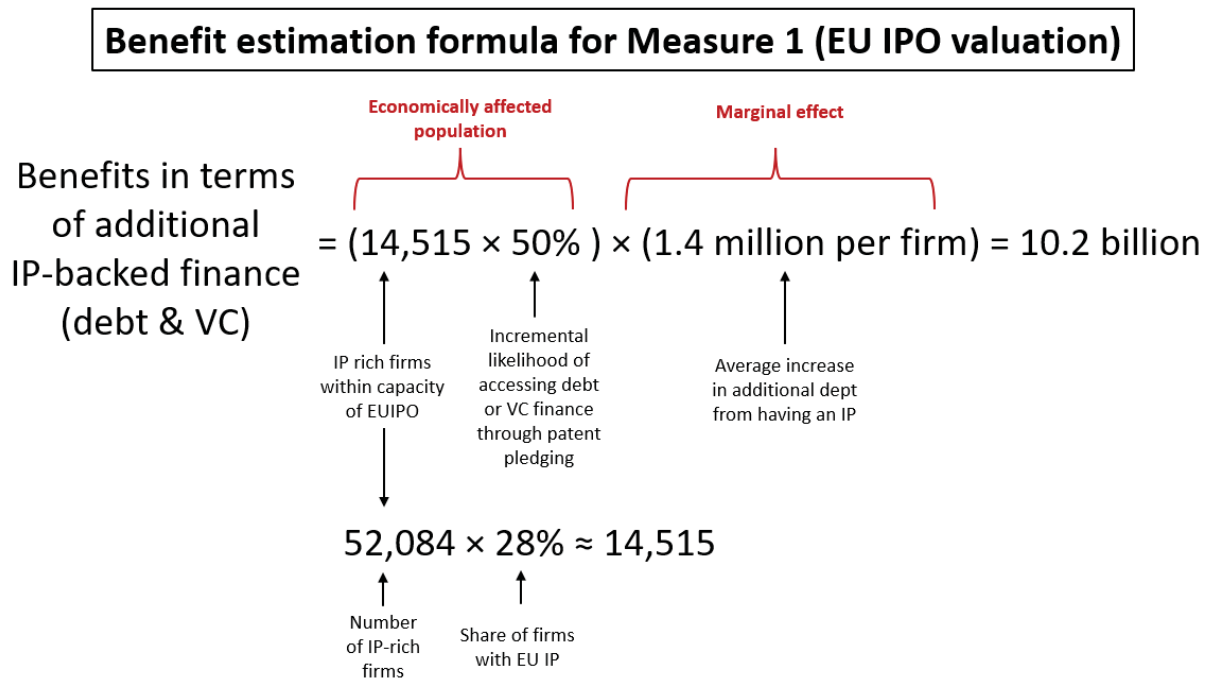
Figure 12 present the full formula used to perform the elasticity-based benefit estimation of Measure 1.

⁹⁰ Dai, Y., Gao, H., Li, N., & Si, Y. (2025). Patent Collateralization and Entrepreneurship. Available at SSRN 5349951.

⁹¹ EUIPO (2023, p. 12). Patents, Trademarks and Startup Finance. Report, 17.10.2023. Last access in March 2026.

⁹² Bracht, F., & Czarnitzki, D. (2022). Patent collateral and access to debt. ZEW-Centre for European Economic Research Discussion Paper, (22-033).

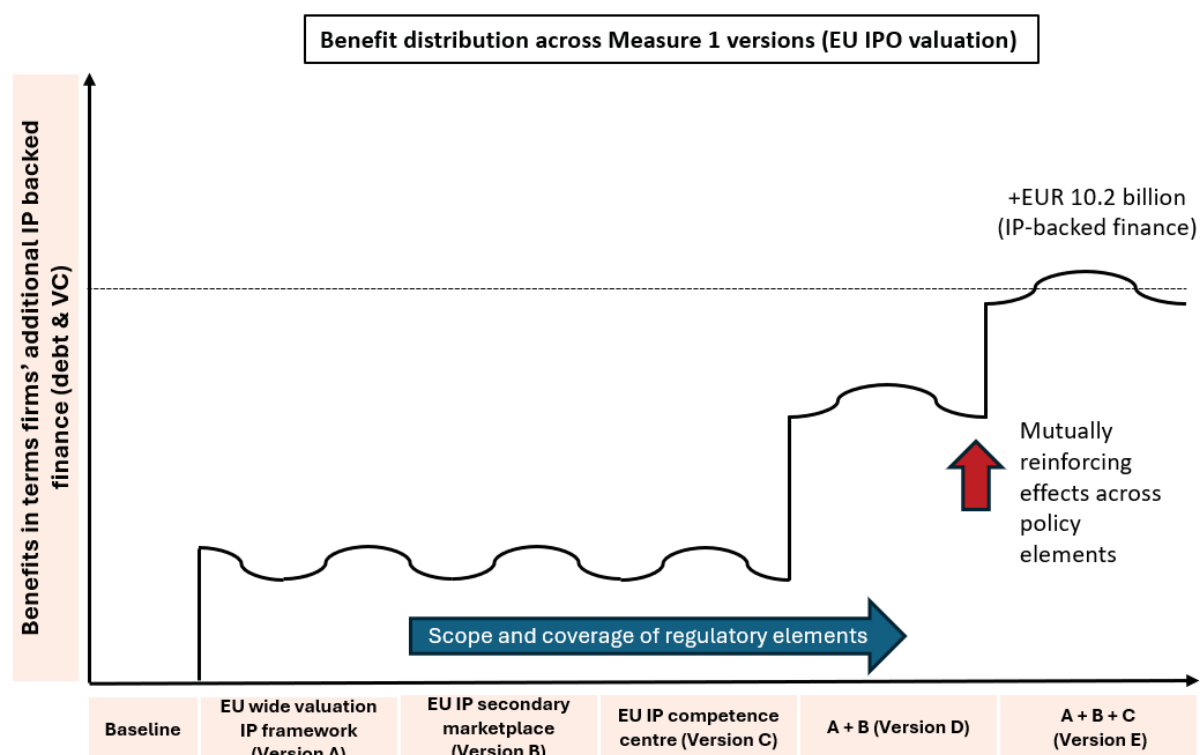
Figure 12. Measure 1 – Main benefit formula



To distribute the benefits across the different Measure 1 alternatives, the analysis assumes that increases in IP pledging are greater under scenarios combining the EU IP valuation methodology, the secondary marketplace for IP licensing and transactions, and the EU IP competence centre. The combination of these elements is expected to provide the broadest support for additional IP-backed financing. Accordingly, lower benefits are assumed under Alternatives A, B, and C individually, while significantly higher benefits are expected under the combined Alternatives D and E.

These considerations are reflected in the allocation of benefits across the Measure 1 alternatives and illustrated conceptually in Figure 13.

Figure 13. Conceptual visualisation of benefits across Measure 1 Versions (A, B, C, D, E)



Boxes 4-7 explain in detail the assumptions underlying the elasticity estimates derived from Bracht, F., & Czarnitzki, D. (2022), Dai, Y. et al. (2025), and EPO (2023), the rationale for selecting these studies for the estimation of Measure 1, and the main strengths and limitations of the approach.

Box 4. Assumptions Behind Elasticity-Derived Benefit Estimations (Measure 1)

I.	Bracht, F., & Czarnitzki, D. (2022)
	The study provides causal, treatment-effects evidence on the impact of patent pledging on firms' access to debt financing. The authors exploit mandatory patent collateral registration data from Sweden and the Netherlands, two jurisdictions where pledging is formally registered, and then construct firm-level panels spanning approximately 1994–2018 (Netherlands) and 1997–2018 (Sweden). The study estimates that patent pledging enables Swedish (Dutch) firms to borrow about EUR 1.0 –1.4 million per firm more than in the counterfactual situation in which no patents would have been used as collateral. The assessment draws on core elasticity representing the additional debt accessible by firms through patent pledging. This range, anchored by the two European country estimates, is applied to the estimated population of EU firms with registered European patents to compute the aggregate additional debt benefit.
II.	Aptness Of This Elasticity
a.	Most studies can only show that companies with patents tend to borrow more money through simple correlation and regression analysis, however, this paper goes further and shows that pledging a patent as collateral actually causes a firm to borrow more, through an experiment where instead of comparing all patent-owning firms against all non-patent-owning firms, they focused on the precise moment a firm first pledged a patent to a bank. They then found a group of very similar firms that never pledged, and used those as a comparison group. By looking at what happened to borrowing before and after the

pledging event for both groups, they could isolate the effect of the pledge itself. They then ran a randomised experiment to establish confidence in the genuine causal relationship between the variables.	
b.	The paper is one of very few empirical studies grounded in European data, using firms from the Netherlands and Sweden. These are market-economy jurisdictions with developed banking systems, strong rule of law, and institutional frameworks that are broadly representative of the wider EU context.
III. Limitations and Assumptions	
a.	The sample covers only Dutch and Swedish firms, both of which have relatively deep financial markets, well-functioning patent enforcement systems, and high levels of institutional trust. The application of the elasticity in the impact assessment to the full EU27 population implicitly assumes that the collateral effect of patent pledging would be similarly sized across Member States, which is not the case as not all Member States have the same level of mature banking cultures, legal systems for creditor rights, and IP enforcement quality.
b.	The study does not model the behavioural response to a policy intervention; it only estimates the effect conditional on pledging already occurring.
c.	The paper's dependent variable is total firm debt; it does not address venture capital or equity financing.

Box 5. Assumptions Behind Elasticity-Derived Benefit Estimations (Measure 1)

I. Dai, Y., Gao, H., Li, N., & Si, Y. (2025)	
The paper analyses China's staggered, city-level roll-out of policies permitting firms to use patents as loan collateral between 2009-2016. Using a staggered DiD design across 290 cities and approximately 3,900 city-year observations, the authors identify the causal effect of permitting patent-backed lending on local entrepreneurial activity and on the financing outcomes of new firms.	
The elasticity used in the impact assessment is that cities adopting the patent collateralisation policy experienced an approximately 18.5% increase in the likelihood that a firm successfully obtains an IP-backed loan (corresponding to the ~17% increase in startup numbers at the city level and confirmed via channel tests on patent pledge numbers). In the assessment, for the debt benefit calculation, this 18.5% figure is applied as the incremental probability with which Measure 1 would activate patent-backed lending for the estimated population of innovative EU firms. The Chinese pilot programme involves a public authority (SIPO) building institutional infrastructure to overcome the structural barriers that prevent lenders from accepting patent collateral.	
II. Aptness Of This Elasticity	
a.	The paper estimates the behavioural response to a government policy intervention that creates the infrastructure for patent-backed lending. Rigorous identification with staggered DiD. The staggered roll-out of the Chinese pilot, across 55 treated cities entering at different times between 2009 and 2016, enables a credible DiD design. The parallel trends assumption is supported by the absence of significant pre-treatment coefficients in event-study plots.
b.	The paper tests three mechanisms i.e., improved access to debt and equity financing, increased patent market liquidity, and an incentive effect on talented individuals to pursue entrepreneurship. The positive and significant results across all three channel tests strengthen confidence that the 18.5% figure reflects genuine causal pathways rather than spurious correlation. It is pertinent to note that there are no other similar studies in Europe neither at the Union level nor at national level, that provide similar analysis.
III. Limitations and Assumptions	
Chinese institutional context differs from the EU in fundamental respects: a state-directed banking system with government-owned banks as dominant lenders; a financial system in which the state can directly subsidise interest payments and instruct banks to accept patent collateral; an innovation ecosystem heavily shaped by government planning objectives at commune/regional levels; and a legal framework for creditor rights that differs from EU Member State systems.	

Box 6. Assumptions Behind Elasticity-Derived Benefit Estimations (Measure 1)

I. European Union Intellectual Property Office (2023)
The report examines the relationship between EU-level IP filings and the ability of European startups to obtain venture capital funding. The study links IP filing data from European registers (EPO and EUIPO) with investment data across a broad sample of European SMEs and startups, producing descriptive and econometric estimates of the correlation between IP activity and the likelihood of securing VC or early-stage equity financing. The study builds on and extends earlier EPO-EUIPO joint work (2019), which found that SMEs with prior IP activity were 10% more likely to become high-growth firms (HGFs). Assessment draws on the finding that startups filing at the European level are approximately 5–6 times more likely to secure early-stage venture capital funding than startups that did not file, compared with 2.8 times for startups that filed only at the national level. EUIPO (2023) is directly relevant to Measure 1's VC-related benefits. The EUIPO (2023) finding that EU-level IP filings are a strong signal of VC fundability supports the hypothesis that institutional quality and standardisation in IP documentation translate into better financing outcomes for startups.
II. Aptness Of This Elasticity
a. Paper's data is drawn from EU Member State firms, EPO, and EUIPO filings, making it the most contextually appropriate source for the EU-focused VC benefit estimation. b. The findings that EU-level filings (5–6× VC likelihood) substantially outperform national filings (2.8×) are policy-relevant: it provides an empirical basis for the argument that EU-level harmonisation of IP valuation delivers benefits over and above what individual Member State frameworks currently provide.
III. Limitations and Assumptions
a. The study shows that startups filing European-level patents are much more likely to receive venture capital, but it cannot prove that filing the patent is what caused them to get the funding. The study itself acknowledges this, describing the finding as a useful predictor rather than a proven cause-and-effect relationship. b. Getting a European patent is harder than getting a national one, the EPO applies stricter examination standards. So, startups with European patents may attract more VC simply because their inventions are genuinely stronger and more commercially valuable, not because of anything to do with where they filed.

Box 7. Assumptions Behind Elasticity-Derived Benefit Estimations (Measure 1)

Note on the Use of These Elasticities in Combination
The three sources are used in complementary, non-overlapping roles Bracht & Czarnitzki (2022) provides the magnitude of the debt increase conditional on patent pledging; Dai et al. (2025) provides the incremental probability that a policy intervention activates patent-backed lending; and EUIPO (2023) provides the upper bound for the incremental probability of VC access following EU-level IP filing. Individually, each source involves important contextual limitations, however, collectively they represent the best available empirical evidence for the specific causal channels Measure 1 targets.

Box 8. Stakeholders view on Measure 1 (IP Valuation)

In the Open Public Consultation, 84% of respondents (108 respondents) agreed that developing a trustworthy, EU-wide accepted IP valuation methodology with templates and guidance would be a positive step forward. In addition, 62% of respondents (72 respondents)

agreed that creating an EU-wide IP marketplace with sufficient critical mass and liquidity would be beneficial.

6.2.3. *Costs for Measure 2 – Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement*

The estimated **adjustment costs for the public buyers** are based on three elements: (i) the staff time required for attending training on pre-commercial procurement techniques, and (ii) the monetisation of that time based on the salaries of the staff involved, and (iii) the number of public buyers affected by the measure.

Based on desk research, a 1.5-day course on European public procurement costs EUR 1,160 per participant, which is used as the benchmark training cost for procurement staff. In addition, staff time is estimated at 6.5 person-days, comprising 1.5 days for the course and 5 additional days for familiarisation with the topics. Staff time is monetised using an average hourly rate of EUR 40.5, corresponding to EUR 324 per day based on an eight-hour working day. These costs are applied to 1,500 public buyers under the recommended R&D procurement procedure (Alternative A), reflecting lower expected uptake, and to 2,000 public buyers under the mandatory R&D procurement procedure (Alternative B), reflecting higher uptake.

Table 13. Adjustment costs for public buyers – Measure 2

	Baseline (continuation of current scenario)	A - Recommended techniques for R&D procurements for public buyers	B – Obligatory techniques for R&D procurements for public buyers
Training/ familiarisation costs	● No costs.	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement Total cost: EUR 3,266 X 1,500 public buyers X 4 staff members working on procurement = EUR 19,596,000	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement Total cost: EUR 3,266 X 2,000 public buyers X 4 staff members working on procurement = EUR 26,128,000
Redesign of procurement processes and documentation	● No costs.	● Moderate adjustment costs.	● High adjustment. costs.

The **administrative costs for the public buyers**, which are costs deriving from performing procurement procedures, is estimated following the Standard Cost Model formula: Person-day worked * salary rate *N of persons involved)* number of R&D procurement procedures* number of public buyers affected.

Under the baseline scenario, administrative costs for public buyers are estimated on the basis of 10–30 R&D procurement projects carried out annually^{93, 94}, requiring an estimated 20–120 person-days per procurement procedure⁹⁵. Staff time is monetised using an average hourly rate of EUR 40.5, corresponding to EUR 324 per day based on an eight-hour working day. The estimation assumes 1,000 public buyers⁹⁶ under the baseline scenario.

Administrative costs under the alternatives are expected to decrease due to more efficient R&D procurement management, reduced fragmentation across the EU, and increased familiarity with R&D procurement techniques. In this context, it is assumed that each procedure would require 1.5 staff members, compared to four under the baseline, corresponding to an estimated 60% reduction in administrative costs under both Alternatives A and B.

Table 14. Administrative costs for public buyers – Measure 2

Baseline (continuation of current scenario)	A - Recommended techniques for R&D procurements for public buyers	B – Obligatory techniques for R&D procurements for public buyers
● In the baseline scenario, public buyers incur costs related to legal uncertainty, fragmentation of R&D procurement procedures across the EU, and the inefficiencies arising from the use of traditional procurement techniques within PCP (outside the Public Procurement Directives). Cost per individual R&D pr. document: EUR 25,920 – 155,520 (=20 – 120 person-days X 4 staff member procurement X EUR 324 per day) Total cost: EUR 259,200,000- 4,665,600,000 (= cost per one R&D pr. document (as above) X (10 – 30) R&D pr. documents per year X 1000 public buyers	● Compared to the baseline, administrative costs are expected to reduce. Indeed, after the initial familiarisation phase, administrative costs are expected to decrease because of more efficient management of R&D procurement and reduced legal and cross-border barriers Cost per individual R&D pr. document: EUR 9,720 – 58,320 (=20 – 120 person-days X 1.5 staff member procurement X EUR 324 per day) Total cost: EUR 145,800,000 2,624,400,000 (= cost per one R&D pr. document (as above) X (10 – 30) R&D pr. documents per year X 1500 public buyers	● High administrative costs borne by all public buyers compared to Alternative A Cost per individual R&D pr. document: EUR 9,720 – 58,320 (=20 – 120 person-days X 1.5 staff member procurement X EUR 324 per day) Total cost: EUR 194,400,000- 3,499,200,000 (= cost per one R&D pr. document (as above) X (10 – 30) R&D pr. documents per year X 2000 public buyers

Tables 15 and 16 summarise the results, highlighting in red the net administrative cost increase generated by the measure for public buyers and suppliers compared to the baseline.

Table 15. Summary of costs in absolute terms – Measure 2

Costs - EUR	Public buyers	Economic operators (suppliers)
Baseline		
<i>Administrative costs (annual)</i>	<i>EUR 259,200,000 - 4,665,600,000</i>	<i>High</i>

⁹³ European Commission (2019). [Impacts of EU funded Pre-Commercial Procurements](#). Last access in April, 2026. See also Cordis database for H2020 and FP7.

⁹⁴ <https://wayback.archive-it.org/12090/20220916072752/https://digital-strategy.ec.europa.eu/en/policies/pcp-and-pi-projects> Last access in April, 2026

⁹⁵ Stakeholders reported during the focus groups preparation times ranged from as little as two days to as long as six months, even within the same organisation.

⁹⁶ According to a 2025 European Commission presentation (available [here](#)), more than 1,000 public buyers across Europe have already successfully implemented PCPs

<i>Adjustment costs (one-off)</i>	<i>EUR 0</i>	<i>EUR 0</i>
Alternative A		
<i>Administrative costs (annual)</i>	<i>EUR 145,800,000 - 2,624,400,000</i>	<i>Low</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 19,596,000</i>	<i>Medium</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>EUR 194,400,000 - 3,499,200,000</i>	<i>Medium</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 26,128,000</i>	<i>High</i>

Table 16. Summary of costs compared to baseline – Measure 2

Costs - EUR	Public buyers	Economic operators (suppliers)
Alternative A		
<i>Administrative costs (annual)</i>	<i>From EUR -113,400,000 to -2,041,200,000</i>	<i>Medium decrease</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 19,596,000</i>	<i>Medium increase</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>From EUR -64,800,000 to - 1,166,400,000</i>	<i>Low decrease</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 26,128,000</i>	<i>High increase</i>

6.2.4. *Benefits for Measure 2 – Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement*

The benefits of the establishment of a harmonised EU-wide R&D procurement procedure for public buyers are estimated in terms of:

- **Public buyers’ efficiency gain.** Efficiency gains are calculated as the difference between the administrative cost supported by public buyers in each Measure’s Alternative compared to the baseline. This results in estimated cost savings for public buyers of EUR 113.4 million to EUR 2.04 billion under Alternative A, and EUR 64.8 million to EUR 1.17 billion under Alternative B.
- **Firms (suppliers) increased economic performance.** A large body of academic literature⁹⁷ finds that each EUR 1 spent on R&D procurement by public buyers applying innovation-friendly procurement practices can generate up to EUR 3 in additional profits for suppliers. This effect is commonly referred to in the literature as the “*R&D procurement impact multiplier*”. Applying this elasticity to the current level of R&D procurement expenditure in the EU, while accounting for the fact that a share of public buyers already uses innovation-friendly R&D procurement techniques (EUR 17.28 billion), results in an estimated increase in firms’ profit of EUR 25.96 billion under the full uptake scenario (Alternative B), and EUR 12.96 billion under the partial uptake scenario (Alternative A).

⁹⁷ [Giffoni et al., \(2023\)](#), [Castelnovo et al. \(2021\)](#), Webb, D and White, R. (2009), Salina (2006), [Bezdek and Wendling \(1992\)](#), [Bach et al. \(2022\)](#), [Bianchi-Streit et al. \(1984\)](#), [Schmied \(1982\)](#).

Figure 16 present the full formula used to perform the elasticity-based benefit estimation of Measure 2.

Figure 16. Measure 2 – Main benefit formula

Benefit estimation formula for Measure 2 (R&D techniques)

Benefits in term of additional profits for suppliers =

$$\begin{aligned}
 & \left\{ \begin{aligned} & (17.28 \times 50\% \times 100\%) \times 3 = 25.92 \text{ billion if Version B} \\ & (17.28 \times 50\% \times 50\%) \times 3 = 12.96 \text{ billion if Version A} \end{aligned} \right.
 \end{aligned}$$

↑
Current spending in the EU in R&D procurement

↑
Share of R&D procurement not using innovation friendly techniques

↑
Percentage of R&D procurement that will start using such techniques

↑
Return

Economically affected population

Marginal effect

To distribute the benefits across the different Measure 2 alternatives, the analysis assumes different levels of target uptake. Under the recommended techniques (Version A), only 50% of the uptake is assumed to be achieved, while under the mandatory techniques (Version B), full uptake is assumed.

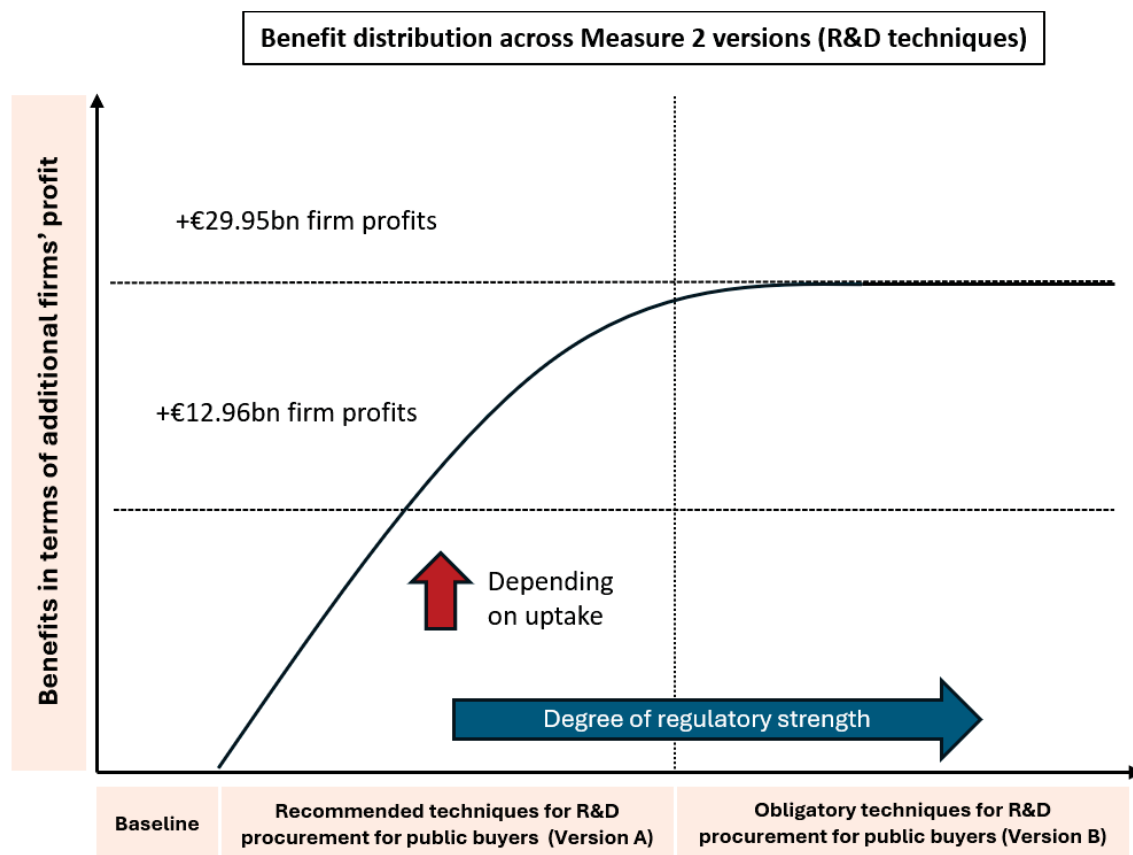
For both alternatives, the baseline assumption is that 50% of current R&D procurement does not make use of innovation-friendly procurement techniques (or/and falls within the provision's remit). This is a conservative modelling assumption informed by evidence from the EU Innovation Procurement Observatory, which points to substantial underuse of such techniques across Europe. According to the Observatory, techniques aimed at facilitating the participation of innovative suppliers and the uptake of innovative solutions achieve an average European score of only 22%. The underutilisation is also reflected in several specific indicators. Only around 18% of R&D procurement investment is publicly advertised, limiting transparency and the ability of innovative firms to identify procurement opportunities. Preliminary market consultations are particularly rare, with only 0.97% of prior information notices published in TED announcing such a consultation. Similarly, value-for-money award criteria are used in around 44% of public procurement procedures, implying that approximately 56% still rely on lowest price alone, while variant offers are permitted in only around 3% of procedures published in TED. The Observatory also identifies other innovation-friendly techniques, including functional and performance-based specifications, value engineering, innovation-friendly exclusion and selection criteria, and multiple sourcing, as insufficiently used.⁹⁸

These considerations are reflected in the allocation of benefits across the Measure 2 alternatives and illustrated conceptually in Figure 17. In addition, since PCP is explicitly excluded from the scope of the EU Public Procurement Directives, the current PPA proposal would exclude all

⁹⁸ Directorate-General for Research and Innovation & PwC. (2026). EU innovation procurement observatory: final study report. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/1638226>.

R&D procurement⁹⁹, and the Measure includes a minimum financial threshold aligned with other provisions of EU law, both proportionality and coherence are considered to be respected under Alternatives A and B.

Figure 17. Conceptual visualisation of benefits across Measure 2 Versions (A, B)



Box 9 explain in detail the assumptions underlying the elasticity estimates derived from the large corpus of literature referring to the “*R&D procurement impact multiplier*”, the rationale for selecting these studies for the estimation of Measure 2, and the main strengths and limitations of the approach.

Box 9. Assumptions Behind Elasticity-Derived Benefit Estimations

I. Overview of sources and chosen elasticity
The benefit estimation for Measure 2 draws on a body of studies that measure how much economic value is generated for every euro that a major public research institution spends through procurement. The studies used span different institutions, methodologies, and time periods, but consistently point in the same direction. Giffoni et al. (2023) estimates the socio-economic impact of CERN's Future Circular Collider procurement using econometric modelling, finding a multiplier of 3.1. Building on a similar institutional context, Bianchi-Streit et al. (1984) and the two earlier works by Schmied (1977 and 1982) also focus on CERN, using supplier surveys to measure the broader economic utility generated by its high-tech procurement

⁹⁹ This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process.

contracts. Shifting to the space sector, Castelnovo et al. (2021) uses firm surveys and econometric tools to measure how Italian Space Agency procurement affects supplier performance, finding a multiplier of 3. The European Space Agency is covered by three separate studies: the Danish Agency for Science (2008) uses a survey of Danish firms to assess the economic impact of ESA contributions, finding the highest multiplier in the literature at 4.5, while Brendle et al. (1980) and Bach et al. (2022) apply survey-based approaches to quantify ESA's economic returns for European supplier firms more broadly, finding lower multipliers in the range of 1.5 to 1.6. The variation across these ESA studies likely reflects differences in population of firms, survey design, and the time periods examined. Beyond physics and space, Webb and White (2009) applies an input-output model to quantify the economic returns from research procurement at the UK's John Innes Centre, a public institution for plant and microbial research, finding a multiplier of 3. Salina (2006) similarly uses an input-output model, but applied to procurement at Italy's National Institute of Nuclear Physics, finding a multiplier of 2 to 2.7. Finally, Bezdek and Wendling (1992) estimates the economy-wide effects of NASA's procurement spending using an input-output model, finding a multiplier of 2.1.

Taken together across these studies, the multipliers range from 1.2 to 4.5, with most clustering between 2 and 3.5. This supports the adoption of a central procurement multiplier of 3 for the purposes of the Measure 2 benefit assessment.

II. Aptness of the Chosen Elasticity

A key strength of this evidence base is its internal consistency across very different contexts, methodologies, and time periods. Whether the study looks at CERN, NASA, ESA, or UK agricultural research, and whether it uses surveys, econometric models, or input-output tables, the multipliers converge. This cross-study convergence gives confidence that a multiplier of 3 is a reasonable central estimate rather than an outlier. Crucially, all of the institutions studied are recognised as leading practitioners of pro-innovation procurement techniques that Measure 2 seeks to promote.

III. Limitations and Assumptions

The central limitation of this evidence base is that it is difficult to separate two things that come bundled together in each study: the effect of applying innovation-friendly procurement techniques, and the effect of being a world-class research institution. CERN, NASA, and ESA are not typical public buyers. They operate at the global technology frontier, attract highly specialised suppliers, and have decades of experience designing and managing complex procurement. A significant part of their high multipliers may stem from the unique nature of the contracts they award and the calibre of firms in their supply chains, rather than from the specific procurement techniques used in isolation. This means that applying the same multiplier to a broader and more varied population of EU public buyers, including regional authorities, utilities, and national agencies with less experience of innovation procurement, may not yield the same level of benefit, at least in the short term.

6.2.5. *Costs for Measure 3 – Preference for EU-made solutions in R&D procurement for public buyers*

The estimated **adjustment costs for the public buyers** are based on three elements: (i) the staff time required for attending training on EU-preferences procedure, and (ii) the monetisation of that time based on the salaries of the staff involved, and (iii) the number of public buyers affected by the measure.

Based on desk research, a 1.5-day course on European public procurement costs EUR 1,160 per participant, which is used as the benchmark training cost for procurement staff. In addition, staff time is estimated at 6.5 person-days, comprising 1.5 days for the course and 5 additional days for familiarisation with the topics. Staff time is monetised using an average hourly rate of

EUR 40.5, corresponding to EUR 324 per day based on an eight-hour working day. These costs are applied to 1,500 public buyers under the recommended R&D procurement procedure (Alternative A), reflecting lower expected uptake, and to 2,000 public buyers under the mandatory R&D procurement procedure (Alternative B), reflecting higher uptake.

Table 17. Adjustment costs for public buyers – Measure 3

	Baseline (continuation of current scenario)	A – Non-mandatory preferences for EU-made solutions for public buyers	B – Mandatory preferences for EU- made solutions for public buyers, with clauses	C – Mandatory preferences for EU- made solutions for public buyers
Training/ familiarisation costs	● No costs.	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement , but with likely lower uptake compared to A and B because of the non-mandatory nature of the requirement. Total cost: EUR 3,266 X 1,000 public buyers = EUR 13,064,000	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement Total cost: EUR 3,266 X 1,500 public buyers X 4 staff members working on procurement = EUR 19,596,000	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement Total cost¹⁰⁰: EUR 3,266 X 2,000 public buyers X 4 staff members working on procurement = EUR 26,128,000
Redesign of procurement processes and documentation	● No costs.	● Low adjustment costs.	● From moderate to high adjustment costs because the application of clauses require a market analysis.	● High adjustment costs.

Tables 18 and 19 summarise the results, highlighting in red the net administrative cost increase generated by the measure for public buyers and suppliers compared to the baseline.

Table 18. Summary of costs in absolute terms – Measure 3

Costs - EUR	Public buyers	Economic operators (suppliers)
Baseline		
<i>Administrative costs (annual)</i>	<i>EUR 0</i>	<i>EUR 0</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 0</i>	<i>EUR 0</i>
Alternative A		
<i>Administrative costs (annual)</i>	<i>Low</i>	<i>Medium</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 13,064,000</i>	<i>Medium</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>Medium</i>	<i>From Medium to High</i>

<i>Adjustment costs (one-off)</i>	<i>EUR 19,596,000</i>	<i>From Medium to High</i>
Alternative C		
<i>Administrative costs (annual)</i>	<i>High</i>	<i>High</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 26,128,000</i>	<i>High</i>

Table 19. Summary of costs compared to baseline – Measure 3

Costs - EUR	Public buyers	Economic operators (suppliers)
Alternative A		
<i>Administrative costs (annual)</i>	<i>Low increase</i>	<i>Medium increase</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 13,064,000</i>	<i>Medium increase</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>Medium increase</i>	<i>Medium/High increase</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 19,596,000</i>	<i>Medium/High increase</i>
Alternative C		
<i>Administrative costs (annual)</i>	<i>High increase</i>	<i>High increase</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 26,128,000</i>	<i>High increase</i>

6.2.6. *Benefits bundled with indirect economic costs for Measure 3 – Preference for EU-made solutions in R&D procurement for public buyers*

Studies indicate that EU preference for the procurement of R&D can contribute to **strengthening the EU's open strategic autonomy**, in particular for critical technologies and strategic infrastructures, by reducing dependency risks and supporting the development of EU-based supply chains. This provides a robust qualitative basis for the expected direction of benefits.^{101 102 103}

On the other hand, trade restrictions are usually associated with indirect economic costs due to the relocation of trades. Mandatory **preferences for domestic suppliers in procurement can entail non-negligible macroeconomic costs**.

Oleksandr Shepotylo (2020) estimates that preferential treatment for local producers in Ukrainian public procurement reduced GDP by around 0.58%. The measure applied broadly across public buyers and import-intensive sectors. Similarly, Clemens Boer and Malte Rieth (2024) estimate that economy-wide tariff increases in the United States reduced GDP by 0.1% to 0.5% annually, suggesting that trade restrictions can generate noticeable but limited macroeconomic effects.

The Ukrainian localisation requirement is most comparable to Alternative B, as both involve mandatory preferences in selected procurement areas rather than economy-wide obligations. However, the Ukrainian measure covered a much broader range of public buyers and

¹⁰¹ Edler, J., Blind, K., Kroll, H., & Schubert, T. (2023). Technology sovereignty as an emerging frame for innovation policy. Defining rationales, ends and means. Research Policy, 52(6), 104765.

¹⁰² EPRS/STOA (European Parliament) (2021), Key enabling technologies for Europe's technological sovereignty. [https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU\(2021\)697184](https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU(2021)697184)

¹⁰³ European Parliament study (2025), "Strategic autonomy and European competitiveness: Security now comes first. [https://www.europarl.europa.eu/thinktank/en/document/ECTI_STU\(2025\)764371](https://www.europarl.europa.eu/thinktank/en/document/ECTI_STU(2025)764371)

procurement categories, while the Measure under assessment is limited to R&D procurement outside the scope of the Public Procurement Directives and the PPA¹⁰⁴. Accordingly, Alternative B is assumed to represent only around 20% of the localisation intensity of the Ukrainian reform.

In addition, the EU Single Market is far larger, more diversified, and more integrated than the Ukrainian economy, with stronger supplier competition and greater substitution possibilities across Member States. This increases the EU's ability to absorb R&D procurement preferences with lower risks of price, productivity, or supply-chain distortions. Furthermore, Alternative B still allows global sourcing where no suitable EU solution exists, further limiting trade restrictions.

Figure 18 presents the full formula used to perform the elasticity-based indirect economic cost estimation of Measure 3.

Figure 18. Measure 3 – Main indirect economic cost formula

Indirect economic cost estimation formula for Measure 3 (R&D EU preference)

Economic cost in
term of GDP lost
from EU preference

Marginal effect

Economically affected population

$$= 0.58\% \times (1/5) \times (1/45) \times 18 \text{ trillion} = 464 \text{ million}$$

↑

Negative impact on Ukrainian GDP caused by national preference on many innovation procurements

↑

Scale difference between amount of R&D procurement and Innovation procurements in the EU

↑

Scale difference between EU Single Market and Ukraine internal market divided by a factor of 2

↑

EU GDP

To distribute the benefits across the different Measure 3 alternatives, the analysis considers that stronger preferences for domestic suppliers increase gross strategic autonomy benefits, up to the theoretical maximum of fully domestic sourcing. However, the **negative GDP effects of domestic preferences** are non-linear: they remain limited under soft preferences but increase progressively faster as restrictions become more stringent.

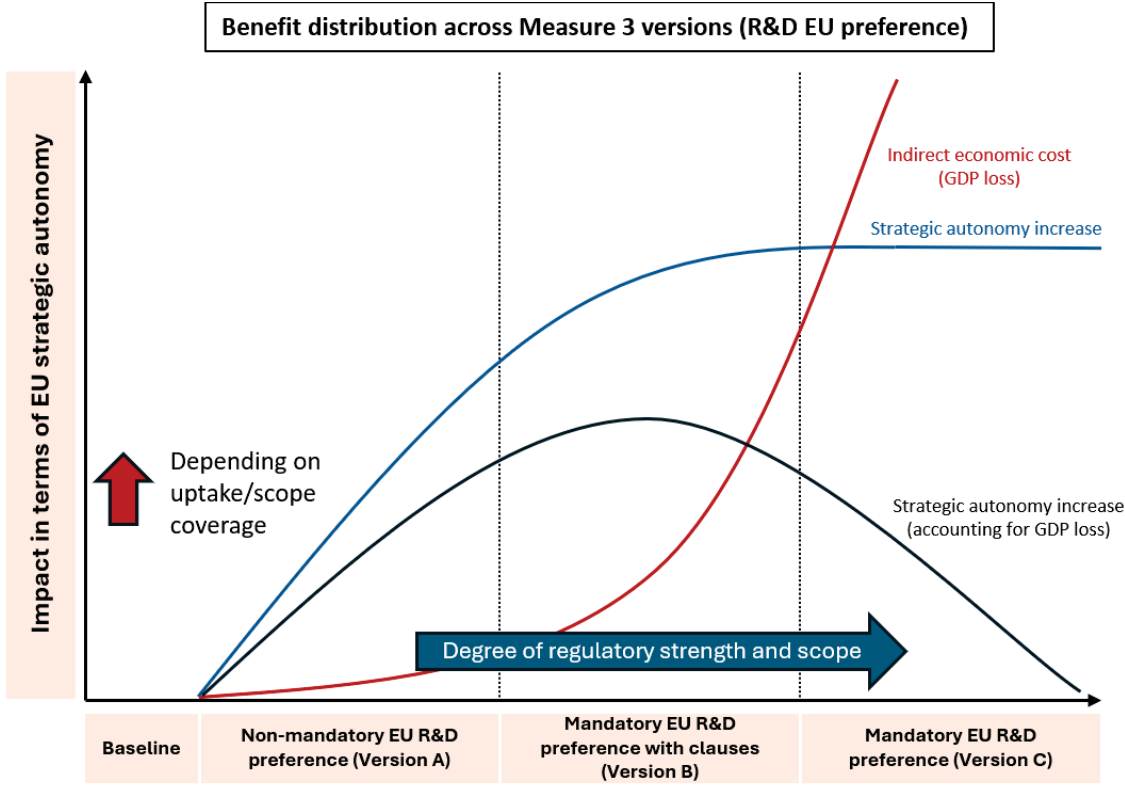
As a result, net strategic autonomy benefits follow an inverted “U-shaped” pattern. While moderate preferences may strengthen strategic autonomy with limited economic costs, excessively restrictive preferences can reduce overall economic performance to the point where the net strategic autonomy gains diminish.

These considerations are reflected in the allocation of benefits across the Measure 3 alternatives and illustrated conceptually in Figure 19. In addition, since PCP is explicitly excluded from the scope of the EU Public Procurement Directives, the current PPA proposal would exclude all

¹⁰⁴ This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process.

R&D procurement¹⁰⁵, and the Measure includes a minimum financial threshold aligned with those Directives, both proportionality and coherence are considered to be respected under Alternatives A and B.

Table 19. Conceptual visualisation of benefits across Measure 3 Versions (A, B)



Box 10 explain in detail the assumptions underlying the elasticity estimates derived from Shepotilo, O. (2020), the rationale for selecting these studies for the estimation of Measure 3, and the main strengths and limitations of the approach.

Box 10. Assumptions Behind Elasticity-Derived Indirect Economic Cost Estimations (Measure 3)

I. Shepotilo, O. (2020): Overview of the estimates in the paper and the elasticity chosen
Shepotilo (2020) estimates the economic cost of Ukraine's 2020 draft law requiring that goods purchased through public procurement, particularly specialised products pertaining to transport, machinery, and electrical equipment, to contain a minimum share of locally produced content. Using a gravity model of trade, which is a standard economic tool for measuring how trade barriers affect the flow of goods between countries, the study finds that mandating local content in procurement reduces imports of the affected products, raises costs for firms that rely on those inputs, and lowers overall productivity. The central finding is that introducing these local preferences caused a GDP loss of approximately 0.58% per year.

¹⁰⁵ This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process.

In the context of Measure 3, this figure is used as the starting point for estimating the potential macroeconomic downside of Alternative B, which introduces mandatory preferences for EU-based suppliers in pre-commercial procurement (with opt out provisos).	
II.	Aptness of the Chosen Elasticity
Shepotilo (2020) is the most appropriate available evidence base for estimating the potential macroeconomic costs of Measure 3's EU preference requirements for several reasons.	
a. The structural design of the Ukrainian policy is the closest available analogue to Alternative B. Unlike economy-wide tariffs or broad import restrictions, the Ukrainian localisation requirement was a targeted, procurement-specific preference applied to defined product categories, mirroring the deliberate narrowness of Alternative B, which is confined exclusively to R&D procurement. This makes Shepotilo (2020) a more appropriate comparator than the general trade restriction literature, which tends to capture economy-wide effects that would overstate the costs of a narrowly scoped procurement preference. b. The assessment applies the Ukrainian elasticity conservatively, through two explicit scaling adjustments that substantially reduce the estimated cost before applying it to the EU context.	
III.	Limitations and Assumptions
The principal limitation is context transferability. Ukraine in 2020 was a relatively small, open, and import-dependent emerging economy, whereas the EU Single Market is the world's largest integrated trading bloc, with GDP roughly 90 times larger. The economic disruption caused by procurement preferences in Ukraine may therefore might not reflect exactly what the EU would experience, even with the scaling adjustments. The EUR 464 million cost figure should accordingly be read as a broad indicator rather than a precise forecast.	

7. HOW DO THE OPTIONS COMPARE?

All measure-versions are compared in term of performance across four criteria:

- **Effectiveness:** assesses to what extent the proposed intervention is expected to achieve its objectives by examining the anticipated benefits and the likely effects it will generate (outputs, immediate outcomes, and longer-term results). Reflecting the benefits as identified in the literature review and the targeted consultation responses.
- **Efficiency:** assesses whether the intervention delivers its intended results at a reasonable cost, i.e. how well resources are used to generate the observed changes. Reflecting the ratio between the benefits, as identified in the elasticity-based estimates and targeted consultation responses, and the costs as identified by the targeted consultation responses and the Standard Cost Model.
- **Coherence:** assesses how well the intervention is expected to fit within the broader policy landscape. Internal coherence looks at whether the different elements of the intervention work together consistently. External coherence examines how it aligns with, complements, or potentially conflicts with other EU or national policies.
- **Proportionality:** assesses whether the proposed intervention is appropriate and no more intrusive than necessary to achieve its objectives

For each measure, the version that performs best across all criteria is identified as the preferred alternative. Tables 20-24 present the comparative results for all measure-versions using a RAG rating to indicate performance as following: ● high performance, ● moderate

performance, and ● low performance. For each criterion, a detailed explanation and the related calculation steps are provided in Annex 4.

Table 20. Measure 1 – Promote valuation of IP

Criterion	Alternative A - EU wide IP valuation framework	Alternative B - EU wide IP marketplace	Alternative C - EU wide IP competence centre	Alternative D (A + B)	Alternative E (A + B+ C)
Effectiveness	● Only addresses EU valuation angle	● Only addresses the licensing angle	● Only addresses the training angle	● Exploit the complementarities between A and B	● Exploit the complementarities of A, B and C
	Firms cost savings EUR 5.8–11.7 million Less than additional IP-backed finance of EUR 2.7–10.2 billion per year.	Firms cost savings EUR 7–14.1 million Less than additional IP-backed finance of EUR 2.7–10.2 billion per year.	Firm cost saving less of EUR 7–14.1 million Less than additional IP-backed finance of EUR 2.7–10.2 billion per year.	Firm cost saving less of EUR 11.7–23.5 million Less than additional IP-backed finance of EUR 2.7–10.2 billion per year.	Firms cost savings EUR 17.6–35.3 million Additional IP-backed finance of EUR 2.7–10.2 billion per year.
Efficiency	● Higher IP-backed finance; business; overall firm efficiency gain ~EUR 11.7 m vs baseline.	● Higher IP-backed finance; overall firm efficiency gain ~EUR 14.1 m vs baseline.	● Higher IP-backed finance; overall firm efficiency gain ~EUR 14.1 m vs baseline.	● Higher IP-backed finance; overall firm efficiency gain ~EUR 23.5 m vs baseline.	● Higher IP-backed finance; overall firm efficiency gain ~EUR 35.3 m vs baseline.
Coherence	●	●	●	●	●
<i>Internal</i>	●	●	●	●	●
<i>External</i>	●	●	●	●	●
Proportionality	●	●	●	●	●
Preferred version					

Measure 1 aims to promote the valuation of intellectual property (IP) across the European Union and via the European Union Intellectual Property Office (EUIPO) helping innovators, including SMEs, better understand, value, and leverage their IP assets to facilitate investment, commercialisation, and the diffusion of innovation. The measure is designed with several versions. Version A focuses on developing an EU-wide IP valuation framework to standardise how IP is assessed. Version B establishes a secondary marketplace for buying and selling IP, improving liquidity and transaction opportunities. Version C creates an IP competence centre that provides advice, training, match-making and financial support to

innovators and the financial community, relation to IP-backed finance. There are also combined approaches: Version D merges A and B, pairing the valuation framework with the marketplace, while Alternative E integrates all three elements (framework, marketplace, and competence centre) offering the most comprehensive support for IP valuation and commercialisation.

Based on the impact assessment, **Version E** (mandate to EUIPO to set up a competence centre for IP-backed finance, and to develop an EU wide IP valuation framework and a digital marketplace) **emerges as the preferred version**. In terms of **effectiveness**, Alternative E is the alternative with the highest benefits and the better cost benefit ration.

In terms of **coherence**, Alternative E aligns with the full set of other measures. Externally, the mandate to the **European Union Intellectual Property Office** envisaged under this measure is consistent with its objectives as set out in Regulation (EU) 2017/1001, which establishes the EU trademark system with a view to ensuring uniform protection of intellectual property rights and contributing to the smooth functioning of the internal market. By supporting greater transparency, comparability and reliability in the economic assessment of IP assets, the measure would enhance the effective use of EU intellectual property rights across the Union, without affecting their substantive scope or enforcement. It would build on EUIPO's existing tasks and expertise related to the administration of EU-wide IP systems, data management and cooperation with national authorities, and would support uniform conditions for the use of IP rights in cross-border economic activity. Considering proportionality, Alternative E is expected to strike a balance between achieving the objectives of improved IP valuation and commercialisation and the associated costs.

Furthermore, from a **legal perspective**, a Regulation is necessary to enable the European Union Intellectual Property Office (EUIPO) to assume these additional tasks and allocate resources to them, as the Office's existing mandate, established by a Union legal act, can only be amended through another Union legal act.

Table 21. Measure 2 - Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement

Criterion	A – Recommended techniques for R&D procurement for public buyers	B – Obligatory techniques for R&D procurement for public buyers
Effectiveness	● Benefits applied over a smaller sample population. Low uptake. +€12.96bn firm profits, administrative cost savings for public buyers ranging from EUR 113.4 million to EUR 2.04 billion;	● Benefits applied over a larger sample population. High uptake. +€25.92bn firm profits, administrative cost savings ranging from EUR 64.8 million to EUR 1.17 billion;
Efficiency	● +€12.96bn firm profits, Administrative cost savings ranging for public buyers from EUR 113.4 million to EUR 2.04 billion; Medium adjustment cost for public buyers;	● +€25.92bn firm profits, administrative cost savings ranging for public buyers from EUR 64.8 million to EUR 1.17 billion; high adjustment cost for public buyers

Coherence	●	●
<i>Internal</i>	●	●
<i>External</i>	●	●
Proportionality	●	●
Preferred version		

Measure 2 aims to support the uptake of R&D procurement by addressing the current lack of legal certainty and the proliferation of divergent R&D procurement procedures across Member States, which hinder the proper functioning of the Single Market and the free movement of goods, services, and capital.

The problem affects a significant part of the EU Single Market. In 2022, public buyers in the classical, utilities, and defence sectors in the EU27 spent EUR 17.28 billion on R&D procurement, corresponding to 0.61% of total public procurement expenditure.¹⁰⁶

The assessment of Measure 2 shows that **Version B** (Obligatory techniques for R&D procurement for public buyers) **offers the best approach** against the considered criteria. The **effectiveness** assessment show version B to deliver the highest benefits, while scoring similarly in **efficiency** with Version A (Recommended techniques for R&D procurement for public buyers).

Both alternatives are **coherent** with the EU Public Procurement Directives, as PCP is explicitly excluded from their scope. And the current PPA proposal would exclude all R&D procurement¹⁰⁷. The Measure therefore complements, rather than overlaps with, procurement procedures falling within the remit of the Directives and their revision under the PPA.

From a **legal perspective**, Version B has a robust legal basis under **Articles 114 TFEU**. This is because the lack of legal certainty and the divergence of rules governing the establishment and operation of pre-commercial procurement **directly affect the functioning of the Single Market**, hindering the **cross-border movement of goods, services, capital**. With R&D procurement representing a significant share of the EU single Market. Diverging national rules on R&D procurement constitute barriers that prevent companies from participating in and offering their innovative ideas to public buyers in different Member States.

Table 22. Measure 3 - Preference for EU-made solutions in R&D procurement for public buyers

Criterion	A – Non-mandatory preferences for EU-made solutions for public buyers	B – Mandatory preferences for EU-made solutions for public buyers, with clauses	C – Mandatory preferences for EU-made solutions for public buyers
Effectiveness	●	●	●
Strengthening the EU's open strategic autonomy			

¹⁰⁶ Directorate-General for Research and Innovation & PwC. (2026). EU innovation procurement observatory: final study report. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/1638226>.

¹⁰⁷ This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process.

Efficiency	● Strengthens slightly EU open strategic autonomy; less than around 464 millions in indirect GDP economic costs	● Strengthens significantly EU open strategic autonomy; around 464 millions in indirect GDP economic costs	● Strengthens significantly EU open strategic autonomy; more than 464 millions in indirect GDP economic costs
Coherence	●	●	●
<i>Internal</i>	●	●	●
<i>External</i>	●	●	●
Proportionality	●	●	●
Preferred alternative			

Measure 3 aims to strengthen EU strategic autonomy by requiring public buyers to give preference to EU-made solutions when procuring strategic technologies through R&D procurement.

Version B (mandatory preference for EU-made solutions for public buyers, combined with opt-out clauses) is identified as the **preferred option**. It delivers significantly greater strategic autonomy benefits than Version A (non-mandatory EU preference), while avoiding the disproportionate indirect economic costs associated with Version C (fully mandatory EU preference for public buyers).

This is because the opt-out clauses under Version B allow procurement from non-EU suppliers where no suitable EU alternative exists or where the cost difference between EU and non-EU suppliers would be excessively high, thereby **limiting the macroeconomic costs** of the Measure.

Regarding **coherence**, Version B is consistent both internally and externally. Internally, it integrates well with other measures in EIA aimed at supporting innovation, while improving the resilience of the EU industrial base and reducing risks linked to critical dependencies. Externally, the measure builds on and is consistent with approaches already used in recent Union legislation, such as the Net-Zero Industry Act, the Critical Raw Materials Act, as well as the forthcoming European Industrial Accelerator Act, which introduce EU-level tools to reduce strategic dependencies and strengthen Union supply chains in clearly defined sectors. It also takes into account the identification of strategic technologies at Union level, including through the Strategic Technologies for Europe Platform (STEP), and the outcomes of the risk assessments on critical technologies performed in the context of the European Economic Security Strategy of June 2023. Furthermore, since the measure focus on R&D procurement, there is not overlap with the EU Public Procurement Directive and its planned revision under the PPA¹⁰⁸.

Proportionality considerations further support the selection of Version B, which limit the economic costs, while maximising the strategic autonomy.

¹⁰⁸ This reflects the scope of the PPA proposal at the time of writing and is without prejudice to amendments that may be introduced during the legislative process.

From a legal perspective, establishing an EU preference for R&D procurement through a legal act would provide greater legal certainty on key implementation aspects. In particular, Member States currently have limited scope to regulate the access of third-country bidders to R&D procurement procedures or to introduce EU preference/local content requirements, as these issues fall within the EU's exclusive competence on the common commercial policy.

8. PREFERRED OPTION

The preferred policy option is therefore the bundle of the best-performing measure-versions across the remaining twelve measures, as summarised in Table 25.

Table 25. Summary of EIA preferred policy options

Measure	Version
Measure 1. Establishing IP valuation methodology and facilitating licensing	Version D – Mandate the EUIPO to develop an EU wide IP valuation framework, an EU wide IP marketplace/matchmaking, EU wide IP competence centre
Measure 2. Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement	Version B - Obligatory techniques for R&D procurement procurements for public buyers
Measure 3. Preference for EU-made solutions in R&D procurement for public buyers	Version B - Mandatory preferences for EU-made solutions for public buyers, with clauses

Compared to the baseline, the preferred policy option under the EIA strongly supports the European Commission simplification agenda, as it is expected to generate **net administrative and adjustment cost savings of approximately EUR 1.1 billion already in the first year of implementation across all stakeholders**. Net savings are expected to increase further in subsequent years as one-off adjustment costs are phased out.

Table 26 presents the estimated administrative and adjustment costs of the preferred policy option compared to the baseline, highlighting cost savings in green and cost increases in red.

