<section-header><section-header>



INDEGRATION



Investment Report 2024/2025: Innovation, integration and simplification in Europe – Executive Summary © European Investment Bank, 2025.

All rights reserved. All questions on rights and licensing should be addressed to publications@eib.org.

European Investment Bank 98 -100, boulevard Konrad Adenauer L-2950 Luxembourg

This is a publication of the EIB Economics Department. economics@eib.org www.eib.org/economics

About the Economics Department

The mission of the EIB Economics Department is to provide economic analyses and studies to support the Bank in its operations and in the definition of its positioning, strategy and policy. The department and its team of economists is headed by Debora Revoltella, director of economics.

Disclaimer

The views expressed in this publication are those of the authors and do not necessarily reflect the position of the European Investment Bank.

For further information on the EIB's activities, please consult our website, <u>www.eib.org</u>. You can also contact our InfoDesk, <u>info@eib.org</u>.

Published by the European Investment Bank.

Printed on FSC° Paper.



The full version of the Investment Report 2024/2025: Innovation, integration and simplification in Europe can be downloaded at:

https://www.eib.org/en/publications/20240354-investment-report-2024



Table of contents

Key messages from the Investment Report 2024/25		V	
Executive summary: Market integrati large-scale investment in innovation	the second se	1	
The European economy could substantially transformative investment	accelerate innovation, productivity and	1	
Prospects for an immediate pick-up in inve	stment are mixed	2	
Market integration			
European firms need market scale to remai instrumental to mobilising large-scale and	n globally competitive, and larger capital markets are higher-risk finance for innovation	3	
Simplification enhances business opportun	ities		
The cost of bureaucracy is a significant bure	den for EU firms	4	
Reduced barriers combined with European	support would be a boon for transformative investment	4	
Building on Europe's strengths			
A strong industrial, research and trade base an opportunity to lead in technological inn		6	
Europe's climate leadership is paying off		8	
Social investment can bring economic retu competitiveness	rns and provide the skills needed to enhance	9	
Maximising the impact of public support			
Targeted instruments and EU coordination	improve impact	11	

About the report

The annual EIB report on investment and investment finance is a product of the EIB Economics Department. The report provides a comprehensive overview of the developments and drivers of investment and investment finance in the European Union. It combines an analysis and understanding of key market trends and developments, with a thematic focus explored in greater depth. This year, the focus is Europe's ability to marshal the investment needed for the green transition and to support innovation. The report draws extensively on the results of the annual EIB Investment Survey (EIBIS) and the EIB Municipalities Survey, combining internal EIB analysis with contributions from leading experts in the field.

Main contributors to this year's report

Report director Debora Revoltella

Report coordinators and reviewers Laurent Maurin and Atanas Kolev

Authors

Chapter 1: Andrea Brasili, Jochen Schanz (lead authors), Tessa Bending, Giacomo Biolghini, Tran Thi Thu Huyen and Marcin Wolski. Dubravko Mihaljek (Box A). Koray Alper, Joana Conde, Pietro Dallari and Luca Gattini (Box B).

Chapter 2: Atanas Kolev (lead author), Andrea Brasili, Diana Lagravinese, Dubravko Mihaljek, Annamaria Tueske, Georg Weiers and Wouter van der Wielen.

Chapter 3: Laurent Maurin, Rozália Pál, Thi Thu Huyen Tran (lead authors), Frank Betz, Antonia Botsari, Chiara Fratto, Salome Gvetadze, Frank Lang, Jochen Schanz and Annamaria Tueske. Jose Miguel de Tertre (European Commission, Box A). Giorgio Presidente and Carlo Altomonte (Bocconi University, Box C). Matteo Gatti and Wouter van der Wielen (Box D).

Chapter 4: Michael Stemmer, Wouter van der Wielen (lead authors), Tessa Bending, Frank Betz, Marnix Bosch, Chiara Fratto, Jochen Schanz, Emily Sinnott, Annamaria Tueske, Marcin Wolski and Vaclav Zdarek. Nicholas Lazarou (European Commission, Joint Research Centre, Box A). Carolina Herrero (Box B).

Chapter 5: Julie Delanote, Péter Harasztosi, Christoph Weiss (lead authors), Marine Charlotte André, Ea Dumancic, Bertrand Magné and Julie Callaert (Expertise Centre for Research and Development Monitoring at KU Leuven University), Péter Fákó, Ramón Compañó and James Gavigan (European Commission, Joint Research Centre, Box A). Pierre Rousseaux (CREST, Box C)

Chapter 6: Fotios Kalantzis (lead author), Jan Eric Hagendorn, Bertrand Magné, Christos Mavrogiannis, Marcin Wolski and Vaclav Zdarek. Annamaria Tueske (Box C).

Acknowledgements

Ambra Boilini for research assistance.

KEY MESSAGES FROM THE INVESTMENT REPORT 2024/25

There are three key drivers to consolidate Europe as a global leader in new technologies: market integration, simplification and large-scale investment in innovation.