Estimated annual administrative cost savings include:

- **EUR 35 million per year in cost savings for affected firms**, due to more harmonised approaches to IP valuation;
- **EUR 1 billion per year in cost saving for affected public buyers**, due to more harmonised approaches to R&D procurement and clearer frameworks cross-borders R&D procurement

These savings are partly offset by limited additional adjustment for public authorities, estimated at approximately EUR 2.4 million for EU public sector and EUR 45 million for affected public buyers.

Compared to the baseline, the preferred policy option under the EIA is expected to generate strong economic benefits across the innovation ecosystem through improved IP

valuation practices, harmonised R&D procurement practices. Table 27 presents the benefits estimated, the estimated effects include:

- Additional EUR 10.2 billion in IP-backed finance every year
- Additional EUR 25.92 billion in firm profits every year

Detailed methodologies and assumptions are reported in Annex 4.

Table 26. Administrative and Adjustment costs compared to the baseline scenario for the EIA preferred policy options

EIA preferred measure alternative	EU public sector	MS public sector	Public buyers	Businesses
Measure on IPR valuation - E	• Adj costs: EUR 2,423,520 – 2,566,080 • Adm costs: EUR 712,670	<i>N.r.</i>	<i>N.r.</i>	• Adj costs: EUR 0 • Adm costs: from EUR -17,636,217 to -35,272,434
Measure on R&D procurement techniques- B (Obligatory adoption)	<i>N.r.</i>	<i>N.r.</i>	• Adj costs: EUR 26,128,000 • Adm costs: from EUR -64,800,000 to -1,166,400,000	• Adj costs: High increase • Adm costs: Low decrease
Measure on R&D procurement EU preferences - B (obligatory with clauses)	<i>N.r.</i>	<i>N.r.</i>	• Adj costs: EUR 19,596,000 • Adm costs: Medium increase	• Adj costs: Medium/High increase • Adm costs: Medium/High increase
EIA TOTAL first year (Adj + Adm)	3,278,750	<i>N.r.</i>	-1,120,676,000	-35,272,434
EIA TOTAL first year (Adj + Adm) All stakeholders	-1,152,669,684			

Note: Aggregate TOTAL estimates are calculated exclusively on the basis of quantified costs. Qualitative cost assessments (e.g. low/medium/high) are presented for information purposes only and are not summed.

Table 27. Benefits in absolute terms for the EIA preferred policy option. These are also interpreted as compared to the baseline (all the benefits are incremental)

EIA preferred measure alternative	Public buyers	Businesses	EU society as a whole
Measure on IPR valuation - E	N.r.	• Efficiency gains: EUR 17,636,217 - 35,272,434 • IPR-backed raised finance: EUR 2,685,349,943 - EUR 10,160,783,567	Increased deployment of innovative solutions: qualitative discussion
Measure on R&D procurement techniques- B (Obligatory adoption)	• Efficiency gains: EUR 64,800,000 to EUR 1,166,400,000.	• Impact of R&D procurement on suppliers' profit: EUR 25,920,000,000	• Increased market competition, cross-border collaboration and innovation diffusion: qualitative discussion
Measure on R&D procurement EU preferences - B (obligatory with clauses)	N.r.	• EU open strategic autonomy and increased market access for EU companies: EUR 12,960,000,000 (P.S. This benefit is already included in the impact of R&D procurement on suppliers' profits generated by the measure above.) It reflects the share of these benefits that remains within the EU)	• EU technological sovereignty: qualitative discussion

To assess the aggregate macroeconomic impact of the preferred policy option under the European Innovation Act (EIA), the quantified costs and benefits are modelled as input shocks in the JRC's RHOMOLO computable general equilibrium framework, enabling the translation of micro-level estimates into simulated EU-wide GDP and employment effects. This implies that the estimated GDP gains generated by the RHOMOLO simulations **are not additional** to those identified in the cost-benefit analysis. Rather, the quantified costs and benefits assessed in the cost-benefit analysis constitute the direct inputs to the RHOMOLO model. The RHOMOLO simulation then captures how the EU economy adjusts to these shocks, modelling the general equilibrium effects that result from the underlying cost and benefit parameters described above. **In other words, the costs and benefits showed in tables 26 and 27 are used as input in the RHOMOLO model to estimate EU wide economic effects.**

The simulations indicate that EU GDP would increase by around 0.24-0.42% over a ten-year horizon relative to a baseline scenario without the EIA. This magnitude is well within a plausible and expected range. For comparison, IMF research suggests that EU capital market harmonisation (often considered the EU integration initiative with the highest growth potential) could raise EU GDP by approximately 3%.¹⁰⁹ Against this benchmark, the estimated GDP impact of the EIA appears realistic and proportionate.

Table 28 presents the time profile of cumulated additional GDP and employment generated by the EIA under the low and high scenarios, measured against the no-policy baseline (in which by definition the impact of the policy is zero).

Table 28. Aggregate impact of EIA preferred policy option on EU GDP and Employment

Year	GDP diff from baseline (EUR mn)	GDP diff (% GDP)	Cumulative GDP impact (EUR mn)	Employment diff (thousands FTE)	GDP diff from baseline (EUR mn)	GDP diff (% GDP)	Cumulative GDP impact (EUR mn)	Employment diff (thousands FTE)
	Low Scenario				High Scenario			
1	4,313	0.02%	4,313	17	6,066	0.03%	6,066	39
2	9,853	0.05%	14,165	43	17,019	0.09%	23,085	105
3	15,067	0.08%	29,232	70	26,929	0.15%	50,015	168
4	19,975	0.11%	49,208	96	35,962	0.20%	85,977	227
5	24,585	0.14%	73,793	122	44,222	0.25%	130,199	282
6	28,899	0.16%	102,693	147	51,779	0.29%	181,978	334
7	32,919	0.18%	135,611	171	58,689	0.33%	240,667	382
8	36,646	0.20%	172,257	195	64,994	0.36%	305,661	427
9	40,085	0.22%	212,342	217	70,733	0.39%	376,394	469
10	43,241	0.24%	255,583	238	75,940	0.42%	452,335	507

¹⁰⁹ Arnold, M. N. G., Dizioli, A., Fotiou, A., Frie, J. M., Hacibedel, M. B., Iyer, T., ... & Toscani, M. F. G. (2025). Lifting Binding Constraints on Growth in Europe: Actionable Priorities to Deepen the Single Market (No. 2025/113). International Monetary Fund.

Source: García-Rodríguez, A., Christou, T., Giffoni, F., Lazarou, N.J., Mitra, A., Peralta, C., Pedralli, M., and Salotti, S., *The RHOMOLO ex ante macroeconomic impact assessment of the European Innovation Act - JRC Working Papers on Territorial Modelling and Analysis No 05/2026*, European Commission, Seville, 2026, JRC147056. Note: GDP shown as cumulated values in EUR million. Employment in thousands of full-time equivalents (FTEs). The GDP impact expressed as % of GDP refers to the EU GDP figure in 2024, that is EUR 18,016,190 million (source: Eurostat).

By year 10, the low scenario delivers EUR 255 billion in additional EU GDP (cumulative over the whole period) alongside 238 thousand extra jobs (FTEs) at its peak impact, while the high scenario generates almost EUR 452 billion in cumulative GDP impact, and 507 thousand additional jobs in the year of the maximum impact. In that same year (year 10), the GDP is between 0.24% and 0.42% above the no-policy scenario. These effects build gradually through the ten-year phase-in period, with GDP impacts accelerating in years 6-10 as capital deepening and productivity increases compound through regional production networks.

More details on the RHOMOLO simulation are available in Annex 8 and in the associated JRC technical paper¹¹⁰.

Beyond impacts on GDP and employment, the European Innovation Act is expected to generate wider societal benefits by strengthening research-to-market pathways for technologies addressing climate change and environmental degradation. Empirical evidence shows that sustained public and private investment in research and innovation accelerates the development, diffusion, and cost reduction of clean and resource-efficient technologies, contributing to lower emissions, improved energy efficiency, and environmental outcomes that are not fully captured by standard macroeconomic indicators.^{111 112 113 114 115}

9. HOW WILL ACTUAL IMPACTS BE MONITORED AND EVALUATED?

A robust monitoring and evaluation framework is essential to assess whether the EIA achieves its intended objectives. Monitoring indicators measure implementation progress and intermediate results, while impact indicators (such as turnover, productivity, or growth effects) are assessed through ex-post evaluation using appropriate counterfactual methods.

For these purposes, and as announced in the Startup and Scaleup Strategy, the Commission will launch in 2026 a **Startup and Scaleup Scoreboard** to measure the performance of the EU's startup and scaleup ecosystems. The Scoreboard will track variables such as the number of

¹¹⁰ García-Rodríguez, A., Christou, T., Giffoni, F., Lazarou, N.J., Mitra, A., Peralta, C., Pedralli, M., and Salotti, S., *The RHOMOLO ex ante macroeconomic impact assessment of the European Innovation Act - JRC Working Papers on Territorial Modelling and Analysis No 05/2026*, European Commission, Seville, 2026, JRC147056.

¹¹¹ Popp, D. (2019). Environmental policy and innovation: A decade of research. *International Review of Environmental and Resource Economics*, 13(3-4), 265-337.

¹¹² European Commission: Directorate-General for Research and Innovation. (2024). Science, research and innovation performance of the EU, 2024 : a competitive Europe for a sustainable future. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/965670>. In Chapter 5.1 R&I for green productivity growth.

¹¹³ European Commission: Directorate-General for Research and Innovation. (2022). Science, research and innovation performance of the EU 2022 : building a sustainable future in uncertain times. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/78826>. In Chapter 3 R&I for sustainability.

¹¹⁴ Cervantes, M. et al. (2023), "Driving low-carbon innovations for climate neutrality", OECD Science, Technology and Industry Policy Papers, No. 143, OECD Publishing, Paris, <https://doi.org/10.1787/8e6ae16b-en>.

¹¹⁵ European Commission: Directorate-General for Research and Innovation. (2024). Why investing in research and innovation matters for a competitive, green, and fair Europe : a rationale for public and private action. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/01237>.

startups and scaleups across Member States over time. In parallel, the Commission will introduce the **Annual Startup and Scaleup Survey**, which will capture founders' perceptions of changes in the EU's regulatory and business environment, and will be a survey that is statistically representative of the EU population.

Annex 13 presents the monitoring indicators linked to each Specific Objective. The corresponding data sources and monitoring and evaluation methods are listed also in Annex 13.

Monitoring indicators are used to track implementation progress and intermediate results over time. They show whether the measures are taken up and whether the expected behavioural and market changes are moving in the intended direction. Changes in these indicators cannot always be attributed exclusively to the European Innovation Act, as innovation performance is influenced by multiple external factors and policies. For monitoring purposes, the baseline is defined as an observed-trend baseline: where time series are available, it corresponds to the continuation of the historical trend at the time of implementation; where trend data are not available, it is based on the most recent observed value.

Impact indicators capture broader economic and innovation effects and are assessed primarily in the ex-post evaluation. For these indicators, attribution to the initiative will be examined using counterfactual-based quantitative methods, such as difference-in-differences, regression discontinuity, matching techniques, or synthetic control approaches, depending on data availability and intervention design. In this context, the baseline is a “*counterfactual baseline*” and will be constructed analytically as part of the ex-post evaluation design, and represents the estimated outcome in the absence of the initiative.^{116 117}

In line with better regulation guidelines, monitoring indicators are designed to track implementation and outcome trends, while full causal attribution is addressed at evaluation stage using counterfactual methods.

¹¹⁶ Mitra, A., Niakaros, K. (2023). The Horizon effect : a counterfactual analysis of EU research & innovation grants, Publications Office of the European Union. <https://op.europa.eu/s/AaO6>

¹¹⁷ Angrist, J. D., & Pischke, J. S. (2009). Mostly harmless econometrics: An empiricist's companion. Princeton university press.

ANNEX 1: PROCEDURAL INFORMATION

1. LEAD DG, DECIDE PLANNING/CWP REFERENCES

Lead DG: Directorate-General for Research and Innovation

Decide: PLAN/2024/2791

CWP: Commission Work Programme 2026

2. ORGANISATION AND TIMING

Unit RTD.A5, with the support of RTD.G2, was in charge of conducting the impact assessment and it was supported by an external contractor assisting, among others, with the necessary desk research, analysis of the results of the public consultation, conducting targeted consultations, and conducting cost-benefit analysis of the Act's potential measures. The Joint Research Centre also contributed to the preparatory work by conducting literature review, analysis of the results of the call for evidence, as well as conducting the macroeconomic impacts analysis by using the Regional Holistic Model (RHOMOLO).

The impact assessment process started with the publication of a Call for Evidence and an Open Public Consultation on the future European Innovation Act (EIA) on 8 July 2025, both of which closed on 3 October 2025. The kick-off meeting with the external contractor took place on 22 August 2025.

An upstream meeting with the Regulatory Scrutiny Board was held on 15 October 2025.

A targeted consultation on the costs and benefits of the identified policy measures was launched on 20 October 2025 and closed on 20 November 2025.

Three stakeholder focus groups on the expected impacts of the identified measures were organised on 24, 26 and 27 November 2025.

The impact assessment on the EIA was coordinated by an Inter-Service Coordination Group (ISCG). Representatives from Secretariat General (SG), Legal Service (LS), and DGs BUDG, JUST, FISMA, GROW, HOME, TAXUD, TRADE, EMPL, JRC, ENV, COMP, MOVE, REGIO, DIGIT, COMM, CNECT, ENER, CLIMA, EAC, SANTE were appointed to the ISCG.

For the first RSB submission, two meetings of the ISCG were held. The first meeting took place on 9 April 2025 and the second was held as a joint ISCG covering both the European Innovation Act and the EU Inc. proposal on 9 December 2025. In the second meeting, DG RTD presented the draft impact assessment and invited the participating services to provide their feedback. Following that meeting, the meeting minutes were kept open for additional eight calendar days to allow all participating services to provide written comments.

In addition to the two ISCG meeting, DG RTD received substantive feedback from and cooperated closely with a number of services, including DG GROW in relation the measures

concerning public procurement and IPR valuation, and DG CNECT in relation to regulatory sandboxes.

Finally, DG RTD also received inputs related certain aspects of the European Innovation Act during a number of Cab-Services meetings on the 28th Regime and the European Innovation Act, organised by the Secretariat-General throughout Q3 and Q4 of 2025.

DG RTD submitted the Impact Assessment to the RSB on 23 December 2025, followed by a meeting with the RSB on 28 January 2026. Following the review of the Impact Assessment, the RSB issued a negative opinion on 30 January 2026.

Following the negative opinion, RTD received substantive feedback from both the RSB, the ISCG and the Cab-Services on how to improve the SWD and made substantial revisions to the Impact Assessment. Subsequently, DG RTD resubmitted the Impact Assessment to the RSB on 20 February 2026. On 27 February 2026, following the review of the revised Impact Assessment, the RSB issued the second negative opinion.

3. CONSULTATION OF THE RSB

Overview of changes following the Regulatory Scrutiny Board opinions

FIRST RSB OPINION

Following the RSB negative opinion on the 30 January/2026, the impact assessment was extensively revised to address the comments and points raised by the RSB. Following revisions were made:

RSB comment:

Key issues: (1) The scope of the intervention is not clear.

What to improve: (1) The report must clarify the scope of the intervention. It should better set the context of the initiative and other initiatives that the Commission is preparing in parallel, that delineate the scope of the European Innovation Act and could potentially support or complement it. A better description of the scope will enable to strictly base the impact assessment on problems identified inside this scope.

How the comment was addressed:

Chapter 1 (“Introduction: Political and policy context”) has been fully redrafted to clarify the scope, positioning and boundaries of the European Innovation Act (EIA).

A new **Figure 1 – “Position of the European Innovation Act within the European innovation lifecycle”** has been introduced. The figure situates the EIA within the broader innovation cycle (from research to market deployment) and visually distinguishes:

- problems addressed by other EU initiatives (in blue), and
- problems addressed specifically by the EIA (in orange).

This graphical mapping clarifies that the EIA targets specific bottlenecks located at two critical stages of the innovation lifecycle (the pre-commercialisation gap and the scaling gap) which are currently insufficiently addressed by existing EU instruments.

In addition, **new Sections 1.1, 1.2 and 1.3** explicitly describe broader challenges in the EU innovation ecosystem that fall outside the scope of the EIA. For each of these, the report explains why they are not covered by this initiative and identifies the relevant EU measures or parallel initiatives that address them.

This restructuring ensures that the problem definition and subsequent analysis are strictly limited to issues falling within the defined scope of the EIA.

RSB comment:

Key issues: (2) The problems, their scale and their drivers are not well identified and are not supported with the appropriate evidence.

What to improve: (2) Currently most of the problems and problem drivers overlap. The report should better differentiate between the presented problems and their drivers, striving to identify root causes as exhaustively as possible. The report should then transparently consider what can be addressed better by parallel or future initiatives. The large divergence in the identified issues among Member States is not analysed. The problem identification should be corroborated by evidence and should focus on the issues that cannot be solved at the national/regional or local level, that have a cross-border dimension and could be addressed at the EU level. The specificities of innovative companies as opposed to SMEs should be explained and supported by evidence. The report does not provide compelling evidence that support the rationale for regulating sandboxes at the EU level, rather than proposing general guidance.

How the comment was addressed:

Chapter 2 (“Problem definition and problem drivers for the EIA”) has been fully redrafted to clarify the analytical structure and strengthen the evidence base.

The problem tree has been revised, under the guidance of the Better Regulation colleagues, to clearly distinguish between problems and their underlying drivers. Overlaps have been removed, and drivers have been simplified to ensure a clear causal logic. **The revised figure 2 “Problem tree EIA” showcases this.**

The chapter now integrates triangulated evidence from peer-reviewed literature, Commission, WIPO, OECD reports, stakeholder consultations, surveys and a systematic mapping of Member State policies. This evidence substantiates the scale of the problems and the causal link between drivers and outcomes. The revised text explicitly analyses divergences across Member States and clarifies which issues cannot be effectively addressed at national level due to fragmentation and cross-border effects, thereby strengthening the justification for EU action.

Finally, the rationale for EU-level action on regulatory sandboxes has been reinforced through additional legal, economic and comparative analysis, including policy mapping and international benchmarking.

RSB comment:

Key issue (3) The report lacks a clear logic of the intervention. The objectives are not S.M.A.R.T. The policy measures are not clearly defined and it is not demonstrated that they address those problems at their roots causes.

What to improve (3) The logic of the intervention is not well established in the report. Once the problems and their drivers are better identified, the general and specific objectives should be aligned and narrowed down to the adjusted scope of the intervention. Formulating a general objective that is too multifaceted and vast makes it hardly possible to demonstrate causal links between the intervention and the future results. The specific objectives, selected based on a refined problem definition, should be S.M.A.R.T. to clearly understand what is expected to be achieved and to enable the assessment of the impact of the policy options.

How the comment was addressed:

Chapter 4 (“Objectives: What is to be achieved?”) has been fully redrafted to clarify the overall intervention logic and define what success of the EIA concretely means.

The objectives have been revised to comply with the S.M.A.R.T. criteria. The general objectives have been streamlined from three broad formulations to a single, more focused objective aligned with the Treaty legal basis and proportionate to what the EIA can realistically achieve. The specific objectives have been reformulated to be more precise, measurable and time-bound. For each specific objective, targeted monitoring indicators with baselines and targets have been introduced. **The revised Figure 8 (EIA intervention logic) presents this structure clearly.**

RSB comment:

Key issue (4): The report does not provide sufficient evidence supporting the feasibility, effectiveness and efficiency of many of the proposed policy measures; their proportionality is not sufficiently assessed.

What to improve (4): The report should propose policy measures that are based on evidence demonstrating that they can solve the underlying problems/drivers and achieve the desired objectives. The feasibility of those measures should be checked upfront. Many of the measures proposed in the report are not well specified, often relying on terms that may be subject to interpretation, or are simply not fully defined. It is therefore not possible to assess their feasibility, effectiveness, efficiency, and proportionality. The evidence supporting the effectiveness of some measures is incomplete or missing. The causal links between a measure and the problem drivers it is intended to address are often not established.

How the comment was addressed:

Chapter 5.2 (“Description of the policy options”) has been fully redrafted to clearly define each measure, remove ambiguous terminology and specify their operational design. For each measure, the causal link with the relevant problem drivers is now explicitly explained.

Chapter 5.3 (“Options discarded at an early stage”) has been added to explain why and which measures have been originally considered, but subsequently discarded.

Chapter 6 (“Impacts of the policy options”) has been comprehensively revised. The former high-level RAG summary tables have been replaced with structured analytical tables and

narrative assessment detailing the expected costs and benefits of each measure, including quantitative estimates where feasible. **The new tables 1-18 showcase this.**

Chapter 7 (“Comparison of options”) has been substantially expanded. Each comparative table is now accompanied by an explanation clarifying why the preferred measure versions perform better across the criteria of effectiveness, efficiency, coherence and proportionality, and how they contribute to achieving the specific objectives.

Together, these revisions ensure that the policy measures are clearly specified, evidence-based and analytically linked to the identified root causes.

RSB comment:

Key issue (5): The report does not appropriately assess the external coherence of this initiative with other horizontal initiatives contributing to the European competitiveness and functioning of the Single Market.

What to improve:

(5): More specifically, the feasibility of establishing a common and future proof definition of an innovative company across different sectors should be demonstrated better. The feasibility and consequences of establishing a common definition of a startup, scaleup and an innovative company and their co-existence with the established definitions of SMEs, micro companies, and small mid-caps, should be discussed in the report in view of possible overlaps as regards access to (EU) funding or any other special treatment of such companies. The report should analyse the risk that the proposed policy measures and their implementation could add more burdens than benefits.

(6) The report should better analyse the external coherence with other horizontal initiatives contributing to improving European competitiveness by promoting innovation and functioning of Single Market. The report should assess the coherence with the simplification agenda (Omnibus IV); measure 2 and the supporting recommendation should describe how they would be implemented. It should discuss the coherence of the proposals on public procurement and in particular the revision of the public procurement rules, in light of the concerns of stakeholders. The discussion on the external coherence should also cover the coming European Research Area act and the “28th regime for innovative companies”.

How the comment was addressed:

The assessment of external coherence has been strengthened throughout the report.

Chapter 1 (“Introduction: Political and policy context”) has been revised to position the EIA clearly within the broader EU innovation policy landscape. The initiative is now explicitly mapped against other horizontal and sectoral measures, demonstrating its complementary nature and clarifying that it addresses specific bottlenecks in the innovation lifecycle that are not covered by existing instruments.

External coherence is further assessed in **Chapter 7** (“Comparison of options”), where each measure is analysed against the criterion of coherence with other EU initiatives and the Single Market framework.

Furthermore, in order to avoid any further confusion, and given that the measures under the EIA preferred policy option are not limited to specific company categories but are designed to apply across the broader innovation ecosystem, the measure relating to verification and operational eligibility procedures linked to forthcoming EU-level company definitions (such as innovative companies, startups and scaleups) has been discarded.

Finally, additional analysis has been included in **Chapter 8** (“Preferred option”) to clearly demonstrate that the proposed policy measures do not create administrative burdens outweighing their benefits. On the contrary, the assessment shows a net reduction in administrative costs across the EU innovation ecosystem, with quantified benefits clearly exceeding the estimated costs.

RSB comment:

Key issue: (6) The level of administrative burden is not sufficiently analysed.

How the comment was addressed:

The analysis of administrative burden has been substantially expanded and strengthened.

Wherever quantification was feasible, the Impact Assessment now provides administrative cost estimates aggregated at EU level. Unit costs for affected stakeholders (firms, universities, public buyers, research and technology infrastructures, etc.) have been multiplied by the estimated number of affected entities. The same methodology has been applied to one-off adjustment costs.

This approach allows aggregation across measures and stakeholder groups, leading to an overall estimate of the net administrative cost impact of the EIA.

The improved quantitative assessment is presented in the revised **Chapter 6** (“Impacts of the policy options”), where costs are shown both in absolute terms and relative to the baseline. For each measure, administrative costs under both the baseline and the policy options are estimated. Key assumptions and calculation methods are explained directly in **Chapter 6**, with more detailed methodological explanations provided in Annex 4.

Administrative burden estimates are also summarised in **Chapter 8** (“Preferred option”).

Key additions include:

- **Table 29:** “Summary of administrative and adjustment costs – Preferred policy option (vs baseline)”, presenting estimated costs by measure and stakeholder group.
- **Table 2 in Annex 3:** providing a summary of the estimated number of affected entities (firms, RTIs, public buyers, etc.), together with an explanation of the estimation methodology.

These revisions ensure a clearer, quantified and transparent assessment of administrative burden.

RSB comment:

What to improve (7): The report should be clear on what success will look like; targets and benchmarks for the specified monitoring indicators should be introduced.

How the comment was addressed:

Targets and benchmarks have now been introduced for the monitoring indicators.

Chapter 9 (“How will actual impact be monitored and evaluated?”) has been revised to clarify how monitoring indicators define success and how progress will be assessed over time. The chapter now explains the baseline, the attribution logic of the EIA’s contribution to observed changes, and how impact indicators will be interpreted.

In addition, **Annex 13** now presents a structured monitoring framework for each specific objective. For each indicator, the direction of change, baseline, target and attribution risk are explicitly specified. Where a precise numerical target has not been set, the reasons are clearly explained.

This framework was developed with the support of DG RTD’s Better Regulation Unit to ensure methodological robustness and clarity.

SECOND RSB’s OPINION

Following the RSB negative opinion on the 27 February/2026, the impact assessment was extensively revised to address the comments and points raised by the RSB. Following revisions were made:

Those were as follows:

RSB comment:

Key issue (1): there are apparent overlaps with the public procurement Directives and the report lacks the assessment of the coherence with the upcoming revision of the public procurement rules. The subsidiarity and proportionality of the measures in the area of public procurement are not demonstrated.

What to improve:

(1) The relation to the EU public procurement framework remains ambiguous. On the one hand the report claims that the scope is restricted to the areas outside of the public procurement Directives’ remit (i.e. below the established financial thresholds and covering also the exempted sectors), on the other hand some proposed measures seem to go beyond the pre-commercial procurement. In view of the upcoming revision of the EU public procurement framework, the rationale and the value added for supplementing it with additional elements in the European Innovation Act should be better assessed and justified, also in the light of stakeholders’ concerns. The establishment of mandatory innovation procurement targets would extend to public procurement at large, which could create an overlap with the public procurement framework, add legal complexity and unnecessary administrative burden which is not sufficiently analysed in the report. In addition, the inclusion of public procurement below the financial thresholds established in the EU framework (currently subject to national procurement law) in the measures proposed by the European Innovation Act requires further analysis in terms of their proportionality and subsidiarity.

How the comment was addressed:

To exclude any potential overlaps with the forthcoming revision of the public procurement framework, **the procurement measures on innovation-friendly procurement procedures and the EU preference were narrowed to focus exclusively on public R&D procurement.** The innovation-friendly procurement techniques applicable to other forms of public procurement, including innovation procurement more broadly, were completely removed.

To further enhance the coherence with the public procurement framework, a financial threshold, consistent with those used in other provisions of EU law, was introduced for the applicability of the new R&D procurement procedure, also enhancing the measure's proportionality as it would exclude very low-value R&D procurements from having to comply with all requirements introduced under the EIA.

The innovation procurement target measure was also removed from the scope of the EIA.

In addition to the changes described above, **the definition of Problem 3 in Chapter 2 was further reinforced**, in particular as regards the scale of the problem and the comparison with Europe's main economic competitors. The problem definition now clearly explains that the total value of pre-commercial procurement in the EU27 amounts to €17.3 billion, representing 0.61% of total public procurement and 0.1% of GDP, and approximately 6.1% of total innovation procurement. This compares to around \$50 billion annually in the United States, where federal agencies allocate approximately 7.5% of their procurement budgets to R&D, reflecting a more systematic use of procurement to support early-stage innovation.

Finally, the subsidiarity analysis in Chapter 3 was further reinforced, showing the need for an EU-level action to address the identified problems. Similarly, in Chapter 7, the subsidiarity and proportionality analysis of each assessed measure, including those related to public procurement, was further expanded to ensure that the measures identified under the preferred policy option comply with both principles.

RSB comment:

Key issue (1): the analysis of impacts focusses on innovative companies while the measures covering the definitions of innovative companies, startups and scaleups have been discarded and the proposed measures in this initiative are not limited to specific company categories. This makes the overall analysis incomplete and potentially misleading.

What to improve:

(2) In the revised report the measures for 'operationalising the definitions of innovative companies, startups and scaleups' have been discarded, arguing that the proposed measures would apply to all companies. Yet the issue of establishing the definitions of such companies in the overall innovation framework remains unresolved: the report refers to the forthcoming EU level company definition whereas the analysis of impact of the measures focusses heavily on innovative companies. However, the potential consequences resulting from overlaps with the existing definitions of SMEs, micro-companies and small mid-caps are not assessed. Furthermore, the impact on legal certainty for companies as well as the impact on establishing a threshold in terms of innovation spending for SMEs should be analysed.

How the comment was addressed:

The revised Impact Assessment clarifies that, following the adoption of the Commission Recommendation on definitions of innovative companies, innovative startups and innovative scaleups in March 2026, the EIA no longer aims to include these definitions as part of the

proposal. At the same time, it explains that, in line with the Better Regulation Guidelines, costs and benefits are estimated on the economically affected population (in particular innovative companies) rather than on all legally eligible entities. In Chapter 6, for each assessed measure, the Impact Assessment clarifies the difference between legally eligible and economically affected firms and explains more in depth how the number of affected entities was estimated.

RSB comment:

Key issue (3): some measures are not sufficiently specified to allow for their assessment. The analysis of costs and benefits of the specific measures is not adequate.

What to improve:

(3) Several of the options and measures analysed, (including measures 1, 2, 5, 7 and 8), are not specified at a sufficient level of detail. This makes it difficult to assess what impacts would follow from introducing these measures, including their feasibility, effectiveness, efficiency and proportionality.

(4) The report should investigate the indirect effects of some measures that may have significant consequences. For instance, the costs of mandatory innovation procurement targets and other measures related to procurement are not limited to the administrative and adjustment costs of establishing the targets. The report would need to assess whether the fact that the targets would have to be met may lead to procuring (innovative) products and services at higher costs. Similarly, the EU preference in private and public procurement outside the EU procurement framework may induce higher costs to public and private stakeholders, which are not properly analysed in the report. The risk that preset or too narrow definitions and principles for sandboxes could lead to the exclusion of some potentially beneficial experiments should also be assessed.

(5) The magnitude(s) of the benefits alleged to result from several of the proposed measures, (including measures 1, 2 and 3), are neither sufficiently assessed nor credibly demonstrated. The assumptions behind such benefit estimates are not always robust.

How the comment was addressed:

In Chapter 6, additional **quantitative estimates and explanations were added**. In response to the RSB comment that the magnitude of the benefits and costs were not sufficiently demonstrated, and that the assumptions behind such benefit estimates were not always robust, the Impact Assessment provided additional cost and benefit analysis so that all measures now include both Standard Cost Model and elasticity-based quantitative estimations of costs and benefits. And for each estimation an associated box explaining pedagogically the assumptions behind such estimation was added.

In addition, to address the RSB request to strengthen the estimation of the economic costs associated with the measures on procurement. Chapter 6 of the Impact Assessment now includes estimates of the economic risk-related costs linked to both innovation and pre-commercial procurement and the EU preference mechanisms.

In addition to the revisions summarised above, certain previously considered measures were eventually discarded from the package. The EIC Forum measure (previous measure 1), the regulatory sandboxes measure (previous measure 2), the national commercialisation strategies (previous measure 4), the innovation procurement target measure (previous measure 5), as well as the transparency and cross-border rules on access to research and technology infrastructure (previous measures 8 and 9) were discarded from the scope of the EIA.

4. CHANGES DONE TO ADDRESS ISSG COLLEAGUES' COMMENTS.

Following the RSB Board's negative opinion received on the 30 January 2026, and the RTD extensive revisions of the impact assessment, the inter-service coordination group was also consulted in writing (from 12/02 to 17/02) ahead of this resubmission.

The feedback from that consultation is summarised below.

Table A1-1: Summary of main ISSG comments and how RTD has addressed them (12/02 to 17/02)

Consulted DG	Opinion and main comments	DG RTD answer and adjustments in the IA text
HOME, TAXUD, DIGIT, and COMP	Proposed various minor track changes to the main text	RTD accepted most of the proposed track changes
ECFIN	ECFIN request of more explanation on Measure 7 (EU preference on procurements) assumptions behind the estimated negative impact of the EU preference on GDP	RTD notes that such explanation was already included in Annex 4 and Annex 8. RTD added such explanation in a footnote in the main text of Chapter 6.1. Footnote 141 text: "Shepotilo (2020) estimates that preferential treatment for local producers in Ukrainian public procurement generated a GDP loss of approximately 0.58%, applied broadly across buyers and import-intensive categories. Scaling this effect to Measure 7's narrower scope; covering roughly one-half to one-third of relevant buyers and less than one-quarter of affected trade flows, while preserving global sourcing options where no EU alternatives exist; implies an upper-bound GDP impact of around 0.3%. This is further attenuated in the EU context by the Single Market's scale, diversification, and integration, which enhance substitution possibilities and competitive intensity relative to Ukraine, yielding an economic cost of approximately 0.1% of GDP."
DEFIS	DEFIS Request to exclude defense from the scope of measure 5, 6, and 7 (all procurement measures)	RTD clarifies that Measure 7 Version A (the winning option) does not include the defence sector already. Measure 6 is only on pre-commercial procurement; hence it does not include Defence R&D procurement. Measure 5 is at Member State level, leaving defence sector public buyers free to not participate. RTD added new text in Chapter 5.2 to clarify this: For measure 5: "Different versions of the measure can be envisaged, varying in their level of obligation, scope and degree of differentiation across Member States. Version A would set innovation procurement target at National level (nationally differentiated targets linked to a common Union-

		level objective), allowing Member States to scale up innovation procurement spending in proportion to their current baseline levels. Importantly, under measure A, not all public buyers will need to increase innovation procurement, as Member States will have the flexibility to exclude or not certain buyers (such as defence buyers) from the scope of this target.” For measure 6: “Importantly, the measure would address only pre-commercial procurement, and not other forms of procurements of R&D services. This means that defence R&D procurement that is not implemented as a pre-commercial procurement will not be addressed by the EIA.” For measure 7: “Under Version A, the measure would envisage an innovation-centred application of the EU preference for critical entities (excluding the defence sector) when they do innovation procurements outside of the EU public procurement directives. Directive (EU) 2022/2557 on the resilience of critical entities only applied to critical entities that are not part of the defence sector. Making Version A of Measure 7 not applying to the defence sector.”
GROW	GROW believes that the procurement provisions in the EIA should be focussed only on pre-commercial procurement, that is the procurement of R&D, excluding innovation procurements.	RTD clarifies that there are procurements, which are not pre-commercial, that fall outside of the Public Procurement Directive, which face legal uncertainty for cross-border activities, and that will not be addressed in the upcoming Public Procurement Directive, Hence, they shall be included in the EIA. RTD added new text in Chapter 1 to explain this better: “Furthermore, with the increasing digitalisation of the EU economy and the growing cross-border participation of firms in public tenders, innovation procurement increasingly attracts operators from other Member States, including in cases falling below the thresholds of the Public Procurement Directives¹¹⁸ (such as innovative procurements below the threshold) or in arrangements excluded from its scope (such as pre-commercial procurements above the thresholds). While the PP Directives harmonise procedures for contracts above specific thresholds, contracts falling outside its scope remain primarily governed by national rules, subject to the fundamental Treaty principles as interpreted by the Court of Justice of the European Union. However, Treaty-based obligations alone do not provide sufficient operational clarity for innovation-oriented instruments, nor do they address structural barriers related to scaling demand for innovative solutions across Member States. For this reason, the European Innovation Act focuses on innovation procurement instruments that fall outside the harmonised scope of the Directive, complementing, rather than duplicating, existing procurement legislation and ensuring greater legal certainty and policy coherence in support of cross-border innovation.” RTD added new text in Chapter 2 to explain this better:

¹¹⁸ Public Procurement Directive 2014/24/EU, Directive 2014/25/EU, Directive 2009/81/EC.

		“The harmonisation of public procurement procedures is primarily governed by the existing EU framework, notably the Public Procurement Directive 2014/24/EU, Directive 2014/25/EU, Directive 2009/81/EC. However, that framework mainly applies to procurements above specific financial thresholds, and focuses on ensuring transparency, competition and non-discrimination in mature markets. There are however several cases where the EU Public Procurement Directives do not apply, including for procurement below the forementioned financial threshold (for which national rules apply) and for procurements that fall under specific exception of these directives. By contrast, overcoming the “valley of death” in the innovation lifecycle requires targeted support at earlier stages, before market maturity, including pre-commercial procurement and innovation procurement outside the Public Procurement Directives, where legal certainty and cross-border consistency are currently limited. Addressing these upstream bottlenecks goes beyond the primary scope of a general revision of the Procurement Directives. The European Innovation Act therefore complements, rather than duplicates, the procurement framework by tackling demand-side and legal fragmentation issues that arise specifically in the pre-commercial and scaling phases of innovative solutions that fall outside of the Public Procurement Directive. With the increasing digitalisation of the EU economy, and difficulties of companies to sell solutions outside the EU due to the novel geo-political context, more companies want to participate to procurement in other EU Member States, both for procurement below the mentioned threshold and for procurement above but exempted from the PP directive (such as large precommercial procurement). For this reason, the EU court of justice emphasised that it becomes more important to ensure that the treaty principles are applied to every public procurement contract whether it is falling inside or outside the public procurement directive. Therefore, the EIA act focuses on innovation procurements which are not covered in the PP directive (those below the threshold and above but exempted). ”
GROW	DG GROW underline that the EIA should not include a innovation procurement spending target because the IA focuses on administrative and adjustment costs and fails to assess in either a quantitative or qualitative manner the costs of purchasing innovative solutions compared	RTD has included in chapter 6.1 more explanation on the requested qualitative discussion of economic costs coming from the innovation target. “The introduction of an innovation procurement spending target may also entail certain economic costs. Innovative solutions, by definition, involve higher technological and market uncertainty than established products, which may increase the risk of unsuccessful procurement procedures or performance shortfalls in individual projects. However, if the target is set at Member State level and does not impose obligations on individual contracting authorities (as it is under version A). It provides flexibility for Member States to determine how and where to scale up innovation procurement, allowing efforts to concentrate on buyers with sufficient capacity, experience and strategic interest. This reduces the likelihood that innovation procurement is undertaken by authorities lacking the necessary expertise and supports a gradual shift based on institutional readiness and long-term value considerations, thereby limiting systemic economic risk. Due to high uncertainty and the lack of appropriate data or empirical parameters on failure rates and

	to other available solutions	opportunity costs, these potential economic costs are assessed qualitatively rather than quantified..”
GROW	DG GROW believes that if public innovation procurement targets were to be mandatory (preferred option), this would result in significant additional reporting obligations	RTD clarifies that this is not the case as the Commission already monitor public innovation procurement and non-innovative procurement, hence no additional reporting obligations on Member States would apply. RTD has added in more explanation on this in chapter 5.2: “The measure would not require the introduction of new reporting obligations, as the Commission already monitors public innovation procurement spending across all Member States through a detailed analysis of all the call for tenders published on all national and EU (TED) procurement portals. In this monitoring AI driven text-scaping us deployed to collect the data from the procurement portals, while human experts determine which procurements are innovative vs non innovative. Importantly, to meet the target public buyers do not need to find new additional budget because innovation procurement implemented by making existing procurements more accessible to innovative companies. In other words, innovation procurement is financed by existing public procurement budget and savings generated from the use of innovative friendly procurement techniques that increase competition in the market. ”
GROW	GROW believes that measure 6 should be focussed on pre-commercial procurement	RTD clarifies that measure 6 is already focused on pre-commercial procurement, as its own name suggest: “Measure 6: Establish a procedure for pre-commercial procurement, including cross-border pre-commercial procurement and rules to promote techniques to procure innovative solutions” RTD has added more explanation about it in chapter 5.2: “By establishing a dedicated procedure for pre-commercial procurement, including cross-border pre-commercial procurement, the measure would clarify how public buyers can lawfully and effectively procure R&D services that fall outside of the EU public procurement directives and cooperate across borders, thereby reducing legal uncertainty and coordination barriers. Importantly, the measure would address only pre-commercial procurement, and not other forms of procurements of R&D services.” RTD has added more explanation about it in chapter 5.2: “In parallel, by setting out rules to promote the use of techniques that stimulate innovation throughout the procurement procedure, the measure would enable procurers to design more flexible and innovation-friendly procedures, lowering entry barriers for innovative and non-incumbent suppliers. Together, these elements would reduce fragmentation, facilitate joint cross-border procurement, and increase the use of procurement as a demand-side tool for innovation, thereby supporting the commercialisation and market uptake of innovative solutions across the Union. Importantly, the ongoing revision of the Public Procurement Directive can only introduce techniques that make procurement more innovation friendly for those public procurements that fall within these Directives. Therefore, such techniques have to be

		included also in the EIA for the procurement that fall outside the Public Procurement Directives. Similarly, private procurement practices in the EU tend to be more risk-averse and less innovation-oriented than in other major economies. This can slow the adoption of cutting-edge technologies, particularly in sectors operating critical infrastructure. As a result, parts of privately operated critical infrastructure may remain less technologically up-to-date, potentially weakening resilience against emerging physical and cyber threats. Therefore, such techniques are considered important for inclusion in the EIA also for private procurers that are critical entities. ”
GROW	DG GROW believes that the measure 7 (EU preference) must be focussed on pre-commercial procurement to avoid further overlaps and incoherence with European preference provisions in other legislative act	RTD clarify with additional explanatory text in chapter 5.2: “Importantly, the measure does not overlap with other existing of foreseen EU preference provision since sectoral acts of in the EU Public Procurements Directives, as those only focus on procurements that are covered by the EU public Procurement Directives. While the EIA focuses on procurements that are not covered by the EU Public Procurement Directives.”

5. EVIDENCE, SOURCES AND QUALITY

The impact assessment draws on a comprehensive evidence base assembled between July and December 2025, combining quantitative analysis, qualitative inputs, and extensive stakeholder feedback.

External independent consultant

An external contractor supported DG RTD (RTD.A.5, with inputs from RTD.G.2) with the desk research, the analysis of the open public consultation and targeted consultation results, the organisation of focus groups and additional stakeholder interviews, as well as the cost-benefit assessment of the different measure-versions.

Joint Research Centre

Two different units from the JRC supported DG RTD (RTD.A.5, with inputs from RTD.G.2) with the desk research, the analysis of the Call for Evidence and the macroeconomic modelling.

Specifically:

- JRC T5 produced the analysis for the EIA Call for Evidence
- JRC B7 produced the macroeconomic modelling and some of the desk research supporting the problem definition

Internal analytical work

DG RTD A.5 conducted its own assessment of the policy context, problem definition, scale of the problem, and intervention logic, drawing on academic and policy literature, international statistical databases (e.g. OECD, Eurostat, World Bank), previous Commission analyses, and the strategic priorities outlined in the Startup and Scaleup Strategy. The analysis was refined following an upstream meeting with the Regulatory Scrutiny Board on 15 October 2025.

Public consultation and Call for Evidence

A Call for Evidence and an Open Public Consultation (OPC) on the future European Innovation Act (EIA) were published on 8 July 2025 and closed on 3 October 2025. The OPC collected views from a broad set of stakeholders, including companies, business associations, research organisations, national authorities, and individual respondents. The analysis of the OPC formed a central input in identifying problem drivers, validating the relevance of potential measures, and informing the assessment of their likely impacts.

Targeted consultation

A targeted consultation (consisting of interviews and an online questionnaire) on the expected costs and benefits of the proposed measures-versions was conducted between October and November 2025. Three focus groups (24, 26, and 27 November 2025) complemented the results of the interviews and online survey.

ANNEX 2: STAKEHOLDER CONSULTATION (SYNOPSIS REPORT)

Results of the Open Public Consultation and its Synopsis Report have been published on the 4 December 2025, and can be consulted at the following link: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14593-European-Innovation-Act/public-consultation_en

As part of the stakeholder consultation activities supporting the preparation of the European Innovation Act (EIA) Impact Assessment, the following stakeholder engagement actions were carried out:

1. Startup and Scaleup Strategy - Call for Evidence

This Call for Evidence received a total of 586 responses from stakeholders and was open from 17 February 2025 to 17 March 2025.

2. European Innovation Act - Call for Evidence

The EIA Call for Evidence received 336 responses from stakeholders and was conducted from 8 July 2025 to 3 October 2025.

3. European Innovation Act - Public Consultation

The public consultation on the EIA received 202 responses from stakeholders and was open from 8 July 2025 to 3 October 2025.

4. European Innovation Act - Targeted Stakeholder Consultation, comprising:

- a. **Interviews:** 18 semi-structured interviews with selected stakeholders, conducted in October 2025.
- b. **Targeted online survey:** 55 responses collected from stakeholders between October and November 2025.
- c. **Focus groups:** 3 online focus groups conducted in November 2025, primarily aimed at validating the findings of the cost–benefit analysis.

Table A2-1 list the stakeholders' interviews as part of the targeted consultation.

Table A2-1. List of interviewed stakeholders in the targeted consultation

Stakeholder type	Stakeholder	Interview Date
Industry representatives	Orgalim (with participation of VDMA, Europe-wide association of the machinery and equipment manufacturing industry)	08/10/2025
SMEs representatives	SMEunited	02/10/2025
SMEs representatives	European Entrepreneurs CEA-PME (Confédération Européenne des Associations de Petites et Moyennes Entreprises)	07/10/2025
Startups representatives	European Startup Network	07/10/2025
Startups representatives	Europe Startup Nations Alliance	08/10/2025
Startups representatives	Allied for Startups	24/10/2025
Higher education, research and technology transfer representatives	European Strategy Forum on Research Infrastructures (ESFRI)	03/10/2025

Higher education, research and technology transfer representatives	Fraunhofer	06/10/2025
Higher education, research and technology transfer representatives	Dutch Organisation for Applied Scientific Research (TNO)	10/10/2025
Higher education, research and technology transfer representatives	Guild of European Research-Intensive Universities	07/10/2025
Financial sector representatives	European Banking Federation	20/10/2025
Financial sector representatives	Invest Europe	03/10/2025
Financial sector representatives	European Business Angels Network	10/10/2025
Standardisation sector representatives	CEN-CENELEC	06/10/2025
Procurement sector representatives	European Assistance for Innovation Procurement (EAFIP)	14/10/2025
Representatives of national and regional organisations	TAFTIE – European Network of Innovation Agencies	09/10/2025
Representatives of national and regional organisations	European Regions Research and Innovation Network (ERRIN)	07/10/2025
Intellectual Property Rights organisations	European Union Intellectual Property Office (EUIPO)	03/10/2025

Table A2-2 and figure A2-1 list the types of stakeholders that replied to the online survey of the targeted consultation. Details about the results are available in Annex 10.

Table A2-2. Types of stakeholders and topic covered in the Targeted Survey

Stakeholder type	Problem areas covered in the survey
Public authorities: National and regional public authorities in charge of support to innovation (policy level) and public procurement networks	Regulatory framework; Commercially scalable innovation; Access to talent; Innovation procurement; Access to research and technology infrastructure;
Innovation agencies, universities, RTOs: National innovation agencies (operational level), technology transfer organisations, universities, RTOs	Commercially scalable innovation; Innovation procurement; Access to research and technology infrastructure;
Business associations: National startup associations (including sectoral associations) and national business associations (incl. associations representing large businesses)	Regulatory framework; Commercially scalable innovation; Access to talent; Innovation procurement; Access to research and technology infrastructure;
Financial sector: National financial institutions and investors	Commercially scalable innovation

Figure A2-1. Number of respondents by stakeholder type of the targeted consultation online survey.

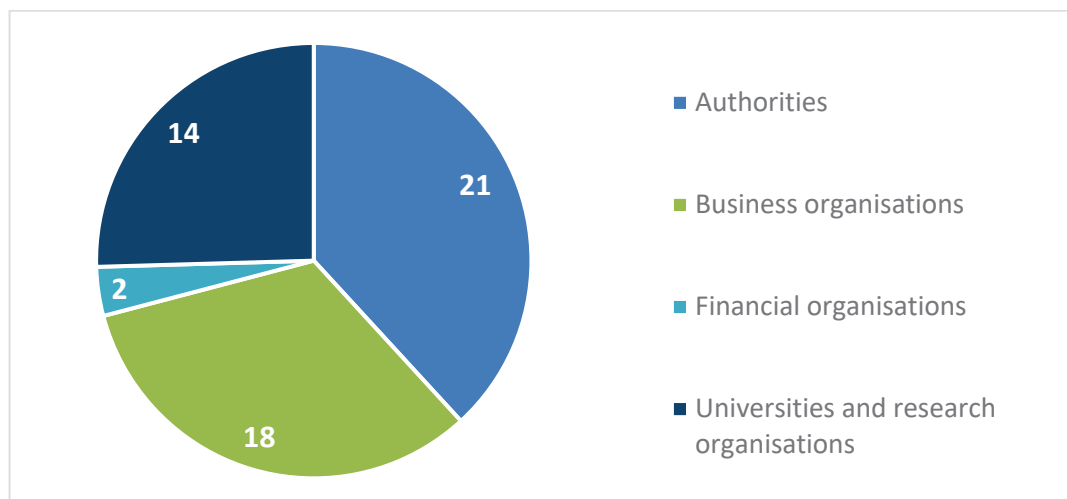


Table A2-3 to A2-5 shows the stakeholders that participated to the focus groups.

Table A2-3. Participants in Focus group 1 on Regulatory framework

	Type of stakeholder	Organisation
1	Industry	Orgalim
2	SMEs	SMEunited
3	Representatives of national and regional organisations	European Innovation Council Forum member
4	Representatives of national and regional organisations	European Regions Research and Innovation Network (ERRIN)

Table A2-4. Participants in Focus group 2 on Access to RTIs and Commercially scalable innovation

	Type of stakeholder	Organisation
1	Higher education, research and technology transfer organisations	European Strategy Forum on Research Infrastructures (ESFRI)
2	Higher education, research and technology transfer organisations	Guild of European Research-Intensive Universities
3	Higher education, research and technology transfer organisations	Association of European Science and Technology Professionals (ASTP)
4	Higher education, research and technology transfer organisations	Euroforum
5	Higher education, research and technology transfer organisations	LEAPS - League of European Accelerator-based Photon Sources
6	Higher education, research and technology transfer organisations	VTT
7	Standardisation sector	CEN-CENELEC
8	Other	European Union Intellectual Property Office (EUIPO)

Table A2-5. Participants in Focus group 3 on Innovation procurement

	Type of stakeholder	Organisation
1	Procurement sector	European Networks of National Competence Centers on Innovation Procurement (P2I – Procure2Innovate) – Representative from Germany
2	Procurement sector	European Networks of National Competence Centers on Innovation Procurement (P2I – Procure2Innovate) – Representative from Portugal
3	Procurement sector	European Networks of National Competence Centers on Innovation Procurement (P2I – Procure2Innovate) – Representative from Norway
4	Industry	Eurochambres
5	Representatives of national and regional organisations	Net Zero Cities
6	Representatives of national and regional organisations	Council of European Municipalities and Regions (CEMR)

Details on the results of the focus groups are mentioned in the Annex 4.

ANNEX 3: WHO IS AFFECTED AND HOW?

1. SUMMARY OF COSTS AND BENEFITS

BENEFITS

Compared to the baseline, the preferred policy option under the EIA is expected to generate strong economic benefits across the innovation ecosystem through improved IP valuation practices, harmonised R&D procurement practices. Table 27 presents the benefits estimated, the estimated effects include:

- Additional EUR 10.2 billion in IP-backed finance every year
- Additional EUR 25.92bn in firm profits every year

Detailed methodologies and assumptions are reported in Annex 4.

Table A3-1. Benefits in absolute terms for the EIA preferred policy options. These are also interpreted as compared to the baseline (all the benefits are incremental)

EIA preferred measure alternative	Public buyers	Businesses	EU society as a whole
Measure on IPR valuation - E	N.r.	• Efficiency gains: EUR 17,636,217 - 35,272,434 • IPR-backed raised finance: EUR 2,685,349,943 - EUR 10,160,783,567	<i>Increased commercialisation of innovative solutions: qualitative discussion</i>
Measure on R&D procurement techniques- B (Obligatory adoption)	• Efficiency gains: EUR 64,800,000 to EUR 1,166,400,000.	• Impact of R&D procurement on suppliers' profit : EUR 25,920,000,000	• Increased market competition, cross-border collaboration and innovation diffusion: qualitative discussion
Measure on R&D procurement EU preferences - B (obligatory with clauses)	N.r.	• EU open strategic autonomy and increased market access for EU companies: EUR 12,960,000,000 (P.S. This benefit is already included in the impact of R&D procurement on suppliers' profits generated by the measure above.) It reflects the share of these benefits that remains within the EU)	• EU technological sovereignty : qualitative discussion

COSTS

Compared to the baseline, the preferred policy option under the EIA strongly supports the European Commission simplification agenda, as it is expected to generate net administrative and adjustment cost savings of approximately EUR 1.1 billion already in the first year of implementation across all stakeholders. Net savings are expected to increase further in subsequent years as one-off adjustment costs are phased out.

Table 26 presents the estimated administrative and adjustment costs of the preferred policy option compared to the baseline, highlighting cost savings in green and cost increases in red.

Estimated annual administrative cost savings include:

- **EUR 35 million per year in cost savings for affected firms**, due to more harmonised approaches to IP valuation;
- **EUR 1.16 billion per year in cost saving for affected public buyers**, due to more harmonised approaches to R&D procurement and clearer frameworks cross-borders R&D procurement

These savings are partly offset by limited additional adjustment for public authorities, estimated at approximately EUR 2.5 million for EU public sector and 38 million for affected public buyers.

Table A3-2. Administrative and Adjustment costs compared to the baseline scenario for the EIA preferred policy options

EIA preferred measure alternative	EU public sector	MS public sector	Public buyers	Businesses
Measure on IPR valuation - E	• Adj costs: EUR 2,423,520 – 2,566,080 • Adm costs: EUR 712,670	N.r.	N.r.	• Adj costs: EUR 0 • Adm costs: from EUR -17,982,000 to -35,964,000
Measure on R&D procurement techniques- B (Obligatory adoption)	N.r.	N.r.	• Adj costs: EUR 26,128,000 • Adm costs: from EUR -64,800,000 to -1,166,400,000	• Adj costs: High increase • Adm costs: Low decrease
Measure on R&D procurement EU preferences - B (obligatory with clauses)	N.r.	N.r.	• Adj costs: EUR 19,596,000 • Adm costs: Medium increase	• Adj costs: Medium/High increase • Adm costs: Medium/High increase
EIA TOTAL first year (Adj + Adm)	3,278,750	N.r.	-1,120,676,000	-35,964,000
EIA TOTAL first year (Adj + Adm) All stakeholders	-1,153,361,250			

Note: Aggregate TOTAL estimates are calculated exclusively on the basis of quantified costs. Qualitative cost assessments (e.g. low/medium/high) are presented for information purposes only and are not summed.

2. RELEVANT SUSTAINABLE DEVELOPMENT GOALS

The EIA seeks to reinforce Europe's innovation ecosystems by promoting more consistent valuation of intellectual property rights and facilitating access to finance backed by IP assets. At the same time, it aims to make public procurement more supportive of innovation and to strengthen its role in developing European lead markets. Collectively, these measures are expected to drive economic growth, technological progress, and the diffusion of sustainable solutions, contributing primarily to SDG8 (Economic Growth) and SDG 9 (Industry, Innovation & Infrastructure), with secondary benefits for SDG 11 and SDG 12.¹¹⁹

The table below discusses the EIA expected impact on SDGs measure by measure.

AREA	MEASURE	VERSION	IMPACT ON SDGs
Commercialisation of R&I results	Measure 1: Promoting valuation of IP	E - Give EUIPO a mandate (in EIA) to develop an EU wide IP valuation framework, develop an EU wide marketplace that functions as secondary marketplace for inventors and investors to buy and sell IP, and mandate to act as an EU wide IP competence centre that provides advice, training and financial support to innovators for IP valuation	This measuresis expected to generate efficiency gains for businesses through reduced administrative costs and improved access to capital. The aggregate estimated efficiency gains amount to between EUR 17.6 and 35.3 million across the affected businesses and EUR 2.7 – EUR 10.6 billion of addition IP-backed finance.
Innovation procurement	Measure 2: Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement	B – Obligatory techniques for R&D procurement for public buyers	Introducing innovation-friendly approaches in pre-commercial procurement is expected to accelerate experimentation and reduce time-to-market, thereby strengthening the link between public demand and business innovation. According to the IA, the measure could reduce administrative costs for public buyers by around 60% compared with the baseline, generating estimated savings of between EUR 64.8 million and EUR 1.2 billion. In addition, the measure is expected to increase aggregate business profits by approximately EUR 25.9 billion. On top of that, by facilitating R&D procurement, innovation-friendly approaches are expected to strengthen market competition and innovation diffusion by increasing SME participation, supporting cross-border collaboration and fostering strategic partnerships between firms and public buyers. It also enhances the long-term innovation capacity of both procurers and suppliers, facilitating the uptake and commercialisation of innovative solutions and improving public service delivery over time. R&D procurement is not a free lunch. R&D procurement involves higher risk than

¹¹⁹ The reference is to the Better Regulation Tool (Tool#19).

			innovation procurement because it focuses on early-stage R&D, where outcomes are uncertain and solutions are not yet proven. Suppliers may therefore incur financial losses if projects fail to meet technical requirements or cannot be scaled. In the case of this Measure, this risk is already reflected in the profit-based impact estimates, which account for potential losses, so no additional risk adjustment is applied in the analysis.
Innovation procurement	Measure 3: Preference for EU-made solutions in R&D procurement for public buyers	B – Mandatory preferences for EU-made solutions for public buyers, with clauses	Prioritising EU-made solutions in R&D procurement is expected to increase procurement costs for public buyers while also supporting EU open strategic autonomy by strengthening domestic industrial capacity and reducing reliance on non-EU suppliers. The IA estimates adjustment costs of around EUR 19.6 million for public buyers, alongside a moderate increase in costs for businesses, while generating additional business profits of approximately EUR 12.9 billion. Evidence also suggests that, when applied at scale, mandatory domestic preferences in procurement may lead to macroeconomic costs. Under this measure, these are estimated at around EUR 464 million per year.

ANNEX 4: ANALYTICAL METHODS

Measure 1: Promoting valuation of IP

Table A4-1. Measure and alternatives

Measure	Alternatives
Measure 3: Promote valuation of IP.	• Version A: Give EUIPO a mandate (in EIA) to develop an EU wide IP valuation framework. • Version B: Give EUIPO a mandate (in EIA) to develop an EU wide marketplace that functions as secondary marketplace for inventors and investors to buy and sell IP. • Version C: Give EUIPO a mandate to act as an EU wide IP competence centre that provides advice, training and financial support to innovators for IP valuation • Version D: A + B • Version E: A + B + C

Costs

Costs are classified by type and by stakeholder in the table below.

Table A4- 2. Type of costs by stakeholder – Measure 1

Cost	Stakeholder	Type of assessment
Adjustment costs	EU public sector (EUIPO)	Mostly qualitative
Administrative costs	EU public sector (EUIPO)	Quantitative
Administrative costs	Businesses	Quantitative

Adjustment costs for the EU public sector (EUIPO)

Assessment approach. Adjustment costs refer to the changes the EU public sector, particularly the European Union Intellectual Property Office (EUIPO), must implement to develop a valuation methodology, an EU-wide marketplace, or guidance for assessing and disclosing IP assets that are not yet generating revenue. Based on EUIPO information, Alternative C entails the highest implementation costs, reflecting the requirements of a comparable competence centre. In contrast, Alternative A has the lowest costs, as it is confined to developing an IP valuation methodology. Alternative B sits between the two, involving a similarly complex IT development. Alternatives D and E are incremental, with costs rising as they combine and build on these components.

Available data, assumptions and data used (baseline). Under the baseline, these costs do not arise (see table below).

Available data, assumptions and data used (alternatives). Based on information from EUIPO, the assessment is grounded in estimated internal staff requirements. **Alternative A** draws on the Office's "IP valuation" action and is limited to developing a valuation methodology, requiring an estimated **3–4 full-time equivalents (FTEs) per year over two years**. **Alternative B** covers the development and operation of a secondary IP marketplace platform. In the absence of a dedicated EUIPO action, effort is approximated by reference to a similarly complex IT development, estimated at **4 FTEs per year over two years**. **Alternative C** involves establishing and running an IP competence centre, including training activities. Effort is benchmarked against a comparable centre proposed in the Commission's withdrawn COM(2023) 232 initiative.¹²⁰ Given the scope of support envisaged, covering IP exploitation, commercialisation and access to finance, it is estimated at **10 FTEs per year over two years**. **Alternatives D (A + B) and E (A + B + C) are incremental**, combining the elements outlined above. **Staff costs are monetised using an average hourly rate of EUR 40.5**, consistent with the approach applied to the other measures.

Administrative costs for EU public sector (EUIPO)

Assessment approach. the EU public sector may incur into administrative costs to operate EU IP valuation methodology. These costs can be monetised as follows: person-days per year of Commission officials dealing with the activity of operating the EU IPR valuation methodology multiplied by their average salary.

Available data, assumptions and data used (baseline). Under the current framework, EU-level support for IP management is already provided through services such as the European IP Helpdesk, managed by the European Innovation Council.¹²¹ The Helpdesk assists European SMEs and research teams engaged in cross-border business or EU-funded research to manage, disseminate and valorise their IP, covering activities from awareness-raising to strategic use and commercial exploitation. These services constitute ongoing EU-level support and capacity-building and are assumed to continue regardless of the measure. To estimate the additional effort required, it is assumed that implementation would involve a modest level of recurring expert input to maintain general guidance, respond to beneficiary queries, and update training materials. In the absence of detailed data on Commission staff time for such activities, a conservative assumption is applied: one person-day per month at AD10 level, three at AD6 level, and two at AST/SC3 level. This amounts to 72 person-days per year, or approximately 0.33 FTEs. For consistency with other measures, staff time is valued at an average hourly rate of EUR 40.5, **resulting in estimated annual staff costs of EUR 23,328**.

Available data, assumptions and data used (alternatives). Implementing an EU-wide IP valuation framework for assets that are not yet generating revenue would entail additional analytical and supervisory tasks at EU level, including regular methodological updates. To estimate the resulting increase in administrative effort, the assessment uses projected recurring FTE requirements based on information from the EUIPO. As with implementation costs, these estimates draw on comparable EUIPO actions and, where no direct equivalent exists, on initiatives of similar complexity at EU level. On this basis, the impact assessment concludes that Measure 3 would lead to a noticeable increase in administrative workload compared with the baseline level of support activities.

Alternative B requires a permanent administrative and technical capacity to run and maintain the secondary IP marketplace platform, estimated at around **2 FTEs per year** during the operational phase. This estimate is based on an approximation by EUIPO, drawing on a similarly complex IT development action. **Alternative C** entails the largest increase in ongoing administrative workload. The establishment and operation of an IP competence centre would require continuous analytical, coordination and training functions, estimated at around **8 FTEs per year**. This is based on an EUIPO approximation informed by a comparable competence centre proposed in the Commission's withdrawn COM(2023) 232 initiative. By contrast, **Alternative A is not expected to generate additional recurring administrative workload once the valuation methodology has been established**.

Table A4-3. Administrative and adjustment costs for EU public sector

Baseline (continuation of current scenario)	Alternative A - Give EUIPO a mandate (in EIA) to develop an EU	Alternative B Give EUIPO a mandate (in EIA) to develop an EU wide marketplace	Alternative C - Give EUIPO a mandate to act as an EU wide IP competence	Alternative D (A + B)	Alternative E (A + B + C)
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¹²⁰ https://single-market-economy.ec.europa.eu/publications/com2023232-proposal-regulation-standard-essential-patents_en

¹²¹ https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk_en

	wide IP valuation framework	that functions as secondary marketplace for inventors and investors to buy and sell IP	centre that provides advice, training and financial support to innovators for IP valuation		
● Adjustment costs: No costs	● Adjustment costs: 3–4 FTEs per year over 2 years (1,320–1,760 person-days in total) × EUR 324 = EUR 427,680 – EUR 570,240	● Adjustment costs: 4 FTEs per year over 2 years (1,760 person-days in total) × EUR 324 = EUR 570,240	● Adjustment costs: 10 FTEs per year over 2 years (4,400 person-days in total) × EUR 324 = EUR 1,425,600	● Adjustment costs: Combination of A and B. It is conservatively assumed that it is the sum of A + B, which results in the range of EUR 997,920–1,140,480 The approach is conservative because the total cost under this alternative is likely to be some lower than the simple sum because of some overlapping activity,	● Adjustment costs: Combination of A, B and C. Following the conservative approach discussed under Alternative D, the simple sum of costs under A, B, and C leads to a range of EUR 2,423,520–2,566,080
● Administrative costs: 6 person-days per month × 12 months × EUR 324 = EUR 23,330 per year (72 person-days/year: 0.33 FTE/year)	● Administrative costs: No material increase once the methodology is established (broadly in line with the baseline level above) = EUR 23,330 per year	● Administrative costs: 2 FTE/year (440 person-days per year) × EUR 324 = EUR 142,560 per year	● Administrative costs: 8 FTE/year (1,760 person-days per year) × EUR 324 = EUR 570,240 per year	● Administrative costs. Following the same logic as used for the adjustment costs, the sum of A and B would imply around 2.33 FTE/year (2 FTE + 0.33 FTE), corresponding to approximately EUR 165,890 per year.	● Administrative costs: Sum of A, B and C leads to around 10.33 FTE/year , corresponding to approximately EUR 736,000 per year.

Administrative costs for innovative companies

This measure aims to support market operators, such as innovative companies, in disclosing the value of their IPR, streamlining disclosure procedures, and facilitating access to capital through IP-backed finance. It enables IP-rich firms to assess the value of their assets, supports the development of a secondary market for IP disposal in cases of default, and provides guidance on IP-backed finance through a dedicated competence centre. The costs borne by businesses can be estimated by considering the effort they would incur in the absence of the measure.

In line with the methodology applied in this impact assessment, potential costs are estimated in three steps: (i) quantifying the time (in hours) that innovative companies would need to perform the relevant activities in the absence of the measure; (ii) converting this time into monetary terms; and (iii) estimating the number of companies affected. These inputs are then used to calculate administrative costs for each Measure's

Alternative, in accordance with the Standard Cost Model set out in the Better Regulation Toolbox (Tool #58), as reflected in the formula below. The frequency is implicitly intended per year; therefore, the following costs should be interpreted as annual costs.

$$\text{Cost} = (\text{Hours worked} * \text{salary rate}) * \text{number of companies affected}$$

The total number of the innovative companies per year to be considered for the estimation costs (and benefits, see below) associated to this measure is 14,515, with the following breakdown:

- 1,036 startups, corresponding to 3% of the number of startups in the EU27;
- 10,398 SMEs, corresponding to 3% of the number of innovative SMEs in the EU27
- 3,081 large enterprises, corresponding to 14% of the number of innovative large enterprises in the EU27.

The box below explains in detail how the number of innovative companies affected by Measure is calculated.

Box A4-1. Calculation of the number of innovative companies affected

The number of businesses affected is estimated using two main inputs:

- The number of innovative companies in EU27. The total number adopted in this study is 373,722, of which 94% SMEs (n = 350,075) and 6% large enterprises (n = 23,646).¹²²
- The number of startups in the EU27. The total number adopted in this study is 35,000 startups, with a possible range between 27,000 and 41,000 (see below). The average number of 35,000 is used as reference for this measure.
- The number of firms that register IP rights: 10% of EU SMEs; 60% of large firms in EU.¹²³
- The number of startup that that register IP rights is assumed to be 10%, namely the same as innovative SMEs.

As a result, relevant number of enterprises in the EU with an IPR is 52,084 per year, of which 3,500 startups, 35,130 SMEs, and 13,454 large enterprises.

However, this number represents the total number of companies with national, European or both of them. In order to take in to account the EUIPO capacity (e.g. with the training) and the fact that this Measure operates at the European level, it assumed that only the share of firms with an European registered patent are affected by the Measure.

According to EUIPO (2025), the proportion of SMEs holding a European patent (among those having patents) is 29.6%, while the corresponding proportion for large enterprises is 22.9%.¹²⁴ Applying these proportions to the population of innovative firms with registered patents yields an estimated total number of 14,515 affected firms, of which

- 1,036 startups (it is assumed that the share of startups with European-level patents is 22.9% as the share of SMEs;
- 10,398 SMEs;
- 3,081 large enterprises.

¹²² Eurostat (2024). 2022 Community Innovation Survey (CIS2022) inn_cis13. The CIS does not report enterprises with less than 10 employees; therefore, this number is underestimated.

¹²³ European Union Intellectual Property Office (2022). 2022 *Intellectual Property SME Scoreboard*; European Union Intellectual Property Office and European Patent Office (2021). *Intellectual property rights and firm performance in the European Union: Firm-level analysis report. Executive summary*.

¹²⁴ EUIPO (2025, Table 5). [Intellectual property rights and firm performance in the European Union. Firm-level analysis report, January 2025](#). The report classifies firms into three categories: (i) those holding patents only at the European level, (ii) those holding patents only at the national level, and (iii) those holding both European and national patents. The shares reported in the main text refer exclusively to firms in the first category. However, firms holding both European and national patents could also be included in the calculation of benefits. Due to the lack of access to the underlying raw data, it is not possible to isolate and account for the number of firms in this category

This estimate should be interpreted as an upper-bound, since not all of these firms would choose to undertake a valuation or to disclose the value of their not-yet-revenue-generating IP. On top of that, it is likely that primarily startups and SME would benefit from this measure, as large enterprises generally possess internal capacity and resources to assess the value of their intellectual property.

Estimation for the Baseline scenario. Existing studies on internal SMEs' administrative processes to deals with a ranges of activities (tax reporting, HR administration, licensing, compliance) is about 180 hours per year.¹²⁵ Applying a conservative estimate, it is assumed that IP-related documentation represents approximately 20–40% of total administrative time for IP-rich companies resulting in a range of about **40– 80 hours per year**, with large firms likely to be closer to the upper bound due to larger portfolios and more complex internal coordination.¹²⁶ This reflects occasional activities such as keeping an inventory of registered rights, drafting short descriptions of inventions or software, and informal interactions between technical and legal teams. **This workload is valued at an average hourly rate of EUR 40.5**

Available data, assumptions and data used (alternatives). No public data are available on the precise administrative costs that firms would incur when valuing and disclosing IP under an EU framework. To approximate the impact of the different policy alternatives, qualitative evidence from the European IP Helpdesk valuation factsheet is used as a proxy for the level of effort required in a structured valuation process.¹²⁷ This evidence indicates that robust IP valuation typically involves a multidisciplinary team, including technical, financial, legal and strategic expertise, and relies on established methods such as discounted cash flow analysis, royalty benchmarking and replacement cost approaches. These methods require financial modelling, access to comparative market data and strategic assessment, making the process complex, resource-intensive and usually dependent on specialist input.¹²⁸

- **Under Alternative A**, firms' administrative effort is assumed to **fall by around 20% compared with the baseline**.
- **Under Alternative B**, disclosure is linked to buying and selling decisions, which would normally require dedicated expertise in the absence of the measure. The introduction of an EU-wide matchmaking marketplace is therefore assumed to **reduce administrative effort by around 30% relative to the baseline**.
- **Under Alternative C**, firms would rely on advisory and training services to value their IPR. For simplicity, this is assumed to result in a similar level of **cost reduction as under Alternative B**.
- **Alternative D combines A and B** and is assumed to **reduce firms' administrative workload by around 50% compared with the baseline**.
- **Under Alternative E**, the reduction is estimated at **approximately 75%**.

Based on the upper-bound estimates, administrative costs amount to approximately EUR 3,200 per firm in the baseline scenario and EUR 800 per firm under Alternative E. The table below presents the total estimated costs, calculated by multiplying the per-firm cost by the number of affected firms, taking into account the number of start-ups, SMEs and large enterprises impacted by this measure, as set out above.

Table A4-4. Administrative costs for innovative companies, per year

	Baseline (continuation of current scenario)	Alternative A - Give EUIPO a mandate (in EIA) to develop an	Alternative B Give EUIPO a mandate (in EIA) to develop an	Alternative C - Give EUIPO a mandate to act as an EU wide IP	Alternative D (A + B)	Alternative E (A + B+ C)
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¹²⁵ [KfW \(2025\)](#). The study mentions 15 hours per months corresponding to 180 hours per year.

¹²⁶ Although the perceived cost of registering IP is perceived particularly high for SMEs (see [European Union Intellectual Property Office. 2022 Intellectual Property SME Scoreboard](#)), the baseline for this measure focuses on the ongoing internal documentation of already registered, not-yet-revenue-generating IP, for which large firms are assumed to incur higher absolute time costs than SMEs due to larger portfolios and more complex internal coordination.

¹²⁷ European IP Helpdesk (2023). *Intellectual Property Valuation: Fact Sheet*. April 2023.

¹²⁸ European Union Intellectual Property Office (2022). *Intellectual Property SME Scoreboard*.

		EU wide IP valuation framework	EU wide marketplace that functions as secondary marketplace for inventors and investors to buy and sell IP.	competence centre that provides advice, training and financial support to innovators for IP valuation		
Effort per year (hours)	40 – 80h	30 – 60h (-20%)	28-56h (-30%)	28-56h (-30%)	20-40h (50%)	10-20h (-75%)
Administrative costs for Startups	EUR 1.6 – 3.3 million (= (40– 80h) × 40.5 x 1,036)	EUR 1.2 – 2.5 million (= (30h– 60h) × 40.5 x 1,036)	EUR 1.2 – 2.3 million (= (28h– 56h) × 40.5 x 1,036)	EUR 1.2 – 2.3 million (= (28h– 56h) × 40.5 x 1,036)	EUR 0.8– 1.6 million (= (20h– 40h) × 40.5 x 1,036)	EUR 0.4 – 0.8 million (= (10h– 20h) × 40.5 x 1,036)
Administrative costs for SMEs	EUR 17 – 34 million (= (40– 80h) × 40.5 x 10,398)	EUR 12.7 – 25.3 million (= (30– 60h) × 40.5 x 10,398)	EUR 12 – 23.5 million (= (28– 56h) × 40.5 x 10,500)	EUR 12 – 23.5 million (= (28– 56h) × 40.5 x 10,398)	EUR 8.4 – 17 million (= (20– 40h) × 40.5 x 10,398)	EUR 4.2 – 8.5 million (= (10 – 20h) × 40.5 x 10,398)
Administrative costs for large enterprises	EUR 5.0 – 10 million (= (40– 80h) × 40.5 x 3,081)	EUR 3.7 – 7.5 million (= (30– 60h) × 40.5 x 3,081)	EUR 3.4– 7 million (= (28– 56h) × 40.5 x 3,081)	EUR 3.4– 7 million (= (28– 56h) × 40.5 x 3,081)	EUR 2.5 – 5million (= (20– 40h) × 40.5 x 3,081)	EUR 1.2 – 2.5 million (= (10 – 20h) × 40.5 x 3,081)
TOTAL (all companies)	● EUR 23.5– 47million	● EUR 18 – 35 million	● EUR 16.5– 33 million	● EUR 16.5– 33 million	● EUR 12 – 23.5 million	● EUR 6 – 12 million

Summary of costs

TableA4- 5. Summary of costs in absolute terms – Measure1

Costs - EUR	EU public sector	Business
Baseline		
<i>Administrative costs (annual)</i>	EUR 23,330	EUR 23,514,956 - 47,029,913
<i>Adjustment costs (one-off)</i>	EUR 0	0
Alternative A		
<i>Administrative costs (annual)</i>	EUR 23,330	EUR 17,636,217 - 35,272,434

<i>Adjustment costs (one-off)</i>	<i>EUR 427,680 – EUR 570,240</i>	<i>0</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>EUR 142,560</i>	<i>EUR 16,460,469 - 32,920,939</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 570,240</i>	<i>0</i>
Alternative C		
<i>Administrative costs (annual)</i>	<i>EUR 570,240</i>	<i>EUR 16,460,469 - 32,920,939</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 1,425,600</i>	<i>0</i>
Alternative D		
<i>Administrative costs (annual)</i>	<i>EUR 165,890</i>	<i>EUR 11,757,478 - 23,514,956</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 997,920–1,140,480</i>	<i>0</i>
Alternative E		
<i>Administrative costs (annual)</i>	<i>EUR 736,000</i>	<i>EUR 5,878,739 - 11,757,478</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 2,423,520–2,566,080</i>	<i>0</i>

Table A4-6. Summary of costs compared to baseline – Measure 1

Costs - EUR	EU public sector	Business
Alternative A		
<i>Administrative costs (annual)</i>	<i>EUR 0</i>	<i>from EUR - 5,878,739 to - 11,757,478</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 427,680 – EUR 570,240</i>	<i>EUR 0</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>EUR 119,230</i>	<i>from EUR - 7,054,487 to - 14,108,974</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 570,240</i>	<i>EUR 0</i>
Alternative C		
<i>Administrative costs (annual)</i>	<i>EUR 546,910</i>	<i>from EUR - 7,054,487 to - 14,108,974</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 1,425,600</i>	<i>EUR 0</i>
Alternative D		
<i>Administrative costs (annual)</i>	<i>EUR 142,560</i>	<i>from EUR -11,757,478 to - 23,514,956</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 997,920–1,140,480</i>	<i>EUR 0</i>
Alternative E		
<i>Administrative costs (annual)</i>	<i>EUR 712,670</i>	<i>from EUR -17,636,217 to - 35,272,434</i>

<i>Adjustment costs (one-off)</i>	<i>EUR 2,423,520–2,566,080</i>	<i>EUR 0</i>
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Benefits

The following table summarises the benefits for different stakeholders resulting from the measure alternatives under analysis.

Table A4-7. Main benefits by stakeholder – Measure 1

Stakeholder affected	Benefit	Type of Benefit	Source of evidence	Type of assessment
Business	Efficiency gains (administrative costs reduction)	Economic	• Cost analysis¹²⁹ • Public consultation (see factual summary report) • Interviews	Quantitative
Business	IP-backed raised finance	Economic	• Documentary review • Interviews	Quantitative

Efficiency gains (costs reduction for Innovative companies)¹³⁰

The efficiency gains generated by this complex measure, where the three components mutually complement each other, **can proxied by considering the costs that companies can avoid because of its implementation**, not to mention the capital that they can raise because of its implementation.

Following the reasoning set out in the chapter on administrative costs, the table below presents the reduction in workload under the different alternatives, calculated by subtracting the respective costs from the baseline scenario. The total costs avoided by firms if the measure were implemented are estimated at EUR 14–28 million under Alternative A, EUR 17–56 million under Alternative B, and up to EUR 42–85 million under Alternative E. For an individual firm, this would translate into savings of up to more than EUR 2,000 under Alternative E compared with the baseline.

It is important to emphasise that the most important benefit for companies is their increased potential to raise capital for their businesses, which is not considered here because it is a secondary expected effect difficult to estimated. IP valuation helps companies show the value of their IP assets to financial institutions and investors, increasing their chance to get funding. A secondary market creates a reassurance for financial institutions that the IP asset can be offered for sale or license on an EU-wide platform and the competence

¹²⁹ The documentary review also supports a cost reduction for enterprises generated by the regulatory sandboxes. It shows that regulatory sandboxes function as structured environments that lower regulatory uncertainty, facilitate experimentation, and accelerate market deployment of innovative technologies by reducing the time and cost. See, among others: Financial Conduct Authority (FCA) (2017) Regulatory sandbox lessons learned report. <https://www.fca.org.uk/publications/research/regulatory-sandbox-lessons-learned-report>
Reuters (2025): initiative by the UK FCA (with NVIDIA as partner) UK FCA partners with NVIDIA on an AI “supercharged” regulatory sandbox. <https://www.sciencedirect.com/science/article/pii/S2199853122004383>
Goo, J. J., & Heo, J. Y. (2020). The impact of the regulatory sandbox on the fintech industry, with a discussion on the relation between regulatory sandboxes and open innovation <https://www.sciencedirect.com/science/article/pii/S2199853122004383>

¹³⁰ The source of this chapter is the section of the administrative costs.

centre improves the approach of the financial community to IP-backed lending, which would result in more investments or loans for IP-rich but tangible poor companies.

Table A4-8. Efficiency gains (administrative cost reduction) for innovative companies, per year

	Baseline (continuation of current scenario)	Alternative A - Give EUIPO a mandate (in EIA) to develop an EU wide IP valuation framework	Alternative B - Give EUIPO a mandate (in EIA) to develop an EU wide marketplace that functions as secondary marketplace for inventors and investors to buy and sell IP.	Alternative C - Give EUIPO a mandate to act as an EU wide IP competence centre that provides advice, training and financial support to innovators for IP valuation	Alternative D (A + B)	Alternative E (A + B + C)
Efficiency gains for startups	Aggregate cost reduction: EUR 0 (Efficiency gains: 0%)	Aggregate cost reduction: EUR 419,580 – 839,160 (Efficiency gains: 20%)	Aggregate cost reduction: EUR 503,496 – 1,006,992 (Efficiency gains: 30%)	Aggregate cost reduction: EUR 503,496 – 1,006,992 (Efficiency gains: 30%)	Aggregate cost reduction: EUR 839,160 – 1,678,320 (Efficiency gains: 50%)	Aggregate cost reduction: EUR 1,258,740 – 2,517,480 (Efficiency gains: 75%)
Efficiency gains for SMEs	Aggregate cost reduction: EUR 0 (Efficiency gains: 0%)	Aggregate cost reduction: EUR 4,211,369 – 8,422,737 (Efficiency gains: 20%)	Aggregate cost reduction: EUR 5,053,642 – 10,107,285 (Efficiency gains: 30%)	Aggregate cost reduction: EUR 5,053,642 – 10,107,285 (Efficiency gains: 30%)	Aggregate cost reduction: EUR 8,422,737 – 16,845,474 (Efficiency gains: 50%)	Aggregate cost reduction: EUR 12,634,106 – 25,268,211 (Efficiency gains: 75%)
Efficiency gains for large enterprises	Aggregate cost reduction: EUR 0	Aggregate cost reduction: EUR 1 1,247,790 – 2,495,581 (Efficiency gains: 20%)	Aggregate cost reduction: EUR 1,497,349 – 2,994,697 (Efficiency gains: 30%)	Aggregate cost reduction: EUR 1,497,349 – 2,994,697 (Efficiency gains: 30%)	Aggregate cost reduction: EUR 2,495,581 – 4,991,162 (Efficiency gains: 50%)	Aggregate cost reduction: EUR 3,743,371 – 7,486,743 (Efficiency gains: 75%)
Total (all companies)	● EUR 0	● EUR 5,878,739	● EUR 7,054,487 – 14,108,974	● EUR 7,054,487 – 14,108,974	● EUR 11,757,478	● EUR 17,636,217

		-			-	-
		11,757,478			23,514,956	35,272,434

IP backed-finance

This measure establishes a standardised EU-wide IP valuation framework, a secondary IP marketplace, and an IP competence centre providing advisory and training services. The literature from Europe, the United States and China provide strong evidence that facilitating IP valuation can significantly enhance firms' innovation performance, including improved access to IP-backed finance, namely both debt finance from the traditional banking channel and from venture capital market.

To estimate the expected increase of the IP-backed finance whether additional debt or VC, the following inputs are necessary:

- **The current number of innovative companies affected by the Measure.** As discussed in the cost section, the number of firms is 14,800, of which, 1,000 startups, 10,500 SMEs and 3,300 large enterprises.
- **The incremental likelihood of accessing debt or VC finance through patent pledging.** The literature shows an incremental likelihood of 18.5% of obtaining IP-backed loans through patent pledging,¹³¹ while EUIPO (2023),¹³² EU-level filings are associated with a 5–6 times higher likelihood of early-stage funding compared to 2.8 times for those that only filed for a national patent. This suggests that EU-level filings increase the probability of VC funding by approximately twice as much (i.e. around 100%) as national filings by SMEs, including startups. For this impact assessment it is reasonable to assume that this probability is likely to lie between the lower bound of 18.5% and the upper bound of 50%, considering that the 100% indicated by EUIPO mainly refers to SMEs and startups, while the impact may be diluted for large enterprises.
- **The average amount of capital raised.** Evidence from Europe indicates that firms using patents as collateral can typically borrow between EUR 1.0 and 1.4 million per firm, compared with peers that do not.¹³³ In the absence of comparable evidence for venture capital, the same range is assumed for funds raised in the VC market.+

On that basis, the increase in the amount of IP-backed finance per year that can be attributed to the measure under assessment is calculated according to the following formula:

$$\begin{aligned} \text{IP – backed finance (upper bound)} &= 14,515 * (\text{EUR } 1.4 \text{ million} * 50\%) \\ &= \text{EUR } 10,160,783,567 \end{aligned}$$

$$\begin{aligned} \text{IP – backed finance (lower bound)} &= 14,515 * (\text{EUR } 1.0 \text{ million} * 18.5\%) \\ &= \text{EUR } 2,685,349,943 \end{aligned}$$

The total benefit results into an amount of EU 2.7 – 10.2 billion per year, distributed as follows

- EUR 0.2 – 0.7 billion raised by startups;
- EUR 1.9 – 7.3 billion raised by SMEs

¹³¹ See Dai, Y., Gao, H., Li, N., & Si, Y. (2025). Patent Collateralization and Entrepreneurship. Available at SSRN 5349951.

¹³² EUIPO (2023, p. 12). Patents, Trademarks and Startup Finance. Report, 17.10.2023. Last access in March 2026.

¹³³ This corresponds to approximately 20 - 26% additional debt. This is from Bracht, F., & Czarnitzki, D. (2022). Patent collateral and access to debt. ZEW-Centre for European Economic Research Discussion Paper, (22-033).

- EUR 0.6– 2.2 billion raised by large enterprises

It should be noted that this benefit can be attributed to all measure alternatives. As the alternatives build on one another, any attempt to apportion the benefits between them would be speculative and is therefore not undertaken.

Box A4- 2. Literature on the impact of IP valuation frameworks on IP-banked finance.

Credible IP valuation systems and strong institutional support are associated with higher levels of innovation output. The economic and innovation literature, particularly drawing on real options theory and signalling theory, suggests that standardised and reliable IP valuation frameworks can alter firms' strategic behaviour (see below). When firms are able to assess and communicate the economic value of their IP assets more clearly, patenting decisions tend to shift from purely defensive filings towards the strategic accumulation of IP assets that can support IP-backed financing. This process can generate a **virtuous cycle between financing and patenting**, whereby stronger IP portfolios facilitate access to external finance, which in turn supports further innovation activity. This dynamic concerns not only the quantity of patent filings, but also their quality. When firms can estimate the expected return on investment of a patent more accurately, they may choose to concentrate on innovations with greater technological or commercial potential.

First, via the real options effect (investment reversibility). A major barrier to patenting is the sunk costs of filing, legal, and maintenance. A clear evaluation system and a secondary marketplace make these investments reversible. Specifically, if there is a secondary IP marketplace, a **patent** isn't just a legal document or a signal of innovative capacity; it's a **tradable asset**. **The result is that firms are encouraged to file patents** not just to block competitors, but to increase the book value of the company for mergers, acquisitions, or licensing deals.

- **Evidence from Europe.** EPO- EUIPO (2019) has shown that SMEs that file for European-level IPRs are significantly more likely to achieve "High-Growth Firm" (HGF) status act as a catalyst for increased registration activity among growth-oriented firms.¹³⁴
- **Evidence from the USA.** A 2025 study from the USA (which claims to be the first one to demonstrate that secondary IPR market exposure creates a real option for innovative firms), shows that secondary markets for patents allows firms to "store value" in patents. For firms in high-tech sectors, this market exposure can reverse the negative impact of economic uncertainty, leading to increased patent filings even when the economy is volatile.¹³⁵ On top of that, a secondary market allows firms to patent inventions they might otherwise have kept as trade secrets, as it provides a path to monetise R&D.¹³⁶
- **Evidence from China.** The implementation of IP valuation methods signals managers to increase risk preference for long-term innovation, resulting in a higher volume of innovation output and registrations.¹³⁷

Secondly, via the investment readiness channel. IPR assets are notoriously difficult to use as collateral. If a bank or a venture capital (VC) fund can't put a reliable price tag on a patent, they won't lend against it. While the mechanism is the same and aim to reduce information asymmetry, the way it applies to VC and bank loan is different. For a bank loan, a patent is a protection against default, and it is used as collateral. For a VC, a patent signals potential future gains. In both cases, standardised and credible IP valuation systems allow firms, especially SMEs to **secure IP-backed financing**.¹³⁸ Moreover, when a firm knows

¹³⁴ EPO-EUIPO (2019). "High-growth firms and intellectual property rights: IPR profile of high-potential SMEs in Europe." <https://www.euipo.europa.eu/en/publications/high-growth-firms-and-intellectual-property-rights-ipr-profile-of-high-potential-smes-in-europe>

¹³⁵ Park, W., Torres, G., Toole, A. A., & Hughes, R. (2025). "Real Options in Patenting: Uncertainty and Secondary Patent Markets." USPTO Economic Working Paper No. 2025-2. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5143769 This paper is the first to demonstrate that secondary patent market exposure creates a real option for innovative firms, by allowing for the reversibility of intangible property investments through resale

¹³⁶ Akcigit, U., Celik, M. A., & Greenwood, J. (2016). Buy, keep, or sell: Economic growth and the market for ideas. *Econometrica*, 84(3), 943-984. <https://onlinelibrary.wiley.com/doi/abs/10.3982/ECTA12144>

¹³⁷ Li, W., & Li, B. (2023). Intellectual Property Pledge Financing and Enterprise Innovation: Based on the Perspective of Signal Incentive. *Sustainability*, 15(13), 10448. <https://www.mdpi.com/2071-1050/15/13/10448>

¹³⁸ Hottenrott, H., Hall, B. H., & Czarnitzki, D. (2016). Patents as quality signals? The implications for financing constraints on R&D. *Economics of innovation and new technology*, 25(3), 197-217. <https://www.tandfonline.com/doi/abs/10.1080/10438599.2015.1076200>

that a patent will directly lead to a loan or a higher VC valuation, the (marginal) benefit of filing an additional patent increase, leading to a higher volume of filings and innovation-related activities.

- **Evidence from Europe.** EUIPO (2023) reports that startups filing patents and trademarks at the seed or early growth stage are significantly more likely to secure venture capital, with **EU-level filings associated with a 5–6 times higher likelihood of early-stage funding** compared with national filings. Startups that file both patents and trademarks show the highest probability of obtaining financing, highlighting the role of IP as a signal of quality to investors.¹³⁹ A 2026 update of the EUIPO study finds that **IP-intensive industries attract the lion share of private equity and VC.**¹⁴⁰ Complementing this, Bracht and Czarnitzki (2022)¹⁴¹ use mandatory collateral registry data from Sweden and the Netherlands to demonstrate that pledging patents as collateral substantially enhances access to debt finance. Firms are able to borrow approximately **21% more in Sweden and 26% more in the Netherlands**, corresponding to an average increase of **EUR 1.2–1.4 million per firm**. The study distinguishes between the collateral and signalling functions of patents, finding that in the Netherlands, the collateral effect dominates, whereas in Sweden, signalling appears more influential. Extrapolations suggest that if all firms fully utilised their patent portfolios as collateral, they could unlock over **EUR 13 billion in Sweden and EUR 5 billion in the Netherlands**, indicating substantial untapped potential. To further support this, even if quite different from the Measure 3 in the EIA, Gill and Heller (2024) show that the 2004 EU Enforcement Directive, which strengthened patent protection across member states, enhanced firms' debt capacity. Patent-owning firms increased their leverage by **2.5 percentage points (around 20% relative to the sample mean)**, reduced borrowing costs by **30 basis points**, and predominantly used long-term debt.
- **Evidence from the USA.** Farre-Mensa et al., (2020) provides causal evidence on the economic value of patents for young and small startups. They show that receiving the first patent significantly improves startup outcomes. **The probability of obtaining VC increases by 47% within three years, employment growth increases by 36%, and sales grow by about 80%.** The effect is particularly strong for first-time entrepreneurs and firms outside major technology hubs such as Silicon Valley.¹⁴² Similarly, Mann (2018)¹⁴³ shows that patents play an important role as collateral in facilitating debt financing for innovation. **Treated firms experienced a 4% increase in leverage relative to a pre-event debt-to-asset ratio or roughly USD 25 million in additional borrowing for the average firm.** This increased credit translates directly into innovation spending: **R&D expenditure rises by 6.3 relative to the average R&D-to-asset ratio.** Importantly, the effect is specific to innovation investment, as the study finds no significant increase in capital expenditures, indicating that debt enabled by patent collateral primarily finances research activity rather than general physical investment.
- **Evidence from China.** Dai et al. (2025)¹⁴⁴ examine the effects of the staggered introduction of policies facilitating the use of patents as collateral for bank loans on firms' innovation strategies. The authors show that **enhancing the pledgeability of patents has two consequent effects: firstly, it raises the likelihood of obtaining IP-backed loans by around 18.5%, and secondly it further increases the firms' propensity to patent, with a 16.6% rise in patent applications and a 15.4% increase in forward citations**, indicating improvements in both the quantity and technological significance of patents and suggesting a strategic shift from trade secrecy to patenting in order to generate pledgeable intellectual property assets. Weixiu Li and Bo Li (2023)¹⁴⁵ find that such policies increase by approximate **0.17% the patent output** for treated firms relative to the control group. Additional analyses using **invention patents** as the dependent variable confirm that the policy also supports higher-quality innovation.

¹³⁹ EUIPO (2023, p. 12). *Patents, Trademarks and Startup Finance. Report*, 17.10.2023. Last access in March 2026.

¹⁴⁰ Approximately 88% of all funding in 2021-23. See EUIPO (2026). *IP and Innovation in European Sectors. Industry-level analysis report*. January 2026. Last access in March 2026.

¹⁴¹ Bracht, F., & Czarnitzki, D. (2022). *Patent collateral and access to debt*. ZEW-Centre for European Economic Research Discussion Paper, (22-033).

¹⁴² Farre-Mensa, J., Hegde, D., & Ljungqvist, A. (2020). What is a patent worth? Evidence from the US patent "lottery". *The Journal of Finance*, 75(2), 639-682.

¹⁴³ Mann, W. (2018). *Creditor rights and innovation: Evidence from patent collateral*. *Journal of Financial Economics*, 130(1), 25-47.

¹⁴⁴ Dai, Y., Gao, H., Li, N., & Si, Y. (2025). *Patent Collateralization and Entrepreneurship*. Available at SSRN 5349951.

¹⁴⁵ Li, W., & Li, B. (2023). *Intellectual Property Pledge Financing and Enterprise Innovation: Based on the Perspective of Signal Incentive*. *Sustainability*, 15(13), 10448.

Measure 2: Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement

Measure 2 aims to support the uptake of R&D procurement for public buyer.¹⁴⁶ In 2022, **the total amount of the total amount of R&D procurement by public buyers in the classical, utilities and defence sectors in the EU27 amounted to EUR 17.28 billion**, corresponding to 0,61% of the total amount of public procurement, and 6,1% of the innovation procurement across the above three sectors.¹⁴⁷

To increase R&D procurement, outside the PP directives and upcoming PPA,¹⁴⁸ Measure 2 aims to reduce barriers, including legal uncertainty, by promoting proven techniques and removing joint cross-border pre-commercial procurement obstacles¹⁴⁹. Proven techniques (see box below) to boost innovation-minded and start-up friendly innovation procurement include¹⁵⁰:

- prioritising the award of procurement contracts based on value for money instead of lowest price.
- prioritising the use of functional specifications over the use of solution-prescriptive tender specifications.
- When possible, prioritising the use of innovation-friendly IPR conditions.
- Applying, if possible, value engineering (see box below)

The box below provides a real case example of how this measure is expected to work, while in the next sections the analysis of costs and benefits is provided.

Box A4- 3 Examples of how procurement techniques are used in R&D procurement

Imagine a municipality seeking to develop and test new solutions to better protect the city against flooding, including prevention, detection, early warning and mitigation measures.

¹⁴⁶ the terms PCP and R&D procurement are used interchangeably.

¹⁴⁷ Directorate-General for Research and Innovation & PwC. (2026). EU innovation procurement observatory: final study report. Publications Office of the European Union. <https://data.europa.eu/doi/10.2777/1638226>.

¹⁴⁸ The European Public Procurement (PP) Directives, which are currently under revision, are a set of laws adopted by the European Union to regulate how public authorities (governments, municipalities, public bodies) purchase goods, services, and works. Their main aim is to ensure fair competition, transparency, and value for money across member states.

The main directives are:

Directive 2014/24/EU – Covers general public procurement (most public sector contracts)

Directive 2014/25/EU – Applies to utilities (water, energy, transport, postal services)

Directive 2014/23/EU – Regulates concession contracts (e.g. toll roads, infrastructure operations)

¹⁴⁹ Corvers and DG RTD (Nov 2025), Overcoming Legal Barriers for the Uptake of Innovation Procurement In The EU. Final report of the EC Expert Group on innovation procurement. November 2025 Bringing down legal barriers for innovation procurement – DG Research and innovation

¹⁵⁰ As explained in the 2021 EU guidance notice on innovation procurement, procurers can buy not only the research and development but also the supply of a limited volume of developed solutions as part of a PCP procurement (as long as the value of supplies purchased is less than half of the total PCP contract value and does not include large scale commercial production). They can also decide to buy resulting solutions through a separate procurement that is started after the PCP procurement. The techniques that are used in PCP to foster innovation are therefore also very useful in such procurements outside the public procurement directives.

The process would begin with a **preliminary market consultation** to inform and engage with industry, exploring the state of ongoing developments. This could take the form of online questionnaires, webinars or in-person meetings. Through this consultation, the municipality identifies a range of suppliers, including SMEs, start-ups and larger firms, offering different technological approaches (e.g. GPS, cameras, drones, sensors). However, these solutions are still under development and lack sufficient testing in real urban contexts. The municipality therefore decides to launch a R&D procurement to steer innovation towards its needs and to test which solutions are most effective and cost-efficient.

To ensure broad participation, the municipality sets **proportionate selection criteria** that do not disadvantage start-ups (e.g. no requirements on past turnover or prior customer references). Suppliers are assessed based on their technical capacity and expertise. Tender specifications are drafted in functional terms, describing the problem and required performance (e.g. 24/7 operation, faster detection, lower cost), **without prescribing specific technologies**. This approach encourages diverse and innovative solutions.

Given the need to cooperate with other cities along the same river, the municipality recognises the potential for a **wider EU market**. It therefore allows suppliers to retain intellectual property rights (IPR), while securing licence-free usage rights and the possibility to license the solution to third parties. This reduces the risk of supplier lock-in and incentivises participation, often leading to lower bid prices.

As a result, the procurement attracts a higher number of bids and a broader range of innovative suppliers. The municipality evaluates offers **using criteria that balance cost and quality, rewarding solutions that deliver the best value for money**.

During implementation, the contracts include a **value engineering clause**, allowing suppliers to propose improvements as new technologies emerge. For example, a supplier may replace an initially proposed solution with a more efficient and cost-effective innovation. If accepted, cost savings are shared between the supplier and the municipality, creating incentives for continuous improvement. The contractor submits a proposal to the city to reengineer his solution to deliver this higher value solution to the procurer. The city accepts the proposal of the contractor and amends his contract with the incentive that the contractor will get half of the cost savings that he generates for the city once he delivers the solution. This solution improvement is only possible because the procurer incorporated from the beginning a value engineering clause in the R&D procurement contracts, that incentivises suppliers to keep on proposing improvements to the city using new innovations that only become available during contract execution.

Throughout the process, the municipality monitors progress against clearly defined **key performance indicators (KPIs)** agreed at contract signature.

As the **tasks and the contract size for each phase of the R&D procurement gradually grows**, the small companies that started the R&D procurement can **attract investors and grow their business** during the R&D procurement. At the end of the R&D procurement, the city ends with one incumbent supplier that has seriously improved his solution, and two young startups that have more than doubled the size of their company during the R&D procurement and that are now able to compete against incumbents in large subsequent deployment contractors. As all suppliers used their IPR to commercialise their solutions they can reach economies of scale of production and bring the prices of the solutions down compared to existing solutions and all cities across the EU that need a

similar solution can benefit from this. For the city that launched the R&D procurement, the cost savings on its own large-scale deployment more than compensate the extra cost that the city initially paid for buying the R&D from multiple suppliers instead of one.

Source: Authors elaboration

Within this context, the proposed measure is articulated as follows:

Table A4-9. Measure and alternatives

Measure	Alternatives
Measure 2: Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement	• Alternative A: Recommended techniques for R&D procurement for public buyers • Alternative B: Obligatory techniques for R&D procurement for public buyers

Costs

Costs are classified by type and by stakeholder.

Table A4-10. Type of costs by stakeholder – Measure 2

Cost	Stakeholder	Type of assessment
Adjustment costs	Public buyers	Quantitative and qualitative
Administrative costs	Public buyers	Qualitative
Administrative costs	Economic operators (suppliers) participating in R&D procurement	Qualitative
Indirect costs (wider economic costs)	Economic operators (suppliers) participating in R&D procurement	Qualitative

Adjustment costs for public buyers

Assessment approach. Adjustment costs for public buyers arise from one-off adaptations to the changes introduced by the alternatives, such as developing new tender document templates and familiarising staff with procedures for R&D procurement and the associated techniques. These costs are assessed both quantitatively and qualitatively. Alternative A allows flexibility in the adoption of R&D procurement techniques by public buyers, whereas Alternative B requires their mandatory adoption.

Available data, assumptions and data used (baseline). Under the baseline, these costs do not arise.

Available data, assumptions and data used (alternatives). The targeted survey asked public authorities to assess the adjustment costs for public buyers associated with adopting techniques typically used in R&D procurement. Value engineering was identified by the largest number of respondents as generating high adjustment costs. However, for all techniques, the number of respondents that reported moderate adjustment costs is higher

than those that reported high costs. . Innovation agencies, universities and RTOs were asked the same question, and their responses show less variation between the different techniques.

Figure A7-1 Answers to question “In your view, how large would be the adjustment costs generated by the following techniques for public buyers (to adopt these new techniques)?” in targeted consultation to **public authorities**, conducted in October-November 2025. N. of replies: 21.

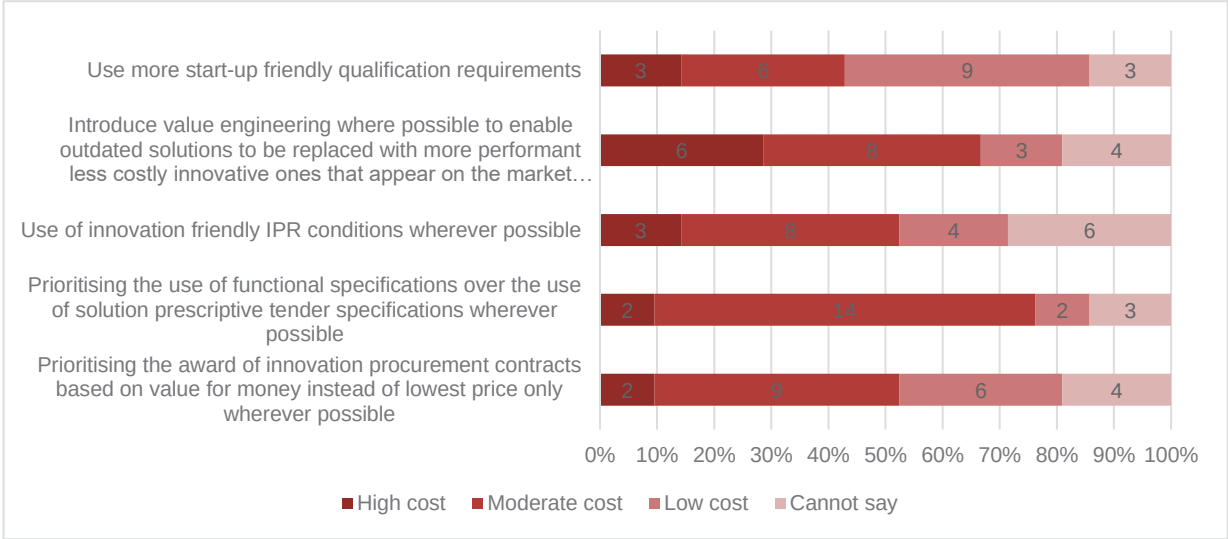
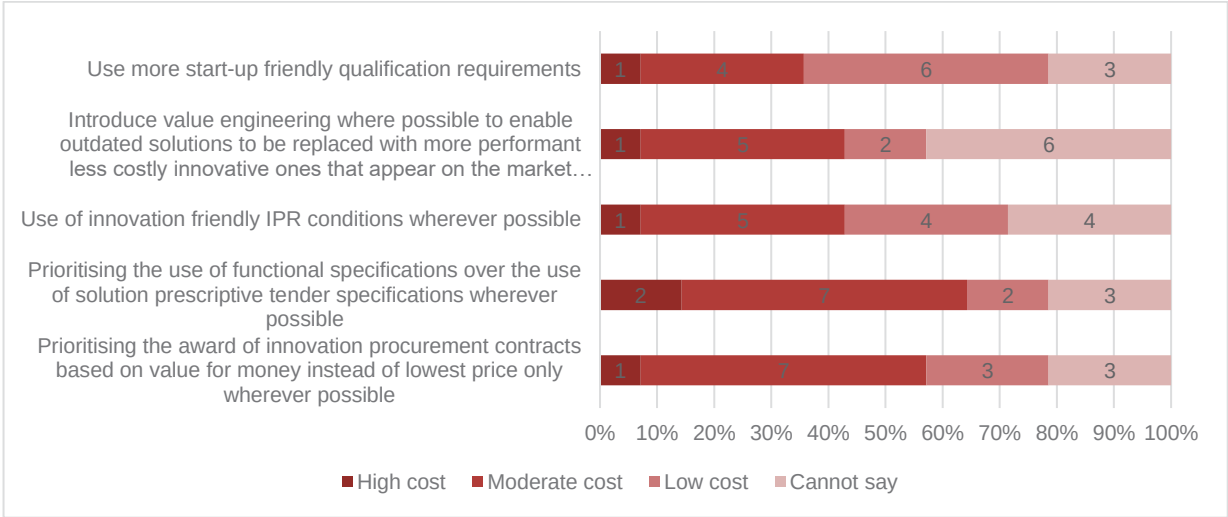


Figure A7-2. Answers to question “In your view, how large would be the adjustment costs generated by the following techniques for public buyers (to adopt these new techniques)?” in targeted consultation to **Innovation agencies, universities, and RTOs**, conducted in October-November 2025. N. of replies: 14.



Evidence from the targeted survey indicates that adjustment costs vary by technique and stakeholder group. As reported in interviews, these costs are primarily driven by staff training and familiarisation, as well as the development of new tender documentation templates.

- **Training and familiarisation costs are estimated using the same approach as in Measure 2.** Based on desk research, a 1.5-day course on European public

procurement costs EUR 1,160, which is used as the cost of training a procurement staff member. In addition, staff time is estimated at 6.5 days (1.5 days for the course, including fast-track procedures and related techniques and a further 5 days for additional familiarisation). This time is valued using the hourly rate from the OIOO calculator. **Under Alternative B, where adoption is mandatory, it is assumed that 2,000 public buyers in the EU27 will incur these costs. By contrast, under Alternative A, where adoption is voluntary, it is assumed that 1,500 public buyers are expected to incur training and familiarisation costs.**¹⁵¹ The calculation of these costs is based on the assumption that, in the baseline scenario, there are no associated costs with Measure 2 by definition. Therefore, it is assumed that all public buyers including those already using R&D procurement approaches or engaging in cross-border procurement would need to align with the new requirements (under the mandatory Alternative B).

- A quantitative assessment of the costs associated with **redesigning procurement documentation** would require data on the average cost of developing tools or templates for each new technique (e.g. redesigning evaluation and award systems). However, such data, per public buyer are not available, which limits the possibility of providing a quantitative estimate. Qualitatively, it can be assumed that Alternative A entails lower adjustment costs, as the scale of adoption is smaller than under Alternative B.

Table A4-11. Adjustment costs for public buyers – Measure 2

	Baseline (continuation of current scenario)	A - Recommended techniques for R&D procurement procurements for public buyers	B – Obligatory techniques for R&D procurement procurements for public buyers
Training / familiarisation costs	● No costs.	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement Total cost: EUR 3,266 X 1,500 public buyers X 4 staff members working on procurement = EUR 19,596,000	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement Total cost: EUR 3,266 X 2,000 public buyers X 4 staff members working on procurement = EUR 26,128,000
Redesign of procurement processes and documentation	● No costs.	● Moderate adjustment costs.	● High adjustment. costs.

Administrative costs for public buyers

¹⁵¹ To estimate the total cost, the cost per procurement staff member is multiplied by the number of public buyers engaged in PCP. According to a 2025 European Commission presentation (available [here](#)), more than 1,000 public buyers across Europe have already successfully implemented PCPs. To avoid underestimating costs, this figure is doubled to 2,000 public buyers for the purpose of the calculation under Alternative B. Under Alternative A the number is reduced to 1,500, between the current situation of 1,000 and 2,000 in Alternative B. It is further assumed that each public buyer employs, on average, four staff members working on procurement. Overall, these estimates are subject to uncertainty and should be interpreted as providing an indicative order of magnitude of the expected impacts.

Assessment approach. Recurrent administrative costs for public buyers consist in the costs deriving from performing procurement procedures. These costs are assessed quantitatively with the same approach used for the other Measure, namely by first calculating the administrative effort to produce an individual R&D procurement procedure, and the multiplying it by the number of public buyers affected under the baseline and the two Measure's Alternatives. The formula below further specifies the calculation, which also in line with the Better Regulation Toolbox' Standard Cost Model - Tool #58). The value of each input entering the formula is discussed below.