Integration: European firms need market scale at home to remain globally competitive

- 60% of exporting European firms and 74% of firms with cutting-edge innovation say that the intra-EU market fragmentation (due to different national consumer protection standards, value-added tax, labelling, and licensing requirements) is an obstacle to business opportunities.
- Larger capital markets are key to mobilising large-scale and higher-risk finance for innovation.
- Financial integration in Europe remains lower than it was before the financial crisis, when it reached a peak. If the gap with that peak level were to be halved, cross-border financial flows could increase by 3% of gross domestic product (GDP), and GDP itself could increase by 1%.
- Being able to raise equity finance makes firms 13 percentage points more likely to innovate.
- EU scale-up firms have raised, on average, 50% less capital than their US counterparts in the last ten years.

Simplification: The cost of bureaucracy is a significant burden for EU firms

About 86% of EU firms employ staff specifically to deal with regulatory compliance, at an average cost of 1.8% of turnover. The cost increases to 2.5% of turnover for small and medium-sized enterprises (SMEs). As a comparison, EU firms' spending on energy after the energy shock is equal to 4% of turnover.

Large-scale investment in innovation and economic transformation

- The significant boost to private investment derived from strong public support during the COVID-19 pandemic and the energy crisis is slowing down. This makes the creation of a favourable business environment rich in opportunities even more important.
- Improving the business environment by reducing barriers to investment is associated with higher economic growth, especially for investment-intensive industries and high-tech sectors.
- 79% of EU firms cite uncertainty as a barrier to investment, with the scarcity of skilled staff and energy costs similarly significant, at 77%. The most dynamic firms are more likely to report constraints.

2 Europe's strong industrial, research and trade base creates an opportunity to exploit the next phase of artificial intelligence (AI) development, which will focus on the integration of AI and other digital technologies into industrial and service processes.

- The European Union is the second largest economy in the world and the largest trader of manufactured goods and services. European firms already showed their agility in responding to trade shocks in 2022 and 2023 by investing in resilience and digital tracking, increasing inventories and diversifying suppliers. This served as a test for the new wave of trade shocks.
- Europe is a research powerhouse. It issues 24% more research publications than the United States, according to the Nature Index. This is an indicator of the strength of Europe's research base and an asset to exploit for more industrial and service applications.
- European firms are positioned to exploit the opportunity presented by the integration of Al into industrial and service processes. So far, Al investments have largely focused on two basic components: infrastructure, such as data centres, and models. Both are highly energy intensive, while the latest developments suggest their use is becoming a commodity. Progress has been much slower in a third component integration, or the adoption of Al in manufacturing and services where productivity gains are large.
- The share of firms using big data analytics and AI in the European Union is 6 percentage points lower than it is in the United States. However, preliminary analysis shows that EU firms in manufacturing and services that integrate AI into their processes have a higher productivity compared with other firms. Correlation is not causation, but this initial result indicates a potential upside for EU firms going forward.
- To seize this opportunity and accelerate AI adoption, the European Union can leverage its ongoing investment in cheap and clean energy, its focus on data centres and digital infrastructure, a consistent regulatory framework (which ensures the integrity and security of company and personal data), a favourable competitionpolicy environment for market consolidation, and more integrated product and services markets.
- Digital and AI adoption will be supported by Europe's strong university system. Enhanced investment in employee skills also presents an opportunity.

3 Europe's climate leadership is paying off.

- In a global context of high uncertainty, Europe can provide certainty, maintaining ambitious goals with a
 realistic and pragmatic roadmap for companies to seize the opportunities of the green transition. Climate
 policies that are ambitious, but also consistent, are a key incentive for firms to enhance energy efficiency,
 delivering a triple win: lower energy prices, more security and sustainable growth.
- The energy revolution is in full swing. Renewable energy supplied almost half (48%) of Europe's electricity demand in 2024, with emissions from power generation falling 13% during the year.
- Europe remains at the forefront of greentech patenting and is at the centre of global patenting networks on greentech.
- European firms are profiting from export growth in low-carbon technologies. European exports in those products are expanding fast: 65% since 2017, compared to 79% for China and only 22% for the United States.

4 Europe's social investment acts as an enabler, bringing economic returns.

- Over half of EU firms (51%) reported that the scarcity of skilled workers was a major barrier to investment in 2024 up from 38% in 2016 and that not enough was being done in terms of training.
- Social investment is critical for labour force participation. If female labour force participation in all EU countries were to be raised to the highest EU standards, EU GDP could increase 4%.
- Particularly in fast-growing cities, rigidity in the supply of affordable housing increases labour misallocation and impedes growth in output and productivity.
- In light of the many social needs, efficiency in spending is important. By matching the efficiency levels of the best in class, EU members could achieve the same level of educational and health outcomes while spending 2.5% of GDP less.

5 Maximising the impact of public support: Investment is more effective with targeted instruments and with EU-level coordination.