The frequency is implicitly intended per year; therefore, the following costs should be interpreted as annual costs.

$$\text{Total administrative cost} = (\text{Person-day worked} * \text{salary rate} * \text{N of persons involved}) * \text{number of R\&D procurement procedures} * \text{number of public buyers affected}$$

Available data, assumptions and data used (baseline). The targeted survey invited public authorities, business associations, innovation agencies, universities and RTOs to indicate their level of agreement with a statement assessing whether the introduction of R&D-friendly, fast-track procedures in R&D procurement (outside the Public Procurement Directives / PPA) would reduce legal uncertainty and fragmentation for public buyers (see the benefit section below for details). Apart from business associations, all the other stakeholders expressed a strong level of agreement with the statement suggesting that currently the R&D procurement by public buyers is characterised by non-optimal procedures, including barriers to cross-border R&D procurement.¹⁵²

To calculate the baseline cost of performing procurement procedures, the following data would be necessary:

- **an estimate of the number of R&D procurement procedures carried out by public buyers in the EU.** A precise estimate is not available, as R&D procurement is not systematically recorded in official procurement statistics. To approximate an order of magnitude, evidence from EU-supported programmes (notably FP7, Horizon 2020 and Horizon Europe) **suggests around 10–30 PCP projects per year.**^{153, 154} This range is used for the baseline, as it strikes a balance between potential overestimation (for example, where some projects under the Public Procurement Directives may be included) and underestimation, given that nationally funded PCPs are not fully captured. Although highly approximate, this range represents a reasonable working assumption, reflecting the fact that R&D

¹⁵² See also Corvers and DG RTD (Nov 2025), Overcoming Legal Barriers for the Uptake of Innovation Procurement In The EU. Final report of the EC Expert Group on innovation procurement. November 2025 Bringing down legal barriers for innovation procurement – DG Research and innovation

¹⁵³ European Commission (2019). [Impacts of EU funded Pre-Commercial Procurements](#). Last access in April, 2026. See also Cordis database for H2020 and FP7.

¹⁵⁴ <https://wayback.archive-it.org/12090/20220916072752/https://digital-strategy.ec.europa.eu/en/policies/pcp-and-pi-projects> Last access in April, 2026

procurement remains a niche instrument, with a low double-digit number of procedures annually across the EU27.

- **An estimate of the average cost of using each type of procurement procedure.** Such an estimate is not available and is even more difficult to derive for each individual technique. To address this gap, evidence from research infrastructures, namely public buyers that commonly use the techniques envisaged under this Measure, can be considered (see the benefits section below). During an online focus group held in November 2026 with representatives from research infrastructures, participants highlighted significant heterogeneity in the time required to prepare procurement tenders and collaboration agreements, making it impossible to define an average duration or cost. Reported preparation times ranged from as little as two days to as long as six months, even within the same organisation. In light of this evidence, and considering that preliminary market consultations are often required, a working range of one to four months is used, with one month as the lower bound and six months as the upper bound. **Considering that each month has 20 workdays, the applied range is 20 - 120 person-days per procurement document.** Moreover, coherently with the adjustment costs **the hypothesis here is that 4 staff members work on each procurement procedure.**
- **The salary rate for public buyers' staff** is taken consistently across this impact assessment from the OIOO online calculator used for reporting administrative costs, in line with the Better Regulation Toolbox. The EU average hourly earnings for the occupational category "Professionals" (ISCO Category 2) amount to EUR 40.5 per hour, including overheads. Assuming an eight-hour working day, this corresponds to **EUR 324 per day.**
- **The number of public buyers considered in the baseline is 1,000** as already discussed in the case of adjustment costs.¹⁵⁵

Available data, assumptions and data used (alternatives). The calculation of administrative costs under the alternatives is influenced by two opposing effects. First, administrative costs per procedure are expected to decrease compared to the baseline, due to more efficient management of R&D procurement and reduced fragmentation across the EU, as well as the initial familiarisation with the introduced R&D procurement techniques. Over time, this is expected to lower administrative burdens. In this context, **it is assumed that 1.5 staff members are required per procurement procedure, compared to four under the baseline, corresponding to about 60% reduction in costs under both Alternatives A and B.** This assumption is also consistent with the share of respondents to the targeted survey who indicated that the Measure would reduce legal uncertainty and fragmentation for public buyers (see the benefit section).

Second, total administrative costs are expected to increase under Alternatives A and B because a larger number of public buyers would adopt the Measure compared to the baseline. As discussed under adjustment costs, **under Alternative B, where adoption is mandatory, it is assumed that 2,000 public buyers across the EU27 would incur these**

¹⁵⁵ According to a 2025 European Commission presentation (available [here](#)), more than 1,000 public buyers across Europe have already successfully implemented PCPs

costs. By contrast, under Alternative A, where adoption is voluntary, an estimated 1,500 public buyers are expected to incur them.

In other words, while the administrative cost per individual R&D procurement procedure decreases compared to the baseline, the higher number of public buyers adopting the Measure increases total costs. The final cost estimate reflects the combined effect of these two opposing dynamics.

Table A4-12 Administrative costs for public buyers – Measure 2

Baseline (continuation of current scenario)	A - Recommended techniques for R&D procurement procurements for public buyers	B – Obligatory techniques for R&D procurement procurements for public buyers
● In the baseline scenario, public buyers incur costs related to legal uncertainty, fragmentation of R&D procurement procedures across the EU, and the inefficiencies arising from the use of traditional procurement techniques within PCP (outside the Public Procurement Directives). Cost per individual R&D procurement document: EUR 25,920 – 155,520 (=20 – 120 person-days X 4 staff member procurement X EUR 324 per day) Total cost: EUR 259,200,000-4,665,600,000 (= cost per one R&D pr. document (as above) X (10 – 30) R&D pr. documents per year X 1000 public buyers)	● Compared to the baseline, administrative costs are expected to reduce. Indeed, after the initial familiarisation phase, administrative costs are expected to decrease because of more efficient management of R&D procurement and reduced legal and cross-border barriers Cost per individual R&D procurement document: EUR 9,720 – 58,320 (=20 – 120 person-days X 1.5 staff member procurement X EUR 324 per day) Total cost: EUR 145,800,000 2,624,400,000 (= cost per one R&D pr. document (as above) X (10 – 30) R&D pr. documents per year X 1500 public buyers)	● High administrative costs borne by all public buyers compared to Alternative A Cost per individual R&D procurement document: EUR 9,720 – 58,320 (=20 – 120 person-days X 1.5 staff member procurement X EUR 324 per day) Total cost: EUR 194,400,000-3,499,200,000 (= cost per one R&D pr. document (as above) X (10 – 30) R&D pr. documents per year X 2000 public buyers)

Administrative costs for economic operators (suppliers) participating in R&D procurement

Costs associated with introducing new R&D procurement procedures also arise for economic operators, primarily supplier firms participating in R&D procurement. However, there is no available evidence to support a quantitative assessment or to differentiate these costs across the alternatives. Moreover, the targeted survey focuses on the administrative burden for public buyers, namely the direct recipients of the Measure, while impacts on suppliers are indirect. At this stage, and when considering individual R&D procurement procedures, **it is reasonable to assume that costs for economic operators follow a similar pattern to those for public buyers: highest under the baseline, lower under Alternative A, and moderate under Alternative B.**

Summary of costs

The table below summarises the costs incurred by public buyers and supplier firms in absolute terms and relative to the baseline.

TableA4-13. Summary of costs in absolute terms – Measure 2

Costs - EUR	Public buyers	Economic operators (suppliers)
Baseline		

<i>Administrative costs (annual)</i>	<i>EUR 259,200,000 - 4,665,600,000</i>	<i>High</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 0</i>	<i>EUR 0</i>
Alternative A		
<i>Administrative costs (annual)</i>	<i>EUR 145,800,000 - 2,624,400,000</i>	<i>Low</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 19,596,000</i>	<i>Medium</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>EUR 194,400,000 - 3,499,200,000</i>	<i>Medium</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 26,128,000</i>	<i>High</i>

TableA4-14. Summary of costs compared to baseline – Measure 2

Costs - EUR	Public buyers	Economic operators (suppliers)
Alternative A		
<i>Administrative costs (annual)</i>	<i>From EUR -113,400,000 to -2,041,200,000</i>	<i>Medium decrease</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 19,596,000</i>	<i>Medium increase</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>From EUR -64,800,000 to - 1,166,400,000</i>	<i>Low decrease</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 26,128,000</i>	<i>High increase</i>

Benefits

The table provides a snapshot of the benefits associated to the Measure. Each benefit is discussed in detail in the next sections.

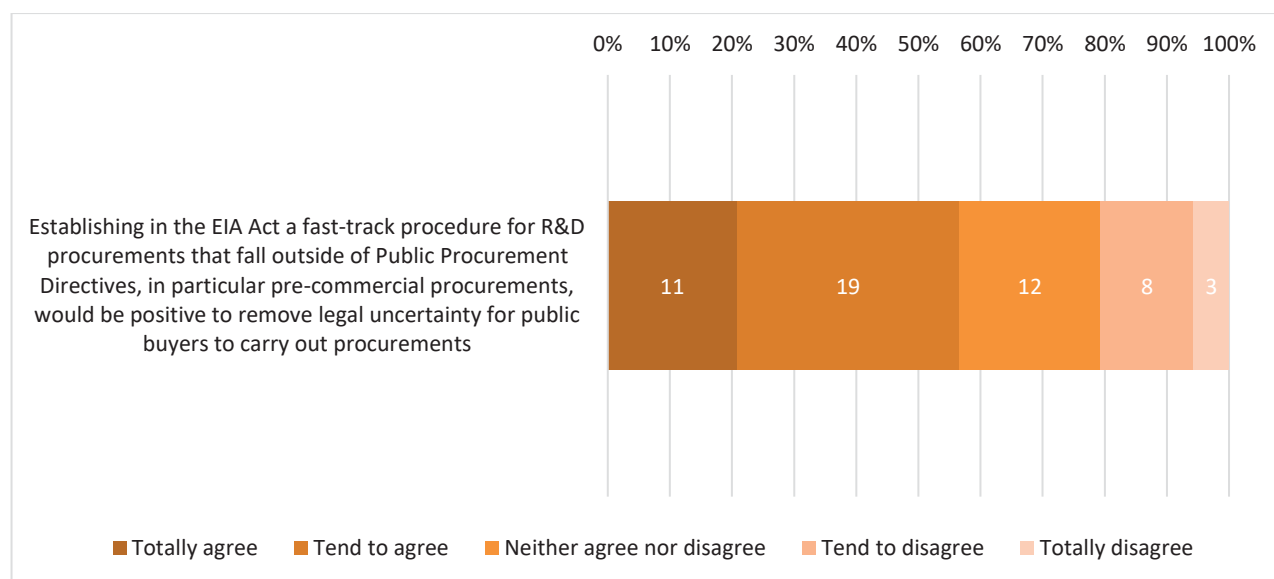
Table A4-15. Main benefits by stakeholder – Measure 2

Stakeholder affected	Benefit	Type of benefit	Source of evidence	Type of assessment
Public buyers/EU society	Efficiency gains ; reducing legal uncertainty and fragmentation of PCP procedures across the EU	Economic	• Documentary review • Targeted survey	Qualitative
Business	Impact on innovative companies' turnover	Economic	• Documentary review	Quantitative
EU society	Increased market competition, cross-border collaboration and innovation diffusion	Economic/social	• Documentary review	Quantitative

Efficiency gains: reducing legal uncertainty and fragmentation of R&D procurement procedures across the EU for public buyers

In the targeted survey, public authorities, business associations, innovation agencies, universities and RTOs were asked to what extent they agreed with the statement according to which introducing R&D friendly and fast-track procedures in R&D procurement (outside the Public Procurement Directives / PPA) would help reduce legal uncertainty and fragmentation for public buyers. **Overall, 57% of respondents either totally agreed or agreed.** However, views differ across stakeholder groups. While none of business associations has selected the “totally agree” option, public authorities and innovation agencies, universities and RTOs express a stronger level of agreement overall.

Figure A7-3 Answers to question “To what extent do you agree with the following statement? Establishing in the EIA Act a fast-track procedure for R&D procurements that fall outside of Public Procurement Directives, in particular pre-commercial procurements, would be positive to remove legal uncertainty for public buyers to carry out procurements” in targeted consultation to public authorities, business associations, and innovation agencies, universities, and RTOs conducted in October-November 2025. N. of replies: 53.



The box below further supports this evidence with examples from the USA.

Box A4- 4. Efficiency gains from PCP techniques: evidence from the USA.

The USA has been applying innovation-friendly procurement techniques, including in PCP since the 1960s. Evidence shows that these approaches generate significant operational cost savings for public buyers. Innovative solutions tend to be more efficient and help reduce supplier lock-in and associated costs. In addition, they improve the quality and efficiency of public services, enabling businesses and citizens to save time and costs. US experience also highlights substantial benefits from the use of value engineering.¹⁵⁶ Although its implementation entails costs, typically a few million USD per contracting authority each year, the resulting savings are considerably higher, often reaching billions annually. These savings, in turn, enable federal agencies to invest in staff training and further deployment of such techniques. For example, the Federal Highway Administration reports annual savings exceeding USD 2 billion (approximately EUR 1.7 billion) from value engineering, compared with around USD 20 million (approximately EUR 17 million) spent on staff and training, implying a return on investment (ROI) of around 100:1 for large-scale projects such as construction. Similarly, the United States Department of Defense reports average annual benefits of approximately USD 5 billion (around EUR 4.3 billion). The United States Army Corps of Engineers typically achieves returns of around 20:1 even for smaller contracts (USD 1–3 million, corresponding to EUR 0.85–2.55 million) with programme-wide returns often reaching up to 50:1

¹⁵⁶ <https://www.fhwa.dot.gov/ve/verereport.cfm> <https://www.fhwa.dot.gov/ve/verereport.cfm>

In line with the cost-based approach, efficiency gains are calculated by estimating cost savings per individual R&D procurement procedure and multiplying them by the relevant number of public buyers. These figures are already presented in the table above in the cost section and are recalled here for convenience for each alternative. They should be interpreted relative to the baseline:

- **Alternative A (administrative cost savings): from EUR 113,400,000 to EUR 2,041,200,000;**
- **Alternative B (administrative cost savings): from EUR 64,800,000 to EUR 1,166,400,000.**

The impact on businesses: increased economic performance (profit) of supplier companies

R&D procurement and innovation-friendly procurement practices generate not only efficiency gains in administrative processes for public buyers, but also **contribute to the economic performance of suppliers through various channels**. This section focuses on quantifying the impact on suppliers' profit, while other benefits are discussed in the following sections.

Within the broader literature on innovation procurement (see already discussed in Measure 2), a specific strand examines the impact of R&D procurement by research infrastructures on supplier firms. For example, suppliers to the European Organisation for Nuclear Research (CERN) report increased profits as a direct result of procurement contracts.¹⁵⁷ Similar findings have been observed among suppliers to the Italian Space Agency.¹⁵⁸ The procurement practices of these research infrastructures provide a relevant benchmark for three main reasons:

- they act as public buyers;
- they allocate a significant share of their budgets to R&D procurement and the development of frontier technologies not yet available on the market;
- they apply innovation-oriented procurement techniques, including preliminary market consultations, functional specifications, and value engineering and value-for-money criteria.

This literature has thus developed **the concept of a procurement impact multiplier** (see box below), whereby **each EUR 1 spent on R&D procurement by research infrastructures can generate up to EUR 3 in additional profits for suppliers**.

These effects arise through several mechanisms. Close interaction between public buyers and suppliers during procurement fosters technological learning and strengthens absorptive

¹⁵⁷ Florio, M., Giffoni, F., Giunta, A., & Sirtori, E. (2018). Big science, learning, and innovation: evidence from CERN procurement. *Industrial and Corporate Change*, 27(5), 915-936. <https://academic.oup.com/icc/article-abstract/27/5/915/5094967>

Castelnovo, P., Florio, M., Forte, S., Rossi, L., & Sirtori, E. (2018). The economic impact of technological procurement for large-scale research infrastructures: Evidence from the Large Hadron Collider at CERN. *Research Policy*, 47(9), 1853-1867. <https://www.sciencedirect.com/science/article/pii/S004873331830163X>

CSIL (2019). Impact of CERN procurement actions on industry. https://cds.cern.ch/record/2670056/files/CERN-BOOKLET_DIGITAL-VPC.pdf

¹⁵⁸ Castelnovo, P., Catalano, G., Giffoni, F., & Landoni, M. (2024). The outcomes of public procurements: an empirical analysis of the Italian space industry. *The Journal of Technology Transfer*, 49(1), 367-399. <https://link.springer.com/article/10.1007/s10961-023-10038-6>

capacity for both parties.¹⁵⁹ It also stimulates R&D and patenting activity, although this depends on the IPR's licenses and management agreement,¹⁶⁰ improves production processes, and leads to the development of new technologies that can be commercialised in other markets beyond the original contract. Evidence from past studies¹⁶¹ provides numerous examples of technologies developed through such procurement processes being successfully deployed in other markets, even years after the initial contract has ended. Further evidence from R&D procurement literature different from the one associated with research infrastructure is provided in the box below.

Box A4- 5 The concept of R&D procurement impact multiplier.

The high-tech procurement multiplier is a concept developed several decades ago to assess the impact of CERN's high-tech procurement on industry.

The multiplier is defined as the ratio of:

$$\frac{\text{Incremental suppliers' **profit** generated by the R\&D procurement}}{\text{Value of R\&D procurement contracts}}$$

Where **profit is calculated as incremental revenues minus incremental costs** generated by the procurement contract.

Revenues include:

- sales to other customers beyond the research infrastructure or public buyer for which the technology was originally developed;
- cost savings, such as more efficient production processes.

Costs include:

- additional costs incurred to meet technical requirements for developing the procured technology (e.g. additional R&D investment);
- opportunity costs arising from commitments to develop demanding technologies for the research infrastructure, including the loss of alternative potential contracts;
- financial losses associated with technological risks in developing and supplying frontier technologies (see risk section).

¹⁵⁹ See for instance:

Selviaridis, K., & Uyarra, E. (2025). How intermediaries manage knowledge to support public procurement of innovation: The case of UK defence. *Research Policy*, 54(10), 105335.

Florio, M., Giffoni, F., Giunta, A., & Sirtori, E. (2018). Big science, learning, and innovation: evidence from CERN procurement. *Industrial and Corporate Change*, 27(5), 915-936.

¹⁶⁰ Bastianin, A., Castelnovo, P., & Zirulia, L. (2025). Overcoming the innovation threshold through innovative public procurement: evidence from CERN. *Industrial and Corporate Change*, dtaf004 <https://academic.oup.com/icc/advance-article-abstract/doi/10.1093/icc/dtaf004/8078636>

Bastianin, A., Castelnovo, P., Florio, M., & Giunta, A. (2022). Big science and innovation: gestation lag from procurement to patents for CERN suppliers. *The Journal of Technology Transfer*, 47(2), 531-555.

¹⁶¹ CSIL (2019). Impact of CERN procurement actions on industry. https://cds.cern.ch/record/2670056/files/CERN-BOOKLET_DIGITAL-VPC.pdf

Over time, it has been applied to R&D procurement activities of other research infrastructures and estimated using a range of methods, from micro-econometric analysis to macroeconomic modelling.

Public buyer	Procurement multiplier estimation method	Estimated procurement multiplier (Average value)	Source
CERN - FCC	Econometric regressions model	3.1	Giffoni et al., (2023)
Italian Space Agency	Econometric regressions model	3	Castelnovo et al. (2021)
John Innes Centre, UK	Input–Output model	3	Webb, D and White, R. (2009)
Italian National Institute of Nuclear Physics	Input–Output model	2 – 2.7	Salina (2006)
NASA Space Programmes	Input–Output model	2.1	Bezdek and Wendling (1992)
European Space Agency	Survey	4.5	Danish Agency for Science (2008)
European Space Agency	Survey	1.5 – 1.6	Brendle et al. (1980), Bach et al. (2022)
CERN	Survey to suppliers	3	Bianchi-Streit et al. (1984)
CERN	Survey to suppliers	1.2	Schmied (1982)
CERN	Survey to suppliers	3	Schmied (1977)

Box A4- 6 Additional literature on the impact of PCP on industry suppliers.

A recent study of EU funded PCPs¹⁶² that surveyed industry suppliers and public buyers shows that:

- 95% of suppliers reported that the PCP expanded their offer of products and services;
- 90% of suppliers reported that their PCP participation had impact on business growth both in terms of financial performance and employment;
- 85% of suppliers report that their PCP participation resulted in securing financial investments
- 79% of the suppliers adopted internal policies or procedures to manage generated IPR.

Public buyers' responses show that:

- 86% reported fostering technological breakthroughs in areas where the market offers no viable alternatives;
- 84% improved targeted public service delivery;
- 82% of procurers adopted solutions after the PCP to tackle the PCP challenge: 35% adopted small scale volumes of solutions that resulted directly from the PCP, 39% launched procurements after the PCP for larger-scale deployments, and 8% followed alternative pathways (inhouse development, adaptation or customisation) before adopting solutions;

¹⁶² [Navigating challenges and unlocking the potential of European funding for innovation procurement to support innovation scale-up - Publications Office of the EU](#)

- 78% engaged in international networking;
- 76% reported deepened knowledge in technological advancement;
- 68% aligned procurement with environmental goals;
- Leaving the opportunity to exploit IPR to suppliers reduced R&D costs and risks for procurers by around 50% on average, as companies are able to commercialise the results more widely and spread their R&D costs across multiple customers.

Drawing on this literature, and assuming that a share of R&D procurement in the baseline already applies innovation-friendly techniques, including cross-border R&D procurement, the benefit is calculated by applying the multiplier to only 50% of the total R&D procurement volume. The resulting estimates are as follows:

- *R&D procurement impact on suppliers' profit = (EUR 17.28 billion * 50% * 50%) * 3 = EUR 12.96 billion (Alternative A)*
- *R&D procurement impact on suppliers' profit = (EUR 17.28 billion * 50% * 100%) * 3 = EUR 25.9 billion (Alternative B)*

Where:

- EUR 17.28 billion represents the total value of R&D procurement in the baseline;
- 50% (applied under both alternatives) reflects the assumption that part of R&D procurement already uses innovation-friendly techniques, and therefore the multiplier is applied only to the remaining share (of 50%);
- 50% under Alternative A reflects its voluntary nature, meaning only a portion of public buyers are expected to adopt the Measure, whereas under Alternative B (mandatory), full uptake (100%) is assumed.

The impact on society: increased market competition, cross-border collaboration and innovation diffusion

Another strand of the literature shows that R&D procurement **supports competition by facilitating market access for new entrants, particularly innovative SMEs**. Evidence from PCP actions funded under FP7 and Horizon 2020¹⁶³ indicates that 61.5% of the total value of PCP contracts was awarded directly to SMEs, compared with an average of around 29% in public procurement across Europe. In addition, a further 19% of contracts were awarded to consortia involving both SMEs and large firms.

R&D procurement **also appears to promote cross-border participation and collaboration**. Around 33.1% of contracts were awarded to bidders established in countries other than those of the procuring authorities, compared with an average of 1.7%

¹⁶³ https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=8949

in public procurement across Europe¹⁶⁴. Furthermore, evidence from a recent EU-funded PCP¹⁶⁵ study based on interviews with suppliers indicates that such schemes foster the creation of strategic partnerships. These are typically established within 18 months of project completion, enabling firms to expand their business networks.

Evidence from European Commission (2024) analyses of PCP practices suggests that it stimulates both public buyers and firms to build long-term R&D capacity, **supporting the development and delivery of innovative solutions**.¹⁶⁶ Close collaboration with suppliers during the design and prototyping phases enables procurers to better understand emerging technologies, assess their feasibility, and identify potential applications within their operations. This learning process strengthens the capacity of public buyers to draft more advanced technical specifications in future procurements, make more informed investment decisions, and anticipate technological developments. Over time, it allows contracting authorities to integrate innovations more effectively, improve service delivery, and reduce implementation risks.¹⁶⁷ In addition, these learning effects support the commercialisation of innovative solutions and can contribute to reducing their costs for both the public sector and society as a whole.

Risk associated with R&D procurement

Risks associated with R&D procurement are generally higher than those linked to innovation procurement, as R&D procurement focuses on the R&D phase, where uncertainty is inherently greater. In R&D procurement, suppliers are contracted to develop solutions that do not yet exist on the market, often at low technology readiness levels. This entails significant technical risk, as there **is no guarantee that the R&D process will result in a viable or scalable solution**. By contrast, innovation procurement typically concerns the deployment of solutions that are already close to market or commercially available, where performance and feasibility are more certain. As a result, **R&D procurement involves higher technical risk for public buyers and greater financial and commercial risk for suppliers**.

Measure 3: Preference for EU-made solutions in R&D procurement for public buyers

¹⁶⁴ [Navigating challenges and unlocking the potential of European funding for innovation procurement to support innovation scale-up - Publications Office of the EU](#)

¹⁶⁵ [Navigating challenges and unlocking the potential of European funding for innovation procurement to support innovation scale-up - Publications Office of the EU](#)

¹⁶⁶ European Commission (2024). Procure Innovation EU, Insight No 3: How to increase R&D and Innovation investment through Public Procurement of Innovation (European Commission, 23 July 2024) <https://public-buyers-community.ec.europa.eu/communities/procure-innovation-eu/resources/insight-no3-how-increase-rd-and-innovation-investment>

¹⁶⁷ Selviaridis, K., & Uyarra, E. (2025). How intermediaries manage knowledge to support public procurement of innovation: The case of UK defence. *Research Policy*, 54(10), 105335.

Chiappinelli, O., Giuffrida, L. M., & Spagnolo, G. (2025). Public procurement as an innovation policy: Where do we stand?. *International Journal of Industrial Organization*, 103157.

Butler, M. J., & Ferlie, E. (2020). Developing absorptive capacity theory for public service organizations: Emerging UK empirical evidence. *British Journal of Management*, 31(2), 344-364.

Measure 3 aims to address the absence of a clear EU legal framework for applying EU preferences in R&D procurement conducted outside the Public Procurement Directives / PPA. The measure applies exclusively to R&D procurement carried out by public buyers.

To illustrate how it works in practice, consider the example from Measure 2 of a municipality seeking to develop and test new solutions to better protect the city against flooding, including prevention, detection, early warning and mitigation. Following a preliminary market consultation, the municipality launches a R&D procurement to steer innovation towards its needs and identify the most effective and cost-efficient solutions, while also applying value engineering techniques.

In addition to R&D procurement techniques foreseen by Measure 2, **Measure 3 introduces a preference for EU-based innovation.** Accordingly, award criteria not only prioritise solutions offering the best value for money through innovative approaches, but also **give additional weight to suppliers committing to carry out more than 70% of R&D and at least 20% of commercial-scale production within the EU.** Preferences for the EU-based innovation can be mandatory (Alternative B and C), and non-mandatory (Alternative A).

Table A4-16. Measure and alternatives

Measure	Alternatives
Measure 3: Preference for EU-made solutions in pre-commercial procurement for public buyers	• Alternative A: Non-mandatory preferences for EU-made solutions for public buyers • Alternative B: Mandatory preferences for EU-made solutions for public buyers, with clauses • Alternative C: Mandatory preferences for EU-made solutions for public buyers

The difference between Alternative B and C is that Alternative B supplements the mandatory EU preference with additional conditions specifying when non-EU tenderers must be excluded and when they may exceptionally be allowed to participate.

In particular, **Alternative B introduces mandatory preferences for EU-based suppliers in public R&D procurement.** Furthermore, where justified on grounds of security or public order, especially in relation to critical technologies or rare materials, **public buyers should also exclude tenderers controlled by third countries or third-country entities. However, the alternative also includes a number of opt-out clauses in which public buyers may decide not to restrict access to EU-based tenderers. These are:**

- where no suitable or sufficient EU-based suppliers are available, as demonstrated through a market search, preliminary market consultation, or a previously unsuccessful call for tenders;
- where restricting access would result in disproportionate costs or technical incompatibility. For assessing disproportionate costs, a price difference exceeding 20% between an EU-based offer and a third-country offer, based on objective and transparent data, may be considered excessive.

The rationale for these clauses is twofold. First, they aim to mitigate potential negative economic effects by ensuring that EU preferences are not applied where they would lead to significant inefficiencies or where the EU market cannot meet demand. Second, they help ensure compatibility with international obligations.

Therefore, the following assessment is based on a hierarchy of regulatory intensity across the alternatives:

- Alternative A is the least stringent, as it does not impose any mandatory requirements.
- Alternative C is the most stringent, as it introduces a mandatory requirement for all public buyers in the EU to give preference to EU-made solutions.
- Alternative B represents an intermediate option, combining a mandatory preference with conditional provisions designed to mitigate potential negative economic effects.

Costs

The following cost assessments have been performed.

Table A4-17. Type of costs by stakeholder – Measure 3

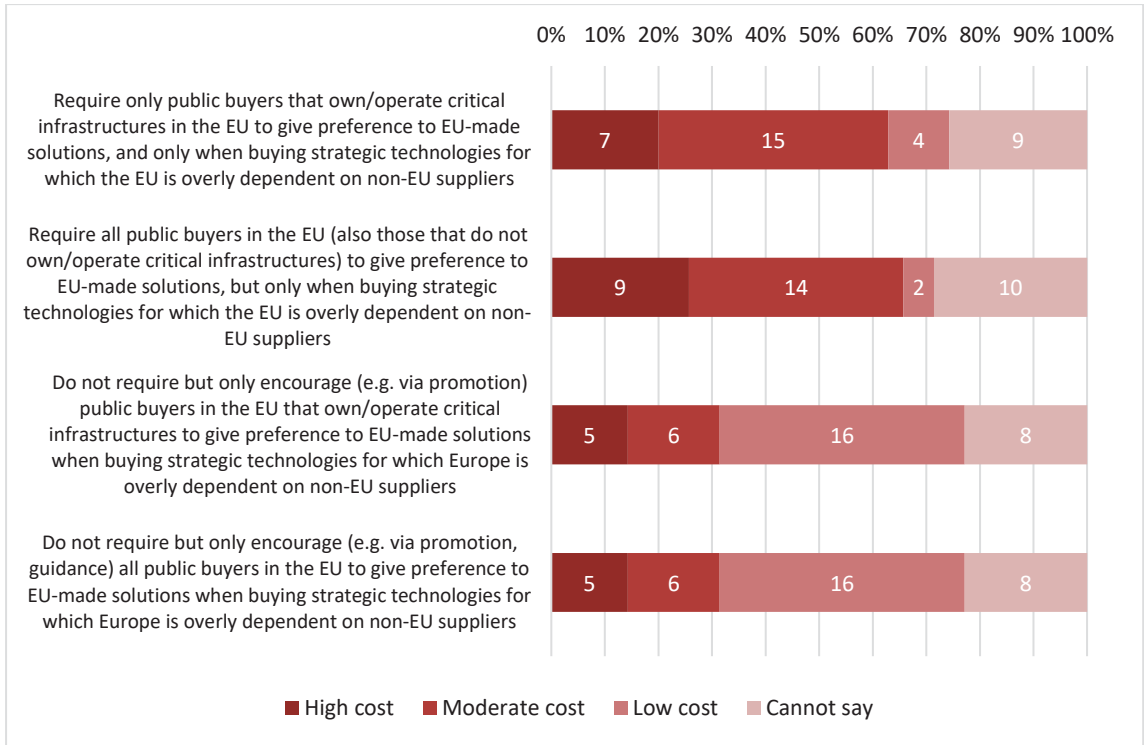
Cost	Stakeholder	Type of assessment
Adjustment costs	Public buyers	Quantitative and qualitative
Administrative costs	Public buyers	Qualitative
Adjustment costs	Economic operators participating in R&D procurement (suppliers)	Qualitative
Administrative costs	Economic operators participating in R&D procurement (suppliers)	Qualitative

To inform the potential costs for public buyers and economic operators (i.e. suppliers participating in R&D procurement), the targeted survey asked stakeholders a set of questions on the impact of introducing EU preferences. The formulation of the measure's alternatives presented to respondents reflected the most up-to-date version available at the time of the survey launch. Subsequently, the measure and its alternatives were further refined, which explains why the options available in the targeted survey do not fully correspond to the final version. Nevertheless, the survey results remain a valuable input to the overall assessment.

Stakeholders were asked to assess the cost implications not only for public buyers preparing tenders, but also the potential impacts on value chain disruptions and lock-in effects (see below) resulting from the introduction of preferences for EU-made solutions, whether mandatory or voluntary. Responses indicate that the highest costs are expected under the option requiring all public buyers in the EU to give preference to EU-made solutions, particularly in the procurement of strategic technologies where the EU is highly dependent on non-EU suppliers. This suggests that costs would be greater under

Alternative C, which introduces mandatory EU preferences without conditionalities. Based on these reflections, the costs discussed for this measure are reported in the table below.

Figure A7-4 Answers to question “In your view, how large would be the costs (drawbacks) generated by the following alternatives?” in targeted consultation to public authorities, and innovation agencies, universities, and RTOs conducted in October-November 2025. N. of replies: 35.



Adjustment costs for public buyers

Assessment approach. Adjustment costs for public buyers arise from one-off adapting to the changes introduced by the measure’s alternatives, i.e. mainly for staff familiarisation/training to apply the EU preferences and for developing new templates for tender documents. These costs are assessed quantitatively.

Available data, assumptions and data used (baseline): not applicable. Under the baseline, these costs do not arise, because no action is taken that would require public buyers to adapt to changes.

Available data, assumptions and data used (alternatives). As mentioned above, adjustment costs relate to staff familiarisation and training to redesign procurement documentation.

- Training and familiarisation costs are estimated in the same way as for Measures 2, amounting to 6.5 days per staff member. This includes 1.5 days for a dedicated course (at a cost of EUR 1,160) and a further 5 days for familiarisation with the new procedures. The additional time is valued using the hourly rate from the OIOO calculator. While the cost per staff member is assumed to be the same across all alternatives, **total costs vary depending on the number of public buyers**

affected. As in Measure 2 concerning R&D procurement, it is assumed that under **Alternative C, where adoption is mandatory, 2,000 public buyers in the EU27 will incur these costs.** Under **Alternative B**, the introduction of conditionalities is expected to reduce this number to around **1,500 public buyers.** By contrast, under **Alternative A**, where adoption is voluntary, the number is assumed to be lower, at around **1,000 public buyers** (see Measure 2 about how the number of public buyers has been estimated).¹⁶⁸

- A quantitative assessment of the cost of redesigning procurement documentation would require data on the average cost of developing tools or templates to operationalise the EU preference. As such data are not available, a quantitative estimate cannot be produced. A qualitative assessment is therefore provided, based on the differing regulatory intensity of the alternatives.

Table A4-18. Adjustment costs for public buyers – Measure 3

	Baseline (continuation of current scenario)	A – Non-mandatory preferences for EU- made solutions for public buyers	B – Mandatory preferences for EU- made solutions for public buyers, with clauses	C – Mandatory preferences for EU-made solutions for public buyers
Training/ familiarisation costs	● No costs.	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement , but with likely lower uptake compared to A and B because of the non-mandatory nature of the requirement. Total cost: EUR 3,266 X 1,000 public buyers = EUR 13,064,000	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement Total cost: EUR 3,266 X 1,500 public buyers X 4 staff members working on procurement = EUR 19,596,000	● EUR 1,160 + (6.5 days X 324) = EUR 3,266 per staff member working on procurement Total cost¹⁶⁹: EUR 3,266 X 2,000 public buyers X 4 staff members working on procurement = EUR 26,128,000
Redesign of procurement	● No costs.	●	●	● High adjustment costs.

¹⁶⁸ The number of public buyers is consistent with that used in Measure 3; please refer to that section for details on how the figures were derived. However, this does not imply that the figures apply only if Measure 3 is implemented. The number of public buyers remains the same regardless of whether Measure 3 is implemented or not.

¹⁶⁹ To estimate the total cost, the cost per staff member working on procurement needs to be multiplied with the number of public buyers owning/operating critical infrastructures. To estimate the number of critical infrastructures, it is possible to rely (as done under Measure 2) on the 2020 Impact Assessment accompanying the Proposal for a Directive on the resilience of critical entities (SWC(2020) 358). In that Impact Assessment, the number of critical entities is estimated at 5,000 in option 3 and 6,000 in option 4. While the scope of critical entities in the 2020 study is not precisely the same as the one of critical infrastructures in the context of an innovation procurement spending target, the upper bound of the range (6,000) is adopted for a conservative estimate, to avoid underestimating costs. Furthermore, it is assumed that within these entities, 4 staff members work on procurement on average. Under alternative B, the number of public buyers is estimated at 25,000: evidence from European Commission webpages on procurement mentions “over 250,000” public buyers in total (see [here](#)). This total number of 250,000 is reduced to one tenth (25,000) because the measure covers only procurement of strategic technologies that are key for EU economic security but for which the EU is overly dependent on non-EU suppliers. Under C, the number of critical entities is reduced to reflect a likely lower uptake due to the voluntary nature of the alternative. Overall, this estimate is affected by uncertainty, and only serves the purpose of providing an indicative order of magnitude of the expected impacts.

processes and documentation		Low adjustment costs.	From moderate to high adjustment costs because the application of clauses requires a market analysis.	
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Administrative costs for public buyers

Assessment approach. Recurrent administrative costs for public buyers consist of the costs associated with carrying out procurement procedures (for an overview of the main administrative activities of contracting authorities, see Measures 2 – Administrative costs for public buyers). Compared to Measure 2, **public buyers would face additional recurrent administrative costs to included criteria related to the “EU-made” requirements.** These costs are assessed qualitatively.

Available data, assumptions and data used (baseline). No costs associated with the introduction of EU preferences in the baseline by definition as it is the scenario without the Measure

Available data, assumptions and data used (alternatives). A quantitative assessment of the cost of carrying out procurement procedures under the proposed alternatives would require additional information compared to the baseline, in particular an estimate of how much the cost of each type of procurement procedure would increase if EU preference provisions had to be applied. In the absence of such data, a quantitative estimate is not possible.

The table below therefore provides a qualitative assessment based on the **differing regulatory intensity of the alternatives and qualitative evidence from the focus group.** During the online focus group, a representative from a business association and one from an association of local authorities raised concerns about the potential administrative burden on public authorities linked to verifying whether a solution is EU-made. A participant from a national competence centre on innovation procurement noted that this burden could be particularly significant for smaller authorities, depending on how broadly “strategic technologies” are defined (for example in applying the clauses). **The allocation of the burden of proof will be a key determinant of administrative costs under this measure.**

Table A4-19 Administrative costs for public buyers – Measure 3

Baseline (continuation of current scenario)	A – non-mandatory preferences for EU-made solutions for public buyers	B – Mandatory preferences for EU-made solutions for public buyers, with clauses	C – Mandatory preferences for EU-made solutions for public buyers
● No costs	● Under this Alternative with non-obligatory adoption, the increase of administrative costs due to the introduction EU preferences is expected to be lower as compared to Alternative A and B, where all the public buyers are obliged to deal with the new	● From moderate to high administrative costs are expected for all public buyers compared to the baseline. While the introduction of conditionalities is likely to reduce the number of cases in which EU preferences apply compared to Alternative	● High administrative costs borne to all public buyers compared to baseline.

	procedures, although under conditionalities	A, these clauses also introduce additional administrative burdens, for example in carrying out market analysis to justify their application.	
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Adjustment costs for economic operators participating in R&D procurement

Introducing a preference for EU-made solutions is likely to generate a range of adjustment costs for suppliers, arising both from direct compliance requirements and from and from the need to adapt or restructure their supply chains. The magnitude of these costs will depend on the sector, the degree of globalisation of the relevant supply chain, and the size and capabilities of the firms involved. This section examines these costs from the suppliers' perspective, while the broader EU-wide economic implications of EU preferences are addressed in the risk section.

Costs related to sourcing constraints during the transition period can be relevant. If public buyers are required or encouraged to select EU-made solutions, suppliers seeking to remain in the market may need to adjust their supply chains to meet EU-origin requirements. Evidence from previous assessments of localisation or origin rules shows that mandatory geographic sourcing tends to reduce the pool of available subcontractors, particularly in sectors with highly globalised supply chains such as electronics, ICT hardware, and medical devices. OECD analysis of local content requirements finds that such measures typically restrict supplier choice, increase input costs, and reduce operational flexibility¹⁷⁰.

For suppliers relying on non-EU inputs, this may require identifying alternative EU-based partners or relocating parts of production closer to the EU, generating transition and search costs. These adjustments can lead to higher production costs. Evidence on reshoring and strategic autonomy policies suggests that shifting production or switching to higher-cost regional suppliers often increases input prices and may result in short-term efficiency losses¹⁷¹. In procurement markets, this can compress supplier margins or lead to higher bid prices. In addition, limiting access to global suppliers may reduce the diversity and technological sophistication of available inputs, particularly in fast-evolving sectors where non-EU providers remain dominant.

Sectoral variation is expected. Sectors with globally concentrated value chains, such as semiconductors, robotics, batteries, cloud hardware, and critical raw material-based technologies are likely to face higher adjustment costs due to limited EU supplier availability. By contrast, sectors with strong EU industrial ecosystems, such as construction materials or industrial machinery, are likely to be less affected. **Firm size will also matter.** Large firms are generally better placed to absorb compliance requirements and diversify sourcing, while SMEs may face higher relative burdens due to tighter margins and more limited procurement capacity.

¹⁷⁰ OECD, Local Content Requirements and Industrial Policy, 2019. Available [here](#).

¹⁷¹ De Backer, K. et al., Reshoring: Myth or Reality?, OECD, 2016. Available [here](#).

The magnitude of these costs will depend on the design of the alternatives and on sectoral characteristics. At this stage, it can reasonably be assumed that costs borne by economic operators follow the regulatory intensity of the alternatives and considering the potential number of operators involved, namely **ranging from lower costs under Alternative A to higher costs under Alternative C.**

Administrative costs for economic operators participating in R&D procurement

Under the proposed measure, economic operators would face recurrent administrative costs linked to participation in R&D procurement procedures, to document and demonstrate compliance with “EU-made” requirements.

A key source of recurrent costs relates to proving EU origin. In practice, this requires data collection, certification, and verification across multi-tier supply chains, increasing administrative effort, particularly for SMEs with limited compliance capacity. OECD evidence on supply chain transparency confirms that verifying provenance across multiple tiers typically involves ongoing documentation, contractual updates, and monitoring systems.¹⁷² Additional recurrent costs would stem from updating self-declarations, technical dossiers, supplier attestations, and traceability records for each procurement procedure. Overall, the measure would introduce a persistent administrative workload for suppliers, with cost intensity depending on sectoral supply chain complexity, firm capabilities, and the specific design of each alternative. Following the same argument as adjustment costs, it is reasonable to assume that costs **range from lower under Alternative A to higher costs under Alternative C.**

Summary of costs

Table A4-20. Summary of costs in absolute terms – Measure 3

Costs - EUR	Public buyers	Economic operators (suppliers)
Baseline		
<i>Administrative costs (annual)</i>	<i>EUR 0</i>	<i>EUR 0</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 0</i>	<i>EUR 0</i>
Alternative A		
<i>Administrative costs (annual)</i>	<i>Low</i>	<i>Medium</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 13,064,000</i>	<i>Medium</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>Medium</i>	<i>From Medium to High</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 19,596,000</i>	<i>From Medium to High</i>
Alternative C		
<i>Administrative costs (annual)</i>	<i>High</i>	<i>High</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 26,128,000</i>	<i>High</i>

Table A4-21. Summary of costs compared to baseline – Measure 3

Costs - EUR	Public buyers	Economic operators (suppliers)
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¹⁷² OECD, OECD Due Diligence Guidance for Responsible Business Conduct, 2018. Available [here](#).

Alternative A		
<i>Administrative costs (annual)</i>	<i>Low increase</i>	<i>Medium increase</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 13,064,000</i>	<i>Medium increase</i>
Alternative B		
<i>Administrative costs (annual)</i>	<i>Medium increase</i>	<i>Medium/High increase</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 19,596,000</i>	<i>Medium/High increase</i>
Alternative C		
<i>Administrative costs (annual)</i>	<i>High increase</i>	<i>High increase</i>
<i>Adjustment costs (one-off)</i>	<i>EUR 26,128,000</i>	<i>High increase</i>

Benefits

The table provides a snapshot of the benefits associated to the Measure. Each benefit is discussed in detail in the next sections.

Table A4-22. Main benefits by stakeholder – Measure 3

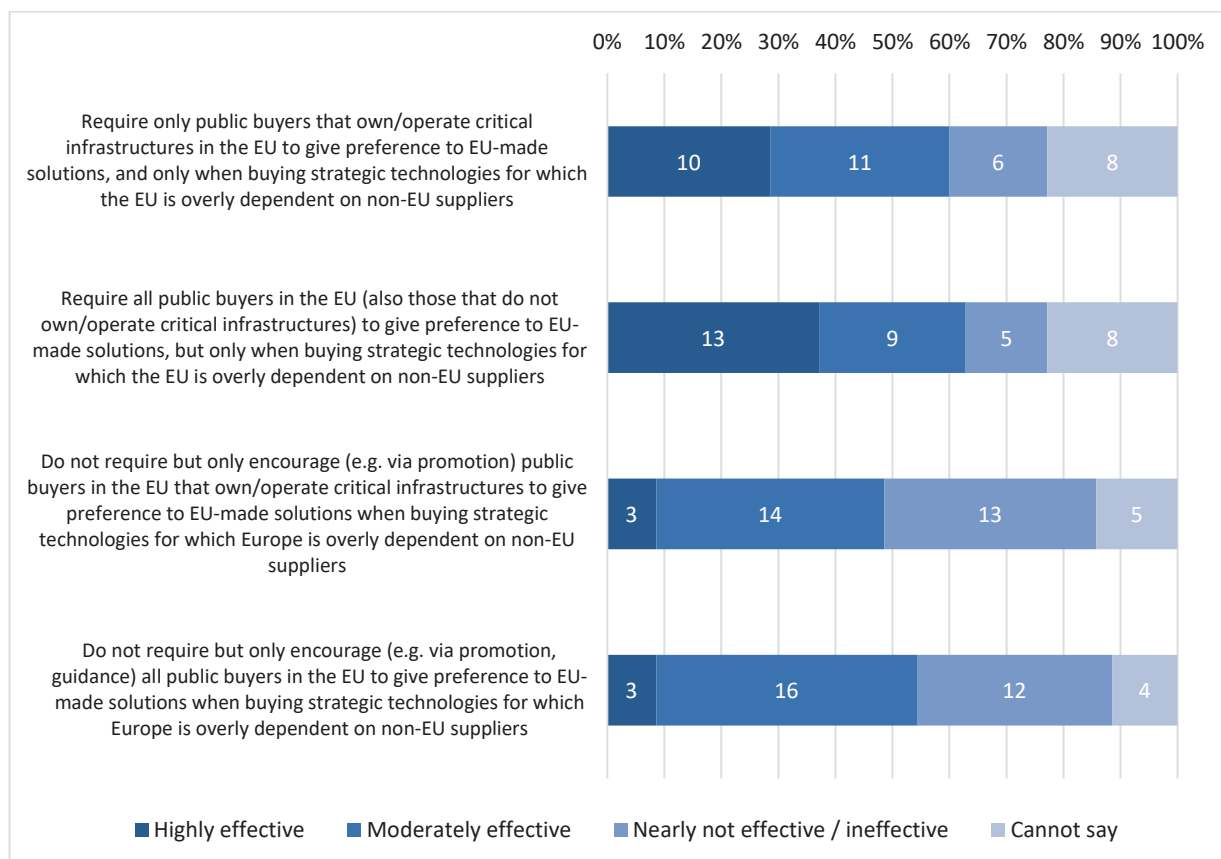
Stakeholder affected	Benefit	Type of benefit	Source of evidence	Type of assessment
EU society	EU technological sovereignty	Economic/social	• Documentary review • Targeted survey	Qualitative
Businesses/EU society	EU open strategic autonomy and increased market access for EU companies	Economic/social	• Documentary review	Quantitative

EU technological sovereignty

To assess the potential benefits of introducing EU preferences in R&D procurement, the targeted survey asked stakeholders to what extent such measures would promote innovation, technological sovereignty, while reducing strategic dependencies in the EU. As noted in the cost analysis, the alternatives presented reflected the most up-to-date version at the time of the survey and were subsequently refined. While this means they do not fully match the final design, the results remain a valuable input to the assessment.

The option receiving the highest share of “highly effective” responses across stakeholder groups was the requirement for all public buyers in the EU to give preference to EU-made solutions when procuring strategic technologies for which the EU is highly dependent on non-EU suppliers. This option was also perceived as the most costly. This suggests that, while introducing mandatory EU preferences (as in Alternative C) may increase costs in the short term, it is expected to deliver greater benefits once the adjustment phase has passed, particularly in the medium to long term. However, it is only when applying this principle in a proportionate manner that risks and value chain disruptions are mitigated as in Alternative B.

Figure A4-5 Answers to question “A number of other major economies around the world require public buyers to give preference to solutions that were made in their territory. Introducing such a preference for EU-made solutions also in the EU could take different forms. In your view, how effective would the following alternatives be in promoting innovation and technological sovereignty while lowering strategic dependencies in the EU?” in targeted consultation to public authorities, and innovation agencies, universities, and RTOs conducted in October-November 2025. N. of replies: 35.



EU open strategic autonomy and increased market access for EU companies

The EU has since 2011 started to reinforce EU open strategic autonomy in strategic technologies by starting to selectively apply local content requirements, including in R&D procurement. Success cases demonstrate that this approach has successfully propelled small EU based startups into world leaders in strategic sectors (see [Danish robotics company example](#)) and to regain EU strategic autonomy in sectors where the EU was previously lagging behind and overdependent on the US and Asia (see [supercomputing example](#)).

Some MSs are adopting a similar approach in public procurements of widely commercially available solutions. For instance, Poland is setting a target of 50% of local components in wind farm projects in the Baltic Sea ¹⁷³ The EU public procurement directive for utilities already allows any utility procurer to reject offers for any supply contract (so not only for critical technology type products) with products that primarily (more than 50%) originate in third countries.

Romania forbids any type of public buyer (public authorities as well as utilities) to procure any products, services or works from third country suppliers from countries with whom the EU does not have an international procurement agreement.

Box A4-7. Applying local content requirements in public procurement

¹⁷³ [The local content indicator in Polish wind farm projects in the Baltic Sea can reach as much as 50 percent - Baltic Wind.](#)

Since 2011, the EU has encouraged both Member States and EU institutions to apply local content requirements in R&D procurement. Around 50 EU co-funded projects involving groups of buyers from different Member States have jointly implemented pre-commercial procurement (PCP), while the European Commission has also carried out PCPs applying such requirements. Typically, these PCPs require at least 50% of R&D and subsequent commercial production to take place within the EU, rising to up to 100% in security-related cases. Similar strategic autonomy requirements have also been used by Member States in national PCPs.

More recently, the EU has begun to apply local content considerations in other areas. In 2023, the Commission supported Member State decisions to restrict or exclude Huawei and ZTE from supplying equipment and services for 5G networks, as part of the EU's broader cybersecurity strategy under the 5G toolbox. These companies were considered to pose higher security risks, given the critical nature of the European 5G infrastructure.¹⁷⁴

The EU has also introduced local content elements in public procurement for commercially available technologies. For example, policies linked to climate objectives require a share of key infrastructure to be sourced from European manufacturers, building on provisions in Directive 2014/24/EU that allow environmental and strategic considerations in procurement decisions.

At national level, cases such as public transport procurement in Norway have highlighted related concerns, including situations where non-EU suppliers retained access to vehicle control systems for software updates and diagnostics.¹⁷⁵

To quantify the potential benefits of open strategic autonomy under Measure 3, the procurement impact multiplier discussed in Measure 2 can be applied. Under this approach, each EUR 1 spent on R&D procurement generates approximately EUR 3 in profits for industry suppliers. As set out under Measure 2, the impact under the mandatory adoption scenario (Alternative B) amounts to EUR 25.92 billion. However, this figure provides the total impact on suppliers' profits, regardless of whether suppliers are located within or outside the EU.

However, unlike Measure 2, this impact must be adjusted to reflect the EU preference embedded in this Measure. This is done by scaling the total impact according to the share of R&D expected to be carried out within the EU under each alternative. Assuming that 70% of R&D is undertaken within the EU under Alternative C (mandatory preferences), 50% under Alternative B (mandatory preferences with conditionalities), and 20% under Alternative A (non-mandatory preferences), **the corresponding share of benefits retained within the EU industry would amount to:**

- **EUR 25.92 billion* 70% = EUR 18.14 billion (Alternative C)**
- **EUR 25.95 billion* 50% = EUR 12.96 billion (Alternative B)**
- **EUR 25.95 billion* 20% = EUR 5.18 billion (Alternative A)**

These estimates provide an indicative order of magnitude of the potential economic benefits accruing within the EU under each alternative. **It should be noted that this impact is already captured under Measure 2.** In that measure, the procurement

¹⁷⁴ European Commission (15, June 2023). Communication from the Commission: Implementation of the 5G cybersecurity Toolbox C(2023) 4049 final. Available at : <https://digital-strategy.ec.europa.eu/en/library/communication-commission-implementation-5g-cybersecurity-toolbox>.

¹⁷⁵ Euronews (6 November 2025). Test results showed that the Chinese bus maker had access to the vehicles' control systems for software updates and diagnostics. <https://www.euronews.com/next/2025/11/06/chinese-made-buses-can-be-halted-remotely-in-norway-spurring-increased-security> Last access in November, 2025.

multiplier is applied to the total additional R&D procurement generated, whereas here it is applied only to the share of that R&D procurement undertaken by European companies, which is already part of the total. **Consequently, adding the benefits of Measures 2 and 3 would result in double counting.**

The purpose of this calculation is therefore not to estimate additional benefits, but to indicate the share of R&D procurement-related impacts on industry that is likely to “remain” within the EU.

Risk associated with introducing EU preferences in R&D procurement

On the one hand, the EU preferences are expected to generate positive macro-economic effects by limiting the EU’s strategic dependency on uncertain sources of supply and by supporting the scaling up of EU-based technologies. On the other hand, **empirical evidence suggests that, when applied at scale, mandatory preferences for domestic suppliers in procurement can entail non-negligible macroeconomic costs.** The box below discusses several channels through which this can happen. Shepotilo (2020)¹⁷⁶ estimates that the preferential treatment of local producers in public procurement in Ukraine resulted in a **GDP loss of approximately 0.58%**. This measure applied broadly across public buyers and import-intensive product categories. By comparison, Boer and Rieth (2024)¹⁷⁷ estimate that nationwide U.S. tariff increases, applied economy-wide, led to GDP losses in the range of **0.1% to 0.5% per year**, illustrating that even generalised trade restrictions generate significant but limited macroeconomic effects.

From a design perspective, the Ukrainian localisation requirement is most comparable to **Alternative B**. Both involve mandatory preferences applied in specific procurement contexts and for selected technologies, rather than economy-wide obligations (Alternative C) or non-binding guidance (Alternative A). However, the Ukrainian measure applies to a broader population of public buyers and a wider share of import-intensive procurement categories than the Measure under assessment, which is deliberately confined to R&D procurement outside the remit of the Public Procurement Directives / PPA. Accordingly, it is assumed that, in relative terms, Alternative B mobilises **roughly 1/5 (= 20%) of the transports/infrastructure/innovation procurement local preference covered in Ukrainian reform.**

On the other hand, the **EU Single Market is significantly larger** (e.g. the EU GDP was 90 times larger than Ukrainian GDP in 2021), **more diversified, and more integrated** than the Ukrainian economy, with deeper supplier bases, greater substitution possibilities, and higher competitive intensity across Member States. These features increase the capacity of the EU economy to **absorb R&D procurement preferences without generating comparable price, productivity, or supply chain distortions.** Moreover, Alternative B preserves the possibility of global sourcing where no suitable EU-made solution exists, which further limits the effective restriction on trade. Taking these design

¹⁷⁶ Oleksandr Shepotilo (2020). How will preferential treatment of local producers in public procurement impact the GDP of Ukraine

¹⁷⁷ Boer, L., & Rieth, M. (2024). The macroeconomic consequences of import tariffs and trade policy uncertainty. International Monetary Fund

features and market-size effects together, the realistic upper bound of unintended macroeconomic costs associated with reduced trade under Alternative B is EUR 464 million calculated as follows:

$$\begin{aligned} & \text{Macroeconomic cost of EU preferences} \\ &= (0.58\% * 20\% * 2.2\%) * \text{EUR 18 trillion} = \text{EUR 464 million} \end{aligned}$$

Where:

- 0.58% is the negative macroeconomic impact on Ukrainian GDP caused by national preference on many innovation procurements in many sectors;
- 20% (= 1/5) is scale difference between the amount of R&D procurement and innovation procurement in the EU;
- 2.25 (= 1/45) is the scale difference between the EU Single Market and Ukraine internal market divided by a factor of 2;
- EUR 18 trillion is the EU27 GDP (average 2022 – 2025).

To sum up, in a geopolitical context characterised by a higher likelihood of trade disruptions and frictions, accepting some degree of short-term economic cost in exchange for greater resilience can be welfare-improving over the long term, as it builds the redundancies needed to safeguard continuity and sustain future growth.^{178,179,180}

Box A4-8. How EU preferences for domestic suppliers in procurement can entail macroeconomic costs when applied at scale.

Introducing a preference for EU-made solutions in R&D procurement could generate a series of unintended impacts on market functioning, innovation dynamics, geopolitical relations, and long-term resilience of EU value chains, that ultimately reflect on GDP losses, at least in the short term.

A key societal cost relates to **reduced supplier choice, which may translate into higher public and private expenditure**. Where buyers face constraints in sourcing from global suppliers, they may encounter higher prices or longer delivery times, particularly in sectors where EU production capacity remains limited. Restricting access to global inputs can increase overall system costs and may reduce the quality or technological sophistication of procured solutions. These risks are especially relevant in strategic sectors such as semiconductors, advanced digital equipment, robotics, and critical raw materials, although, the Alternative B of the Measure includes safeguards to mitigate such effects.

Reduced competition may generate further societal costs (and negative impact on GDP). If fewer suppliers are able to participate (due to restrictions on non-EU providers or the inability of EU firms relying on global inputs to comply)

¹⁷⁸ Xue, J., & Li, G. (2023). Balancing resilience and efficiency in supply chains: Roles of disruptive technologies under Industry 4.0. *Frontiers of Engineering Management*, 10(1), 171-176.

¹⁷⁹ Berendes K, Arabmaldar A, Hammerschmidt M, Loske D, Klumpp M (2025), "Measuring the resilience-efficiency trade-off: an empirical application for retail logistics". *Logistics Research*, Vol. 18 No. 1-2 pp. 110–134, doi: <https://doi.org/10.1108/LORE-12-2024-0016>

¹⁸⁰ Katsaliaki, K., Galetsi, P., & Kumar, S. (2022). Supply chain disruptions and resilience: a major review and future research agenda. *Annals of operations research*, 319(1), 965-1002.

procurement markets may become less dynamic. Lower competitive pressure can lead to higher public expenditure and weaker incentives for innovation and efficiency improvements.

Additional negative effects may arise from supply chain restructuring. While shifting production and sourcing towards the EU may strengthen resilience over time, the transition can involve short-term inefficiencies, capacity constraints, and coordination challenges. This may delay the deployment of key technologies or increase costs for end users, particularly in fast-moving sectors such as renewable energy, medical technologies, and electronics.

There is also a risk of international retaliation. Third countries could introduce countermeasures limiting access for EU firms, potentially affecting sectors where the EU is globally competitive, such as pharmaceuticals, green technologies, aerospace, and specialised machinery. While the likelihood and scale of such responses remain uncertain, their impact could be significant. This risk is partly mitigated by the targeted scope of the measure, which applies only to R&D procurement, and by the fact that other major economies like USA and China already apply similar preferences for local suppliers.

Another consideration concerns relations with closely integrated partners, such as countries in the European Economic Area. If applied too rigidly, EU preferences could strain existing cooperation frameworks and disrupt cross-border value chains. To address this, the measure is designed to apply only where consistent with existing agreements, and may allow participation from such partners where appropriate.

ANNEX 5: COMPETITIVENESS CHECK

1. OVERVIEW OF IMPACTS ON COMPETITIVENESS

Dimensions of Competitiveness	Impact of the initiative (++ / + / 0 / - / -- / n.a.)	References to sub-sections of the main report or annexes
Cost and price competitiveness	-	Chapter 6.1, 8, and Annex 4
International competitiveness	+	Chapter 6.2, 8, and Annex 4
Capacity to innovate	+	Chapter 6.2, 8, and Annex 4
SME competitiveness	+	Chapter 6.2, 8, and Annex 4

2. SYNTHETIC ASSESSMENT

Cost and competitiveness

The implementation of the European Innovation Act (EIA) is expected to generate both adjustment and administrative costs for the key stakeholders. Considering the quantified costs, the EIA is expected to **generate one-off adjustment costs of EUR 40 million**, 95% of them borne to European public buyers from the Measures on procurement, namely, introducing innovation-friendly techniques for R&D procurement and EU preferences in R&D procurement.

Against these costs, the implementation of EIA is expected to reduce the "price of innovation" for European public buyers and firms. **Overall, the EIA is projected to deliver approximately EUR 1.1 billion in annual cost savings and price reductions compared with the baseline.**

Specifically, for businesses, the EIA is projected to deliver annual efficiency gains of around EUR 35 million through more harmonised access to intellectual property valuation

frameworks. Public buyers are also expected to benefit, with efficiency gains from the use of innovation-friendly R&D procurement approaches estimated at EUR 1.07 billion.

International competitiveness

Macro-economic simulations using the RHOMOLO model indicate that EU GDP would increase by approximately 0.24-0.42% over a ten-year horizon compared with a baseline scenario without the EIA. By year 10, the low scenario delivers EUR 255 billion in additional EU GDP (cumulative over the whole period) alongside 238 thousand extra jobs (FTEs) at its peak impact, while the high scenario generates almost EUR 452 billion in cumulative GDP impact, and 507 thousand additional jobs in the year of the maximum impact. In that same year (year 10), the GDP is between 0.24% and 0.42% above the no-policy scenario. These effects build gradually through the ten-year phase-in period, with GDP impacts accelerating in years 6-10 as capital deepening and productivity increases compound through regional production networks.

Capacity to innovate

The EIA is intended to strengthen the EU's industrial innovation capacity by raising the share streamlining access to R&D procurement, including preferences for European-based industry, and improving access to IP-backed finance through a harmonised intellectual property valuation framework.

Regarding the **improved conditions for IP valuation are expected to help businesses secure an additional EUR 2.7–10.2 billion in IP-backed finance**, including bank lending and venture capital investment.

Facilitating participation in R&D procurement is expected to provide a further boost to innovation, with participating firms potentially generating EUR 3 in profit for every euro of PCP invested in the economy. Based on the projected EUR 17.28 billion of R&D procurement expected to be channelled through the EIA, **the total business impact is estimated at EUR 26 billion, including EUR 13 billion benefiting the European economy through the introduction of EU preferences.**

Beyond quantified impacts, the evidence reviewed suggests that IP valuation and R&D procurement generate broad societal benefits by accelerating the development, adoption, and diffusion of innovative technologies, particularly in strategic sectors such as healthcare, digital technologies, clean energy, mobility, and AI. At the same time, these instruments strengthen competition and cross-border collaboration, increasing SME participation and fostering strategic partnerships across Europe. The literature also indicates that these mechanisms improve the quality, efficiency, and sustainability of public services while supporting environmentally beneficial innovation. Evidence shows that innovation procurement contributes to the uptake of green and digital solutions, including technologies that reduce emissions, energy use, pollution, and resource consumption.

Risks and uncertainties

The introduction of innovation-related measures is not risk free. While R&D procurement can generate significant economic and innovation benefits, they also involve greater uncertainty than conventional procurement because they support solutions whose technical feasibility, market uptake and commercial viability may not yet be fully proven. For R&D procurement risks arise from both suppliers failing to meet objectives and contracting authorities facing difficulties in adopting innovative solutions. Evidence from the literature suggests potential failure or non-adoption rates of between 5% and 20%.

However, the estimated R&D procurement impacts are measured in terms of profit, which already accounts for possible financial losses linked to unsuccessful R&D investments or technology failures. Therefore, no additional risk adjustment is applied to the R&D procurement benefit estimates.

SME competitiveness

The EIA significantly bolsters the competitiveness of SMEs by lowering financial barriers and accelerating their ability to bring new technologies to market, while increasing their probability of survival, especially related to frontier technologies (see the SMEs Test for details).

3. COMPETITIVE POSITION OF THE MOST AFFECTED SECTORS

The European Innovation Act (EIA) is a cross-sector initiative aiming to deliver a level playing field for innovators across all sectors and all Member States, rather than targeting or favouring specific industries. Its measures are horizontal by design and address structural barriers that affect innovation-intensive activities broadly, such as regulatory fragmentation, uneven access to infrastructures, barriers to scaling across borders, and legal uncertainty for innovative business models. As a result, the EIA does not alter competitive dynamics between sectors, but it does affect more strongly those sectors that are structurally more exposed to these barriers (namely knowledge-intensive manufacturing, digital and deep-tech activities, clean and climate technologies, health and life sciences, and other R&D- and capital-intensive sectors).

By improving horizontal framework conditions the EIA is expected to strengthen the competitive position of these sectors vis-à-vis global competitors, while preserving a technology-neutral approach and avoiding distortions between EU sectors.

ANNEX 6: SME CHECK

OVERVIEW OF IMPACTS ON SMES AND STARTUPS

The Table below discusses the European Innovation Act (EIA) expected impact on SMEs measure by measure.

Table A6-1. SME check

AREA	MEASURE	Preferred Alternative	SME Test
Commercialisation of R&I results	Measure1: Promoting valuation of Intellectual property rights (IP).	E - Give EUIPO a mandate (in EIA) to develop an EU wide IP valuation framework, develop an EU wide marketplace that functions as secondary marketplace for inventors and investors to buy and sell IP, and mandate to act as an EU wide IP competence centre that provides advice, training and financial support to innovators for IP valuation	The IA estimates that 10,398 innovative SMEs owning registered European patents could potentially be affected by this measure. The estimated administrative costs borne by these businesses are in the interval EUR 4.2 – 8.5 million. Against them, SMEs benefit from having access to a methodology for valuing IPR, to a secondary market in which IPR can be bought and sold, and EUIPO training services. The benefits for SMEs stem from the costs avoided (efficiency gains) compared with a baseline scenario in which this measure does not exist. Efficiency gains for innovative SMEs are valued at EUR 12.6–25.3 million in total corresponding to a 75% reduction compared to the situation without the Measure, namely the baseline, and up to EUR to up to EUR 2,400 in cost savings per individual SME On top of that, stronger IPRs valuation systems are associated with higher chances to access to IP-backed finance, either debt from banks or venture capital. The IA estimates that this benefits values from EUR 1.9 – 7.3 billion of additional capital raised by SMEs.
Innovation procurement	Measure2: Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement	B – Obligatory techniques for R&D procurement for public buyers	No specific information to report. Under the preferred alternative, administrative and adjustment costs are calculated primarily for public buyers, while suppliers can experience higher administrative costs compared to the baseline. While not directly targeted by the Measure, SMEs may still benefit indirectly as suppliers within the supply chain (see the Annex on SDGs for a discussion on other benefits associated with this Measure)
Innovation procurement	Measure3: Preference for EU-made solutions in pre-commercial procurement for public buyers	B – Mandatory preferences for EU-made solutions for public buyers, with clauses	No specific information to report. As discussed above, under the preferred alternative, administrative and adjustment costs are calculated primarily for public buyers, and firms participating in the procurement procedures as suppliers. Indirectly, the wider economic effects associated with the impact on EU strategic autonomy may also benefit SMEs in the European supply chain (see the Annex on SDGs for a discussion on other benefits and risks associated with EU preferences in innovation procurement, including costs and risks).

Table below discusses the European Innovation Act (EIA) expected impact on startups measure by measure.

Table A6-2. Startups check

AREA	MEASURE	Preferred Alternative	SME Test
Commercialisation of R&I results	Measure1: Promoting valuation of Intellectual property rights (IP).	E - Give EUIPO a mandate (in EIA) to develop an EU wide IP valuation framework, develop an EU wide marketplace that functions as secondary marketplace for inventors and investors to buy and sell IP, and mandate to act as an EU wide IP competence centre that provides advice, training and financial support to innovators for IP valuation	The IA estimates that 1,036 startups owning registered European patents could potentially be affected by this measure. The estimated administrative costs borne by these businesses are in the interval EUR 0.4 – 0.8 million. Against them, startups benefit from having access to a methodology for valuing IPR, to a secondary market in which IPR can be bought and sold, and EUIPO training services. The benefits for startups stem from the costs avoided (efficiency gains) compared with a baseline scenario in which this measure does not exist. Efficiency gains for startups are valued at EUR 1.2–2.5 million in total corresponding to a 75% reduction compared to the situation without the Measure, namely the baseline, and up to EUR to up to EUR 2,400 in cost savings per individual startup On top of that, stronger IPRs valuation systems are associated with higher chances to access to IP-backed finance, either debt from banks or venture capital. The IA estimates that this benefits values from EUR 0.2 – 0.7 billion of additional capital raised by startups.
Innovation procurement	Measure2: Establish procedures for R&D procurement for public buyers, including cross-border R&D procurement and rules to promote the use of innovation-friendly techniques within R&D procurement	B – Obligatory techniques for R&D procurement for public buyers	No specific information to report. Under the preferred alternative, administrative and adjustment costs are calculated primarily for public buyers, while suppliers can experience higher administrative costs compared to the baseline. While not directly targeted by the Measure, startups may still benefit indirectly as suppliers within the supply chain (see the Annex on SDGs for a discussion on other benefits associated with this Measure)
Innovation procurement	Measure3: Preference for EU-made solutions in R&D procurement for public buyers	B – Mandatory preferences for EU-made solutions for public buyers, with clauses	No specific information to report. As discussed above, under the preferred alternative, administrative and adjustment costs are calculated primarily for public buyers, and firms participating in the procurement procedures as suppliers. Indirectly, the wider economic effects associated with the impact on EU strategic autonomy may also benefit startups in the European supply chain (see the Annex on SDGs for a discussion on other benefits and risks associated with EU preferences in innovation procurement, including costs and risks).

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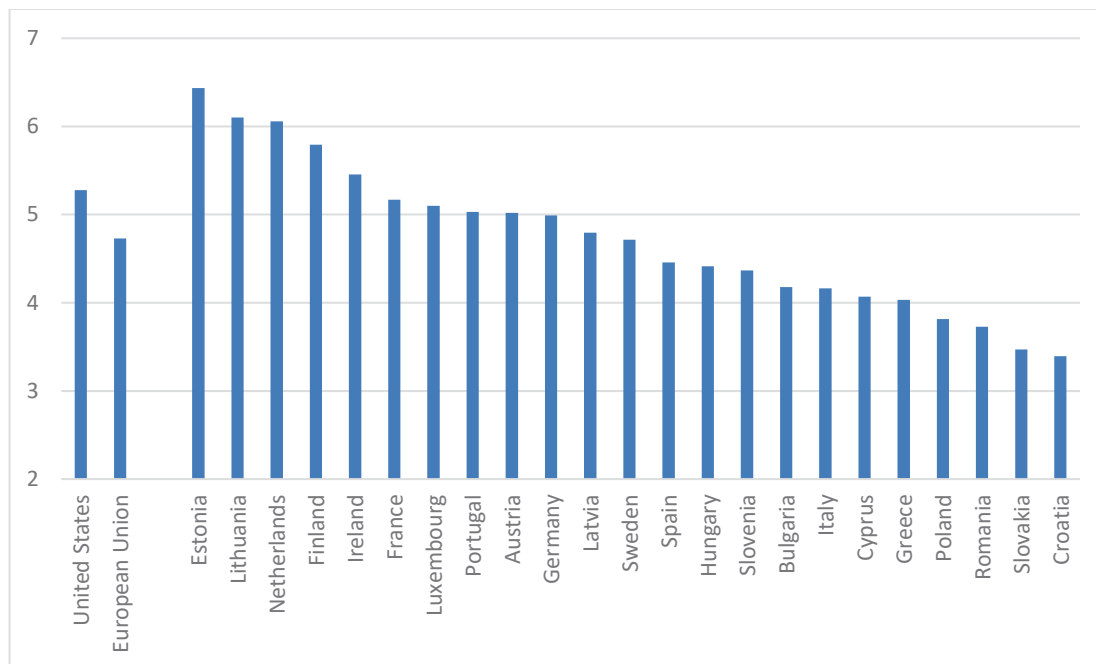
CONSULTATION OF SME STAKEHOLDERS

Table A6-2. How has the input from the SME community been taken into consideration?

1. All responses and descriptive statistics from the Open Public Consultation were disaggregated to distinguish between businesses in general and SMEs. 2. During the targeted consultation, including focus groups and interviews, the following SME representatives were consulted: Interviews: • Orgalim (with participation of VDMA, Europe-wide association of the machinery and equipment manufacturing industry) (industru, but also includes SMEs) • SMEunited • European Entrepreneurs CEA-PME (Confédération Européenne des Associations de Petites et Moyennes Entreprises) • European Startup Network • Europe Startup Nations Alliance • Allied for Startups Surveys: • VDMA , German Mechanical Engineering Industry Association; includes many SMEs. • Suomen Yrittäjät, Federation of Finnish Enterprises • Confartigianato Imprese , Italian association for artisans and SMEs. • Swedish Federation of Business Owners • Danske Iværksættere , Danish Entrepreneurs • CNA, Confederazione Nazionale dell'Artigianato e della Piccola e Media Impresa, Italian confederation for SMEs and artisans. • Latvian Startup Association • Startup Portugal, Associação Portuguesa para a promoção do Empreendedorismo (SPAPPE) • Krajowa Izba Gospodarcza Elektroniki i Telekomunikacji, Polish association; includes SME members in electronics and telecom sectors. • Czech Startup Association Focus groups: • SMEunited + Eurochambres (also includes SME). Are SMEs' views different from those of large businesses? <i>(No)</i>
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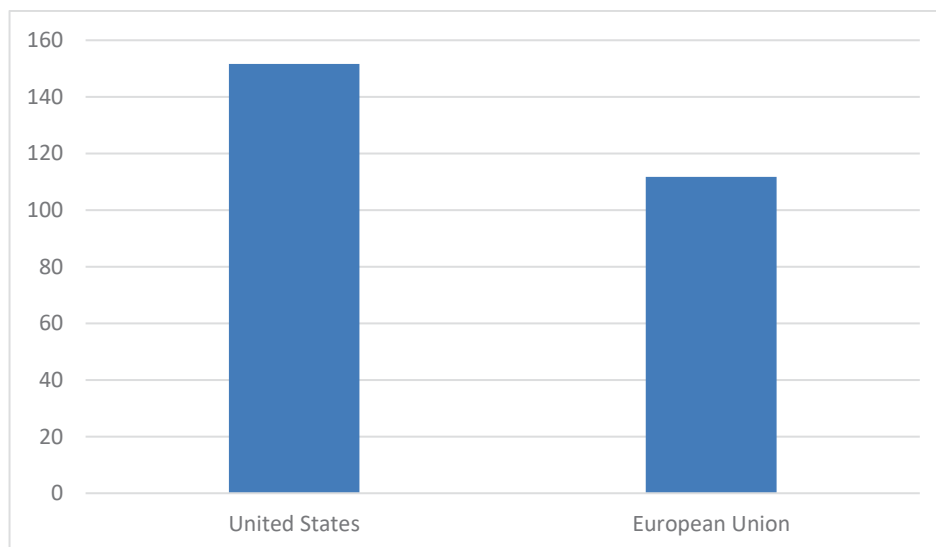
ANNEX 7: SUPPORTING GRAPHS AND TABLES

Figure A7-1. Entrepreneurship policies and culture (2019-2023)



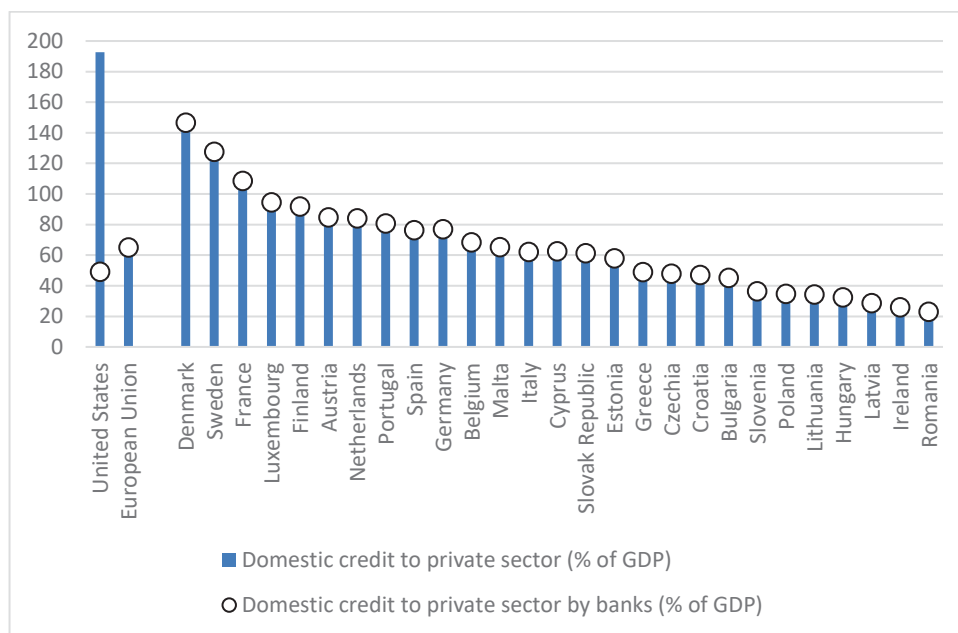
Source: DG Research and Innovation, Innovation Policy & Access to Finance Unit's own elaboration based on data from the sub-component of the Global Innovation Index (GII), Global Entrepreneurship Monitor (GEM), National Expert Survey (NES). Definition: Average perception scores (five-year average) of experts on entrepreneurial policies and entrepreneurial culture. (0= completely false; 10 = completely true). EU value is the unweighted average of MSs performance.

Figure A7-2. Direct and indirect government support of business R&D (2025)



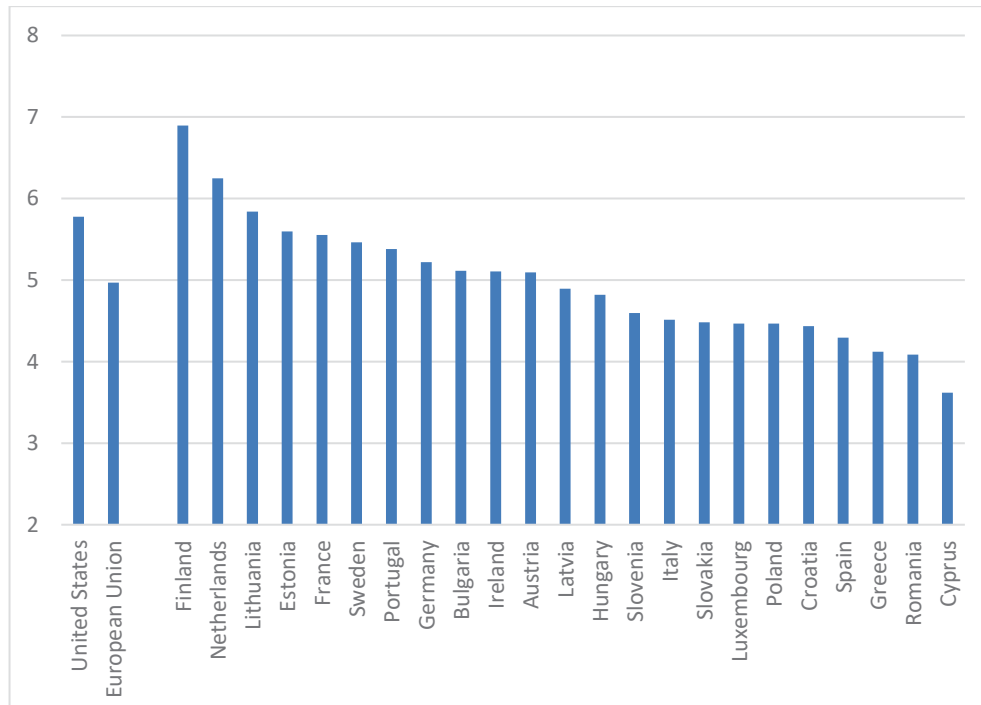
Source: DG Research and Innovation, Innovation Policy & Access to Finance Unit's own elaboration based on data from the sub-component of the European Innovation Scoreboard (EIS). Definition: Direct funding for R&D through instruments such as grants and public procurement, and Indirect support through the tax system. EIS scores are relative to the performance of the EU in 2018, which is assigned a score of 100 for that year.

Figure A7-3. Domestic credit to private sector (2023)



Source: DG Research and Innovation, Innovation Policy & Access to Finance Unit's own elaboration based on data from the sub-component of the Global Innovation Index (GII), World Bank's World Development Indicators database. Definition: Domestic credit to private sector refers to financial resources provided to the private sector by financial corporations. Expressed in % of GDP. EU value is the unweighted average of MSs performance.

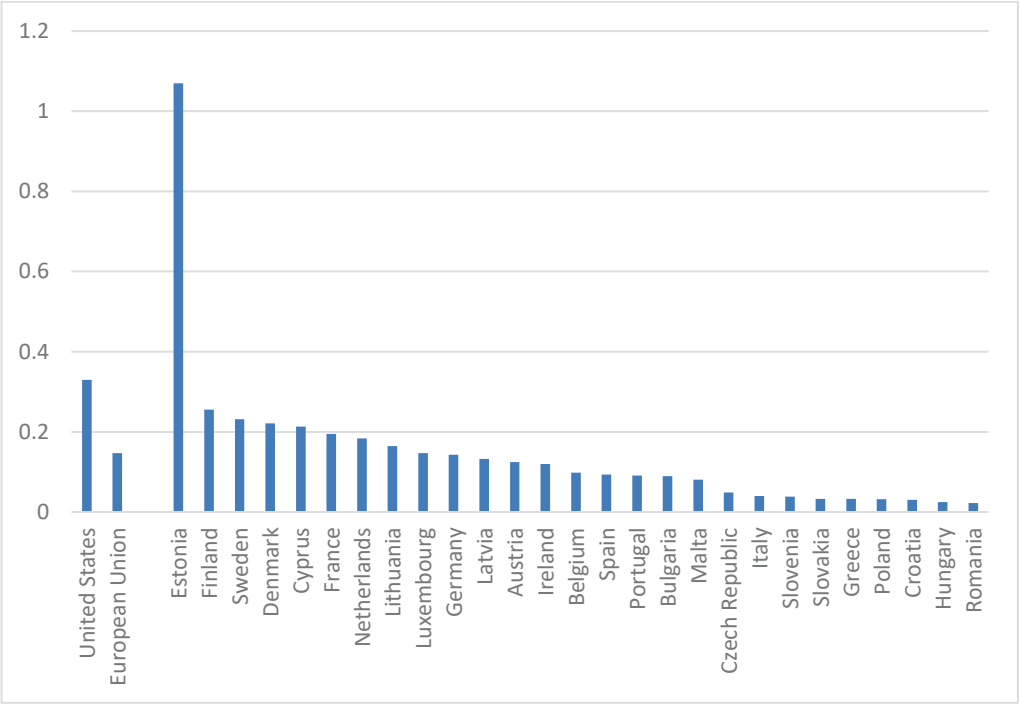
Figure A7-4. Finance for startups and scaleups (2019-2023)



Source: DG Research and Innovation, Innovation Policy & Access to Finance Unit's own elaboration based on data from the sub-component of the Global Innovation Index (GII), Global Entrepreneurship Monitor (GEM), National Expert

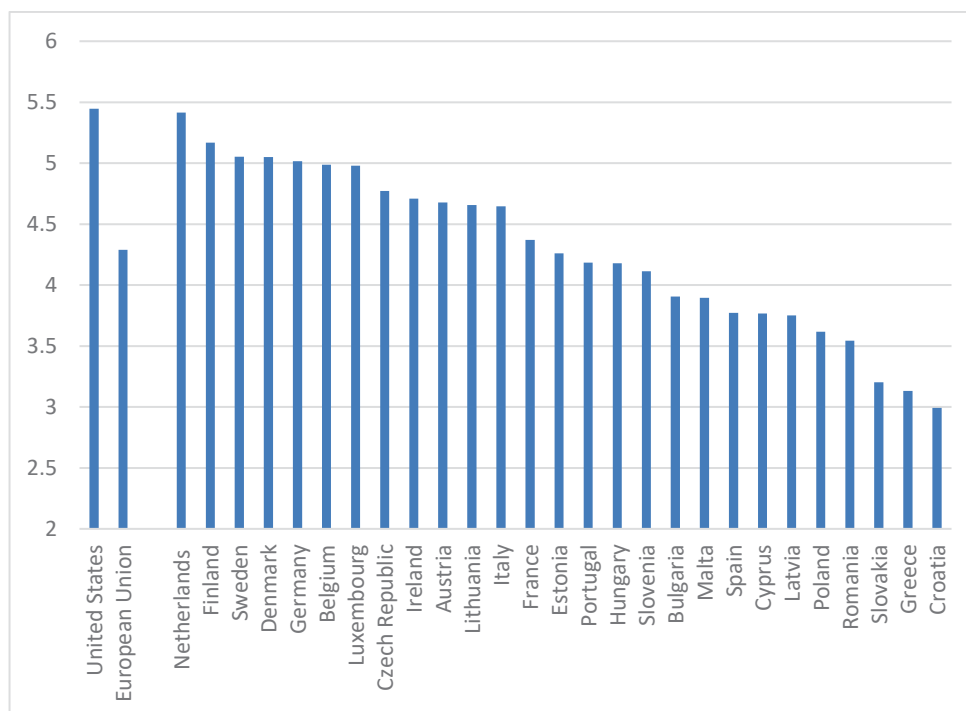
Survey (NES). Definition: Average perception scores (five-year average) of experts on finance for starting and growing firms. (0=completely false; 10 = completely true). EU value is the unweighted average of MSs performance.

Figure A7-5. VC deals per bn PPP GDP (2023)



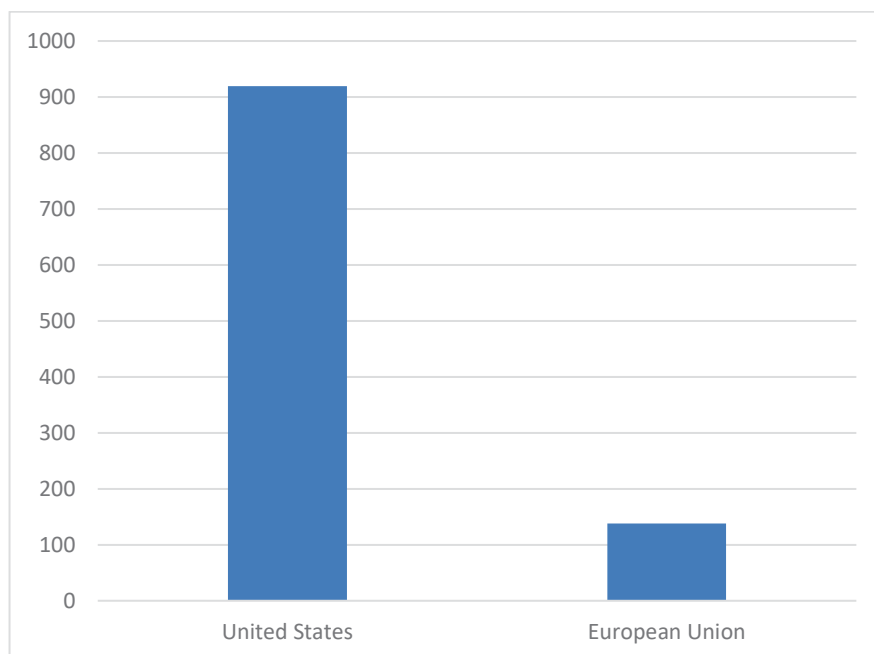
Source: DG Research and Innovation, Innovation Policy & Access to Finance Unit's own elaboration based on data from the sub-component of the Global Innovation Index (GII). Definition: Number of venture capital deals received (per billion PPP\$ GDP, three-year average). EU value is the unweighted average of MSs performance.

Figure A7-6. University-industry R&D collaboration (2023)



Source: DG Research and Innovation, Innovation Policy & Access to Finance Unit's own elaboration based on data from the sub-component of the Global Innovation Index (GII), World Economic Forum, Executive Opinion Survey 2023. Definition: Average answer to the survey question: In your country, to what extent do businesses and universities collaborate on research and development (R&D)? [1 = not at all; 7 = to a great extent]. EU value is the unweighted average of MSs performance.

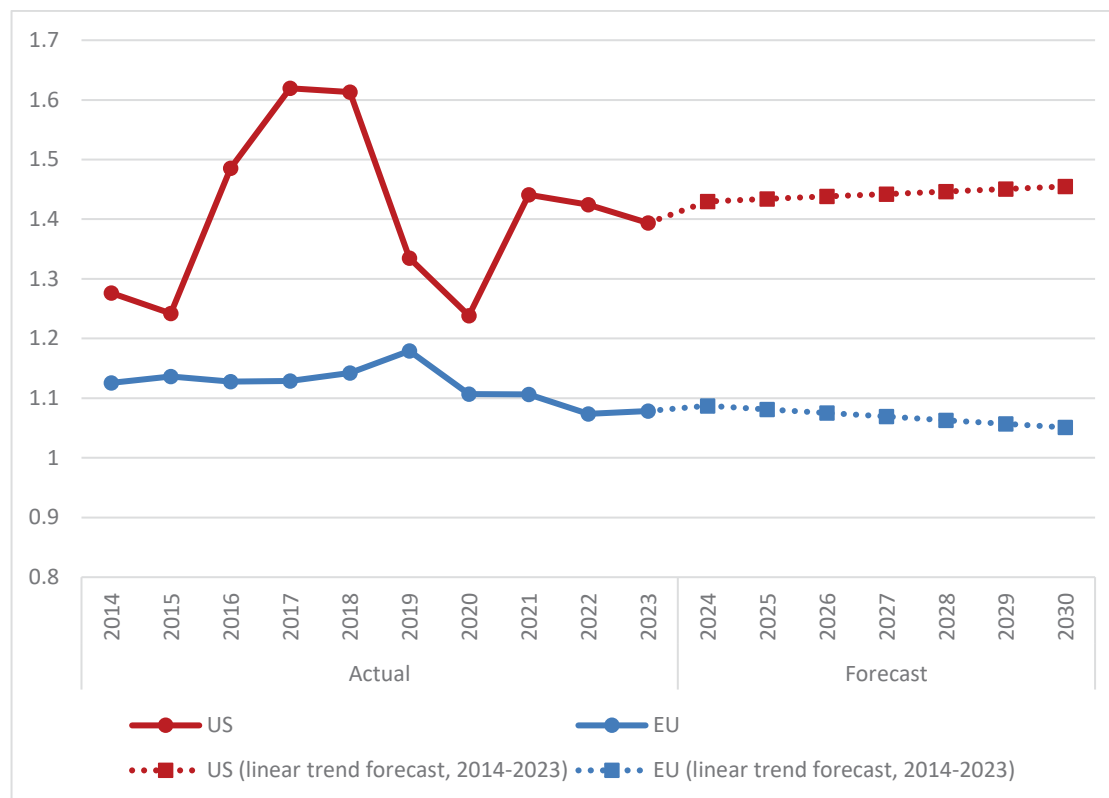
Figure A7-7. Innovative SMEs collaborating with others (2025)



Source: DG Research and Innovation, Innovation Policy & Access to Finance Unit's own elaboration based on data from the sub-component of the European Innovation Scoreboard (EIS). Definition: Share of Small and medium-sized

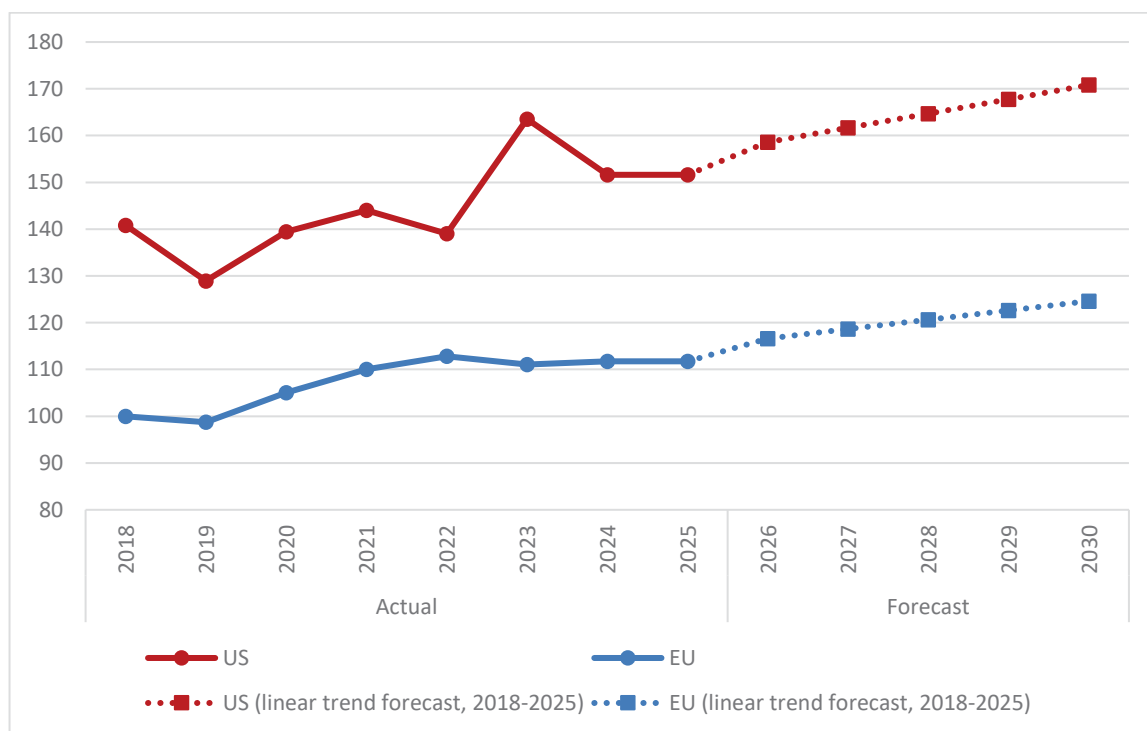
enterprises (SMEs) with innovation cooperation activities including all enterprises that had any cooperation agreements on innovation activities with other enterprises or institutions in the three years of the survey period. EIS scores are relative to the performance of the EU in 2018, which is assigned a score of 100 for that year.

Figure A7-8: EU and US trends in regulatory quality, with linear forecasts based on 2014-2023 data



Note: Historical values are from the Global Innovation Index. Projections are obtained by extrapolating the linear trend over 2014-2023. They are indicative and do not account for future policy changes or structural breaks. Definition: Regulatory quality index captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. EU value is the unweighted average of MSs performance. Source: DG Research and Innovation, Innovation Policy & Access to Finance Unit's own elaboration based on GII data.

Figure A7-9. EU and US trends in Direct and indirect government support of business R&D, with linear forecasts based on 2018-2025 data



Note: Historical values are from the European Innovation Scoreboard. Projections are obtained by extrapolating the linear trend over 2018-2025. They are indicative and do not account for future policy changes or structural breaks. Definition: Direct funding for R&D through instruments such as grants and public procurement, and Indirect support through the tax system. EIS scores are relative to the performance of the EU in 2018, which is assigned a score of 100 for that year. Source: DG Research and Innovation, Innovation policy & Access to finance Unit's own elaboration based on EIS data.

Figure A7-10. EU and US trends in Domestic credit to private sector (% of GDP), with linear forecasts based on 2015-2024 data

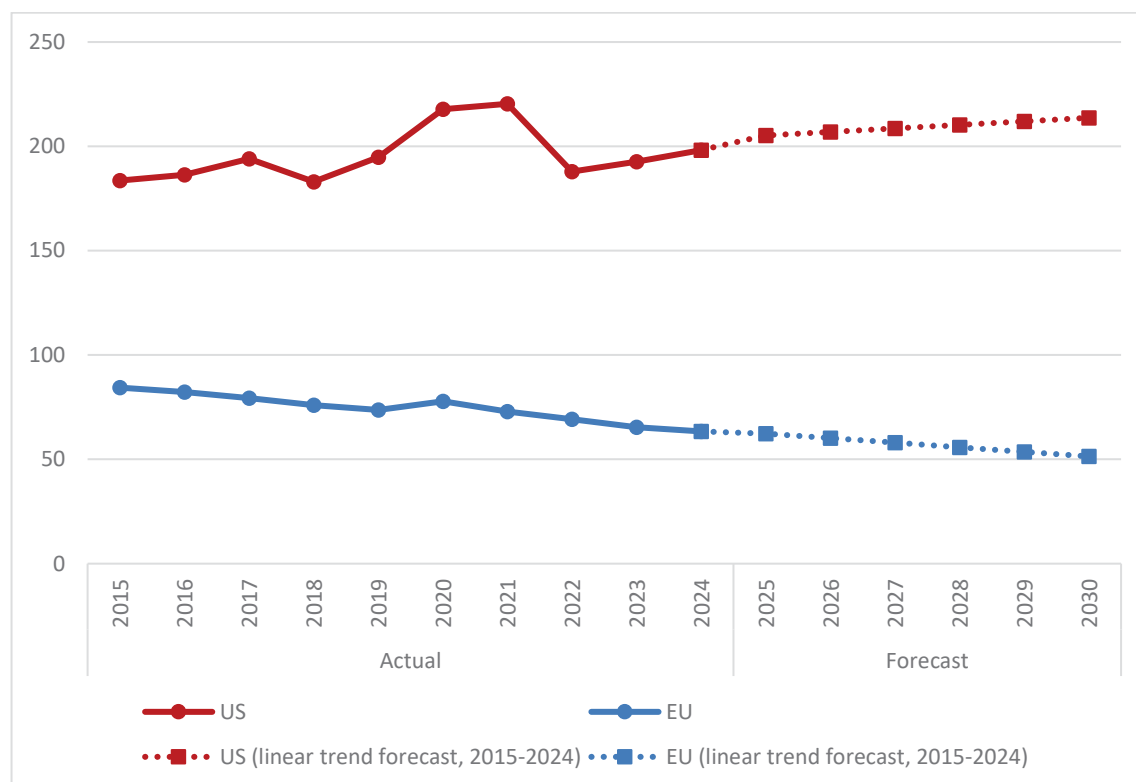
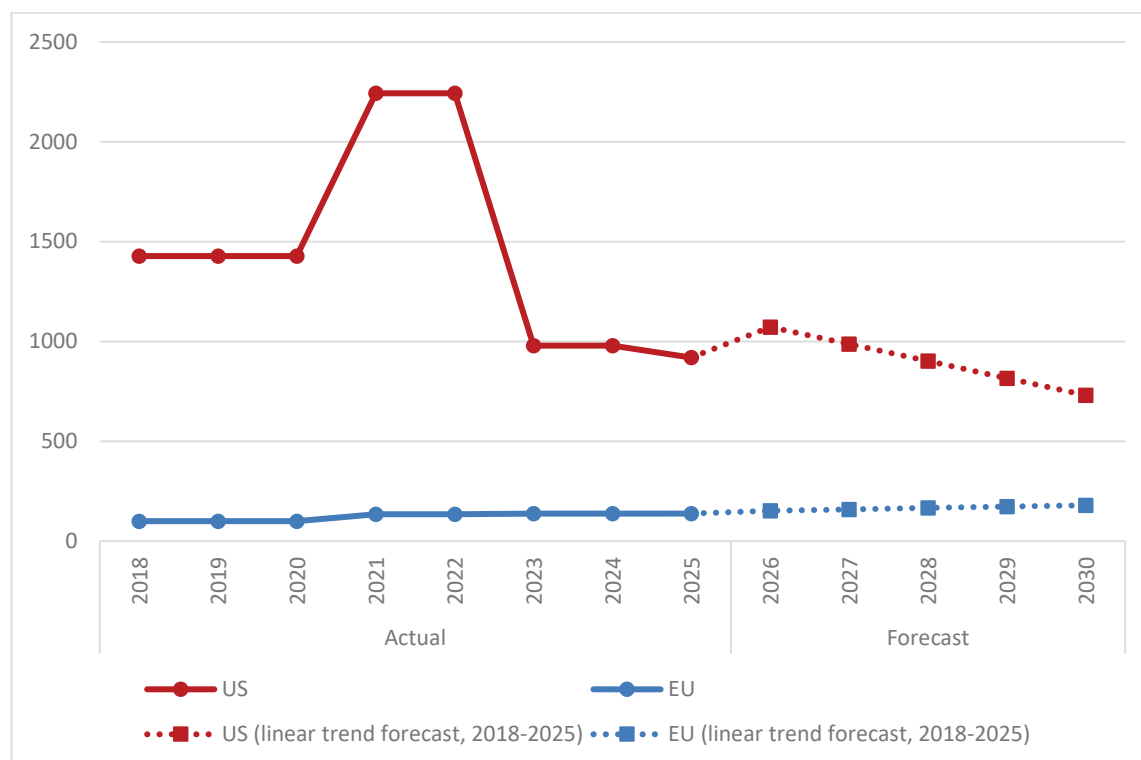


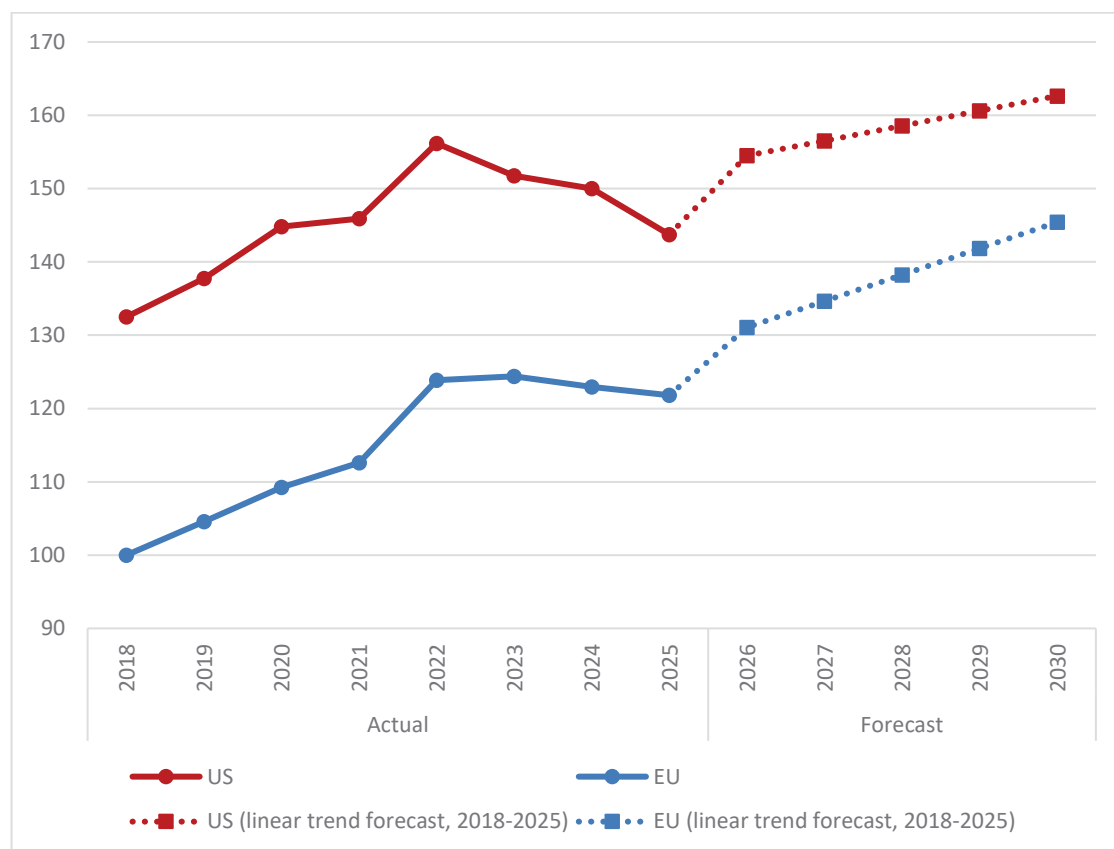
Figure 1. Historical values are from the World Bank, World Development Indicators. Projections are obtained by extrapolating the linear trend over 2015-2024. They are indicative and do not account for future policy changes or structural breaks. Definition: Domestic credit to private sector refers to financial resources provided to the private sector by financial corporations. Expressed in % of GDP. EU value is the unweighted average of MSs performance. Source: DG Research and Innovation, Innovation policy & Access to finance Unit's own elaboration based on World Bank data.

Figure A7-11. EU and US trends in Innovative SMEs collaborating with others, with linear forecasts based on 2018-2025 data



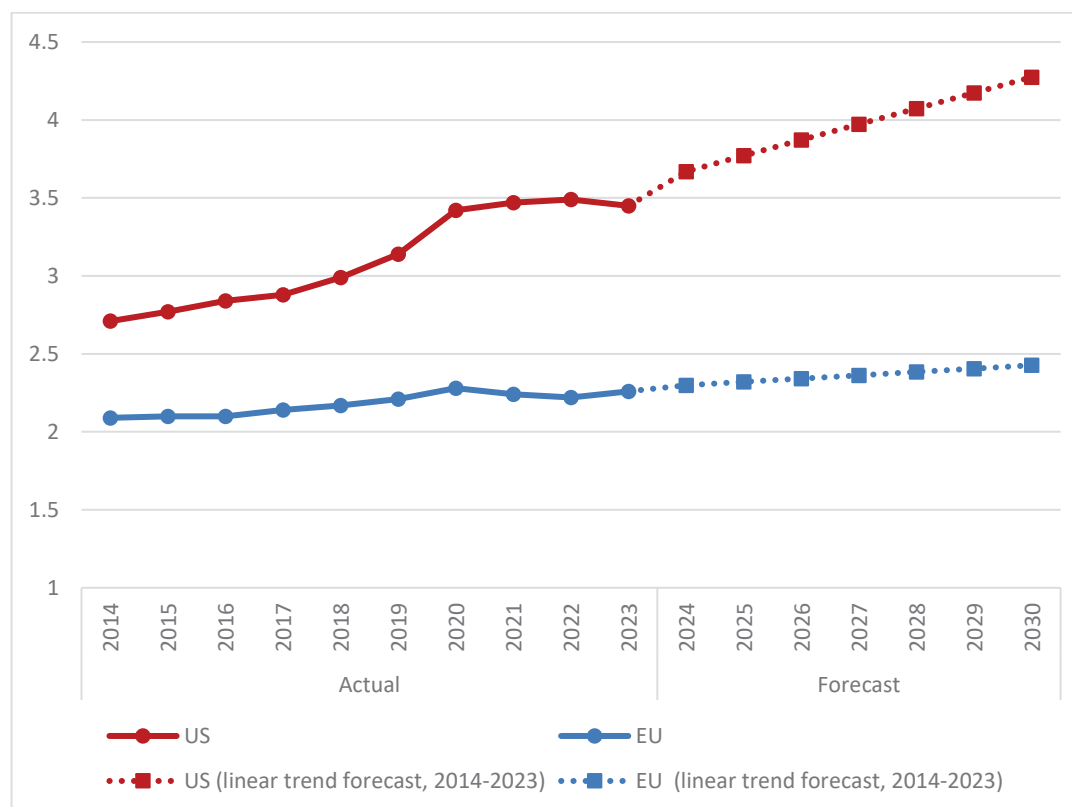
Note: Historical values are from the European Innovation Scoreboard. Projections are obtained by extrapolating the linear trend over 2018-2025. They are indicative and do not account for future policy changes or structural breaks. Definition: Share of Small and medium-sized enterprises (SMEs) with innovation cooperation activities including all enterprises that had any cooperation agreements on innovation activities with other enterprises or institutions in the three years of the survey period. EIS scores are relative to the performance of the EU in 2018, which is assigned a score of 100 for that year. Source: DG Research and Innovation, Innovation policy & Access to finance Unit's own elaboration based on EIS data.

Figure A7-12: EU and US trends in Public-private co-publications, with linear forecasts based on 2018-2025 data



Note: Historical values are from the European Innovation Scoreboard. Projections are obtained by extrapolating the linear trend over 2018-2025. They are indicative and do not account for future policy changes or structural breaks. EIS scores are relative to the performance of the EU in 2018, which is assigned a score of 100 for that year. Source: DG Research and Innovation, Innovation policy & Access to finance Unit's own elaboration based on EIS data.

Figure A7-13. EU and US trends in R&D expenditure in all sectors (% of GDP), with linear forecasts based on 2014-2023 data



Note: Historical values are from Eurostat. Projections are obtained by extrapolating the linear trend over 2014-2023. They are indicative and do not account for future policy changes or structural breaks. Source: DG Research and Innovation, Innovation policy & Access to finance Unit's own elaboration based on Eurostat data.

Table A7-5. Summary of the open public consultation evidence supporting the presented measures

Measure	Open public consultation support
1. Promote valuation of IP	Of the participants that expressed an opinion: 73 % (84) agreed that there is a lack of trustworthy, widely accepted standards for valuing IPR. 81% (96) agreed that there is a lack of experience with IPR valuation among startup/scaleup in the EU. 84% (108) agreed that creating a trustworthy EU wide accepted methodology for IPR valuation and providing templates and guidance on how to apply it would be a good step forward. 62% (72) agreed that creating an EU wide IPR marketplace with sufficient critical mass and liquidity would be a good step forward.
2. Establish a fast-track procedure for R&D	Of the participants that expressed an opinion:

procurement outside of PP directives, that promotes proven techniques to boost innovation minded and start-up friendly purchasing, and that removes joint-cross border procurement issues	• 93% (144) agreed that a fast-track procedure for public procurements buying R&D and/or innovative solutions, with contracts awarded based not only on lowest price, but also on other criteria, would be a good step forward. • 83% (124) agreed that a fast-track procedure for public procurements buying R&D and/or innovative solutions, which make wider use of functional or performance-based specifications, would be a good step forward. • 86% (127) agreed that a fast-track procedure for public procurements buying R&D and/or innovative solutions, without legal hurdles that make it difficult for public buyers from different EU countries to procure R&D and/or innovative solutions collaboratively, would be a good step forward. • 65% (123) agreed that when private buyers in the EU procure solutions, even if without public funding, they should adopt procurement practices that promote innovation and support the participation of start-ups and innovative companies.
3. Preference for EU-made solutions in private and public procurements outside of PP directives	Of the participants that expressed an opinion: • 76% (112) agreed that clear legal provision should be provided for how public buyers can reinforce EU technological sovereignty in procurement that buy R&D and/or innovative solutions. • 80% (113) agreed that private buyers that own/operate critical infrastructures should adopt procurement practices that support the development of strategic technologies within national or European ecosystems and help reduce dependencies on external suppliers.