- 16% of EU firms benefited from policy support in 2024, in the form of subsidies or finance with favourable conditions.
- EU firms are more likely to respond to targeted policy incentives. The probability that EU firms will invest in energy efficiency, cleantech or innovation is 20 percentage points higher when support is targeted.
- Furthermore, a pan-European approach to industrial policy minimises distortions to the single market and enhances effectiveness.

The EIB's role in Europe's transformation

The EIB Investment Report 2024/2025 confirms that the EIB Group's strategic priorities contribute to Europe's competitiveness and security, in particular by:

✓ Consolidating the EIB Group's leadership as the climate bank

More than 60% of the EIB Group investments made in 2024 contributed to the green transition, with record investment in energy and a doubling of investment in power grids and interconnectors.

Mobilising investment for Europe's tech champions

In 2024, the EIB Group mobilised a record EUR 100 billion in higher-risk investment for Europe's innovators.

Work is ongoing to start a TechEU programme that closes the financing gap throughout the innovation and company growth cycle, in particular through venture capital and venture debt, scale-up finance and an exit platform for late growth and more mature companies.

✓ Contributing to the integration of Europe's markets

The EIB Group is a capital market union instrument in itself, issuing debt under a single European signature to channel savings into productive investments.

From energy to transport, from AI to healthcare technologies, the EIB ensures targeted financial support that is directed by EU policies, ensuring the maximum impact for investment mobilised, innovation and economic growth.

Contributing to stronger partnerships around the world

Executive summary

Market integration, simplification and large-scale investment in innovation

The EIB Investment Report 2024/2025 focuses on the solutions that will make the European economy more productive, innovative, green and secure. It highlights how market integration, simplification and focused policy efforts can catalyse large-scale investment in innovation, digitalisation and the green transition, building on Europe's existing strengths. The report draws on the EIB Investment Survey (EIBIS), which provides detailed information from more than 12 000 European companies.

Europe could reinforce its position as a global technology leader by focusing on three areas: market integration, simplification and large-scale investment in innovation. European firms need to be able to benefit from the full scale of the internal European market to remain globally competitive. Larger and more integrated capital markets are instrumental to mobilising large-scale and higher-risk finance for innovation. Meanwhile, the cost of bureaucracy is a significant burden for EU firms. Simplification and reduced barriers will improve business opportunities. Combined with well targeted policy support, these measures could give a big boost to transformative investment.

Europe can build on its strengths: its strong industrial, research and trade base; its climate leadership; and its enabling social model. Europe is a trade and research powerhouse with a strong industrial base. European firms are agile and responsive. Confronted with trade disruptions in recent years, they managed to react, investing in resilience. The next phase of artificial intelligence will bring unique opportunities, as integrating these technologies into manufacturing and services could significantly improve productivity. At the same time, Europe's climate leadership is paying off through progress on the energy transition and its prominent position in greentech innovation and trade, creating opportunities going forward. Europe's social model acts as an enabler, bringing economic returns and providing the skills needed to enhance competitiveness.

With large investment needs and constrained resources, maximising the impact of public support is crucial. Europe has experience using financial instruments to leverage scarce resources to achieve policy objectives. During the COVID-19 pandemic and the energy crisis, strong public support significantly lifted private investment. Going forward, a sustained policy focus on investment will be critical. The effectiveness of public support for investment is greater with targeted instruments and European-level coordination.

The European economy could substantially accelerate innovation, productivity and transformative investment

In a polarised global environment, it is even more important that the European economy becomes more productive, innovative, green and secure. This transformation can only be achieved with significant investment in critical areas. Estimates of additional investment needed for the green transition alone amount to 2% of gross domestic product (GDP). The need to respond to the innovation and AI revolutions, skills gaps and new security and defence challenges adds to this amount. The European economy needs to undergo a structural shift that enables it to invest significantly more in its future.

Since the COVID-19 pandemic, investment has been supported by a strong European policy focus, but investment is now slowing. The post-COVID-19 rebound in investment was backed by strong public-sector intervention, along with dynamic spending and investment by households and businesses. Private investment, however, has begun to subside in the last two years (Figure 1). Overall, the latest data for 2024 show a contraction in total investment.

Investment growth currently depends on the public sector. In the first half of 2024, government investment grew by 7.2% year-on-year, helping to offset a 2.5% decline in private investment. As a share of GDP, public

investment reached 3.5% in 2023 (Figure 2). Over the same time period, public subsidies for investment rose from 0.6% to 1.6% of GDP. The deployment of the <u>Recovery and Resilience Facility</u> and other EU funds contributed significantly to these trends.

Figure 1

Investment growth and contributions (% change from the prior year), by sector

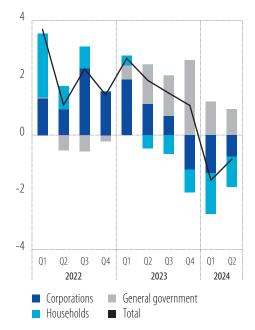
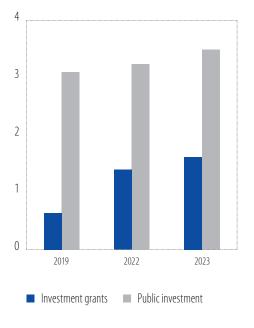


Figure 2 Public investment and investment subsidies in the European Union (% GDP)



Source: EIB staff calculations based on Eurostat.