Note: Public consultation percentages of this table refer to the share of respondents who selected “strongly agree” or “agree” out of all respondents who expressed an opinion (strongly agree, agree, neutral, disagree, or strongly disagree). Respondents who selected “no opinion” are excluded from the calculation to ensure the percentages reflect only those who expressed a view. Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size (202 responses). The consultation nonetheless provides useful qualitative insight into stakeholders’ perceptions, with contributions from businesses (27%), business associations (23%), universities (16%), EU citizens (9%), NGOs (8%), public authorities (4%), trade unions (2%), non-EU citizens (2%), and others (9%).

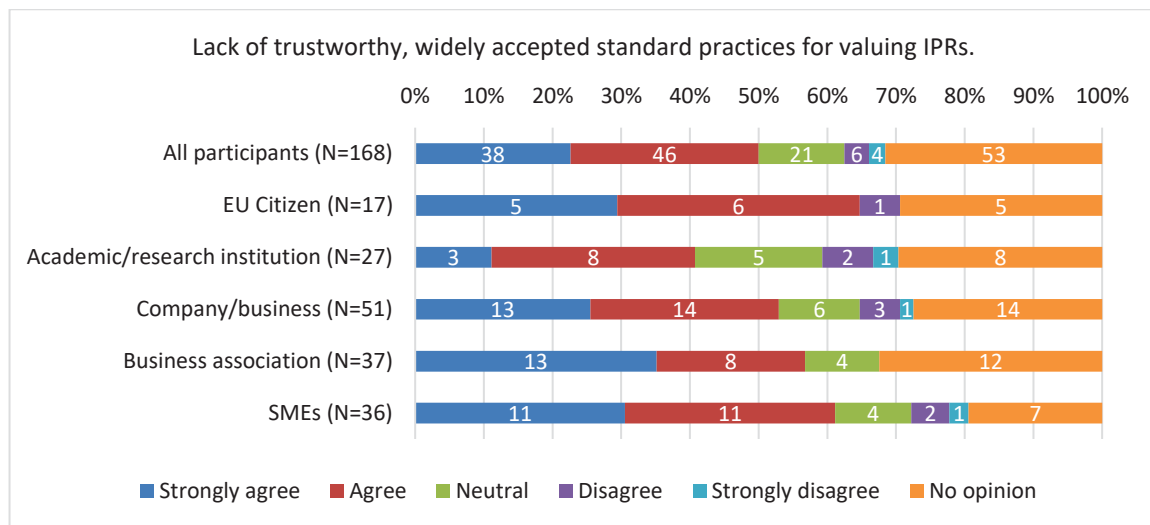
Table A7-6. Summary of the call for evidence, and stakeholder’s interviews support to the presented measures

Measure	Call for evidence and stakeholder’s interviews support
1. Promote valuation of IP	During stakeholder interviews: • Most of the industry, startups and business associations regarded the valuation of intangible assets as a major barrier to raising capital for innovative firms and start-ups. And noted that evaluating intangible assets remains legally complex and costly due to the absence of harmonised rules and standards at EU level. • Financial-sector representatives emphasised that IP valuation is inherently contextual and complex, as it depends on multiple factors. • Most stakeholders saw the establishment of an EU-wide methodology for IP valuation as a desirable step towards enhancing comparability and mutual trust among MS, while simultaneously reducing administrative and procedural fragmentation.

	• Few national and regional authorities noted that intellectual property is seldom valued as an independent asset. Instead, it is typically assessed as part of a firm's broader strategic and commercial potential. As a result, IPR functions more as a strategic enabler (signalling innovation capacity and competitiveness) than as an asset that can be directly monetised or used as collateral.
2. Establish a fast-track procedure for R&D procurement outside of PP directives, that promotes proven techniques to boost innovation minded and start-up friendly purchasing, and that removes joint-cross border procurement issues	In the position papers submitted for the call for evidence: • Some submission identified that current procurement processes are overly rigid, slow, and fragmented across MS, reducing their alignment with innovative solutions (F33070479). While also remaining focused on cost rather than outcomes, lacking flexibility, and imposing long payment cycles, discouraging smaller firms from participating (F33068030). • Several respondents recommended embedding innovation-friendly principles into procurement frameworks (F33070737, F33070479, F33071387), as well as introducing standardised templates, and accelerating approval timelines. (F33070699, F33071387, F33070479) During stakeholder interview: • National and regional authorities responded positively to the idea that public buyers should define the problem to be solved rather than prescribing detailed technical requirements. • Associations dealing with public procurement in the EU highlighted that fragmented e-procurement platforms and differing registration requirements across regions and MS slow down cross-border participation, particularly for start-ups. • SME, and start-up associations highlighted that the "lowest price" principle can prevent innovative firms from competing effectively, recommending moving away from it towards evaluation models that integrate quality. And that excessive prerequisites frequently exclude smaller and newer companies from participation. • Higher education and research organisations reported that regulatory frameworks should better balance public interest and private incentives, allowing suppliers to retain ownership of intellectual property, while granting contracting authorities appropriate usage or licensing rights.
3. Preference for EU-made solutions in private and public procurements outside of PP directives	During stakeholder interview: Innovation procurement experts called for favouring European-based companies within a competitive framework and set rules covering subcontractors as well as prime contractors.

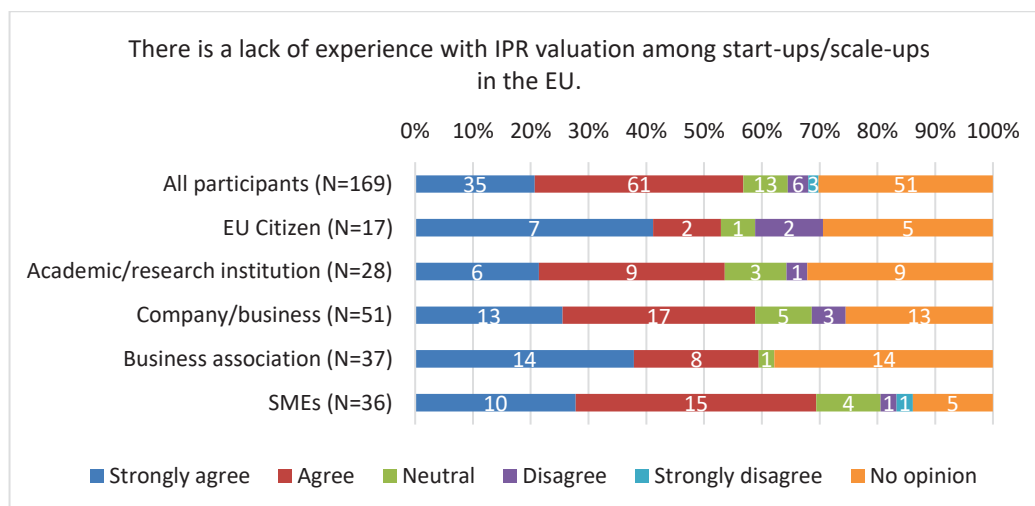
Source: DG Research and Innovation, Innovation policy & Access to finance Unit's own summary of the inputs from the Study supporting the Impact Assessment of the European Innovation Act. Interviews with stakeholders were conducted by an external contractor responsible for the drafting of the Study supporting the Impact Assessment of the European Innovation Act.

Figure A7-14. To what extent do you agree with the following statements? Key barriers preventing start-ups and scale-ups from obtaining IPR-backed financing in the EU are:



Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

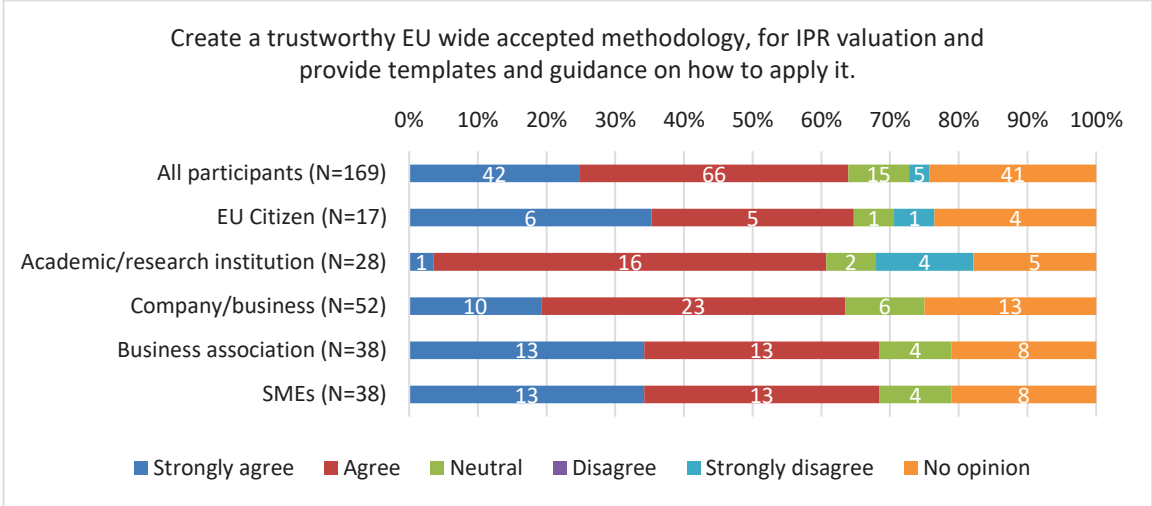
Table A7-15. To what extent do you agree with the following statements? Key barriers preventing start-ups and scale-ups from obtaining IPR-backed financing in the EU are:



Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides

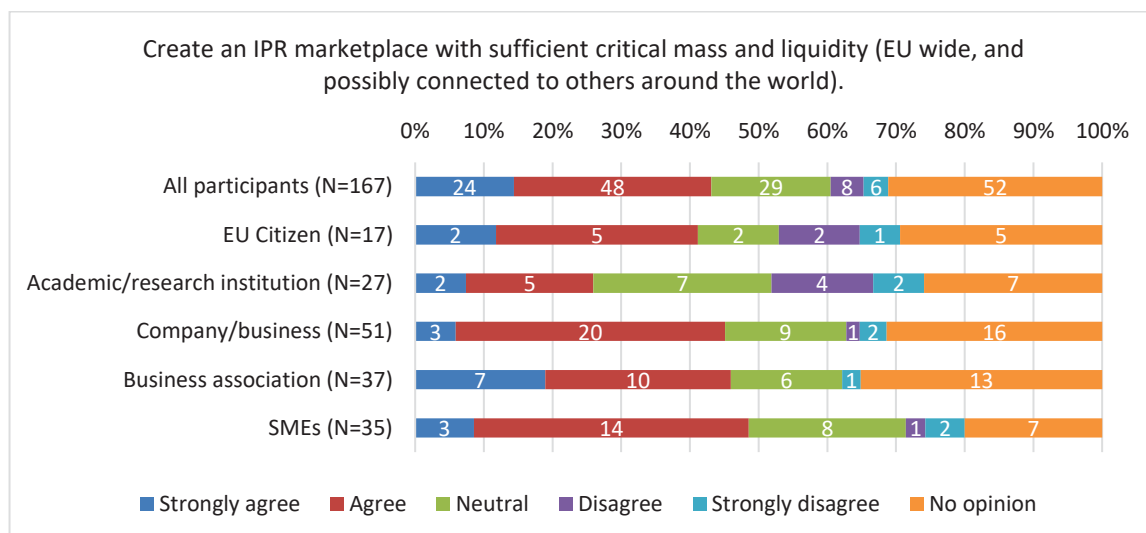
useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

Figure A7-16. To what extent do you agree with the following statements? The following measures are important for the wider implementation of IPR-backed financing in the EU:



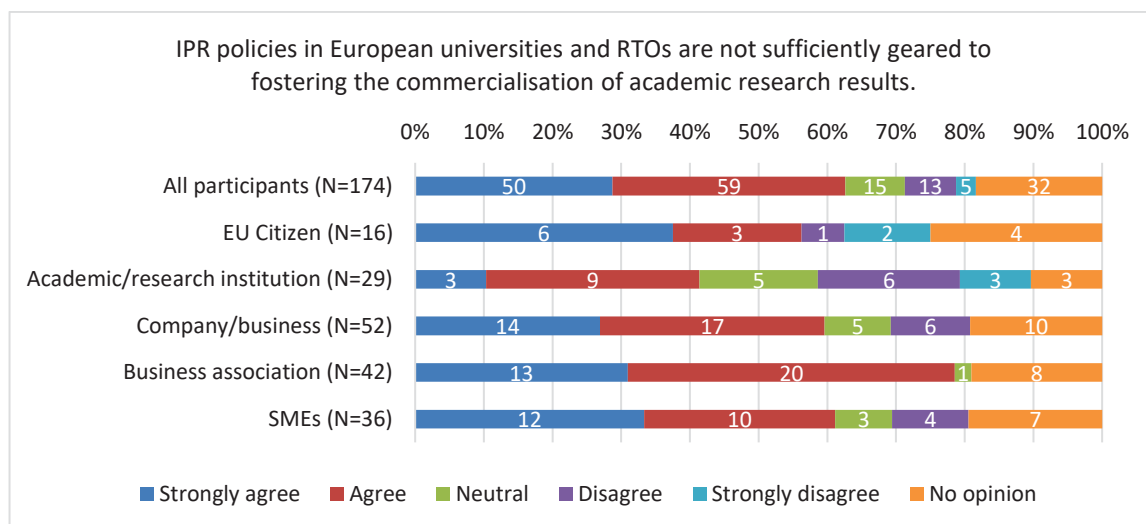
Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

Figure A7-17. To what extent do you agree with the following statements? The following measures are important for the wider implementation of IPR-backed financing in the EU:



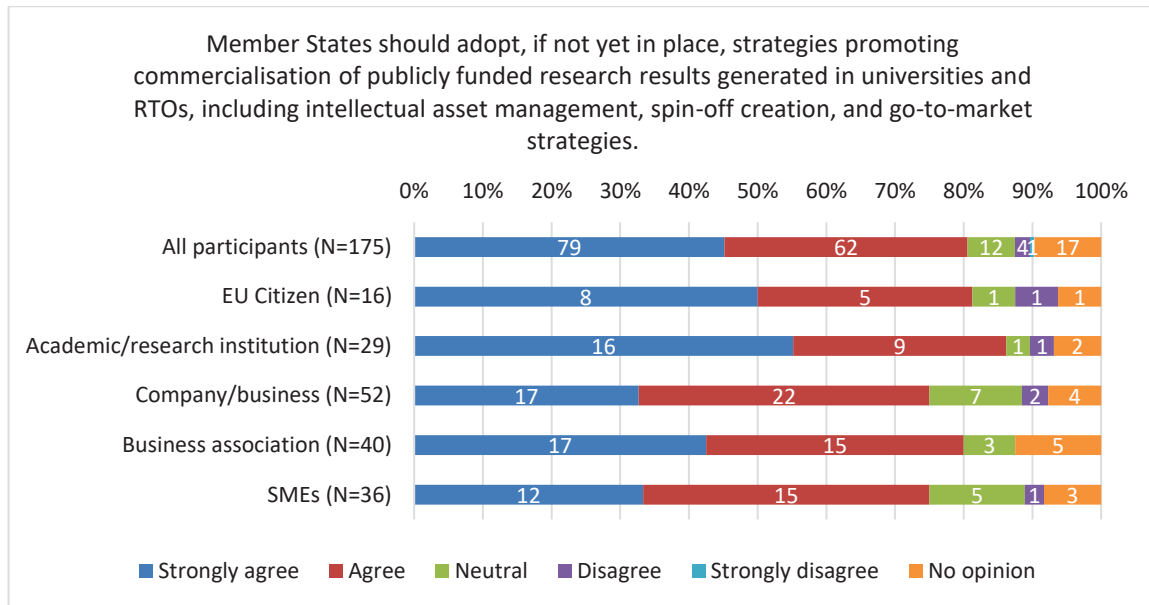
Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

Figure A7-18. To what extent do you agree with the following statements?



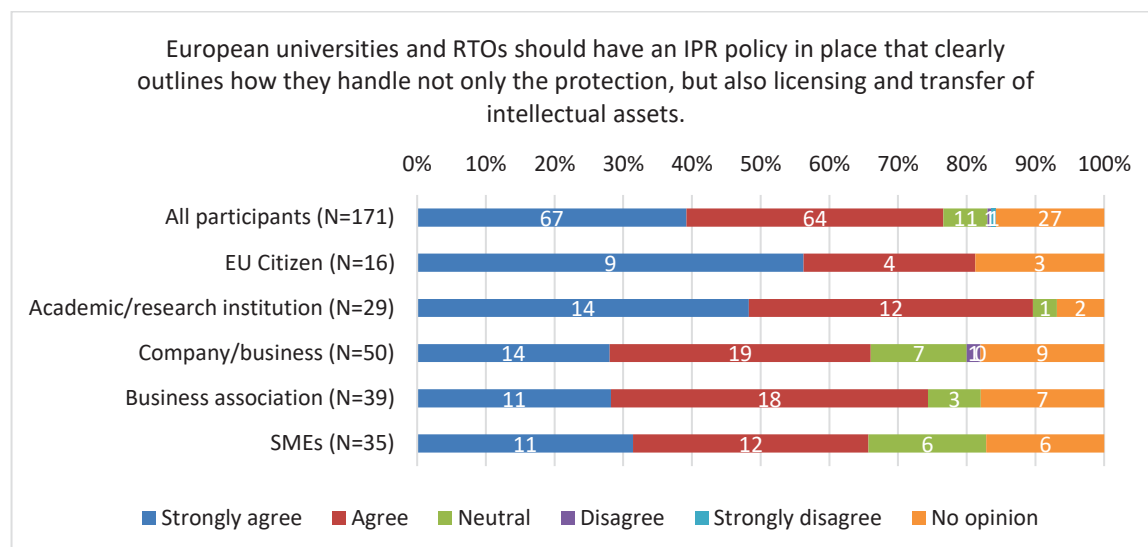
Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

Figure A7-19. To what extent do you agree with the following statements about improving the framework conditions for commercialisation of academic research results?



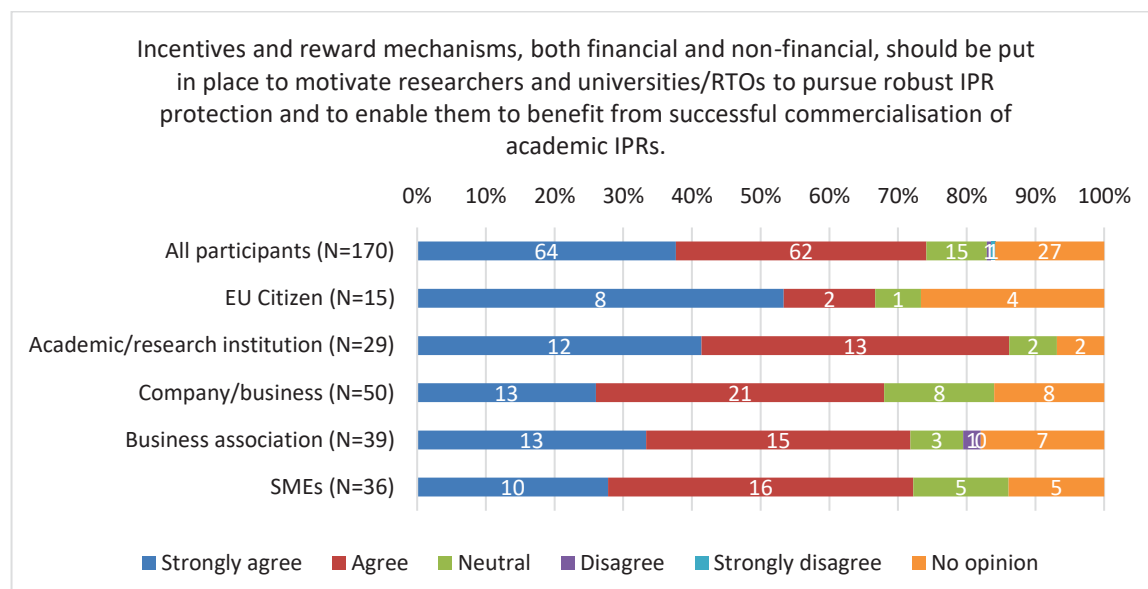
Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

Figure A7-20. To what extent do you agree with the following statements about overcoming IPR-related barriers that hamper the commercialisation of academic research results?



Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

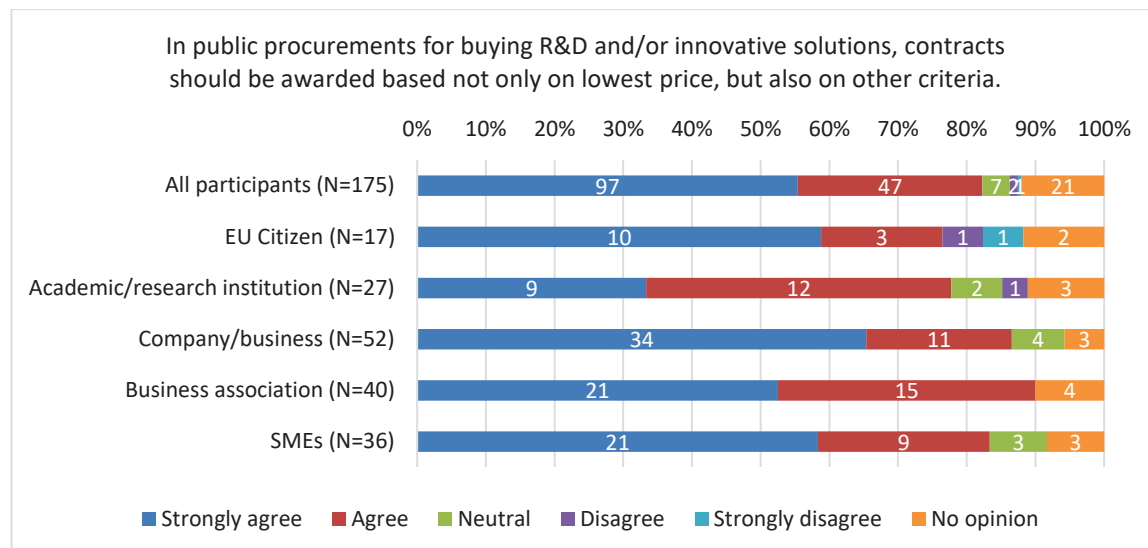
Figure A7-21. To what extent do you agree with the following statements about overcoming IPR-related barriers that hamper the commercialisation of academic research results?



Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides

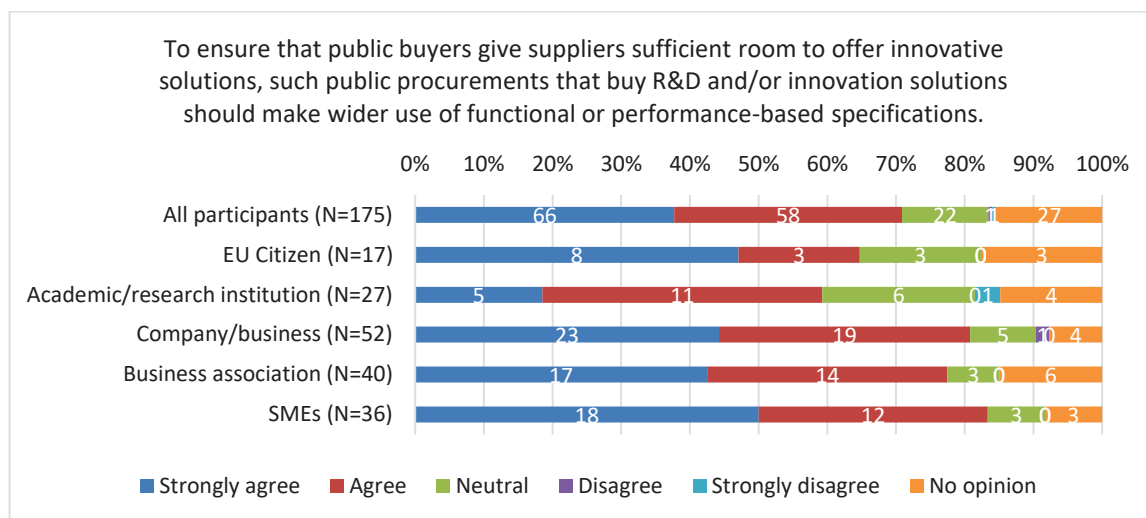
useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

Figure A7-22. To what extent do you agree with the following expert recommendations for addressing the barriers faced by innovative companies in such public procurement?



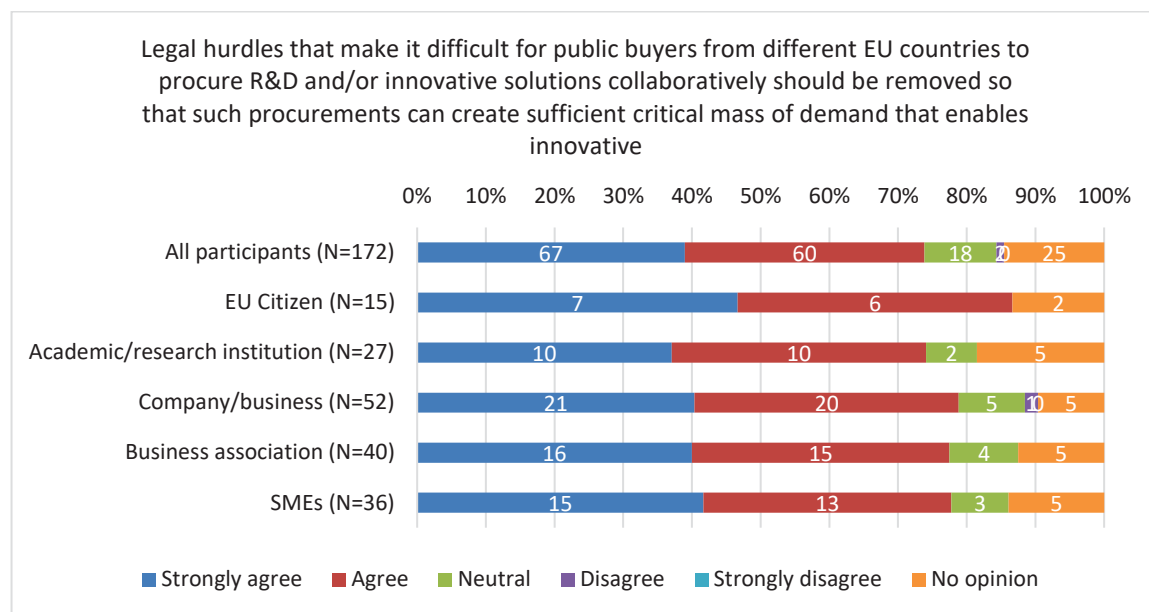
Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

Figure A7-23. To what extent do you agree with the following expert recommendations for addressing the barriers faced by innovative companies in such public procurement?



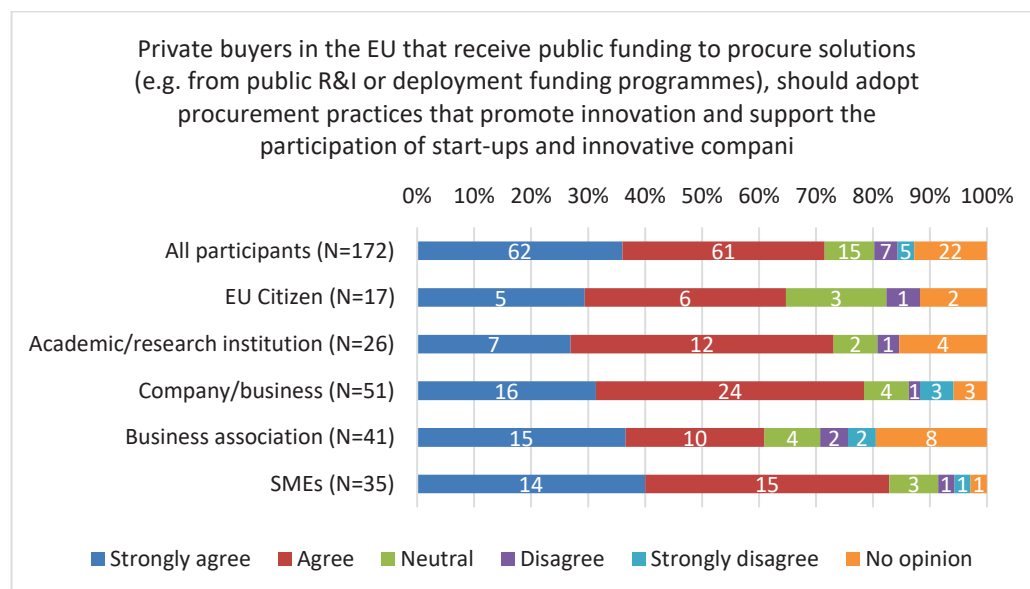
Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

Figure A7-24. To what extent do you agree with the following expert recommendations for addressing the barriers faced by innovative companies in such public procurement?



Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders' perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

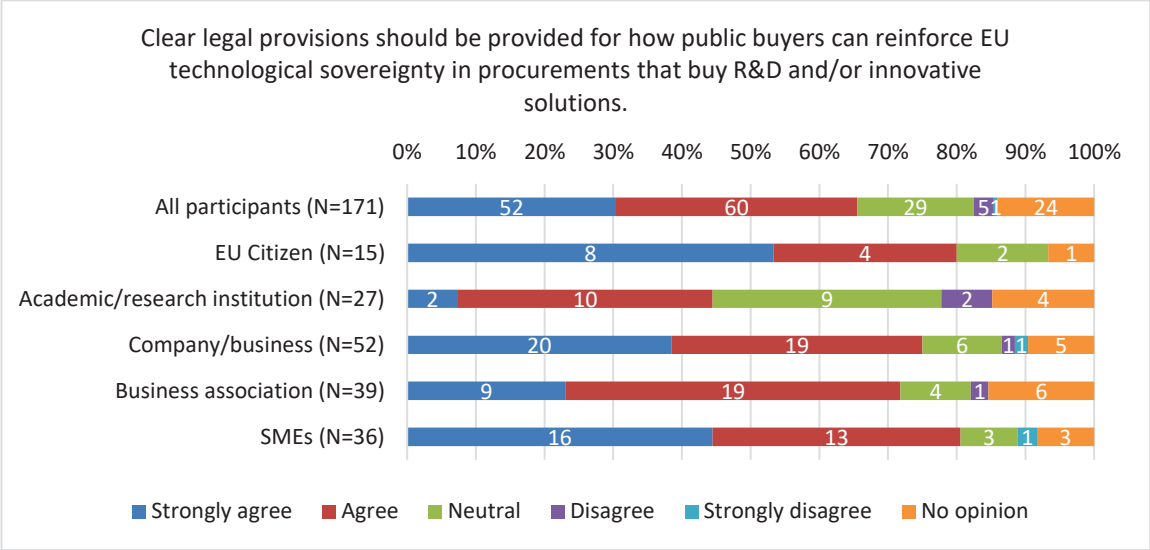
Table A7-25. To what extent do you agree with the following statements about the private procurement market in the EU?



Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides

useful qualitative insight into stakeholders’ perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

Figure A7-26. To what extent do you agree with the following expert recommendations for addressing the barriers faced by innovative companies in such public procurement?



Note: Results from the public consultation should not be interpreted as statistically representative of the wider population, given the voluntary nature of participation and the relatively limited sample size. The consultation nonetheless provides useful qualitative insight into stakeholders’ perceptions. The x-axis shows the percentage of respondents within each stakeholder group, while the figures inside the bars indicate the absolute number of respondents.

ANNEX 8: MACROECONOMIC MODELING - JRC B.7

The RHOMOLO model

The impact assessment of the European Innovation Act includes the results of a scenario analysis carried out with the spatial dynamic computable general equilibrium model called RHOMOLO^{181 182}. The model is used for the evaluation of the impact of policies such as

¹⁸¹ Lecca, P., Christensen, M., Conte, A., Mandras, G., and Salotti, S. (2020). Upward pressure on wages and the interregional trade spillover effects under demand-side shocks. Papers in Regional Science 99(1), 165-182. <https://doi.org/10.1111/pirs.12472>

¹⁸² Barbero, J., Conte, A., Crucitti, F., Lazarou, N.J., Sakkas, S., and Salotti, S. (2024). The impact of the Recovery Fund on EU regions. A spatial general equilibrium analysis. Regional Studies 58(2), 336-349.

Cohesion Policy^{183 184}, the Horizon innovation policy^{185 186}, the European Defence Fund^{187 188}, the European Competitiveness Fund¹⁸⁹, as well as the portfolio of the European Investment Bank¹⁹⁰.

The version of the model used for this assessment covers 235 NUTS 2 regions of the EU. Each region is composed of ten economic sectors operating under monopolistic competition. Regional goods are produced by combining labour and capital with intermediate inputs. Final goods are consumed by households, the government and investors. The representative household in each region supplies labour, consumes goods and services and saves part of its income. The government collects taxes, purchases public consumption goods, invests in the economy and transfers resources to the various agents in the economy. Goods and services can either be sold within the domestic economy or exported to other regions. Trade between regions is associated with a set of bilateral regional transport costs based on the Persyn et al. (2022) model¹⁹¹.

The RHOMOLO model incorporates imperfect competition in the labour market and allows for unemployment. Wage formation is assumed to follow a wage curve specification as in Blanchflower and Oswald (1995)¹⁹², which implies that lower unemployment increases workers' bargaining power and thus real wages. There are two types of capital in the model: sector-specific private capital and public capital. Private capital is accumulated by private investors. The investment-capital ratio is a function of the rate of return on capital and the user cost of capital, allowing the capital stock to reach its desired level smoothly over time.

Expectations are assumed to be myopic and the model is solved sequentially, with stocks being updated at the start of each period. For this particular exercise, capital mobility within the EU was assumed, but no labour mobility.

It is worth highlighting that the RHOMOLO model allows for scenario analysis, so all results are obtained by perturbing an initial equilibrium and do not reflect the actual economic outcomes that are supposed to occur during the period analysed (in other words,

¹⁸³ European Commission (2025a). Ex post evaluation of the European Regional Development Fund (ERDF) and the Cohesion Fund for the programming period 2014-2020. SWD(2025) 328 final. Brussels, 10.10.2025.

¹⁸⁴ Casas, P., Christou, T., García-Rodríguez, A., Heidelk, T., Lazarou, N.J., Monfort, P., and Salotti, S. (2024). The updated RHOMOLO impact assessment of the 2014-2020 European cohesion policy (including REACT-EU). MPRA working paper no. 122873.

¹⁸⁵ European Commission (2025b). Interim evaluation of the Horizon Europe Framework Programme for research and innovation (2021-2024). SWD(2025) 110 final. Brussels, 30.4.2025.

¹⁸⁶ Casas, P., Christou, T., Ferreira, V., García-Rodríguez, A., Lazarou, N.J., Pedauga, L., Rueda-Cantuche, J.M., Bernard, H., Volpe, R., Neicu, D., and Salotti, S. (2025a). The RHOMOLO and FIDELIO interim evaluation of the impact of Horizon Europe. MPRA working paper no. 124687.

¹⁸⁷ European Commission (2025c). Interim evaluation of the European Defence Fund. SWD(2025) 151 final, Brussels, 17.6.2025.

¹⁸⁸ Casas, P., Christou, T., García-Rodríguez, A., Lazarou, N.J., and Salotti, S. (2025b). The RHOMOLO macroeconomic impact assessment of the European Defence Fund 2021-2027. MPRA working paper no. 125039.

¹⁸⁹ European Commission (2025d). Impact assessment report on the European Competitiveness Fund. SWD(2025) 555 final. Brussels, 16.7.2025.

¹⁹⁰ EIB (2025). Investment Report 2024/25: Innovation, integration and simplification in Europe. doi: 10.2867/8065730.

¹⁹¹ Persyn, D., Díaz-Lanchas, J., and Barbero, J. (2022). Estimating distance and road transport costs between and within European Union regions. Transport Policy 124, 33-42.

¹⁹² Blanchflower, D.G., and Oswald, A.J. (1995). An introduction to the wage curve. Journal of Economic Perspectives 9(3), 153-167. DOI: 10.1257/jep.9.3.153

this is not a forecast model). The results presented here assume that the costs and benefits estimated with the micro-level measure-by-measure analysis will materialise and activate the economic channels used in the model to simulate their impact. Also, the results are affected by the parameterisation of the shocks used to simulate the impact of the policy (including the elasticity used to govern the changes in TFP brought about by private investment). We limit the uncertainty of our results by using values that are consistent with the existing literature on the subject, and by analysing three different scenarios.

Macroeconomic Impact Assessment of the European Innovation Act

This ex-ante impact assessment evaluates the potential macroeconomic effects of the European Innovation Act (EIA) using RHOMOLO, the European Commission's spatial dynamic computable general equilibrium model covering 235 NUTS-2 regions across the EU. Unlike traditional EU investment programmes, the EIA is a regulatory reform package that addresses innovation bottlenecks through framework condition improvements rather than direct financial injections.

Micro-level cost-benefit analyses of EIA measures are translated into four core macroeconomic shocks, simulated over a ten-year horizon and phased in linearly under both low (conservative) and high (optimistic) scenarios. These comprise: private investment-driven productivity gains (EUR 27 billion in the low scenario and nearly EUR 102 billion in the high scenario); pure total factor productivity gains (ranging from almost EUR 260 billion to EUR 271 billion across the two scenarios); modest increases in public current expenditure (either EUR 32 or 33 million in the two scenarios); and net savings (EUR 436 million in the low scenario, and more than EUR 11 billion in the high scenario). National-level figures were regionalised within each country in proportion to GDP shares (for the public current expenditure and net savings shocks) or R&D expenditure shares (for the investment and productivity shocks).

Key simulation results (cumulated values vs no-policy baseline):

- **Low scenario:** almost EUR 256 billion additional EU GDP over ten years; peak employment impact of 238 thousand full-time equivalents in year 10, when GDP would be 0.24% above the level of the no-policy scenario (corresponding to EU GDP in 2024, which is the latest figure available);
- **High scenario:** almost EUR 452 billion additional EU GDP over ten years; peak employment of about 507 thousand jobs in year 10, when GDP would be 0.42% above the level of the no-policy scenario.

Investment responses triggered by measures establishing IP valuation methodology and facilitating licensing drive most of the GDP gains through capital deepening, reinforced by productivity improvements coming from those same measures and from procedures for pre-commercial procurement for public buyers, including cross-border efficiency gains. Supply-side channels dominate, generating persistent growth dividends as capital stocks accumulate and productivity diffuses through regional production networks and Single Market trade linkages.

Employment creation accelerates after year 5, peaking when all regulatory benefits materialise fully. The analysis demonstrates substantial macroeconomic returns from regulatory innovation frameworks, with effects scaling proportionally to realised behavioural responses. Administrative costs remain modest relative to efficiency gains and investment crowding-in effects, confirming the EIA's high benefit-cost ratio.

Not that these results represent counterfactual policy additionality, not forecasts. Credibility depends on effective implementation and materialisation of micro-level responses.

A full description of the analysis is provided in: García-Rodríguez, A., Christou, T., Giffoni, F., Lazarou, N.J., Mitra, A., Peralta, C., Pedralli, M., and Salotti, S., The RHOMOLO ex ante macroeconomic impact assessment of the European Innovation Act - JRC Working Papers on Territorial Modelling and Analysis No 05/2026, European Commission, Seville, 2026, JRC147056.

ANNEX 9: ANALYSIS OF RESPONSES TO THE EIA CALL FOR EVIDENCE – JRC T.5

The Call For Evidence for the EIA received a total of 336 responses from stakeholders. And it was fielded from the 08 July 2025 to the 03 October 2025.

Regulatory Frameworks in the EU Single Market

Overview

The European Union's (EU) regulatory framework plays a crucial role in fostering innovation within the Single Market. However, stakeholders have identified several hurdles and proposed actions to improve the regulatory environment. This section provides an in-depth analysis of the feedback related to regulatory frameworks, highlighting the key concerns and proposed solutions. The majority of stakeholders (261 out of 336 respondents) addressed the issue of regulatory frameworks, emphasizing the need for a more innovation-friendly environment. Business associations, academic and research institutions, and companies were among the most active contributors to this discussion. The analysis reveals that stakeholders from different countries and sectors share similar concerns regarding the regulatory burden, fragmentation, and lack of coordination.

Commercialisation of R&I

A total of 121 responses addressed the area of commercial exploitation of publicly funded research results, highlighting the importance of this issue among stakeholders. While 224 mentioned the area of access to finance. The analysis reveals that stakeholders from various backgrounds, including academic/research institutions, companies/businesses, NGOs, and public authorities, share common concerns and propose similar solutions to address the challenges in this area.

Detailed Hurdles Analysis

The most prominent hurdles identified by stakeholders include the fragmentation and complexity of intellectual property (IP) policies, the lack of standardization and harmonization of IP frameworks, and the insufficient commercialization of publicly funded research results. These hurdles are often intertwined, creating a complex landscape that hinders the translation of research into marketable innovations.

Table A9-1. Detailed hurdles analysis of EIA Call For Evidence responses related to R&I commercialisation

Hurdle type	Details
Access to finance	In terms of hurdles, stakeholders consistently highlighted the limited access to finance as a major obstacle for innovative companies. This is evident in the quotes from various stakeholders, such as "access to finance is limited for EU innovative companies" (F33075553_006) and "Limited access to national and EU funds remains a challenge" (F33074443_001). Additionally, the lack of long-term

	financing options and the difficulty in using intellectual property rights as collateral were also frequently mentioned as hurdles.
Fragmentation and complexity of IP rules and policies	Stakeholders emphasized the need for clearer and more harmonized IP policies, citing the current fragmentation and complexity as a significant barrier to commercialization (F33075620_007, F33075554_008, F33075480_010). The lack of standardization and harmonization of IP frameworks across the EU is seen as a major obstacle, making it difficult for researchers and companies to navigate the system and protect their intellectual property (F33074483_004, F33074348_014, F33073355_001).
Ineffective technology transfer	Furthermore, stakeholders highlighted the insufficient commercialization of publicly funded research results, often due to the lack of effective technology transfer mechanisms and the limited involvement of industry partners in the research process (F33074313_001, F33073441_004, F33073386_001). The underfunding of technology transfer offices (TTOs) and the lack of professionalization in knowledge transfer are also seen as significant hurdles (F33074292_003, F33073041_001).
State aids rules	Additionally, stakeholders noted that the current regulatory framework, including state aid rules and standardization policies, can create additional complexity and barriers to commercialization (F33074352_006, F33074296_006, F33073340_003). The need for more agile and flexible regulatory frameworks that can accommodate rapid commercialization and innovation is emphasized (F33074360_007, F33074412_023).

Source: JRC T5

Detailed Actions Analysis

Table A9-2. Detailed actions analysis of EIA Call For Evidence responses related to R&I commercialisation

Action type	Details
Harmonization of IP frameworks	A common theme is the need for standardization and harmonization of IP frameworks, including the development of common principles for IP management and commercialization (F33074296_007, F33074322_007, F33074443_022).
Creation of a clear path to monetise research	The creation of a European Joint Undertaking to valorise research and the establishment of a clear path to monetize public R&I IP through regional industrial actors are also proposed (F33074286_009, F33074360_008, F3575639_006). Stakeholders emphasize the importance of simplifying intellectual property exploitation, supporting researchers and SMEs in IPR navigation, and promoting the reuse of data by industry (F3593698_002, F3593698_003, F33068288_016).
Improvement of technology transfer mechanisms	Stakeholders suggest the need for more effective technology transfer mechanisms, including the development of model deal structures for access to academic IP and the creation of a coordination mechanism aligning EIA with related EU initiatives (F33073048_003, F33074311_006). The importance of incentivizing knowledge valorization in universities and promoting the creation of bodies specifically designed to bridge the gap between frontier research institutions and the economic system is also highlighted (F33074463_017, F33074381_005).
IP valuation	Stakeholders propose the need for more agile and flexible regulatory frameworks, including the revision of current state aid rules and the removal of barriers for standardization and certification (F33074352_008, F33074412_024, F33073340_003). The development of EU guidelines for IP valuation and the

	reform of the European patent system to shorten time-to-grant are also suggested (F33074296_007, F33074296_008).
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Source: JRC T5

In conclusion, the commercial exploitation of publicly funded research results is a critical aspect of the European Innovation Act, requiring a coordinated effort to address the challenges and barriers that hinder the translation of research into marketable innovations. By standardizing and harmonizing IP frameworks, simplifying intellectual property exploitation, and promoting effective technology transfer mechanisms, the EU can create a more favorable environment for innovation and entrepreneurship, ultimately driving economic growth and competitiveness.

Innovation procurement

Overview

The area of innovation procurement emerged as a critical aspect of the European Innovation Act, with 119 responses addressing this issue out of 336 total responses received during the consultation. Stakeholders from various backgrounds, including business associations, companies, academic and research institutions, public authorities, and NGOs, provided feedback on the hurdles and actions related to innovation procurement.

Detailed Hurdles Analysis

Analysis of the feedback reveals that innovation procurement is underutilized in the EU, with many stakeholders citing the need for more innovation-friendly procurement practices. The most significant hurdles identified include the complexity of EU procurement rules, the lack of awareness of innovation procurement opportunities, and the dominance of established companies in the procurement market.

Table A9-3. Detailed hurdles analysis of EIA Call For Evidence responses related to innovation procurement

Hurdle type	Details
Procurement practices undervalue innovation	As noted by a business association from Belgium, current "procurement practices undervalue innovation" (F33073427_004), and it is essential to address this issue to support the development of innovative solutions.
Procedures that are not founder friendly	A business association from Belgium noted that "public procurement processes often favour established companies and recycling over innovative circular solutions" (F33073250_006). Similarly, an academic institution from Germany highlighted that "requirements and processes aren't founder-friendly" (F33073355_006), making it difficult for startups and scale-ups to participate in innovation procurement.
SMEs at a disadvantage	Stakeholders also emphasized the need for a level playing field in procurement, with many calling for the removal of barriers that prevent small and medium-sized enterprises (SMEs) from participating in innovation procurement.
Slow public procurements that do not leverage R&D	An Academic/Research Institution from Finland suggested that "procurement rules must allow for accelerated procedures" (F33074313_013), while a business

	association from Belgium recommended that "public procurement should be leveraged to boost RD&I" (F33074400_006).
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Source: JRC T5

Detailed Actions Analysis

In terms of actions, stakeholders proposed a range of measures to enhance innovation procurement, including the introduction of innovation-friendly procurement frameworks, the provision of training and support for public buyers, and the establishment of a European innovation procurement platform.

Table A9-4. Detailed actions analysis of EIA Call For Evidence responses related to R&I commercialisation

Action type	Details
Innovation-friendly procurement environment	Stakeholders highlight the need for a more innovation-friendly procurement environment. A public authority from Finland highlighted that "make public procurement more innovation-friendly" (F33074389_007). These quotes demonstrate the broad support for innovation procurement among stakeholders. A business association from Ireland recommended that "public procurement should be used to stimulate first customer opportunities for SMEs" (F33075644_012), while an academic institution from Austria suggested that "pre-commercial procurement and innovation-oriented award criteria" should be used to support innovation procurement (F33067801_023).
Simplifying access to procurement	Stakeholders highlighted the importance of simplifying access to public procurement and reducing administrative burdens. A company from the United Kingdom proposed that "startup participation in public procurement should be simplified with one-page digital submissions" (F33070699_010), while a business association from Denmark recommended that "public procurement rules should be revised to reduce administrative burdens" (F33073609_014).
Greater coordination and cooperation between public and private buyers	The analysis also reveals that there is a need for greater coordination and cooperation between public and private buyers, as well as between different Member States. An NGO from Spain suggested to "facilitate cross-border procurement and collaboration by removing legal and administrative differences between Member States" (F33074412_020), while a Belgian NGO recommended to "innovation procurement should be supported through European funding programs" (F33074338_014).

Source: JRC T5

ANNEX 10: TARGETED CONSULTATION SURVEY EVIDENCE FOR MEASURES RELATIVE COSTS AND BENEFITS

The survey questions of the targeted consultation were focused on the cost-effectiveness of the planned measure and their possible versions.

The surveys captured the views of national and regional stakeholders directly affected by the policy intervention, including:

- National and regional public authorities,
- Startup associations and entrepreneurship agencies,
- Financial institutions and investors,
- Innovation agencies, universities, RTOs.

Given the limited consultation timeframe, the surveys were not designed to achieve statistical representativeness across all Member States. However, efforts were made to ensure broad geographic and sectoral coverage.

The survey was conducted through the official EU Survey platform. To ensure accessibility, in addition to the original English version, translations were provided in the most widely spoken EU languages: German, French, Italian, and Spanish.

A Likert scale is used for the questions in order to capture responses consistently. The survey was published for a month, from October 20th until November 20th.

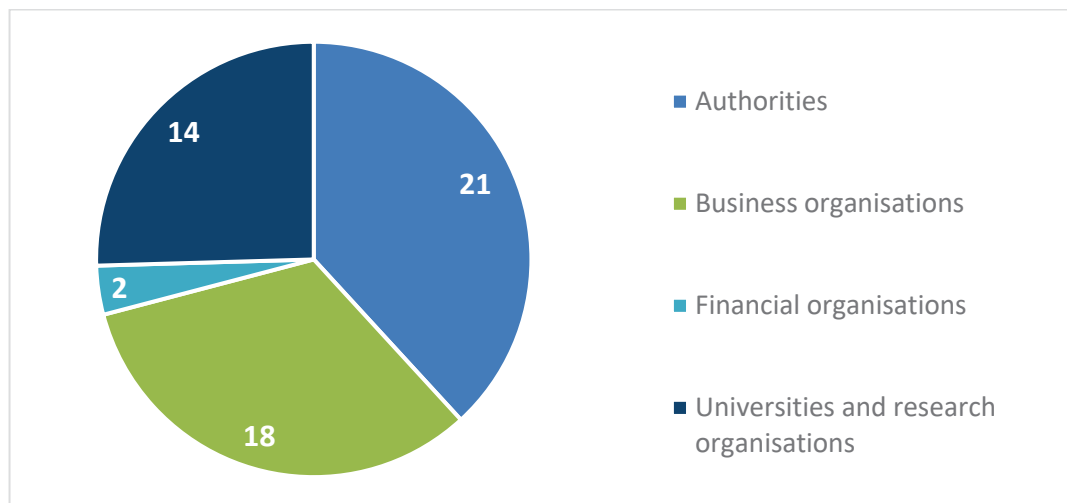
To achieve a broad reach across all identified stakeholder groups, a multi-channel dissemination strategy was applied.

1. For **public authorities**, key channels included the **European Innovation Council Forum**, which brings together high-level representatives from Member States and Associated Countries on innovation policy; the Network of Regional Innovation Valleys, connecting regions to strengthen research and innovation ecosystems; and the European Regions Research and Innovation Network (ERRIN), representing around 120 regional organisations.
2. For **Innovation agencies, universities, and research and technology organisations (RTOs)** dissemination channels included, among others, networks like ESFRI, EARTO, ASTP and the European Business and Innovation Centre Network (EBN).
3. **Business associations** were engaged through umbrella organisations at the EU level.

The formulation of the measures and their related alternatives reflects the most updated version available at the time of the survey launch. Subsequently, some refinements of the measures text were performed, which explains why in certain cases the names of measures and alternatives presented here do not fully match the final versions. Nevertheless, the evidence gathered through the surveys remains a valuable input for the overall assessment.

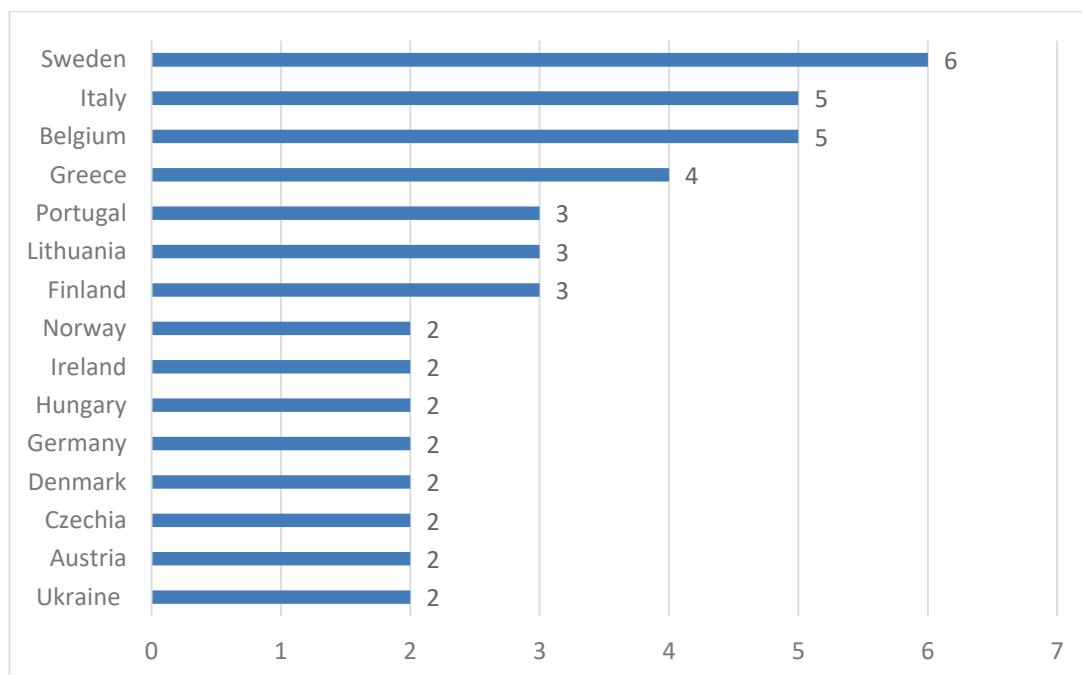
A total of 55 responses were received, with a relatively even distribution among respondents from public authorities (21), business associations (18) and Innovation agencies, universities, and RTOs (14), but a couple of entries from the financial sector only (2).

Figure A10-1. Number of respondents by stakeholder type.



A fair geographical distribution of answers was achieved, with most answers received from entities based in Sweden (n=6), Italy (n=5), and Belgium (n=5) (Figure below).

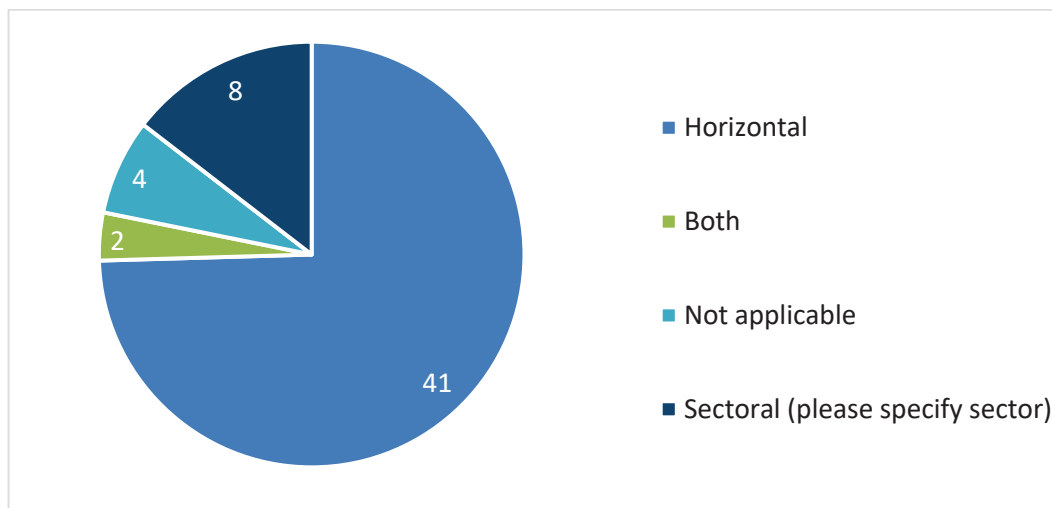
Figure A10-2 Country of origin of the consulted entities.¹⁹³



The majority of the respondents represent horizontal organisations (n=41), and only 8 are defined as sectoral (Figure below)

¹⁹³ In addition to the chart, single responses from Bulgaria, Latvia, the Netherlands, Poland, Romania, Serbia, Slovenia, Spain, and the United Kingdom were received.

Figure A10-3. Type of organisation (horizontal/sectoral)¹⁹⁴



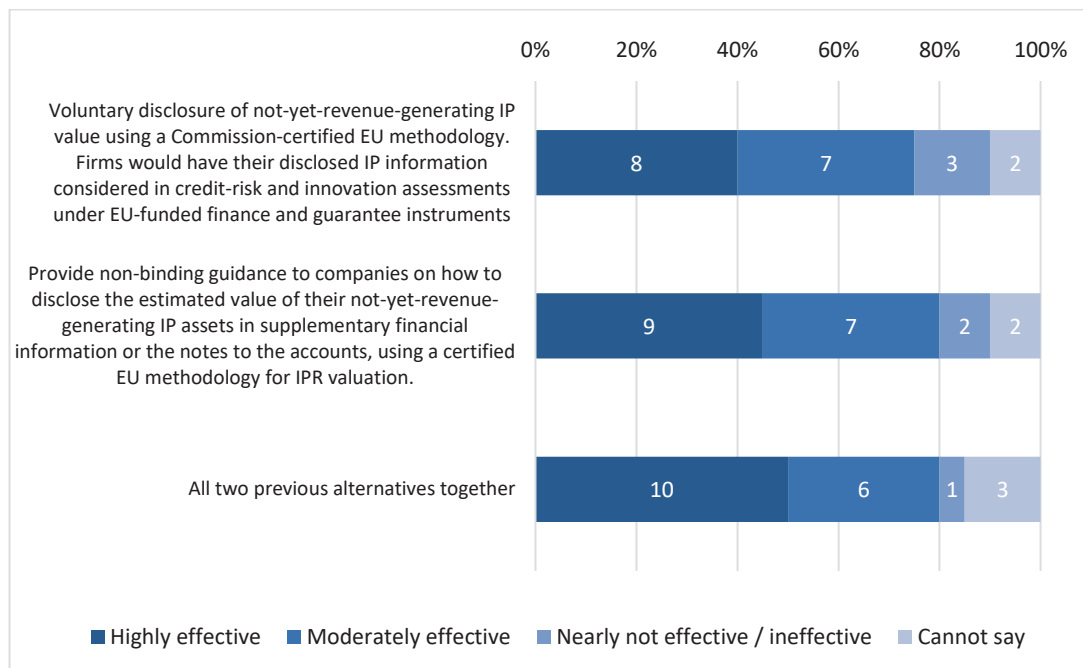
Commercially scalable innovation

Measure 1: Promote valuation of IP.

Measure 1 shows high support for each option individually: “Voluntary disclosure of not-yet-revenue-generating IP value using a Commission-certified EU methodology. Firms would have their disclosed IP information considered in credit-risk and innovation assessments under EU-funded finance and guarantee instruments” and “Provide non-binding guidance to companies on how to disclose the estimated value of their not-yet-revenue-generating IP assets in supplementary financial information or the notes to the accounts, using a certified EU methodology for IPR valuation.” There is a slightly higher positive result for combining both alternatives, with 50% of respondents considering this approach highly effective (Figure below).

Figure A10-4. Valuing intangible assets, such as IPR, is complex and costly, especially for innovators. The following alternatives concern the inclusion of Intellectual Property in companies’ annual accounts. In your view, how effective would the following alternatives be in promoting IPR-backed financing for startups and innovative companies?

¹⁹⁴ The sectoral organisations are as follows: Digital Systems and Services for the Public Sector (1), University sector (1), Life sciences (2), Economics (1), Health Innovation/ Tech (1), Transport, Media, and AI (1), Machinery (1).

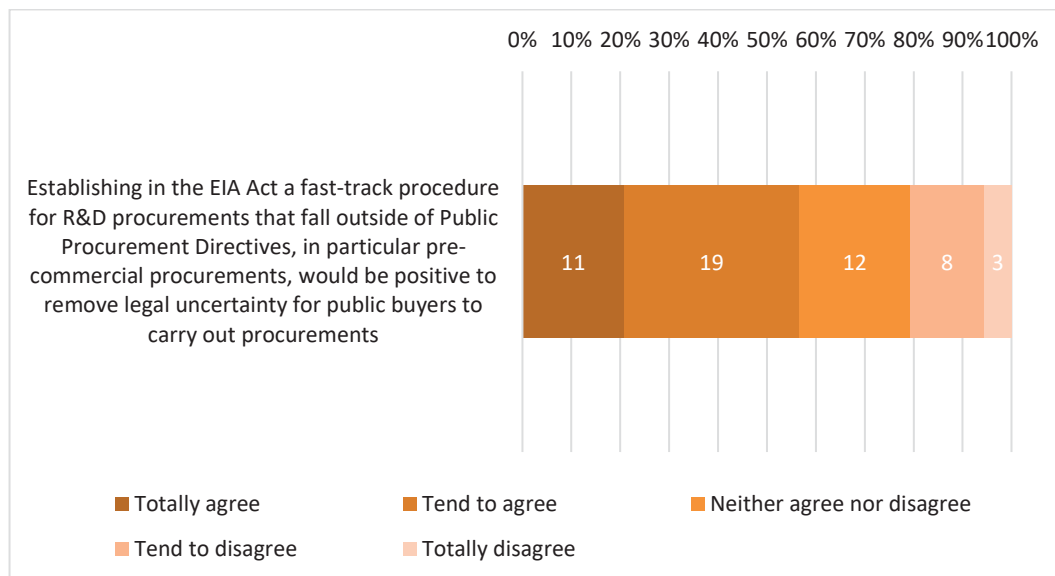


Source: Targeted survey (Business associations and Financial sector)

Measure 2: Establish a fast-track procedure for R&D procurement outside of PP directives that promotes proven techniques to boost innovation minded and startup friendly purchasing, and that removes joint cross-border procurement issues.

The same stakeholders were consulted for **Measure 2**, i.e., public authorities, business associations, and innovation agencies, universities, and RTOs. Here, 57% of respondents totally agree or tend to agree with the statement: “Establishing in the EIA Act a fast-track procedure for R&D procurements that fall outside of Public Procurement Directives, in particular pre-commercial procurements, would be positive to remove legal uncertainty for public buyers to carry out procurements.” However, there is a notable difference among stakeholder groups: business associations show significant disagreement with the statement, with 39% opposing it and no respondents selecting “Totally agree,” while public authorities and innovation agencies, universities, and RTOs express stronger agreement overall (Figure below).

Figure A10-5. To what extent do you agree with the following statement?

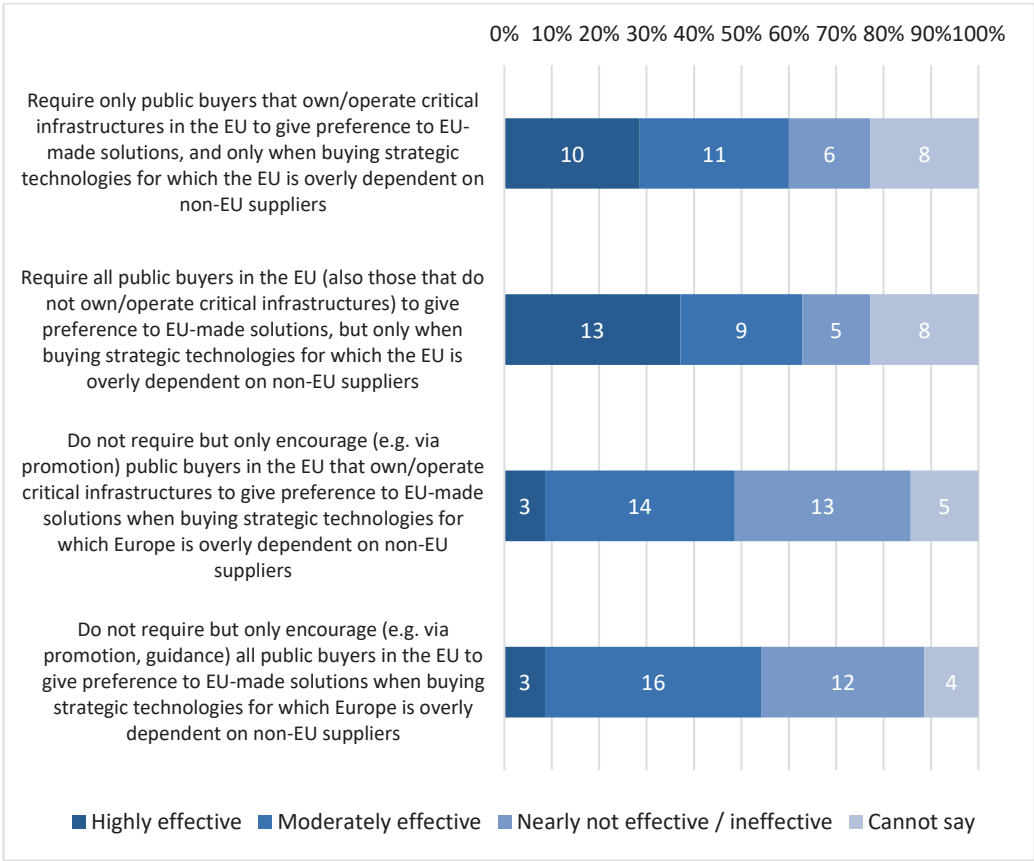


Measure 3: Preference for EU-made solutions in private and public procurements outside of PP directives.

Measure 3 was assessed separately for public and private procurement. Regarding public procurement, public authorities and innovation agencies, universities, and RTOs were consulted. The option receiving the highest rate of “highly effective” responses is “Require all public buyers in the EU (also those that do not own/operate critical infrastructures) to give preference to EU-made solutions, but only when buying strategic technologies for which the EU is overly dependent on non-EU suppliers,” supported by 37% of respondents. This is followed by “Require only public buyers that own/operate critical infrastructures in the EU to give preference to EU-made solutions, and only when buying strategic technologies for which the EU is overly dependent on non-EU suppliers,” with 29%. While public authorities show equal preference for these two options, innovation agencies, universities, and RTOs favor the second option more strongly (36% versus 17% for the first). Both options are considered the most costly, with the second option receiving 26% of “high cost” votes and the first 17%, alongside many responses indicating “moderate costs.” For private procurements, business associations were consulted. The most popular option is “Require only public buyers that own/operate critical infrastructures in the EU to give preference to EU-made solutions, and only when buying strategic technologies for which the EU is overly dependent on non-EU suppliers,” with 22% of respondents rating it as highly effective. In terms of costs, the option considered most expensive is “Require all public buyers in the EU (also those that do not own/operate critical nFor private procurements, business associations were consulted. The most popular option is “Require only public buyers that own/operate critical infrastructures in the EU to give preference to EU-made solutions, and only when buying strategic technologies for which the EU is overly dependent on non-EU suppliers,” with 22% of respondents rating it as highly effective. In terms of costs, the option considered most expensive is “Require all public buyers in the EU (also those that do not own/operate critical infrastructures) to give preference to EU-made solutions, but only when buying strategic technologies for which

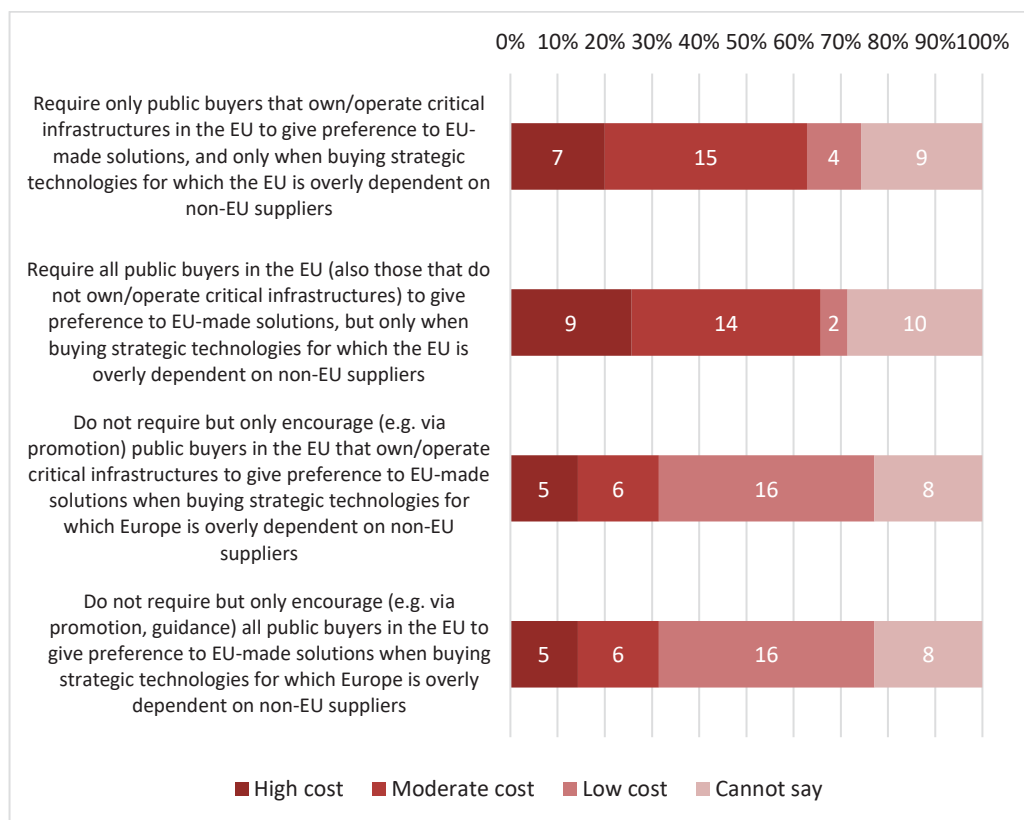
the EU is overly dependent on non-EU suppliers,” with 56% of respondents indicating high cost.

Figure A10-6. A number of other major economies around the world require public buyers to give preference to solutions that were made in their territory. Introducing such a preference for EU-made solutions also in the EU could take different forms. In your view, how effective would the following alternatives be in promoting innovation and technological sovereignty while lowering strategic dependencies in the EU?



Source: Targeted survey (Public authorities and Innovation agencies, universities, RTOs)

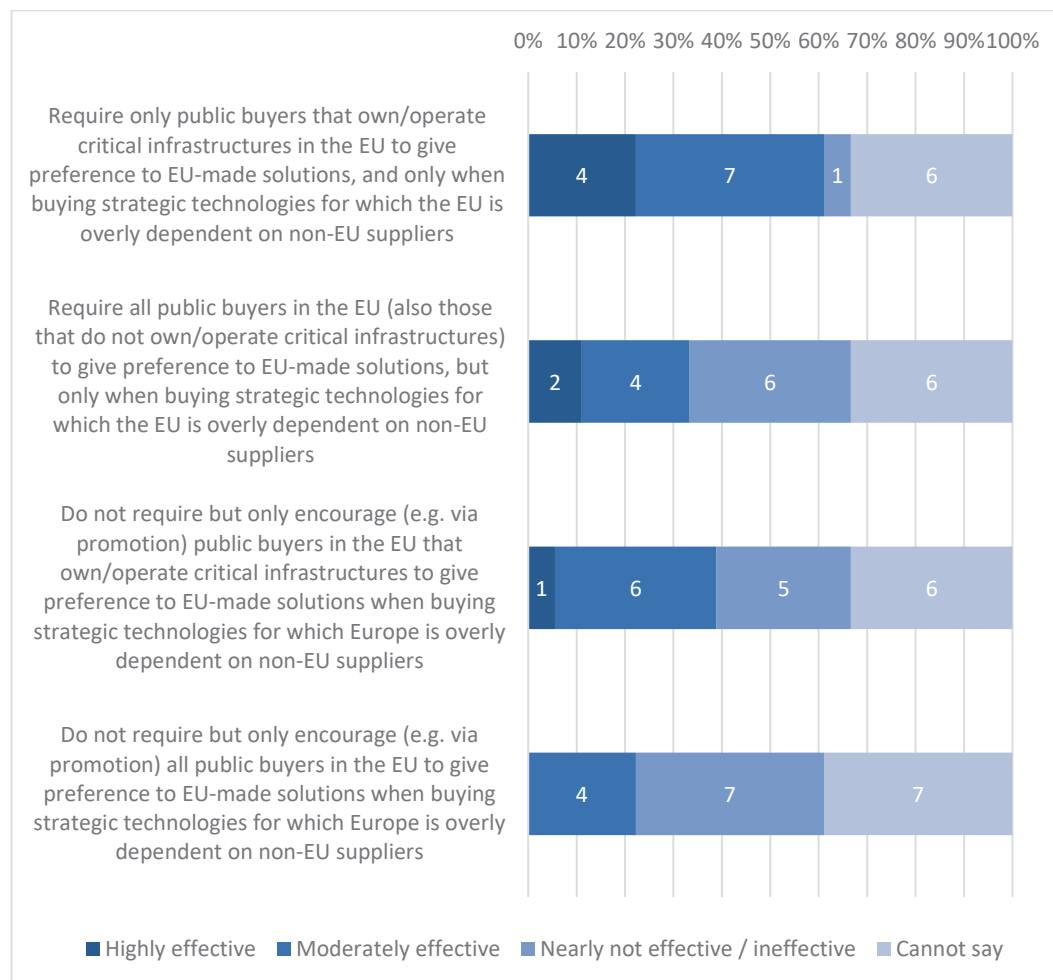
Figure A10-7. In your view, how large would be the costs (drawbacks) generated by the following alternatives?



Source: Targeted survey (Public authorities and Innovation agencies, universities, RTOs)

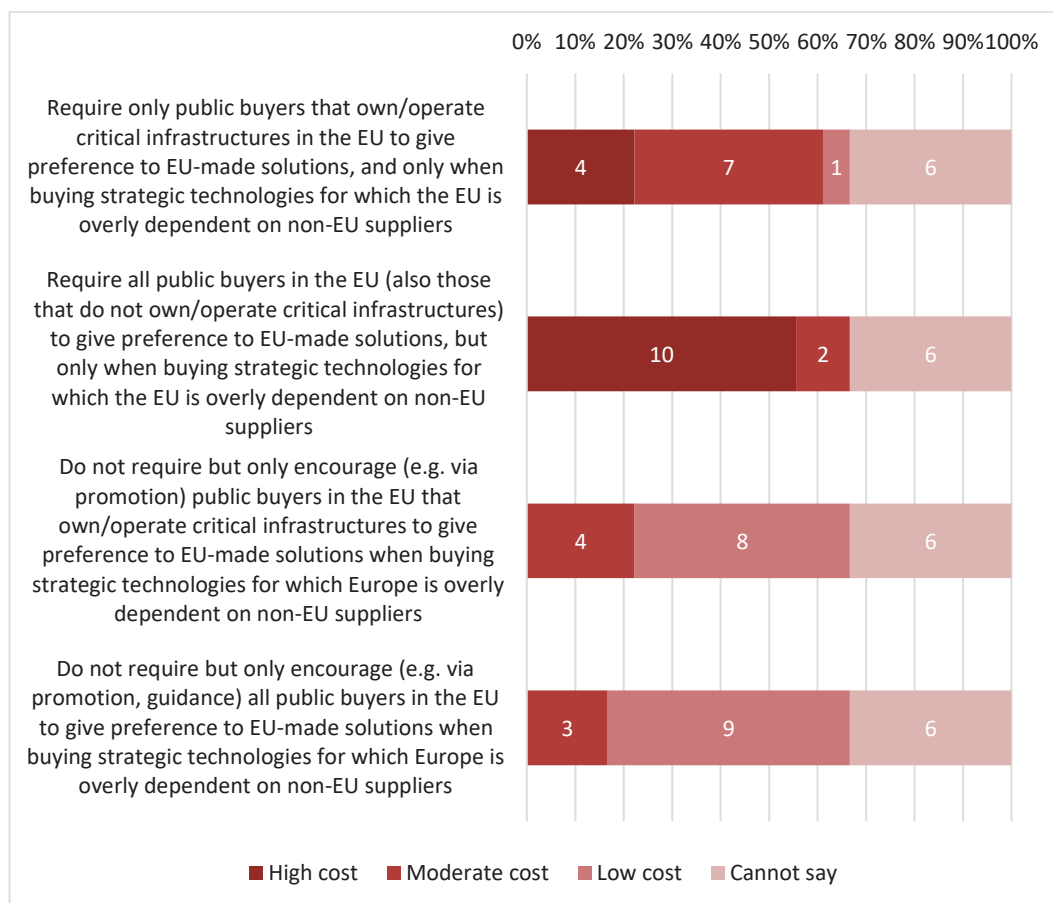
Figure A10-8. A number of other major economies around the world require public buyers to give preference to solutions that were made in their territory. Introducing such a preference for EU-made solutions also in the EU

could take different forms. In your view, how effective would the following alternatives be in promoting innovation and technological sovereignty while lowering strategic dependencies in the EU?



Source: Targeted survey (Business associations)

Figure A10-9. In your view, how large would be the costs (drawbacks) generated by the following alternatives?



Source: Targeted survey (Business associations)

ANNEX 11: POLICY MAPPING (OVERVIEW OF THE STATUS QUO)

This section presents the baseline scenario, referred to as the ‘status quo,’ which describes the current situation in the absence of the EIA. It provides an evidence-based overview of existing conditions, with a focus on the absence or insufficiency of current policy, regulatory, and financing interventions at both EU and Member State levels addressing the problems and drivers identified in the previous chapter. The analysis is based on an extensive policy mapping carried out in each Member State, and also includes selected peer countries, the US, the UK, and Switzerland, to provide a point of comparison and to identify practices that address the gaps observed within the EU and that could potentially be addressed through the EIA.

It is important to note that, to maintain a focus on areas relevant to the EIA, data collection was deliberately aligned with the problem drivers within each thematic area, rather than presenting a comprehensive overview of all policies and regulatory actions in each area, which would have considerably expanded the scope of the research. In countries with decentralised governance structures, where regions hold legislative powers in specific policy areas, the analysis also considered the regional level. This was the case, for example, in Belgium, Germany, and Italy. For ease of exposition, the full list of mapped measures has been included in the Annex 14 “*Policy mapping (Detailed list of mapped policies)*”.

Policy mapping - Commercially scalable innovation

At EU level, commercially scalable innovation is supported by a broad but fragmented framework that combines funding, financial regulation and intellectual-property policy rather than a single, integrated regime. On the finance side, InvestEU¹⁹⁵, the RRF¹⁹⁶, cohesion policy funds¹⁹⁷ and Horizon Europe (notably the EIC Accelerator and Innovation Fund)¹⁹⁸ provide risk-sharing, equity and grant instruments that crowd in private capital for intangible-asset-rich firms, while the Capital Markets Union agenda and rules such as Solvency II¹⁹⁹ and CRR/CRD²⁰⁰ gradually clarify how institutional investors and banks can treat higher-risk innovation investments. In parallel, the EU IP Action Plan²⁰¹ and reforms like the Unitary Patent/UPC²⁰², the IP SME

195 European Union. InvestEU. https://investeu.europa.eu/index_en

196 European Commission. Recovery and Resilience Facility. https://economy-finance.ec.europa.eu/eueconomyexplained/recovery-and-resilience-facility_en

197 European Commission. Cohesion Fund. https://ec.europa.eu/regional_policy/funding/cohesion-fund_en

198 European Commission. Horizon Europe. https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en

199 European Insurance and Occupational Pensions Authority. Solvency II. https://www.eiopa.europa.eu/browse/regulation-and-policy/solvency-ii_en

200 European Commission. Capital Requirements - CRD IV/CRR. https://ec.europa.eu/commission/presscorner/detail/en/memo_13_690

201 European Commission. Intellectual property action plan implementation. https://single-market-economy.ec.europa.eu/industry/strategy/intellectual-property/intellectual-property-action-plan-implementation_en

202 European Commission. The unitary patent system. https://single-market-economy.ec.europa.eu/industry/strategy/intellectual-property/patent-protection-eu/unitary-patent-system_en

Helpdesks²⁰³ and guidance on IP licensing²⁰⁴ aim to make intellectual assets easier to protect and exploit across the Single Market, including in public-private partnerships and EU-funded projects. Horizon Europe model grant agreements already contain standardised provisions on ownership, access rights and exploitation of results, which implicitly shape national approaches to IP management and technology transfer. However, there is still no common EU methodology for valuing early-stage IP, no explicit EU-wide framework for using IP as collateral in bank and investor regulation, and no binding innovation-investment roadmap at Union level.

The mapping for commercially scalable innovation shows that MS have already put in place a dense but uneven set of measures along the whole “idea-to-market” chain. Overall, the table below suggests that the EU and its MS have made most progress on helping firms use and monetise intangible assets, while the **more structural conditions for scaling innovation, such as long-term investment planning, pooled funding and simple, reliable IP valuation, remain underdeveloped and highly fragmented across MS.**

In particular, the following results stand out:

- **A small but growing group of countries that have begun to treat IP valuation as a policy area in its own right**, alongside a much larger group with no dedicated framework. These range from analytical groundwork, such as Austria’s 2024 “IP Financing in Austria” study, which diagnoses the under-use of IP as collateral and calls for balance-sheet recognition of self-developed intangibles²⁰⁵, to practical guidance like Belgium’s federal “Practical Guide to valorise IP to raise funds,” which walks SMEs through different financing routes and explains how valuation fits into each²⁰⁶.
- **With respect to the rules for institutional investors and banks to foster financing based on IPR, the mapping shows that while most MS now operate guarantee schemes or risk-sharing instruments that nominally allow IP-backed lending, only a smaller group has tackled the more structural precondition for such financing:** clear, predictable frameworks for who owns IP arising from publicly funded research and how it can be licensed or transferred to firms. The dedicated review of national IP-ownership and licensing frameworks identifies ten countries with explicit, post-2000 policies aimed at making IP from universities and public research organisations easier to commercialise.
- **A majority of MS now have at least one national-level strategy, law or structured framework with this purpose, but that these frameworks take very different forms and degrees of maturity.** Some countries have adopted broad, system-shaping R&I strategies that embed commercialisation targets and reforms:

203 European Commission. European IP Helpdesk. https://intellectual-property-helpdesk.ec.europa.eu/regional-helpdesks/european-ip-helpdesk_en

204 European Commission. Licensing and selling intellectual property. https://europa.eu/youreurope/business/running-business/intellectual-property/licensing-selling/index_en.htm

205 patentamt.at

https://www.patentamt.at/fileadmin/root_oepa/Dateien/Allgemein/Analysepapier_IPFinanzierung_2024_EN.pdf

206 Practical Guide to Valorise Intellectual Property with the Goal to Raise Funds | FPS Economy

<https://economie.fgov.be/en/themes/intellectual-property/practical-guides-studies/practical-guide-valorise>

Austria's RTI Strategy 2030, for example, explicitly aims to double academic spin-offs and is backed up by dedicated "Spin-off Fellowships", while Latvia's Science, Technology Development and Innovation Guidelines and Slovenia's R&I Strategy 2030 set goals for more patents, spin-offs and stronger technology transfer structures. Others have legislated specific spin-off and knowledge-transfer frameworks, such as Greece's Law 4864/2021 on academic spin-offs, France's PACTE reforms and SATT tech-transfer network, or Spain's revised Science Law (17/2022), which clarifies researchers' rights and makes institutional knowledge-transfer strategies mandatory. A third group of countries relies on flagship national programmes rather than framework laws; Germany's long-running EXIST scheme and new "Startup Factories", Finland's Research-to-Business (R2B) programme, Ireland's KT Boost, Poland's Łukasiewicz Network or Luxembourg's JUMP proof-of-concept funding are all designed to move public research outputs closer to the market and to strengthen TTO capacity.

Table A11-3. Overview of measures to support commercially scalable innovation

Problem drivers	Mapped interventions	Country coverage
2.1 IPR valuation models in the EU are not standardised, while being complex and expensive	Frameworks for IP valuation	At least 6 MS have dedicated frameworks for IP valuation: Belgium, Denmark, Finland, France, Luxembourg, Sweden.
	Frameworks for IP ownership and licensing	At least 11 MS have frameworks explicitly aiming at strengthening collaboration between industry and academia: Austria, Bulgaria, Croatia, Denmark, Finland, France, Germany, Ireland, Italy, Spain, Sweden.

The comparison between the 27 EU Member States and the three peer countries shows that commercially scalable innovation is supported by broadly similar building blocks, but the peers tend to combine them in a more coherent and mature policy mix. The peer-country mapping suggests that the UK, the United States and Switzerland are closer to the integrated model the EIA would promote.

Table A11-4. Comparison with peer countries on regulatory frameworks for innovation

Dimension	EU & MS	Peer Countries
Intangible asset financing & IP commercialisation	Fragmented IP commercialisation practices, variable support for intangible-asset financing.	UK: mature university IP ecosystem with TTOs, spin-out

		frameworks, standard contracts²⁰⁷. US: venture capital, IP securitisation, private valuation expertise, federal legislation (such as the Bayh–Dole framework for university IP and successive technology and industrial-policy acts) creates a clear roadmap and governance for strategic technologies, while deep venture-capital markets, active securitisation of IP and well-developed private valuation expertise mean that early-stage intangible assets can routinely underpin finance.²⁰⁸ Switzerland: stable IP regime, sophisticated banking/advisory sectors enabling investment in intellectual assets.
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Policy mapping - Innovation procurement

In the field of innovation procurement, the starting point is **a common EU legal framework**. Directive 2014/24/EU (and its utilities counterpart 2014/25/EU) gives contracting authorities a toolbox of procedures that can be used in an innovation-friendly way, in particular the innovation partnership, which combines R&D and subsequent purchase in a single procedure when no suitable solution exists on the market, alongside competitive dialogue and competitive procedures with negotiation.²⁰⁹ The directives also encourage division of contracts into lots to facilitate SME participation. **However, they do not define “innovation procurement”, set minimum investment targets, or require public buyers to use these procedures and pre-commercial procurement (PCP) remains largely outside their scope.** As the recent expert group report on “Bringing down legal barriers for innovation procurement” underlines, the current framework “already allows flexibility” but “does not push ambitiously enough” for widespread adoption, so innovation procurement is still significantly underutilised compared with other leading economies.²¹⁰

All 27 MS have adopted policies aimed at stimulation public and private innovation procurement. At the same time, only a few MS have adopted binding innovation-

207 WIPO (2023). Unlocking IP-backed financing series: Country perspectives: the United Kingdom’s Journey. <https://www.wipo.int/edocs/pubdocs/en/wipo-pub-m2023-42-en-country-perspectives-the-united-kingdom-s-journey.pdf>

208 USC Department of Contracts and Grants (2021). Bayh-Dole Act Obligations for Universities. <https://dgc.usc.edu/2021/05/03/bayh-dole-act-obligations-for-universities/>

209 Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC Text with EEA relevance. <https://eur-lex.europa.eu/eli/dir/2014/24/oj/eng>

210 Bringing down legal barriers for innovation procurement. https://research-and-innovation.ec.europa.eu/strategy/support-policy-making/shaping-eu-research-and-innovation-policy/new-european-innovation-agenda/innovation-procurement/eu-policy-initiatives-innovation-procurement/bringing-down-legal-barriers-innovation-procurement_en#more-information

procurement spending targets, dedicated fast-track procedures outside the directives, and there are no mapped national measures on preferences for EU-made solutions or joint cross-border innovation procurement. Countries such as Germany and Spain demonstrate that coupling legislation with targeted programmes leads to stronger performance. Germany's VgV § 19 (Vergabeverordnung - Regulation on the Award of Public Contracts)²¹¹ and UVgO § 20 (regulates what must be documented and how contracting authorities must record the conduct of the procurement procedure for high-value contracts)²¹² provide a clear legal pathway for innovation partnerships and market exploration. At the same time, KOINNO Competence Centre offers consultation, information, tools, certification and training to public buyers and suppliers with the goal of permanently strengthening the innovation orientation of public procurement.²¹³ In Spain, the public procurement of innovation programme (Compra Pública de Innovación)²¹⁴, managed by CDTI, treats public procurement as a tool for innovation policy, funding first prototypes or innovative solutions validated by public bodies. This programme demonstrates how targeted funding and guidance can create a pipeline of innovative solutions ready for wider procurement.

However, many MS rely solely on the directive. Countries such as Croatia, Romania, Luxembourg and Malta lack dedicated programmes or guidance. Taken together with OECD work, which similarly finds that PPI is recognised in many strategies but often confined to pilots and niche sectors²¹⁵, this suggests that the EU has a broadly homogeneous legal baseline and a growing set of promotional policies, but still lacks the stronger obligations, targets and governance mechanisms that would make innovation procurement a mainstream, systemic driver of commercially scalable innovation.

Table A11-5. Overview of measures to support innovation procurement

Problem drivers	Types of mapped interventions	Country coverage
3.1 Lack of legal certainty on how to procure R&D services	Frameworks for innovation public procurement outside the EU public procurement directives	15 MS have Public Procurement Policies, that explicitly endorse innovation procurement: Belgium, Cyprus, Czechia, Estonia, Spain, Finland, Germany, Greece, Italy, Latvia, Netherlands, Poland, Romania, Slovakia, Sweden. At least 2 MS have explicit special legal provisions for innovation procurement: France, Spain.

211 Verordnung über die Vergabe öffentlicher Aufträge (Vergabeverordnung - VgV). https://www.gesetze-im-internet.de/vgv_2016/_19.html

212 Marktverordnung. <https://www.vergabevorschriften.de/uvgo/20>

213 Das Kompetenzzentrum innovative Beschaffung (KOINNO). <https://www.koinno-bmwk.de/koinno/>

214 La Compra Pública de Innovación (CPI). https://www.cdti.es/compra-publica-innovadora_

215 OECD (2025). Implementing the OECD Recommendation on Public Procurement in OECD and Partner Countries. https://www.oecd.org/en/publications/implementing-the-oecd-recommendation-on-public-procurement-in-oecd-and-partner-countries_02a46a58-en/full-report/implementation-of-the-oecd-recommendation-in-member-and-partner-countries_2305bb1b.html

		At least 12 MS have centres, agencies or platforms for innovation procurement: Austria, Croatia, Czechia, Denmark, Estonia, Finland, Germany, Lithuania, the Netherlands, Poland, Spain, Sweden.
3.2 Procurement practices favour incumbents and limit the participation of innovative companies in procurement procedures	Incentives for private innovation procurement	At least 11 MS have or had recently Voucher programs to allow companies (primarily SME) to buy R&D&I services: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Estonia, Finland, Germany, Latvia, Malta. At least 6 MS have or had recently Voucher programs for companies to buy innovation in the field of digitisation: Belgium, Denmark, Ireland, Italy, Slovenia, Spain. No general incentives for private innovation procurement were found.
3.3 Fragmentation and barriers to joint cross-border innovation procurement	Frameworks for cross-border public innovation procurement	At least 2 MS have explicit frameworks for cross-border public innovation procurement: Austria, France. A bilateral agreement exists between Belgium and France. A trilateral agreement exists between Sweden, Finland and Iceland.

Compared with the EU baseline, the peer countries do not systematically set quantitative targets for innovation procurement, but they rely on a mix of legal openness, procurement flexibilities and SME-oriented instruments that indirectly stimulate public and private purchasing of innovative solutions.

Table A11-6. Comparison with peer countries on regulatory frameworks for innovation

Dimension	EU & MS	Peer Countries
Innovation procurement frameworks		UK: scores above the European average on the overall innovation-procurement framework, with

		strong support from ICT and sectoral policies and clear guidance for public buyers²¹⁶. Switzerland: the 2021 Federal Act on Public Procurement and its ordinances create an innovation-friendly regime (functional specifications, value-for-money criteria, market dialogue),²¹⁷
Cross-border procurement / domestic preferences	Very limited provisions for cross-border procurement, no EU preferences	US: domestic-preference rules such as the Buy American Act²¹⁸ and the newer Build America, Buy America (BABA) Act²¹⁹, which require price preferences or domestic-content requirements for many federally funded projects. Switzerland: operates a very open procurement market: it is a party to the WTO Government Procurement Agreement²²⁰ and to a bilateral EU–Swiss procurement agreement²²¹, which together grant reciprocal, non-discriminatory access to a broad range of public contracts and facilitate the purchase of innovative solutions from foreign suppliers. UK: operates a formally open procurement regime: as an independent party to the WTO GPA²²² and under the UK–EU Trade and Cooperation Agreement²²³, contracting authorities are expected to accept tenders from overseas “treaty state” suppliers on a largely equal footing with domestic firms, subject to limited exclusion grounds.

216 European Commission (2025). European Innovation Scoreboard 2025. Country profile United Kingdom. https://ec.europa.eu/assets/rtd/eis/2025/ec_rtd_eis-country-profile-uk.pdf

217 Federal Act on Public Procurement (PPA). <https://www.fedlex.admin.ch/eli/cc/2020/126/en>

218 The Buy American Act. <https://www.gao.gov/products/105519>

219 The Build America, Buy America (BABA) Act. <https://www.epa.gov/baba/build-america-buy-america-baba-overview>

220 World. Trade. Organisation. Agreement on Public Procurement. https://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm

221 Agreement between the European Community and the Swiss Confederation on certain aspects of government procurement - Final Act - Joint Declarations - Information relating to the entry into force of the seven Agreements with the Swiss Confederation in the sectors free movement of persons, air and land transport, public procurement, scientific and technological cooperation, mutual recognition in relation to conformity assessment, and trade in agricultural products. [https://eur-lex.europa.eu/eli/agree_internation/2002/309\(6\)/oj/eng](https://eur-lex.europa.eu/eli/agree_internation/2002/309(6)/oj/eng)

222 World. Trade. Organisation. Agreement on Public Procurement. https://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm

223 The EU-UK Trade and Cooperation Agreement. https://commission.europa.eu/strategy-and-policy/relations-united-kingdom/eu-uk-trade-and-cooperation-agreement_en

ANNEX 12: ANALYSIS OF RESPONSES TO THE STARTUP AND SCALEUP STRATEGY CALL FOR EVIDENCE

The Call For Evidence for the Startup and Scaleup Strategy received a total of 586 responses from stakeholders. And it was fielded from the 17 February 2025 to the 17 March 2025.

- 144 respondents mentioned Commercialisation of R&I as a key issue
- 124 respondents mentioned innovation procurement as a key issue

Commercialisation of R&I

Hurdles Analysis

Table A12-3. Call for Evidence of the Startup and Scaleup Strategy – EU commercialisation of R&I hurdles

Hurdle type	Details
Access to finance	Many stakeholders highlight financing gaps specifically around the translation of research into market-ready innovation, often framed as proof-of-concept / demonstration / “valley of death” challenges and the difficulty of mobilising patient or later-stage capital for science-driven innovation and deep tech (e.g. F3528922, F3527346, F3529779, F3527345, F3527110).
Fragmentation and complexity of IP rules and policies	Several submissions point to complexity and unevenness in IP-related frameworks and practices as a barrier to turning research outputs and intangible assets into scalable businesses. Stakeholders link this to uncertainty and friction in protecting, managing, and transferring IP in ways that support commercialisation and cross-border scaling (e.g. F3527346, F3529779, F3529804, F3528917).
Ineffective technology transfer	A recurring theme is that technology transfer processes and incentives are not consistently effective at moving research results into commercially scalable innovation. Stakeholders note gaps in the pathways from universities/RTOs to startups/scaleups (e.g., spin-offs, licensing, support structures), which slows commercial uptake (e.g. F3529779, F3527346, F3527110, F3528922).
State aid rules	Some stakeholders highlight that state aid rules / GBER constraints as limiting the design or duration of support instruments relevant to deep tech and research commercialisation (including how universities/research actors can support startups, and how certain funding tools can be deployed) (e.g. F3527345, F3528913, F3529923).

Source: RTD A.5

Detailed Actions Analysis

Table A12-4. Call for Evidence of the Startup and Scaleup Strategy – EU commercialisation of R&I proposed actions

Action type	Details
Harmonization of IP frameworks	A limited but explicit set of submissions propose improving commercialisation by making Europe's IP environment more unified / consistent (e.g., referencing EU-wide approaches and patent system improvements) (e.g. F3529854, F3528917, F3529779).
Creation of a clear path to monetise research	-
Improvement of technology transfer mechanisms	Stakeholders argue for stronger, more effective technology transfer (including better pathways for spin-offs/licensing and more capable intermediary structures between research organisations and startups/scaleups) (e.g. F3528922, F3527110, F3529779).
IP valuation	-

Source: RTD A.5

Innovation procurement

Table A12-5. Call for Evidence of the Startup and Scaleup Strategy – Innovation procurement hurdles

Hurdle type	Details
Procurement practices undervalue innovation	Several stakeholders argue that public procurement still doesn't systematically reward innovative solutions (e.g., being too risk-averse and/or not sufficiently geared to outcomes and innovation). They describe procurement as insufficiently designed to act as a lead market or early customer for innovative firms (e.g. F3529816, F3529829, F3524154, F3529923, F3529829)
Procedures that are not funder friendly	Several submissions describe procurement and related public funding/tender processes as administratively heavy and difficult to navigate for startups, including burdensome application/participation requirements and process complexity that diverts scarce time and capacity from product development and scaling (e.g., F3529818, F3529918, F3525044).
SMEs at a disadvantage	Several stakeholders state that procurement design and requirements can structurally favour established incumbents over SMEs/startups (e.g., through how tenders are framed and what is implicitly required to qualify/compete) (e.g. F3529829, F3529816, F3528874).
Slow public procurements that do not leverage R&D	A limited number of submissions points to slow procurement timelines and argues that procurement is not used effectively enough to pull through R&D and innovation (including references to innovation procurement approaches like PPI/PCP). This is present but less uniformly raised than general procedural burden (e.g., F3529918, F3529818).

Source: RTD A.5

Detailed Actions Analysis

Table A12-6. Call for Evidence of the Startup and Scaleup Strategy – Innovation procurement proposed actions

Action type	Details
Innovation-friendly procurement environment	Several submissions explicitly call for reshaping public procurement so it rewards innovation more directly. Stakeholders frame this as a way to create stronger lead markets and help innovative firms scale. (e.g. F3529829, F3529918, F3529816)
Simplifying access to procurement	Many stakeholders propose reducing administrative burden and complexity in procurement so that startups/SMEs can realistically participate (e.g., simplifying tender participation and lowering procedural friction that currently discourages smaller firms) (e.g. F3529918, F3529932, F3529829).
Greater coordination and cooperation between public and private buyers	Some stakeholders propose stronger buyer-side coordination (including clearer frameworks for joint procurement across countries) and more public-private collaboration to help innovation procurement generate demand at scale and connect innovators with buyers (e.g. F3529816, F3529801, F3529929).

Source: RTD A.5

ANNEX 13: MONITORING AND EVALUATION FRAMEWORK

The approach outlined in Table A13-1 indicates the high-level methods and approaches that could be deployed to monitor and evaluate the EIA in general.

Table A13-1: Proposed Monitoring and Evaluation Methods and Sources for the EIA

Instrument	Type	Purpose	Key Indicators / Evidence	Frequency	Use in Ex Post Evaluation
Macro-level performance indicators (EU-US comparison)	Monitoring (quantitative, high-level)	Track whether the structural problems identified in the baseline improve over time and whether the EU-US gap narrows	Direct and indirect support to firms R&D, regulatory quality index, entrepreneurship policies and culture index, finance for startups and scaleups index, domestic credit to private sector, innovative SMEs collaborating with others, public research-industry co-publications	Annual or biannual (depending on data source)	Provides macro-level trajectory against which EIA implementation can be contextualised; not suitable for causal attribution but essential for assessing overall direction of travel
Startup and Scaleup Scoreboard	Monitoring (quantitative)	Measure the performance of EU startup and scaleup ecosystems	Number of startups; number of scaleups; cross-border scaleups; fundraising; exits; innovation-related metrics	Annual	Supplies time-series data to observe post-EIA changes at ecosystem level

Annual Startup and Scaleup Survey	Monitoring (qualitative)	Capture founders' perceptions of regulatory and business conditions	Perceived regulatory burden; access to finance; conditions for scaling; access to IP valuation, RTIs, and innovation procurement	Annual	Provides qualitative evidence on changes in framework conditions aligned with EIA objectives
Administrative data (IP valuation, RTIs, innovation procurement)	Monitoring (quantitative)	Monitor uptake of EIA-related support mechanisms	Number of firms accessing IP valuation services; users of RTIs; number and volume of innovation procurement procedures	Annual	Enables before/after and measure-specific trend analysis
Targeted ex post evaluation studies	Evaluation (causal analysis)	Estimate causal impact of individual EIA measures (when feasible)	Quasi-experimental methods (DiD, RDD, PSM, synthetic control), exploiting eligibility rules and timing of implementation	One-off or periodic (e.g. 3–5 years after entry into force)	Identifies the causal contribution of specific EIA interventions to observed micro-level improvements

Note: Macro-level indicators are used solely to monitor overall trends and the evolution of the EU-US gap; they are not suitable for attributing causality to the EIA, as these outcomes are influenced by multiple external factors. Scoreboard indicators and perception-based indicators provide essential micro-level evidence to monitor changes in innovation-related framework conditions. However, similarly to the macro-level indicators, on their own they cannot be used to attribute causality to the EIA. Robust causal identification will only be feasible for measures with clear eligibility criteria or staggered implementation. For horizontal or soft-coordination measures, evaluation will rely on contribution analysis and qualitative evidence. As a result, the strength of causal inference will vary across measures. Source: DG Research and Innovation, Innovation policy & Access to finance Unit's own elaboration.

M&E plan for measures

This section presents the Monitoring and Evaluation (M&E) framework for the measures included into the EIA. Each measure is assessed through a standardised set of parameters, including specific monitoring indicators, the intended direction of change, a baseline representing the current status quo against which the target is benchmarked. These elements are evaluated against the time horizon reported in the specific objective associated with each measure. Furthermore, the framework incorporates an Attribution Risk assessment, categorised as low, medium, or high. It quantifies the degree of direct causality between the measure and the target. A low-risk rating is assigned to indicators where the impact is immediate and intrinsically linked to the measure's legal definition, whereas a high risk rating is applied to indirect or secondary effects where broad market dynamics make definitive attribution more complex.

M&E plan for measures fostering commercial exploitation of innovation

Measure 1 Promoting valuation of IP

	Specific objective: 1. Substantially lower valuation costs, and increase licensing and transfer of IPRs in the EU in the next 4 years
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<i>Monitoring indicator</i>	<i>Direction of change</i>	<i>Attribution risk</i>	<i>Baseline</i>	<i>Target (4-year horizon)</i>
1. Number of MS integrating EUIPO valuation standards in national IP practices	Increase	Low	No common EU-wide valuation standard currently recognised in national practices.	High convergence: At least 20 MS (75%) formally adopting the standards.
2. Average IP valuation costs borne by firms (survey-based)	Decrease	Low	The current effort is estimated to be 40 – 80h per firm per year resulting into EUR 1,600 – 3,200 of administrative costs per year per firm	50% reduction as a minimum target
3. Number of transactions using the EU valuation method	Increase	Medium	No transactions are currently conducted using the (yet to be developed) EUIPO methodology.	No fixed target set, participation is voluntary. However, a rapid uptake in the volume of transactions on the new secondary marketplace is expected.
4. Number of companies using IP as collateral or in financing rounds (survey-based)	Increase	High	There is no proper data on the number of companies using IP as collateral or in financing rounds. The ECB SAFE (Q4 2025) shows a that 14% of firms reported stricter collateral requirements.²²⁴ On top of that, According to EUIPO and EPO (2025), 12.7% of large	No fixed target set, participation is voluntary. However, an increasing trend in the number of SMEs using IP as collateral is expected.

²²⁴ European Central Bank (2026). ECB Survey on the Access to Finance of Enterprises (SAFE) - Feb 2026. Q4 2025 Results - Published Feb 2026) . https://www.ecb.europa.eu/stats/ecb_surveys/safe/html/index.en.html

			companies hold patents, compared to just 1.1% of SMEs.²²⁵ This results into about 6,900 large enterprises and 20, 000 SMEs holding patents.²²⁶ The study also highlights that fewer than 10% of SMEs own registered IPRs, compared to nearly 50% of large firms. This disparity reflects untapped potential for smaller businesses to leverage IPRs as tools for innovation and growth.	
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Measure 2: Establish a fast-track procedure for pre-commercial procurement (i.e. R&D procurement outside of PP directives) that promotes proven techniques to boost innovation minded and startup friendly purchasing, and that removes joint cross-border pre-commercial procurement issues

	Specific objective: 2 . Increase spending on procurement of R&D services in the next 5 years			
<i>Monitoring indicator</i>	<i>Direction of change</i>	<i>Attribution risk</i>	<i>Baseline</i>	<i>Target (5-year horizon)</i>
5. Number of public buyers using the fast-	Increase	Low	Harmonised fast-track procedures do	At least all public buyers in the EU27

²²⁵ EUIPO and EPO (2025). EUIPO and EPO study highlights the economic benefits of intellectual property rights for EU companies https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/reports/2025_IPRs_firm_performance_in_the_EU/IPRs_firm_performance_in_the_EU_FullR_en.pdf

²²⁶ The number of SMES and large enterprises is our elaboration and it is calculated by applying the % to the total number of SMEs (10 – 49 employees) in the EU, equals to 1,820,735 and the number of large enterprises (250+ employees), equal to 54,219. (source Eurostat structural business statistics)

track R&D procurement procedure			not exist. Fragmented situation. The number of public buyers relevant for this measure (i.e. involved in R&D procurement) has been conservatively estimated to be 2,000, while no estimates are available for private buyers.	receiving EU-funds using the procedure.
6. Number of contracts (share) of R&D procurement outside PP Directives / PPA using the techniques	Increase	Low	No requirements currently exists for private and public recipients of public funds to use specific innovation-friendly buying techniques.	Systemic alignment: 50-80% of all eligible public/private R&D contracts (outside directives) adopting mandatory techniques.
7. Number or volume of R&D procurement contracts awarded to firms (especially SMEs and startups).	Increase	Medium	Only about 1/3 of total contracts go to SMEs. PCP is a bright spot with a ~70% SME win rate, but scale is limited.²²⁷ In the IA, the number of relevant innovative enterprises that could be potentially affected by this	No fixed target, context dependent (market conditions, number of public and buyers adopting the techniques).

²²⁷ Technical University of Denmark (DTU, p.21) (2025). From Strategy to Scale: Unlocking Europe's Deep Tech Potential (Ascend Innovation Pre-Conference Report 2025. Report in partnership with the European Commission and the European Innovation Council (EIC). <https://ascend.dtu.dk/-/media/onepager-websites/ascend/ascend-innovation-pre-conference-report-2025.pdf>

			measure is estimated to be: SMEs: 1% to 5% of all the innovative companies, corresponding to n = 2,224 – 18,000; Large enterprises: 1% to 3% (n = 1,496 – 12,000).	
8. Number or volume of R&D procurement contracts awarded to cross-border consortia/firms (i.e. consortia with firms/bodies from different Ms)	Increase	Low	Low Integration: Cross-border participation is currently below 5% for standard contracts and 33% for specialised PCPs²²⁸	Cross-border share increase to 50%-70% for all EU PCP contracts.

Measure 3: Preference for EU-made solutions in private and public procurements outside of PP directives

	Specific objective: 3. Increase the procurement of EU-based R&D solutions in the next 5 years			
<i>Monitoring indicator</i>	<i>Direction of change</i>	<i>Attribution risk</i>	<i>Baseline</i>	<i>Target (5-year horizon)</i>
9. Number of public buyers adopting the EU-preference requirement (survey based)	Increase	Low	No mandatory EU-preference requirement currently exists. In the IA, it has been estimated that the number of public buyers relevant for this	All public buyers

²²⁸ Presentation by DG CONNECT F3 unit (“Digital Innovation and Blockchain”) by Lieve Bos. Update on results from completed and ongoing FP7 and Horizon 2020 funded Pre-Commercial Procurements (PCPs) Lieve Bos DG CONNECT F3 unit (“Digital Innovation and Blockchain”. Available at <https://www.agid.gov.it/sites/agid/files/2024-05/resultseufundedpcsstatusjan2020pdf.pdf>

			measure is about 2,000	
10. Number (share of) procurement contracts awarded to EU-made solutions in strategic technologies	Increase	Low	Strategic Dependency: Currently, 78% of strategic procurement spending goes to non-EU suppliers (63% to US based suppliers) ²²⁹	Strategic shift: increase (reduce) EU (non-EU) dependency by half (50%)

ANNEX 14: POLICY MAPPING (DETAILED LIST OF MAPPED POLICES)

Policy mapping for measures addressing the regulatory frameworks for innovative companies

The mapping of existing policy measures across EU Member States and thematic areas was based on AI-assisted deep research using large language models (ChatGPT 5.1), which were applied country-by-country to identify, extract and synthesise relevant policies into structured tables. Multiple AI passes were used to screen large volumes of measures, categorise them across analytical dimensions, and enable systematic cross-country comparison. Results were iteratively refined through secondary AI reviews and complemented by targeted manual checks and expert judgement, with source verification applied throughout to reduce bias and hallucination risks. This approach allowed the compilation of a comprehensive, comparable overview of policy approaches across Member States, while acknowledging that, as with any large-scale mapping exercise, some omissions may remain.

The following table presents the measures identified through the policy mapping that are of particular relevance to the problem area.

Policy Mapping for Commercially scalable innovation

The following table presents the measures identified through the policy mapping that are of particular relevance to the problem area.