Source: Eurostat and EIB staff calculations.

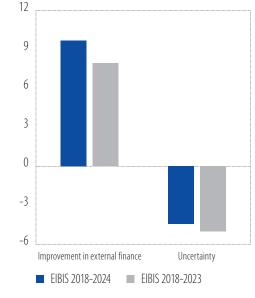
Prospects for an immediate pick-up in investment are mixed

On the positive side, cyclical macroeconomic conditions have been improving, and the Recovery and Resilience Facility and EU structural funds are still making their presence felt. Investment is likely to be buoyed by looser monetary policy feeding through the economy (Figure 3). Falling inflation may also bolster real income growth and private consumption, and therefore overall demand. Meanwhile, growth among the European Union's major trading partners may contribute to investment opportunities. The Recovery and Resilience Facility will continue to provide support until the end of 2026 and EU structural funds will do so until 2030 in recipient countries. Somewhat encouragingly, expectations for investment growth are positive, and they are being driven by high and mid-tech industries (Figure 4).

On the negative side, heightened uncertainty, the threat of new barriers to trade and tighter national budgets are likely to weigh on investment. At the global level, the United States' "America first" policy – with its questioning of international norms and established alliances – is creating a high degree of uncertainty that is particularly acute in areas like the green transition and critical technologies. Further global polarisation, new trade barriers and value-chain disruptions have the potential to undermine investment prospects in critical industries. As the fiscal rules of the EU Economic Governance Framework are reinstated after being paused during the pandemic, governments will increasingly face hard trade-offs, which in the past often led them to reduce investment. The end of the Recovery and Resilience Facility in late 2026 will add to these constraints.

Figure 3

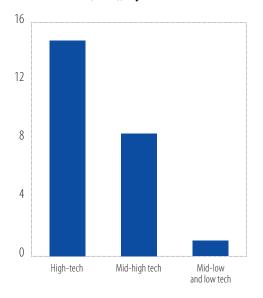
Impact on the probability of firms accelerating investment (in percentage points)



Source: EIB staff calculations based on EIB Investment Survey (EIBIS) 2018-2024.

Figure 4

Balance of firms expecting to increase investment (in %), by sector



Source: EIBIS 2024.

Note:

The percentages refer to the share of firms expecting to increase investment minus those expecting to decrease investment.

Market integration: European firms need market scale to remain globally competitive, and larger capital markets are instrumental to mobilising large-scale and higher-risk finance for innovation

Increasing the depth of the single market will help Europe's firms to remain globally competitive by expanding markets and incentives to invest. 60% of exporting European firms – and 74% of innovators – say they face barriers from different national regulations and consumer protection standards when exporting to another country within the European Union. These differences may, for example, relate to how they document value-added taxes, safety and environmental certifications or simple requests for credentials, permits and professional qualifications. This reduces trade, creating a barrier equivalent to a 60% tariff on goods and 110% on services, according to the International Monetary Fund (IMF). Tackling these barriers – and thereby taking full advantage of the benefits of a market of 450 million consumers – is even more critical against a backdrop of global trade uncertainties.

Reducing the fragmentation of EU capital markets is crucial to making better use of Europe's substantial savings. EU financial integration peaked before the global financial crisis and has never returned to that level, which has been a lost opportunity for Europe. Cutting that gap in half could boost cross-border financial flows by 3% of GDP and raise EU real GDP by up to 1%.

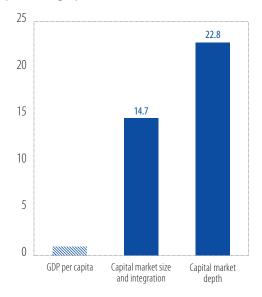
Integration increases financial markets' size and depth, which makes it easier for firms to finance innovation by issuing equity. Our analysis suggests that the probability of firms issuing equity is not related to GDP per capita but rather to financial market size, integration and depth (Figure 5). Meanwhile, firms that have access to equity finance have investment growth rates that are 7 percentage points higher. They are also 13 percentage points more likely to be developing innovative new products (Figure 6). Improving the availability of finance through more integrated EU financial markets is crucial to supporting innovation.

There are various stages to financial market integration. EU households' savings are conservatively invested with a strong bias for investments in their home country and low returns, calling for innovation in the retail savings and pension products available. The corporate sector remains a net lender to the rest of the economy,

showing that excess corporate savings are not always finding their way into productive business opportunities. Pension and insurance funds can play a stronger role in directing EU savings towards innovation. Both pension and insurance intermediaries would benefit from better investment opportunities in equity or innovation within Europe. Stronger European capital markets might prevent a sizeable share of EU savings from going abroad.

Figure 5

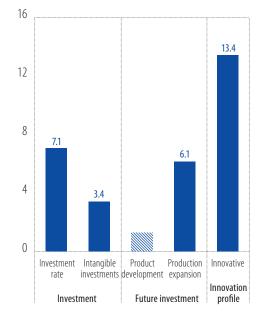
Impact on the probability of issuing equity (in percentage points)



- Source: A sample based on EIBIS 2016-2023 and Bureau Van Dijk's Orbis database of companies, based on Betz, Pál, Sapir and Tran (forthcoming).
- Note: Market size and integration includes total market capitalisation and a composite indicator measuring market integration for the rest of the world. Market depth includes public market financing (market capitalisation relative to GDP) and capital raised through initial public offerings (IPOs) relative to GDP, as well as pre-IPO risk capital (venture capital investment relative to GDP).

Figure 6

Estimated impact of equity issuance on firm performance (in percentage points)



Source: EIBIS-Orbis 2016-2023 sample based on Betz, Pál, Sapir and Tran (forthcoming).

Simplification enhances business opportunities: The cost of bureaucracy is a significant burden for EU firms

Simplification is crucial. The cost of bureaucracy is a significant burden for EU firms, particularly for smaller enterprises. About 86% of EU firms employ staff to deal with regulatory compliance, with an associated cost of 1.8% of turnover. The cost increases to 2.5% of turnover for small and medium companies. By comparison, EU firms' spending on energy after the energy shock amounted to just 4% of turnover.

Reduced barriers combined with European support would be a boon for transformative investment

Past episodes of a sustained acceleration in EU investment were driven by structural changes to the economy that unlocked new business opportunities. These include the formation of the single market, waves of EU enlargement and the introduction of the euro (Figure 7). By expanding markets, removing barriers

Note: Investment rate is the average net investment rate for the coming three years. Intangible investment is the rate over total assets. Results that are not statistically significant at the 90% confidence level are indicated with diagonal stripes.

and facilitating substantial capital flows and access to finance, these events contributed to a large expansion in business opportunities, which also spurred a significant and sustained acceleration in investment.

More recently, a strong EU policy focus on investment provided a similar boost. Since 2015, the European Union has put investment at the centre of the EU policy framework with the <u>Investment Plan for Europe</u>. However, the real turning point was arguably the business impetus created by Europe's green and digital ambitions, supported by the <u>European Green Deal</u>, the Recovery and Resilience Facility and the response to the energy crisis. These policy shifts again contributed to another rise in the investment share of GDP, despite major shocks such as the pandemic and the energy crisis.

Periods of rising investment in the past 40 years point to the power of combining an investment push with an increase in business opportunities. During these episodes, investment accelerated in response to a combination of structural and regulatory shifts that created business opportunities, the availability of finance and policy incentives. As the debate continues on how Europe can best achieve its common goals, this history points to the way forward.

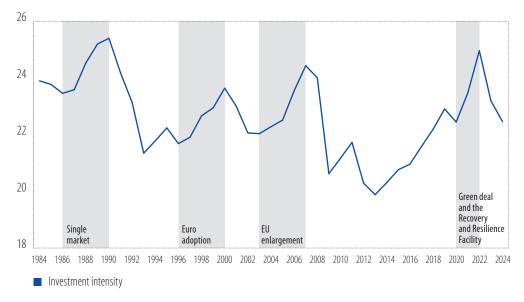


Figure 7 Investment rate in the European Union (% GDP)

Source: EIB staff calculations based on the International Monetary Fund's World Economic Outlook for October 2024. Note: The rate is calculated for countries that are currently members of the European Union.

Improving the business environment by reducing barriers to investment is associated with higher economic growth, especially for investment-intensive industries and high-tech sectors. 79% of EU firms cite uncertainty as a barrier to investment, with the scarcity of skilled staff and energy costs similarly important, at 77% (Figure 8). The most dynamic firms are more likely to report constraints. An analysis comparing the number of major barriers reported by firms and growth in value added in each sector shows that the increase in value added is significantly higher in industries in which firms report fewer barriers. Just by eliminating one major obstacle, the value added of the sector improves by 3.3 percentage points over four years. High-tech sectors are particularly sensitive to the number of barriers they face. The share of firms in high-tech sectors is greater in countries where fewer obstacles are reported. Ultimately, an improved business environment will spur growth overall and will contribute to further unleashing the potential of Europe's companies.