²²⁹ Draghi (2024, Part A, p. 54). The future of European competitiveness – A competitiveness strategy for Europe (Part A). https://commission.europa.eu/document/download/97e481fd-2dc3-412d-be4c-f152a8232961_en

Country	Type	Name	Year	Short Description
AT	Programme	Intellectual Property Strategy for Austria (Strategie der Bundesregierung für geistiges Eigentum)	2017	First national IP strategy setting goals to better valorize IP for economic gain. It identifies legal, institutional, and awareness measures to help companies use IP assets in business and financing. Objectives include integrating IP in funding programs and reviewing barriers (e.g. accounting rules that prohibit capitalizing self-developed intangibles).
AT	Other	FFG – Spin-off Fellowships (Sonderrichtlinie / Guidelines)	2017	Funds researchers/students to develop IP of universities/research institutions towards start-ups, strengthening spin-off pathway.
AT	Programme	aws – Impulsprogramm Wissenstransferzentren & IPR-Verwertung (Programmdokument/Richtlinie)	2022	Programme to professionalise knowledge and technology transfer, including IP services and inter-university Knowledge Transfer Centres.
AT	Fund	Wirtschaftsagentur Wien – Innovationsförderung (Richtlinie 24+)	2024	Regional innovation grant programme supporting R&D and commercialization in Vienna-based firms.
AT	Other	Universitätsgesetz 2002 (UG) – § 106 Verwertung von geistigem Eigentum	2002	Sets rules for service inventions by university staff and the university's right to claim/use inventions, enabling institutional IP management.
AT	Other	aws Proof of Concept – Programmdokument (gültig ab 2025-01-01)	2025	Supports PoC projects at research organisations to demonstrate functionality as prerequisite for further valorisation measures.
BE	Other	Pandregister – toegang en gebruik (NL)	Current	Access instructions for the national pledge register (login via eID/itsme).
BE	Other	Government Order of 29 May 2009 on support for Industrial Research Funds (IOF) and interface activities of the university associations	2009	Creates structural funding for university TTOs and IOF to accelerate valorisation, licensing and spin-offs from publicly funded research.
BE	Other	Decree of 3 July 2008 concerning support for research, development and innovation in Wallonia	2008	Establishes legal basis and aid schemes for industrial research, experimental development and innovation, including support to research organisations and technology transfer agencies.
BE	Other	Decree of 30 April 2009 on the organisation and financing of the science & innovation policy	2009	Framework decree for Flemish science and innovation policy, including evaluation and financing rules that underpin valorisation instruments.
BG	Other	Special Pledges Act (Закон за особените залози)	1996	Framework law enabling non-possessory pledges over movables and intangible assets via registration in the Central Register of Special Pledges (CROZ), allowing IP and other intangibles to be used as collateral.
BG	Other	Law on Promotion of Scientific Research and Innovation (Закон за насърчаване на научните изследвания и иновациите)	2024	Framework law setting principles, instruments and governance for research & innovation; creates conditions for IP protection, realisation (commercialisation) of research results, technology transfer, and cooperation between science and business.

BG	Fund	Eurostars (Eureka) – National funding rules (BSMEPA)	2023	National co-funding for Bulgarian SMEs in Eurostars projects; high grant rates reduce financing barriers for R&D commercialisation.
BG	Programme	Innovation Strategy for Smart Specialisation (IS3) 2021–2027 (Иновационна стратегия за интелигентна специализация 2021–2027)	2022	National strategic framework to focus R&I investments and instruments; emphasises effective instruments for research, innovation and technology transfer.
BG	Other	Central Register of Special Pledges – Rules on structure and activity (Правилник)	2007	Operational rules of the public register for special pledges at the Ministry of Justice; ensures transparency and enforceability of security over intangibles.
CY	Other	‘Cyprus Award – Commercial Exploitation of Research Results’ (RIF)	2025	National award recognising successful commercial exploitation of research results to motivate and encourage knowledge transfer activities.
CY	Fund	Apply for an Innovative Enterprises Certificate (Deputy Ministry of Research, Innovation & Digital Policy)	2025	Official service enabling firms to obtain ‘Innovative Enterprise’ certification used for investor tax relief under Article 9A.
CY	Programme	Smart Specialisation Strategy (S3CY) 2023–2030 (adopted 30 March 2023)	2023	Sets national R&I priorities and frames funding calls; S3 update approved by Council of Ministers on 30/03/2023.
CZ	Programme	Patent pledge registration (Industrial Property Office service)	2023	Administrative service to register a pledge over a patent/European patent/SPC or patent application in the patent register.
CZ	Programme	Utility model pledge registration (Industrial Property Office service)	2024	Administrative service to register a pledge over a utility model in the register maintained by the Industrial Property Office.
CZ	Programme	National RIS3 Strategy 2021–2027 (National Research and Innovation Strategy for Smart Specialisation)	2021	Defines priorities and measures for RDI and addresses barriers to applied research; frames funding programmes for 2021–2027.
CZ	Programme	TA ČR – SIGMA Programme (Sub-objective 1: Support for commercialisation of RDI)	2024	Supports commercialisation of breakthrough innovative solutions and growth of small enterprises/startups in Czechia.
DE	Fund	WIPANO – Wissens- und Technologietransfer durch Patente und Normen (BMWK)	2016	Federal grants to help universities/SMEs protect and exploit research via patents and standardisation.
DE	Programme	EXIST – University-based Start-ups Programme (BMWK)	1998	Federal programme promoting academic entrepreneurship and spin-offs to commercialise research.
DE	Other	Act on Employees’ Inventions (Gesetz über Arbeitnehmererfindungen – ArbNErfG)	1957	Governs ownership and commercialization of employee inventions in public and private sectors; universities can claim staff inventions; inventors receive revenue share.
DE	Other	Steinbeis-Stiftung (Netzwerk der Steinbeis-Transferzentren)	1971	Public-supported foundation enabling professors/experts to offer R&D & consulting to firms through Transfer-Zentren; institutionalized knowledge transfer.

DK	Fund	Tinglysningsloven § 47 c – Virksomhedspant (enterprise floating charge)	2006	Allows an enterprise to grant a floating charge over present and future assets ('virksomhedspant'). The asset classes expressly include 'immaterielle rettigheder' (intellectual property), enabling IP to be pledged.
DK	Other	Act on inventions at public-sector research institutions (Consolidation Act No. 210 of 17 March 2009; as amended)	2009	Governs employee inventions at universities/PROs, institutional claim to rights, duty to commercialise, and revenue sharing; establishes decision powers and procedures.
DK	Fund	Innovation Fund Denmark – Strategy & instruments (public co-investment)	2024	IFD invests in high-risk, high-potential R&I through grants/co-funding to catalyse private capital and speed market uptake.
DK	Fund	Innovation Fund Denmark – InnoExplorer (proof-of-concept for publicly funded research results)	2025	Programme to mature early research-based entrepreneurial ideas from public institutions so they are ready for market or further investment.
EE	Programme	Estonian Research Council – Proof-of-Concept Grant (PoC)	2023	Competency-based funding instrument for experimental development to test and/or create conditions for commercialisation of research outcomes; aims to enhance technology transfer and application of results in enterprises and in society.
EE	Other	Commercial Pledges Act — Extent of commercial pledge	1996 (as amended; consolidated 2023)	Creates a non-possessory general pledge over an undertaking's movable property, covering existing and after-acquired movable assets unless excluded.
EE	Other	Corporate income tax on distributed profits only (Estonian CIT regime)	Ongoing policy (confirmed 2025)	Deferral of corporate income tax until profit distribution enhances cashflow for reinvestment in innovation and commercialisation.
EE	Programme	Estonian Research, Development, Innovation and Entrepreneurship Strategy 2021–2035 (RDIE)	2021	Joint strategy by MoER and MoEAC; includes a dedicated 'knowledge transfer' axis and smart-specialisation focus areas to increase uptake of research results by enterprises and society.
EE	Other	ASBG 5 — Property, Plant and Equipment and Intangible Assets (Estonian Accounting Guidelines)	2025 (guideline version)	Sets recognition, measurement and reporting rules for intangible assets in Estonian GAAP, improving transparency for valuing IP and other intangibles.
EL	Programme	GSRI Initiative – Technology Transfer Offices (TTOs) Action	2021	Government initiative to mature and finance TTO operation across HEIs and research bodies, addressing gaps in IP management, licensing and spin-off creation.
EL	Other	Law 4310/2014 – Research, Technological Development and Innovation (RTDI)	2014	Horizontal RTDI framework law defining national strategy, governance, and instruments for research and innovation, including research organisations and collaboration with enterprises.
EL	Other	Law 4957/2022 – New Horizons in Higher Education Institutions, and provisions for research and innovation	2022	Sets objectives for HEIs to link with industry, transfer knowledge, protect and exploit research results; creates internal structures (Technology Transfer & Innovation Units) and governance to manage IP and spin-offs.

EL	Fund	General Secretariat for Research & Innovation – Certification of R&D Expenditure (Law 4712/2020 / Art. 22A of Law 4172/2013)	2020	Super-deduction increased to +100% for eligible R&D costs; GSRI certifies R&D expenditure supporting claims.
ES	Other	Startups Law (Ley 28/2022, de fomento del ecosistema de las empresas emergentes)	2022	Creates favourable environment for innovative firms, including university spin-offs.
ES	Other	Royal Decree 984/2022 — Oficinas de Transferencia de Conocimiento (OTC) y registro	2022	Creates/organises official Knowledge Transfer Offices and a national registry to professionalise tech-transfer and valorisation.
ES	Other	Organic Law 2/2023 of the University System (LOSU)	2023	Elevates knowledge transfer and societal impact as core university duties; enables spin-offs and clarifies IP/compatibility rules.
ES	Programme	Pact for the Knowledge Society (PN@SC – Pacte Nacional per a la Societat del Coneixement)	2020	Multi-actor agreement to boost transfer and innovation toward the productive sector, with programmes for valorisation and TT units.
ES	Programme	Spanish Strategy for Science, Technology and Innovation 2021–2027	2020	Sets national goals to improve public–private collaboration and knowledge transfer to market/society.
ES	Other	Science Act Reform (Ley 17/2022, de modificación de la Ley 14/2011)	2022	Updates the science law to strengthen knowledge transfer, researcher incentives, spin-offs and licensing frameworks.
FI	Other	PRH – Enterprise Mortgage (business mortgage/floating charge)	2025	Centralised enterprise-mortgage register managed by PRH; mortgage may be applied for by the trader or a creditor on the property of a trader recorded in the Trade Register.
FI	Other	Business Finland – Research to Business funding (formerly TUTL)	2025	Funding for public research organisations to prepare commercialization and conduct applied research that supports commercialization of research-driven ideas.
FI	Other	Employment Invention Committee (statutory) – opinions on HEI and employee inventions	2025	National committee issues opinions on the application of the Act on the Right in Employee Inventions and the Act on the Right in Inventions made at HEIs.
FI	Programme	Government Resolution: National Intellectual Property Rights Strategy (2023)	2023	Sets measures to develop competences and administration related to IP and to improve the operating environment for IP-driven innovation and commercialisation.
FI	Other	Act on the Right in Inventions made at Higher Education Institutions (369/2006)	2006	Sets purpose, definitions and procedures for disclosure, universities’ acquisition of rights, confidentiality and compensation to inventors in open vs. collaborative research.
FR	Other	Code de la recherche – Livre V (Valorisation des résultats de la recherche et transfert de technologie) – Article L533-1 & Section réglementaire (mandataire unique)	2014	Creates a legal framework for valorisation and technology transfer. Article L533-1 establishes co-ownership management between public bodies and mandates appointment of a ‘mandataire unique’ to manage/exploit co-owned rights; regulatory section (e.g., D533-2; Décret 2020-24) details designation and duties.

FR	Fund	Fonds Parisien pour l'Innovation (FPI) – Ville de Paris & Bpifrance	2024	Municipal fund co-financed with Bpifrance to support impactful innovation projects in Paris; complements regional/national valorisation by financing early steps toward market.
FR	Other	Bpifrance – Prêt Innovation (financement des dépenses immatérielles)	2025	Prêt dédié finançant l'ensemble des dépenses immatérielles nécessaires à l'industrialisation et la commercialisation d'innovations.
FR	Fund	Crédit d'impôt recherche (CIR) – Article 244 quater B du Code général des impôts (CIR & sous-traitance à des organismes publics)	2024	R&D tax credit allowing companies to include outsourced R&D to public research organisations in the CIR base, lowering cost of collaboration with public labs.
FR	Programme	SRESRI Île-de-France 2023–2028 (Schéma régional de l'enseignement supérieur, de la recherche et de l'innovation)	2023	Regional strategy to consolidate scientific/industrial leadership; encourages synergies, consortia and international partnerships, supporting innovation and transfer.
FR	Programme	Sociétés d'accélération du transfert de technologies (SATT) – dispositif PIA	2010	Regional TTO companies created by universities/research organisations; detect, protect and mature inventions; transfer to firms/startups; financed under the 'Programme d'investissements d'avenir'.
HR	Programme	Strategija pametne specijalizacije do 2029. (S3)	2023	Main national strategy for research, development and innovation; strategic basis for funding projects and strengthening the national innovation system.
HR	Fund	Zakon o državnoj potpori za istraživačko-razvojne projekte (Law on State Support for R&D Projects) + Rulebook (2025)	2018	Provides R&D tax incentives and explicitly aims to boost private R&D investment and collaboration with scientific organisations, targeting future commercialization of project outputs.
HU	Other	Act C of 2000 on Accounting – Intangible assets definitions and valuation	2000	Defines fixed assets to include intangible assets and sets recognition/measurement rules, including capitalized R&D and market value adjustments.
HU	Fund	NRDIO (NKFIH) – Proof of Concept (PoC) Grant (2024–2025 call)	2025	Grant to validate market and technology potential of university research with TTOs; aims at turning developments into patents and products for SMEs and startups.
HU	Programme	National Smart Specialisation Strategy (S3) 2021–2027 (Gov. Decision 1428/2021)	2021	Identifies national economic priorities and establishes monitoring via TIPs; frames programmes that encourage collaboration and uptake of research results.
HU	Programme	National Research, Development and Innovation Office (NKFIH) – 2025 Programme Strategy	2025	Sets annual and multiannual R&D&I funding programmes (NKFI Fund) aligned with national priorities.
HU	Programme	Act LXXVI of 2014 on Scientific Research, Development and Innovation (RDI Act)	2014	Sets scope over RDI carried out in Hungary using public funds; regulates public funding, programmes, certification of R&D and institutions, enabling exploitation requirements in calls.
IE	Programme	KT Boost – Knowledge Transfer funding programme (Enterprise Ireland / KTI)	2024	Four-year €33.4m programme to strengthen knowledge transfer capacity in Irish universities and technological universities and to increase research commercialisation outcomes.

IE	Other	Knowledge Transfer Ireland – National IP Protocol (Resource Guide)	2022	Framework for research commercialisation and managing engagements between industry and RPOs; guidance on licensing, spin-outs and valuation norms.
IE	Other	National IP Protocol (Knowledge Transfer Ireland)	2019	Ireland's framework for research commercialisation; sets expected norms for engagements between industry and State research performing organisations (RPOs) and for spin-outs.
IE	Programme	Impact 2030 – Ireland's Research and Innovation Strategy	2022	Sets national strategy to maximise the impact of R&I, emphasising enterprise R&I activity and knowledge transfer.
IE	Programme	Enterprise Ireland – Commercialisation Fund	2025	Supports third-level researchers to translate research into innovative and commercially viable products, services and companies; includes PoC steps to de-risk technologies.
IT	Fund	Decreto 4 dicembre 2020 — Fondo per il trasferimento tecnologico (attuazione art. 42, DL 34/2020)	2020	Establishes and governs the national Technology Transfer Fund (managed via ENEA Tech/ENEA Tech & Biomedical).
IT	Fund	Decreto-legge 18 ottobre 2012, n. 179 (Startup innovative) – artt. 25–32	2012	Introduces the 'startup innovativa' regime and related measures (registration, incentives, access to guarantee fund, equity incentives) to foster financing and growth.
IT	Other	Linee guida attuative dell'art. 65, comma 5, Legge 102/2023 — contratti tra enti di ricerca e soggetti finanziatori	2023	Ministerial guidelines to standardise contractual models for commissioned research and knowledge transfer with companies.
IT	Fund	Fondo per il trasferimento tecnologico — pagina istituzionale MIMIT	2020	Official page describing scope, ticket size and eligibility of the Technology Transfer Fund.
IT	Fund	Pacchetto Investimenti – Linea Sviluppo Aziendale (garanzia + contributo)	2025	Regional instrument combines free regional guarantee on bank loan with capital grant for investment projects aligned with S3.
IT	Other	Programma Nazionale per la Ricerca 2021–2027 (MUR)	2021	Sets national priorities, including strengthening knowledge transfer and research-industry links for competitiveness.
Italy — Emilia-Romagna	Programme	L.R. 7/2002 — Promozione del sistema regionale delle attività produttive (PRRIITT)	2002	Regional law establishing the Programme for industrial research, innovation and technology transfer (PRRIITT).
LT	Programme	Innovation Agency Lithuania – system reform (one-stop shop for innovation support)	2022	Agency launched in April 2022 to reduce fragmentation and make public innovation support measures more effective – including services/programmes that enable commercialisation and partnerships.
LT	Other	Law on Higher Education and Research (No. XI-242) – IP management & commercialisation context	2009	Framework law governing universities/research. Together with institutional status reforms, it enables HEIs and research institutes to apply IP management principles that facilitate commercialisation of R&D results.
LT	Fund	Tax incentives for investment and innovations (R&D super-deduction;	2024	Lithuania offers a triple deduction (300%) of R&D costs, a 2-year depreciation for R&D assets,

		accelerated depreciation; 5% IP commercialisation rate)		and a reduced 5% CIT rate for profits from commercialisation of inventions created in R&D.
LT	Programme	Research Council of Lithuania – Measures for cooperation between science and business (incl. R&D funding for spin-offs)	2025	RCL instruments finance market-oriented science-business projects; dedicated ‘R&D funding for spin-offs’ promotes transfer of scientific knowledge and development of innovative products to support spin-off growth.
LT	Other	Smart Specialisation (S3) 2021–2027 – Lithuania	2022	S3 concept approved on 17 Aug 2022 sets R&I priority areas and aims to strengthen capacities, create new technologies and increase competitiveness – guiding calls that incentivise knowledge transfer and commercialisation.
LT	Other	InoStartas / InoStartas-2 (Innovation supply & early commercialisation support)	2023	Supports creation of new high added-value products, participation of researchers in enterprise R&D, IP activities, early pilot production and market-readiness.
LU	Other	FNR — JUMP (Proof-of-Concept / maturation)	2025	Bridges the technical and funding gap between research-driven discoveries and commercialisation/utilisation; open to all domains.
LU	Programme	Ministry of the Economy – Intellectual Property (policy/valorisation portal)	2025	Government portal emphasising valorisation of IP rights as a key method for monetising innovation and creativity.
LU	Other	Loi du 3 décembre 2014 portant organisation des centres de recherche publics (CRP) — valorisation & coopération	2014	Organises CRPs (e.g., LIST, LIH). Provides governance, multi-annual conventions and resources; recognises valorisation specialists; authorises CRPs to cooperate and hold shareholdings to transfer results to market.
LU	Other	Loi du 26 juin 2019 sur la protection des savoir-faire et des informations commerciales non divulgués (secrets d’affaires)	2019	Provides common definitions and civil remedies; ensures confidentiality in proceedings to protect trade secrets and enable safe knowledge transfer/licensing.
LU	Fund	Loi du 27 juin 2018 portant organisation de l’Université du Luxembourg (consolidée) — transfert, valorisation, PI et prises de participation	2018	Sets the missions and governance of the University of Luxembourg; explicitly mandates knowledge/technology transfer and valorisation of research results; sets IP ownership, licensing and allows equity participation/creation of subsidiaries.
LV	Fund	Innovation & Technology Transfer Support Programme (Cabinet-approved, implemented by LIAA)	2023	Cabinet approved programme (total €26.55m) to strengthen and improve the knowledge-transfer system, promote long-term cooperation between research and business, and support commercialisation (innovation vouchers, start-up talent, innovative procurement).
LV	Other	Commercial Pledge Law (Komerčiālā ķīla) – registration and scope	1998	Establishes Latvia’s commercial pledge regime and the Commercial Pledge Register; allows non-possessory pledges over enterprises’ movable property and rights; third-party effectiveness via registration.
LV	Other	Law on Scientific Activity	2005	Framework law for scientific activity and governance. Enables public research institutes to found and participate in companies and recognises their intellectual property, facilitating transfer and commercialisation of results.

LV	Other	Enterprise Register of Latvia – Commercial Pledge Register (guidance)	2025	Official information on filing a commercial pledge, required forms and fees; public extract availability.
LV	Programme	Research and Innovation Strategy for Smart Specialisation (RIS3) 2021–2027 (updated 2023)	2023	RIS3 sets priority domains and instruments to increase value-creation and productivity, guiding programmes that promote knowledge transfer and collaboration.
LV	Other	Patent Law (Patentu likums) – open licences and exploitation provisions	2007	Sets patent system rules in Latvia; includes mechanisms such as open licences and commercial pledge to facilitate use and financing of patents.
LV	Fund	Commercialization support (ERDF) – LIAA Business.gov.lv programme (2025–2027)	2025	Support (up to €300k, 50% co-financing) for scientific institutions and businesses to implement technology-transfer and research projects, including IP strengthening, licensing and commercialisation offer preparation.
MT	Other	University of Malta – Research & Knowledge Transfer (CR&KTO) – mission	2025	CR&KTO focuses on discovery, protection and commercialisation of IP, industry-academia collaboration and contracted research (via Malta University Consulting Ltd.).
MT	Other	Civil Code (Cap. 16) – pledge and security over movables/rights	consolidated (ongoing)	General civil-law framework for pledges and privileges, including over movable things and rights (e.g., receivables/shares).
MT	Programme	Malta’s National Research & Innovation Strategic Plan 2023–2027	2024	Sets national priorities and reforms following EU Policy Support Facility exercises; aims to improve R&I monitoring and align programmes to impact.
MT	Other	University of Malta – Intellectual Property (IP) Policy (last updated 10 July 2024)	2024	Sets objectives, ownership and management rules for IP arising from University research; mandates knowledge transfer services and training; establishes fair/equitable criteria for commercialisation and spin-outs.
MT	Programme	FUSION – Commercialisation Voucher Programme (CVP) – Activity Guidelines 2023	2023	Supports researchers, micro and SMEs to assess commercial potential of research, start or accelerate innovative activities, and collaborate with R&D institutions/service providers.
NL	Other	Wet op het hoger onderwijs en wetenschappelijk onderzoek (WHW) — Article 1.3 (tasks of HEIs)	2018	Defines the statutory tasks of universities and universities of applied sciences, including transferring knowledge for the benefit of society (valorisation), providing a legal basis for TTOs, licensing and spin-offs.
NL	Other	NWO ‘Take-off’ – academic start-ups (phase 1 feasibility & phase 2 early-stage loan)	2024	Financing for feasibility studies and early-stage routes for academic/HBO/TO2 starters to bring research to market; enables spin-off creation and IP valorisation.
NL	Other	Kennis- en Innovatieconvenant (KIC) 2024–2027	2023	National covenant aligning government, knowledge institutions and business around mission-driven innovation with strong PPP and valorisation focus.
NL	Other	Rijksoctrooiwet 1995 — employee inventions & employer ownership (Article 12)	1995	Sets patent law framework including rules for employee inventions and employer ownership, underpinning universities’ ability to patent and license research results.
PL	Programme	Act on the Łukasiewicz Research Network (Ustawa	2019	Creates a nationwide applied research network with a statutory mission including

		o Sieci Badawczej Łukasiewicz)		commercialization of research results and cooperation with industry.
PL	Other	Act of 6 December 1996 on Registered Pledge and the Register of Pledges	1996 (consolidated)	Creates the non-possessory registered pledge and the Register of Pledges for movables and rights (including IP); third-party effectiveness by registration.
PL	Other	Law on Higher Education and Science (Prawo o szkolnictwie wyższym i nauce)	2018	Defines mechanisms for commercialization by universities and researchers, establishes technology transfer structures and special purpose vehicles (SPVs), and sets minimum revenue-sharing with inventors.
PL	Other	Amendment to the Act on Combating Unfair Competition (implementation of Directive (EU) 2016/943 on trade secrets)	2018	Implements EU trade secrets protection to safeguard confidential know-how during academia–industry collaboration and commercialization.
PL	Other	Industrial Property Law (Prawo własności przemysłowej) – employee inventions	2000	Provides default rules for employee inventions and remuneration when IP rights belong to the employer, supporting fair sharing and clarity for commercialization.
PT	Other	Law No. 62/2007 (RJIES) – Legal framework of higher education institutions	2007	Defines HEIs’ mission and duties, expressly including dissemination and transfer of knowledge and the economic optimisation (valorisation) of scientific knowledge; enables HEIs to link with society and participate in activities connected to economic use of research.
PT	Programme	Portugal 2030 – Incentive Systems for RD&I (SI I&D Empresarial) – official programme information	2023	Funding lines to support collaborative R&D, technology transfer and implementation of innovation by SMEs and larger firms, often based on results from public research.
RO	Programme	Hotărârea Guvernului nr. 346/2023 – Norme metodologice privind constituirea, funcționarea, evaluarea și acreditarea entităților ReNITT	2023	Approves detailed norms for accreditation and support of innovation & technology transfer entities (ReNITT), incl. CTTs, incubators, liaison offices.
RO	Other	Ordonanța Guvernului nr. 57/2002 privind cercetarea științifică și dezvoltarea tehnologică (consolidată)	2002	Establishes the national framework for research, development and innovation (CDI); defines innovation and technology transfer; empowers the state authority to stimulate valorisation and TT.
RO	Other	Planul Național de CDI 2022–2027 (PNCDI IV) – aprobat prin HG nr. 1188/2022	2022	National multi-annual RDI funding plan; includes instruments for collaborative RDI, technology transfer and valorisation, aligned with SNCISI.
RO	Other	Legea nr. 64/1991 privind brevetele de invenție (actualizată la 2014) + Legea nr. 83/2014 privind invențiile de serviciu	2014	Patent law and specific regime for employee inventions establish ownership and reward rules enabling institutions to patent and license research results.
RO	Other	Norme metodologice privind înființarea și susținerea spin-off-urilor din organizațiile de cercetare (2021)	2021	Provides rules for establishing spin-offs by public research organisations; sets IP valuation, contracts, access to infrastructure, publication rules and revenue allocation.

SE	Other	Higher Education Act (Högskolelagen 1992:1434) — 2009 amendment clarifying universities' duty to ensure research results are put to use	2009	Clarifies that universities, besides research and education, must work to ensure research results are utilised (knowledge transfer/valorisation).
SE	Other	Lag (2008:990) om företagshypotek (Business Mortgage Act)	2008 (consolidated)	Establishes 'företagshypotek' – a security right over a business's assets (incl. movable property and rights) to secure credit; registered via företagsinteckning.
SE	Other	Bolagsverket – Företagsinteckningar (registration & information service)	Current	Explains and operates the registration of business mortgages (företagsinteckningar) used as collateral.
SE	Programme	Innovation Offices at Universities (Innovationskontor) — national support initiative	2009	Government funded specialised 'innovation offices' at leading universities to professionalise commercialisation support (TTO-like services) and assist other HEIs.
SE	Other	Act on the Right to Employee Inventions (Lag 1949:345 om rätten till arbetstagares uppfinningar) — includes the 'lärarundantaget' (teacher's exemption)	1949	Regulates employee inventions. In Sweden, academic researchers (teachers) at universities are exempted from employer ownership, so they usually retain IP to their inventions. This incentivises researchers to commercialise publicly funded results.
SE	Other	Higher Education Act — Amendment SFS 2021:317 (mutual exchange and utilisation of knowledge/competence)	2021	Strengthens and broadens universities' collaboration/valorisation mandate: collaborate with society for mutual exchange and ensure knowledge/competence benefits society.
SI	Other	Zakon o visokem šolstvu (ZViS)	1993	Sets the mission and governance of HEIs, including research and cooperation with practice/industry; provides basis for internal IP/TT rules and spin-off engagement.
SK	Other	Notársky centrálny register záložných práv (NCRzp) – Central Notarial Register of Pledges	Ongoing (service)	Electronic notice filing for pledges over movable assets and rights, operated by the Notarial Chamber; ensures legal publicity and priority for non-possessory pledges.
SK	Other	Act No. 172/2005 Coll. on the Organisation of State Support for Research and Development (as amended)	2005 (consolidated)	Framework law defining the organisation and instruments of state support for R&D. It establishes research projects, specialised organisations and science & technology services that include support for knowledge/technology transfer and services enabling uptake of research results.
SK	Programme	Technology Transfer Centre at the Slovak Centre of Scientific and Technical Information (CVTI SR)	2010s–ongoing	National centre that builds and operates the technology transfer support system, provides IP and commercialisation services, and administers the National Portal for Technology Transfer (NPTT).
SK	Programme	Research and Innovation Strategy for Smart Specialisation of the Slovak Republic 2021–2027 (SK RIS3 2021+)	2022	National R&I strategy for 2021–2027 that prioritises domains and includes measures to strengthen technology transfer, cooperation with industry and exploitation of research results.

SK	Programme	National Portal for Technology Transfer (NPPTT) – operated by CVTI SR	2010s–ongoing	Online platform listing Slovak research results, technologies and collaboration offers to connect public research with companies.
SK	Other	Act No. 131/2002 Coll. on Higher Education Institutions (as amended)	2002 (consolidated)	Sets missions and governance of HEIs, including performing research and cooperating with practice/industry; provides the legal basis for universities to manage assets and set internal rules for IP and commercial activities (spin-offs, licensing) under public law constraints.

Source: Supporting Study to the Impact Assessment of the EIA

Policy mapping for innovation procurement in Member States

The following table presents the measures identified through the policy mapping that are of particular relevance to the problem area.

Country	Type	Name	Year	Short Description
AT	Other	BVergG 2018 – § 118 Ziel der Innovationspartnerschaft	2018	Defines the aim of an innovation partnership: development and subsequent acquisition of the results, provided agreed performance and cost ceilings are met. Innovation partnership with phased R&D and subsequent acquisition.
AT	Programme	FFG – Innovationsfördernde Beschaffung (PCP/PPI)	2025	National R&I agency page on PCP (pre-commercial procurement) and PPI; notes IÖB Servicestelle at BBG and FFG's role in PCP procedures. Advisory and guidance; linkage to PCP/PPI instruments.
AT	Fund	IÖB-Servicestelle – Innovationsfördernde öffentliche Beschaffung (BMK/BMWET; hosted at BBG)	2025	One-stop shop to support innovative public procurement, with advisory services, challenges, toolbox funding and networking. Advisory; challenge platform; training; co-funding signposting (aws/FFG).
AT	Programme	BVergG 2018 – Vertrag über die Innovationspartnerschaft (Verfahrensverweis § 120)	2018	Specifies that intermediate objectives and adequate staged remuneration must be set in the innovation partnership contract concluded via negotiated procedure (§120). Contractual milestones and staged payments for innovation partnerships.
BE	Programme	Loi du 17 juin 2016 – Art. 51 Consultations préalables du marché	2016	Authorises pre-market consultations for planning and running procedures, provided equal treatment and transparency are maintained. Pre-tender market consultations to prepare procurement.
BE	Programme	Arrêté royal du 18 avril 2017 relatif à la passation des marchés publics (secteurs classiques)	2017	Implements the 2016 law for award procedures, including the structure and phases of the innovation partnership and digital access to documents. Detailed procedural rules (e.g., phases, negotiation, publication, electronic access to documents).

BE	Other	Loi du 17 juin 2016 relative aux marchés publics – Art. 40 Partenariat d'innovation	2016	Transposes the EU innovation partnership, structuring R&D and purchase in phases with best price-quality award and IP/confidentiality rules. Innovation partnership with phased R&D and subsequent acquisition.
BG	Programme	Public Procurement Act (ЗОП) – Article 44 (Пазарни консултации / Market consultations)	2016	Allows contracting authorities to consult independent experts, authorities or market participants before launching a procedure. Article 44 – market consultations (PMC).
BG	Programme	Public Procurement Act (Закон за обществените поръчки, ЗОП) – Innovation partnership definition/procedure	2016	Defines innovation partnership as a negotiated, phased process to establish partnership(s) for development and subsequent purchase. Innovation partnership procedure under ZOP.
CY	Programme	Law 73(I)/2016 – Article on Preliminary Market Consultations (Προκαταρκτικές διαβουλεύσεις αγοράς)	2016	Allows contracting authorities to conduct market consultations before launching a procedure, provided competition is not distorted. Pre-tender market consultations (PMC).
CY	Programme	Law 73(I)/2016 – Regulation of Public Procurement Procedures (transposing Directive 2014/24/EU) – Innovation Partnership	2016	Defines the innovation partnership as a negotiated, phased process to develop and subsequently purchase innovative works, supplies or services. Innovation partnership under Cypriot PPL (Law 73(I)/2016).
CZ	Programme	Act No. 134/2016 Coll. on Public Procurement — §33 'Předběžné tržní konzultace'	2016	Allows contracting authorities to conduct market consultations before launching a procedure, provided competition is not distorted. Pre-tender market consultations (PMC).
CZ	Fund	TA ČR — BETA2 Programme (public tenders in applied research and innovation for government needs)	2016	Approved by Government Resolution No. 278 (30/3/2016); supports applied research and innovation for central government bodies via public tenders. Systematic public procurement of R&D services (PCP-type).
CZ	Programme	Act No. 134/2016 Coll. on Public Procurement — §3(g) 'řízení o inovačním partnerství'	2016	Lists innovation partnership among procedures that contracting authorities may use to acquire innovative solutions. Innovation partnership as a defined tendering procedure.
CZ	Programme	Portál o veřejných zakázkách — Topic 'Inovace' (innovation in public procurement)	2024	Summarises instruments such as negotiated procedure with negotiation, competitive dialogue, design contests and innovation partnership; links to 'Veřejné zakázky na inovativní řešení: Metodika pro zadavatele'. Government guidance hub and methodology links.
CZ	Programme	Věstník veřejných zakázek (VVZ) — Form E1 for Preliminary Market Consultation	2025	VVZ added 'Form E1 – Preliminary market consultation' to let contracting authorities publicly signal upcoming innovation-friendly tenders. Standardised PMC notice form in national bulletin.
DE	Other	Auftragsberatungszentrum Bayern (ABZ) – Innovation & Nachhaltigkeit (Information hub)	2024	ABZ Bayern disseminates information on innovative procurement measures and guides for public buyers and suppliers. Advisory content and links to guides/tools fostering innovation-friendly procurement.

DE	Programme	Vergabeverordnung (VgV) § 19 – Innovationspartnerschaft	2016	Defines the innovation partnership for supplies and services including staged R&D and subsequent purchase. § 19 VgV – Innovationspartnerschaft; staged R&D with subsequent acquisition.
DE	Programme	Kompetenzzentrum innovative Beschaffung (KOINNO) – BMWK	2013	National competence centre run for BMWK by BME to strengthen innovation orientation of public procurement and raise the share of innovation procurement. Advisory services, publications, toolbox, training; guidance on innovation partnerships and market consultations.
DE	Other	Vergabeverordnung (VgV) § 28 – Markterkundung	2016	Permits market exploration before tendering while safeguarding transparency and competition. § 28 VgV – Markterkundung (preliminary market consultation).
DE	Programme	Gesetz gegen Wettbewerbsbeschränkungen (GWB), Teil 4 – Vergabe von öffentlichen Aufträgen und Konzessionen	2023	Primary legal basis for public procurement and concession award; sets principles (quality and innovation) and procedures. § 97 GWB: consideration of quality and innovation; framework for procedures including innovation partnership via ordinances.
DE	Other	Sektorenverordnung (SektVO) § 18 – Innovationspartnerschaft	2016	Regulates innovation partnership for entities in special sectors. § 18 SektVO – Innovationspartnerschaft.
DK	Programme	Udbudsloven — § 73 Innovationspartnerskab (LBK nr 116 af 03/02/2025, konsolideret)	2025	Allows contracting authorities to use an innovation partnership comprising tender, development phases and possible follow-on purchase of the developed solution. Innovation partnership under the Danish Public Procurement Act.
DK	Programme	Udbudsloven — § 39 Forudgående markedsundersøgelser (pre-market consultation)	2016	Implements EU Article 40 in Danish law; allows preliminary market studies/consultations prior to launching procedures. Pre-tender market consultations (forhånds-/markedsdialog).
DK	Programme	Step-by-step procesguide til innovationspartnerskaber (state recommendations)	2020	State process recommendations for conducting innovation partnerships and OPI; published for the Danish government and hosted by KFST resources. Process guidance, templates and roles for innovation partnerships.
DK	Programme	KFST – Guide til innovative indkøb på sundhedsområdet	2024	Targets frontline staff; focuses on relevant procurement rules and concrete examples for innovative purchases and partnerships. Practical guide for innovative procurement/partnerships in health.
EE	Programme	EIS programme (2021–2027): awareness and advisory services for innovative public procurement	2021	EIS provides information and advisory services to increase competence of state and local governments as R&D customers and innovation leaders. Seminars, legal and sectoral expertise for innovation procurement to public sector organisations.
EE	Fund	Value-based procurement – Innovation-supporting guidance (Innovatsiooni toetav)	2025	Guidance framing innovation purchases as tools to develop the economy and living environment; aligns with green and social policy goals. Encourages ‘innovation

				procurements' (innovatsioonihaanded) and provides practical orientation.
EE	Programme	Public Procurement Act (Riigihangete seadus) – Innovation Partnership (§§57–62)	2017	Sets out the rules for innovation partnerships, including participation, staged R&D / development steps, confidentiality, and purchasing of the resulting solution. Allows contracting authorities to set up an innovation partnership with one or more partners and structure stages and payments aligned to R&I steps.
EL	Programme	National competence centre for green & innovation procurement (GDPP within Ministry of Development)	2024	According to EC 2024 benchmarking, GDPP acts as the national competence centre for green and innovation procurement in Greece. Competence centre services and policy coordination.
EL	Programme	Law 4412/2016 – Preliminary consultation with the market (e.g., Articles 46, 47, 278, 279)	2016	Authorises contracting authorities to conduct preliminary consultations before launching procedures and lays out safeguards to preserve competition and transparency. Legal basis for market consultation notices and dialogues.
EL	Programme	ESIDIS service – ‘Preliminary Consultation of a Public Contract with the Market’ (operationalisation)	2025	Dedicated ESIDIS service for preliminary market consultations referencing Law 4412 articles 46, 47, 278, 279. Online notice and feedback mechanism for consultations; transparency safeguards.
EL	Programme	Law 4412/2016 – Article 31 ‘Σύμπραξη καινοτομίας’ (Innovation partnership)	2016	Transposes EU Art.31 allowing phased R&D and subsequent purchase; may involve one or several partners; includes provisions for IP and confidentiality. Innovation partnership procedure under Greek law (Book I).
ES	Fund	CDTI – Compra Pública de Innovación (CPI) programmes (PCP/CPTI)	2011	CDTI defines CPI as a tool to foster innovation via purchase of innovative solutions or first prototypes validated by Spanish public entities; CDTI can act as procurer of R&D services (PCP). Operational support and funding for PCP/CPTI; CDTI acting as licitante in PCP to develop and validate prototypes.
ES	Fund	Línea FID – Fomento de la Innovación desde la Demanda (Ministerio de Ciencia, Innovación y Universidades)	2011	Programme to promote Innovative Public Procurement (CPI) among public sector bodies; co-funded by ERDF; managed by Subdirección General de Fomento de la Innovación. Co-funding for CPI operations (PCP/CPTI), technical support to buyers.
ES	Programme	Ley 9/2017, de Contratos del Sector Público	2017	Transposes EU procurement directives into Spanish law; establishes ‘asociación para la innovación’ to develop and subsequently purchase innovative products/services; allows market studies and consultations. Articles 177–182: ‘asociación para la innovación’; Article on preliminary market consultations.
FI	Fund	Business Finland – Innovative Public Procurement funding (PPI)	2024	Grants (up to 50%) for public buyers to prepare, tender, co-develop and pilot innovative procurements with market-opening effect. Funding for preparation, tendering, co-development and

				pilots; requires PPI of national-level impact; at least 80% of costs = R&D.
FI	Other	Hilma – National public procurement portal (eForms, prior information & market dialogue)	2025	Hilma hosts notices including prior information and market consultations; from 16.04.2025 national eForms can also be published EU-wide via TED. Dedicated notice types for ‘markkinakartoitus’ (market consultation) and prior information; searchable interface and API.
FI	Programme	Act on Public Procurement and Concession Contracts (Hankintalaki) 1397/2016 – Innovation Partnership	2016	Sections 38–39 establish the innovation partnership as a multi-phase procurement to develop and then buy innovative goods/services/works; allows multiple partners and phased down-selection. Legal basis to run innovation partnerships; partner down-selection between phases; award on best price-quality ratio; enables direct purchase of the developed result within the partnership.
FI	Programme	Act on Procurement in Water, Energy, Transport and Postal Services Sectors 1398/2016	2016	Sectoral procurement act implementing Directive 2014/25/EU; includes objectives to promote high-quality, innovative and sustainable procurement. Legal framework for utilities to use innovation partnerships and market consultations analogous to the general act.
FR	Programme	Code de la commande publique — Article R2111-1 (Études et échanges préalables / sourcing)	2018	Allows consultations, market studies, and informing operators of the project and requirements; results may be used if competition is preserved. Preliminary market consultations (‘sourcing’) with safeguards.
FR	Programme	Code de la commande publique — Article L2172-3 (Partenariat d’innovation)	2019	Defines the innovation partnership’s object: R&D of innovative goods/services/works and subsequent acquisition if needs cannot be met by market supply. Partenariat d’innovation (phased R&D + acquisition).
HR	Other	Zakon o javnoj nabavi (ZJN 2016) – Chapter ‘Partnerstvo za inovacije’ (Articles 117–126)	2016	Defines innovation partnership aim, publication, IP rules, staged objectives and payments, negotiation, and equal treatment in the procedure. Innovation partnership procedure under Croatian PPA.
HR	Other	ZJN 2016 – Article 198 ‘Istraživanje tržišta’ (prethodno savjetovanje)	2016	Requires at least 5-day preliminary consultation and publication of a report on accepted/rejected comments; allows expert/market advice while ensuring competition. Mandatory preliminary market consultation for certain procedures; transparency obligations.
HU	Programme	Act CXLIII of 2015 (Kbt.) — §28 (4)–(6): Előzetes piaci konzultáció (pre-market consultation) incl. EKR publication	2015	Authorises preliminary consultations; allows posting draft technical specifications and draft contract in EKR for stakeholder comments. Pre-tender market consultations (előzetes piaci konzultáció).
HU	Fund	Közbeszerzési Hatóság Tanácsának útmutatója – az innovációs partnerség alkalmazásának egyes kérdéseiről	2023	Issued under Kbt. §183(c); explains stages, documentation, award criteria and risk management for innovation partnerships. Official guidance, templates and explanations supporting innovation-friendly procurement.

HU	Programme	Act CXLIII of 2015 on Public Procurement (Kbt.) — Procedure types include “innovációs partnerség”	2015	Lists ‘innovációs partnerség’ among procurement procedure types; detailed rules align with EU Art. 31. Innovation partnership under the Hungarian Public Procurement Act.
IE	Programme	SBIR Ireland – Small Business Innovation Research (Enterprise Ireland)	2020	Enterprise Ireland-administered programme connecting public bodies with technology businesses to deliver innovative solutions to public sector challenges. Challenge-based pre-commercial procurement; phased competitive R&D contracts.
IE	Programme	S.I. No. 284/2016 — European Union (Award of Public Authority Contracts) Regulations 2016	2016	Implements Directive 2014/24/EU in Irish law; sets procedures, award criteria, life-cycle costing, PINs, and notices. Legal framework enabling innovation partnerships and pre-market engagement under Irish law.
IT	Other	D.Lgs. 36/2023 – Codice dei contratti pubblici – Art. 75 (Partenariato per l’innovazione)	2023	Defines the innovation partnership procedure for staged R&D and subsequent acquisition when market solutions do not exist. Art. 75 – Partenariato per l’innovazione (innovation partnership).
IT	Fund	Appaltinnovativi.gov – Portale nazionale per gli appalti di innovazione (AgID / Dip. Trasformazione Digitale)	2019	National portal aggregating innovation challenges, PCP/PPI calls and resources; supports administrations and economic operators. Publication of needs/consultations/appalti; guidance and resources; Smarter Italy initiatives.
IT	Other	ARIA S.p.A. – Appalti innovativi (pagina ufficiale)	2020	Regional central purchasing body promotes and implements innovative procurement (incl. pre-commercial procurement). Pre-commercial procurements; innovation-oriented tenders; market consultations.
IT	Other	Intercent-ER – Consultazioni preliminari di mercato (pagina ufficiale)	2020	Regional central purchasing body uses preliminary market consultations to inform tender design. Structured use of preliminary market consultations by Intercent-ER.
LT	Programme	Republic of Lithuania Law on Public Procurement — Market consultations instrument (‘rinkos konsultacijos’)	2017	Authorises buyers to conduct market consultations and publish draft technical specifications for comment via the e-procurement system. Legal basis for market consultations and associated notices.
LT	Programme	Innovative Public Procurement Guidelines (Inovatyvių viešųjų pirkimų gairės) – EM + VPT + Innovation Agency	2023	Guidelines prepared by the Ministry of Economy and Innovation with VPT and Innovation Agency experts to increase the scale of innovative procurement. Practical guidance and templates to implement innovative procurement under VPI.
LT	Programme	Republic of Lithuania Law on Public Procurement (Viešųjų pirkimų įstatymas) — Innovation partnership provisions (e.g., Art. 73–74)	2017	Lists ‘innovation partnership’ among procedure types and sets conditions and timelines for running such procedures under Lithuanian law. Innovation partnership procedure in national law (phased R&D + acquisition).
LU	Programme	European Commission — Country Report 2024 on Innovation Procurement (Luxembourg)	2024	Notes that Luxembourg’s legal framework enables innovation procurement but lacks a coordinated strategy, competence centre, or systematic monitoring. Recommendation to

				establish competence centre and action plan to expand innovation procurement use.
LU	Programme	Law of 8 April 2018 on Public Procurement (Loi du 8 avril 2018 sur les marchés publics)	2018	Sets out procedures including the innovation partnership and allows contracting authorities to use award criteria other than price (innovation, quality). National legal framework incorporating innovation partnership procedure from EU Directive.
LU	Other	GovTech Lab Luxembourg — Innovation Partnership Procurement Model	2024	The GovTech Lab, under the Ministry for Digitalisation, runs calls for innovative solutions via an innovation partnership process involving proof of concept and pilot stages. Innovation partnership call for solutions, with pilot stage and potential acquisition by government.
LV	Programme	Law on the Procurements of Public Service Providers (Sabiedrisko pakalpojumu sniedzēju iepirkumu likums) — includes innovation partnership	2017	Defines ‘innovation partnership procedure’ and applies EU utilities rules in Latvia. Innovation partnership and flexible procedures for utilities.
LV	Fund	Innovation procurement – Ministry of Economics (EM) policy page	2023	Explains the approach, legal basis and procedures (incl. innovation partnership) to enable innovation procurement in Latvia. Policy guidance; references to procedures and support actions.
LV	Programme	Public Procurement Law (Publisko iepirkumu likums) — includes innovation partnership procedure	2017	Lists ‘innovation partnership procedure’ among procurement procedures; sets related rules on notices, pricing and stages. Innovation partnership procedure under Latvian law.
LV	Programme	Guidelines for implementing innovation procurement (Vadlīnijas inovāciju iepirkuma īstenošanai)	2021	Prepared by Ministry of Economics with IUB; covers essence of innovation procurement, implementation under Latvian law, practical examples and tips. Step-by-step guidance, templates and examples for contracting authorities.
MT	Programme	Public Procurement Regulations (Subsidiary Legislation 601.03) — transposes Directive 2014/24/EU	2016	Consolidated rules for public procurement; DoC directs users to the latest S.L. 601.03 text on Legislation Malta. Legal framework enabling innovation partnership and pre-market engagement.
MT	Programme	Utilities Procurement Regulations (S.L. 601.05) — transposes Directive 2014/25/EU	2016	ePPS legal page points to the up-to-date consolidation of S.L. 601.05 on Legislation Malta. Utilities framework including competitive/negotiated procedures and innovation partnership.
MT	Programme	Guidance on Innovation Procurement (Department of Contracts)	2021	Explains importance, stakeholders and process of innovation procurement; reflects public consultation responses. Guidance, concepts and process overview for PPI/PCP/innovation partnership under Maltese/EU rules.
NL	Other	Aanbestedingswet 2012 — Art. 2.25 Marktconsultatie	2016	Authorises market consultations before tendering; non-discrimination and transparency principles apply. Pre-tender market consultations (marktconsultatie).

NL	Programme	PIANoo — Handreiking Marktconsultatie / Stappenplan marktconsultatie	2023	Defines market consultation and provides step-by-step approach to lawfully organise it and use insights to sharpen the question. Guidance and steps for structured PMC.
NL	Other	Gids Proportionaliteit (3e herziening, 1 januari 2022) — verplicht te hanteren	2022	Explains how to keep demands proportional throughout all phases; explicitly states the guide is mandatory in EU, national and multi-party negotiated procedures. Mandatory application of proportionality principles and concrete rules/examples.
NL	Programme	Aanbestedingswet 2012 — Art. 2.31a Innovatiepartnerschap	2016	Implements the EU innovation partnership procedure in Dutch law, enabling phased R&D and purchase with one procedure. Innovation partnership (innovatiepartnerschap) as a procedure type under Dutch law.
PL	Programme	Public Procurement Law (Act of 11 September 2019) — Preliminary Market Consultations (Art. 84)	2019	Authorises buyers to conduct preliminary market consultations to prepare the procurement and inform suppliers about plans and requirements; requires publication of intent and subject on the buyer's website. Legal basis for pre-tender market consultations (wstępne konsultacje rynkowe).
PL	Programme	Public Procurement Law (Act of 11 September 2019) — Innovation Partnership (Dział VI; Art. 189–207)	2019	Defines innovation partnership as a procedure to meet a need for an innovative product, service or works not available on the market; allows phasing aligned with R&D, including prototyping and subsequent purchase. Innovation partnership procedure (partnerstwo innowacyjne).
PL	Programme	Model documents for organising preliminary market consultations (UZP)	2022	UZP published a set of model documents: rules, notice, and application form for preliminary market consultations. Standard templates to run lawful PMCs.
PT	Fund	PROCURE+i — Centro de Competências em Compras Públicas de Inovação (ANI)	2021	ANI and IMPIC developed services to support CPI initiatives; the centre aims to help buyers improve purchasing practices including innovation. Helpdesk, guidance, training and tools for PCP/PPI and innovation partnership.
PT	Programme	Código dos Contratos Públicos — Artigo 35.º-A Consulta preliminar ao mercado	2017	Authorises buyers to conduct preliminary market consultations to prepare procedures and inform suppliers of plans and requirements. Legal basis for preliminary market consultations (consulta preliminar ao mercado).
PT	Programme	Compras Públicas de Inovação — toolkit (BASE)	2023	Three-module toolkit: strategic (policy), operational (buyers), legal/operational (legal services) with 'how-to' guidance and templates. Guidance modules and model documents to run PCP/PPI.
RO	Fund	Ghid de Achiziții Publice – ANAP	2023	ANAP publishes guidelines to support procurement practice, which include innovation procurement approaches. National procurement guidance including innovation procurement examples.

RO	Other	Legea 98/2016 privind achizițiile publice	2016	Defines criteria, phases, and use of the innovation partnership procedure when market solutions are not adequate. Parteneriat pentru inovare (innovation partnership).
RO	Programme	Parteneriat pentru inovare – Ghid rapid de practicieni (RO translation of EU guide)	2021	Describes three phases, selection criteria, price-quality award basis, and risk sharing in innovation partnerships. Practitioner's guide for implementing innovation partnerships under the law.
RO	Other	Legea 98/2016 – Art. 139 'Consultarea pieței'	2016	Enables pre-tender consultations ('consultarea pieței') via public notices inviting experts/suppliers to provide input. Legal basis for preliminary market consultations.
SE	Programme	LOU — Förkommersiell upphandling (PCP) i svensk praxis (stöd via vägledning)	2020	Authorities use PCP in line with EU PCP Communication and national guidance from Upphandlingsmyndigheten/Vinnova. Structured PCP process; early market dialogue.
SE	Programme	Upphandlingsmyndigheten — Vägledning om innovationsupphandling	2024	Guidance, tools and examples for innovation partnerships, needs assessment, functional requirements and market dialogue. Guidance suites, checklists and templates.
SE	Programme	Lag (2016:1145) om offentlig upphandling (LOU) — Innovationspartnerskap	2016	Transposes EU innovation partnership into Swedish law; enables phased R&D with subsequent purchase in one procedure when market solutions are unavailable. Innovationspartnerskap as a procedure under LOU.
SE	Fund	Lag (2016:1146) om upphandling inom försörjningssektorerna (LUF) — Innovationspartnerskap	2016	Transposes utilities directive including innovation partnership and flexible procedures to support innovative solutions. Innovationspartnerskap within utilities procurement.
SE	Fund	Vinnova — Stöd till innovationsupphandling (inkl. förkommersiell upphandling, PCP)	2023	Vinnova provides funding calls, methods and case support for PCP/PPI and challenge-driven innovation in public services. Funding programmes, methods and coaching for PCP/PPI.
SI	Programme	Zakon o javnem naročanju (ZJN-3) — prenos EU direktiv	2016	Article 1 of ZJN-3 states it transposes Directive 2014/24/EU into Slovenian law. National implementation of EU innovation procurement framework.
SI	Programme	ZJN-3 — Predhodno preverjanje trga (64. člen)	2016	Authorises contracting authorities to conduct market consultations before starting procurement to prepare it and inform economic operators of plans and requirements. Legal basis for preliminary market consultations (predhodno preverjanje trga).
SI	Programme	Zakon o javnem naročanju (ZJN-3) — Partnerstvo za inovacije (43. člen)	2016	Transposes EU innovation partnership into Slovenian law; enables phased R&D with subsequent purchase in one procedure. Partnerstvo za inovacije (innovation partnership) as a ZJN-3 procedure.

SK	Programme	Zákon č. 343/2015 Z. z. — Přípravné (predbežné) trhové konzultácie (§ 25 ods. 1)	2015	Authorises contracting authorities to conduct market consultations before starting the procurement to prepare it and inform economic operators of planned procedures. Legal basis for preliminary market consultations (prípravné/predbežné trhové konzultácie).
SK	Programme	Všeobecná metodika veřejného obstarávání inovativních řešení (ÚVO / ZEVO)	2020	Explains suitable procedures for procuring innovative solutions, including innovation partnership; notes Slovak legal basis in §§ 78–80 and § 97 of the Act. Methodology, steps and examples for VO of innovative solutions.
SK	Programme	Zákon č. 343/2015 Z. z. o verejnom obstarávaní — Inovatívne partnerstvo (§ 97)	2015	Transposes EU innovation partnership into Slovak law; enables phased R&D with subsequent purchase in one procedure when market solutions are unavailable. Inovatívne partnerstvo as a procedure under the Public Procurement Act.

Source: Supporting Study to the Impact Assessment of the EIA