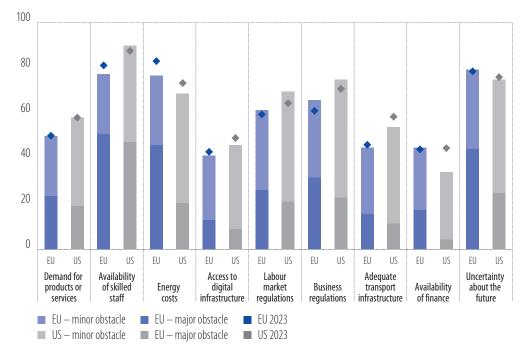


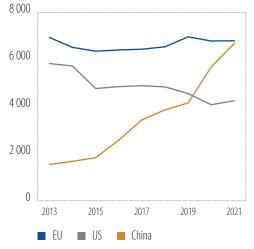
Figure 8 Share of firms (in %) reporting different obstacles to investment

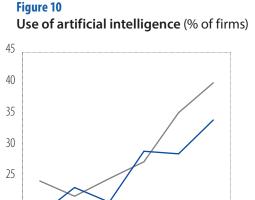
Source: EIBIS 2024.

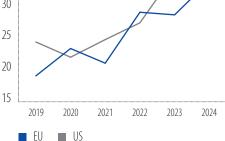
Building on Europe's strengths: A strong industrial, research and trade base creates an opportunity to lead in technological innovation and increase productivity



Number of patents in green technologies (count)







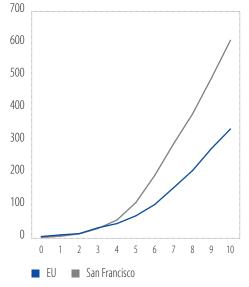
Source: EIBIS 2019-2024.

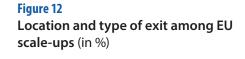
Source: EIB staff calculations based on Patent Cooperation Treaty (PCT) patents (PATSTAT) in collaboration with the Expertise Centre for Research and Development monitoring (ECOOM) at KU Leuven University. **Europe is on the cutting edge of basic research, but this is not reflected in patenting for important technologies, and it does not necessarily lead to industrial applications.** Europe publishes 24% more research publications than the United States, according to the <u>Nature Index</u>. In patent issuance, the European Union still competes on the greentech frontier (Figure 9), but is falling behind in biotech, digital technologies and artificial intelligence, despite some areas of excellence. Large European players dominate in a handful of more traditional sectors, but their dependency on foreign companies for digital technologies and services is causing concern as artificial intelligence comes to the fore. Looking at the adoption of innovations, the share of EU firms taking up advanced digital technologies in general, and artificial intelligence in particular, is rising in parallel with the trend in the United States, although Europe is still slightly behind (Figure 10).

European innovators need a business environment that is open to disruptive opportunities and financing that allows firms to grow. For innovation to flourish, Europe needs to provide business opportunities for young, innovative firms – which would encourage them to stay in Europe – as well as adequate financing opportunities tailored to each stage of the firm life cycle. EU scale-up firms have raised, on average, 50% less capital than their US counterparts in the last ten years (Figure 11). Europe must address these gaps, particularly those related to scale-up finance when a company's business is established and the time has come to expand activity and markets. Solutions include reinforcing debt and equity-type products targeting specific critical technologies and reinforcing opportunities at (and before) the exit stage. More exit opportunities through acquisition or initial public offerings (IPOs) exist in the United States, where firms attract greater valuations. This encourages promising firms to relocate abroad, often well before investors exit the company (Figure 12).

Figure 11

Cumulative capital raised by scale-ups since establishment (USD million, an average)







Source: Fratto et al. (2024)¹ based on PitchBook Data, Inc data. Note: The sample consists of companies that had a market valuation of USD 500 million to USD 10 billion for 2013-2023. Figure 11: San Francisco is the US benchmark. The numbers in the x-axis represent the number of years since the firm was established. Figure 12: Type of exits: initial public offering (IPO) and mergers and acquisitions (M&A). The 0.8% of scale-ups that were bought out are included in "no exit."

¹ Fratto, C., Gatti, M., Kivernyk, A., Sinnott, E., & van der Wielen, W. (2024). The scale-up gap: Financial market constraints holding back innovative firms in the European Union. https://doi.org/10.2867/382579

Building on Europe's strengths: Europe's climate leadership is paying off

Europe's climate ambitions have made it a leader in the green transition. The European Union has set out a bold long-term vision to achieve carbon neutrality by 2050, with binding commitments and regulatory measures that mandate the adoption of renewable energy, emissions reduction and energy efficiency; carbon pricing, through mechanisms like the EU Emissions Trading System; and financial incentives, including subsidies and tax breaks, to foster green innovation. Together, these measures are successfully driving the adoption of green technologies by EU firms, promoting innovation, encouraging the transformation of energy-intensive industries, and laying the foundation for a competitive and sustainable green economy. The long-term commitment, consistency of signals and sufficiently fast deployment of infrastructure (such as for electricity generation and transmission) will be critical to preserving the advantage Europe has secured.

Europe's green ambition is behind its success in greentech innovation. Despite fierce global competition, Europe is still on the cutting edge of greentech innovation and is well positioned at the centre of global patenting networks (Figure 13). European firms preserve a degree of comparative advantage and Europe's exports in low-carbon technologies are expanding, having grown by 65% since 2017, compared with 79% for China and only 22% for the United States (Figure 14). With geopolitical changes threatening to re-order global value chains, European firms have an opportunity to find the right positioning to balance efficiency, resilience and security.

400

300

200

100

0

+22%

US

2023

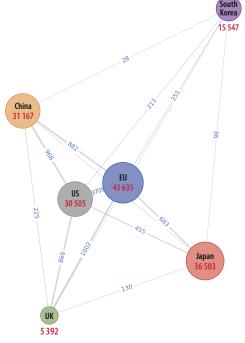
2017

Figure 14

(EUR billion)

Figure 13

Co-patenting networks for green technologies (2016-2022)



Source: PCT patents (PATSTAT), calculated by ECOOM, KU Leuven.

Source: EIB staff calculations based on UN Comtrade data.

China

Exports of low-carbon technologies

+79%

+65%

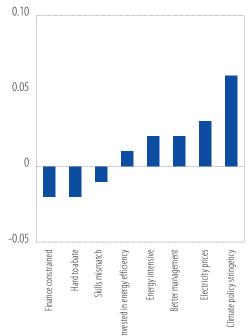
EU

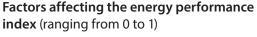
A policy framework consistent with Europe's ambition encourages energy efficiency investment and firm transformation. 77% of EU firms see energy costs as an obstacle to investment (Figure 8). But this alone is not always enough to encourage investment in energy efficiency and transformation. The policy framework plays a crucial role. Firms in countries with more ambitious climate policies are significantly more likely to invest in energy efficiency and benefit from such investment, with higher profitability, productivity and innovation (Figure 15). In countries that enforce climate policies less stringently, however, the benefits of energy efficiency efforts are less apparent, particularly in energy-intensive industries. Our analysis shows that firms in energy-intensive industries do not reap significant returns from their efforts to transform when climate policy

enforcement is weaker (Figure 16). The lesson is clear. Policy certainty and stringency are critical for the green transition. At the same time, Europe's green transition also requires the transformation of the power generation and transmission sector, as well as targeted and result-based incentives in some cases to ease financial constraints for the firms most at risk.

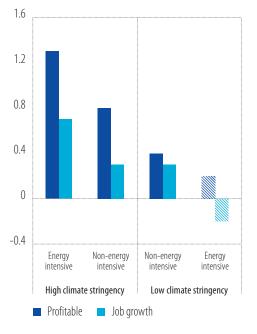
There is a growing gap between firm investment in mitigation and adaptation. 66% of European firms now say they have been affected by extreme weather events in some way, but only a fraction of these companies have invested in adaptation measures or have bought insurance. As with energy efficiency investments, finance and a lack of skills pose barriers to action.

Figure 15









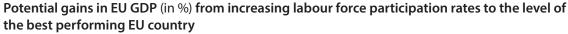
Source: EIB staff calculations based on EIBIS 2023-2024.

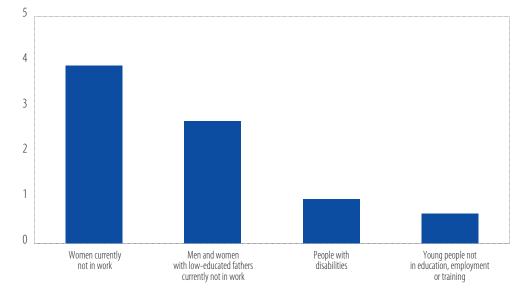
Note: Climate policy stringency refers to a normalised sub-indicator from the Climate Change Performance Index. Results that are not statistically significant at the 95% confidence level are indicated with diagonal stripes. Figure 15: The bars represent the intensive marginal effects of various determinants on energy efficiency, as represented by a meta score (see Chapter 6), accounting for year and size effects. Figure 16: The bars represent the probability of different returns to firms from energy efficiency efforts, depending on specific determinants.

Building on Europe's strengths: Social investment can bring economic returns and provide the skills needed to enhance competitiveness

Often taken for granted, Europe's inclusive social model is one of its strengths. Rising labour market participation, particularly among women, and growing equality of opportunity have been a source of growth. However, 51% of EU firms reported the scarcity of skilled workers to be a major barrier to investment in 2024, up from 39% in 2016. This has not resulted in a higher share of firms investing in training. An ageing population and the skills demanded by the green and digital transition are set to exacerbate this issue. In this environment, continued social investment is critical, as it helps people develop skills and encourages participation in the labour force and labour mobility. If female labour force participation in all EU countries were raised to the highest EU level, EU GDP could increase by 4% (Figure 17). The addition of 1.5 million additional places in childcare would reduce the male-female employment gap by 5%.

Figure 17

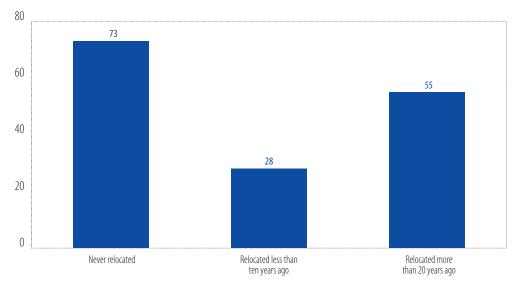




Source: EIB staff calculations based on Eurostat, the annual macro-economic database (AMECO) of the European Commission's Directorate General for Economic and Financial Affairs and the Organisation for Economic Co-operation and Development.

Figure 18

Homeownership rates (in %) across different demographic groups, EU average 2021-2023



Source: EIB staff calculations based on EU statistics on income and living conditions (EU-SILC).

Housing affordability is an increasing concern: Particularly in fast-growing cities, rigidities in the supply of affordable housing increase labour misallocation and negatively affect growth and productivity. This has an especially negative effect on younger people and potential new migrants to cities (Figure 18). In Europe, construction has suffered from low productivity and insufficient innovation, adding to the cost and time of delivering housing projects. Other supply-side barriers are also a concern, with regulatory obstacles, such as difficult permitting processes, and skill constraints holding back the sector (Figure 19).

There is room to enhance the effectiveness of social investment spending. Raising the efficiency of public investment in social sectors across the European Union to the level of Europe's best performers could in theory save some 2.5% of GDP, without compromising on the outcomes achieved. This would free funds to expand investment in key social services.

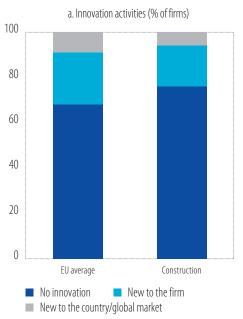
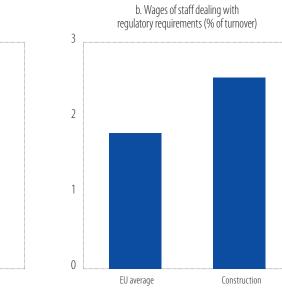


Figure 19

Source:

FIBIS 2024.



Innovation and regulatory barriers in the construction sector

Maximising the impact of public support: Targeted instruments and EU coordination improve impact

Europe needs to maintain its focus on policies that encourage investment. As fiscal space is reduced, new investment needs emerge and the Recovery and Resilience Facility comes to an end, EU members will face more difficult trade-offs. Preserving public investment and enhancing European coordination is crucial, particularly by addressing market failures and catalysing private-sector investment in underserved areas. The impact of scarce public resources can be maximised with financial instruments and stronger EU coordination. When delivering investment in Europe, the leverage effect of financial instruments is a crucial enabler: an opportunity to achieve more with less (Figure 20).

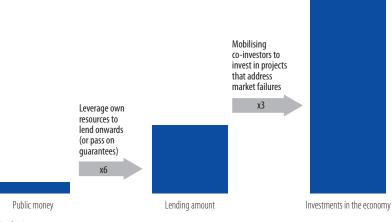
Source: FIBIS 2024.

Private sector incentives are more effective when they are targeted. Recent years have seen a substantial increase in policy support for firms in the form of subsidies or loans with favourable conditions. In 2024, 16.1% of firms in Europe received such support. Our analysis confirms that policy support has a positive impact on firms' investment and performance overall, and that the effect is stronger when the incentives are targeted (Figure 21). In fact, EU firms receiving support were 20 percentage points more likely to invest in energy efficiency, cleantech or innovation when the subsidies or loans they received targeted specific policy objectives.

Taking a European approach to industrial policy minimises distortions to the single market and enhances effectiveness. Our analysis shows that when policy support is allocated at the EU level, the market distortion effect is lower. This is particularly true in mid-tech sectors (Figure 22).

Figure 20

Using leverage to maximise resources (indicative lending multipliers for the EIB Group)

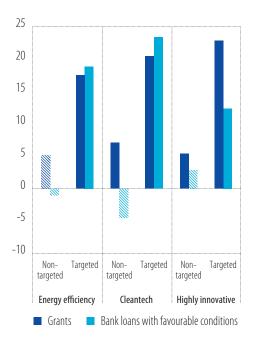


Source: EIB staff calculations.

Note Indicative values only, depending on risk profile, product mix, market environment, additional EU support (especially guarantees).

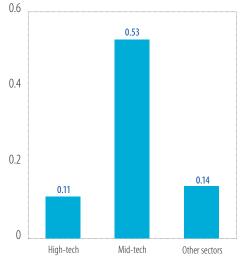
Figure 21

Impact of targeted vs. non-targeted financial support on the probability of investing in green transformation and innovation (in percentage points)

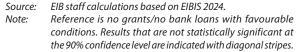




EU instruments reduce biases introduced by interventions at the national level (estimated productivity gain from coordinating policy support, in percentage points)







Ultimately, Europe's opportunity rests on its strengths, namely its capacity to integrate various economies while respecting European values and long-term objectives. Market integration and simplification are key to unleashing business opportunities, which will in turn drive innovation and investment.

<text>



eBook ISBN 978-92-861-5906-0 pdf: ISBN 978-92-861-5907-7

© European Investment Bank, 03/2025 EN