

2022

# EIB GROUP ACTIVITIES IN EU COHESION REGIONS



**2022**

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## **EIB Group activities in EU cohesion regions, 2022**

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98-100, boulevard Konrad Adenauer

L-2950 Luxembourg

+352 4379-1

[info@eib.org](mailto:info@eib.org)

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This report has been written with the active assistance of many individuals across the EIB Group. Our cordial thanks go to all of them for their support.

The power of nature is awesome. Throughout history, people have feared its storms, its floods, droughts and eruptions. At this critical time, we realise that we must instead be in tune with nature and harness its power, if we are to beat the climate change that our own actions have caused. More than half the European Investment Bank's investments are now in climate action and environmental sustainability. Our priority is to finance the green transition to renewables powered by nature, from geothermal energy to hydroelectricity and wind power. That is why we are putting these natural forces right on the covers of our major reports this year.

The EIB Group wishes to thank the following promoters and suppliers for the photographs illustrating this report.

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# FOREWORD

## BY LILYANA PAVLOVA

European Investment Bank Vice-President

**T**he war in Ukraine risks exacerbating the challenges of EU cohesion already being faced by specific social groups and regions. Coming on the heels of the pandemic, the energy crisis triggered by the war has further worsened the financial situation of all households, particularly poorer and older ones. Regional cohesion is likely to suffer from the combined effect of geopolitical uncertainty, the influx of refugees and the energy shock. As a result, all efforts must be made to further strengthen social and regional cohesion. Regions will need to transform in the coming decades to reach the European Union's climate goals and reduce the digital divide. Without this broad-based transformation, Europe will not be able to reduce its dependence on fossil fuels in the medium term or achieve carbon neutrality in the longer term. Fast transformation requires flexibility, new ideas and investment by public and private stakeholders alike.

To offset the negative impact of the energy crisis on cohesion, governments in poorer regions need to improve their business environments and tackle barriers to investment such as limited access to finance, poor regulation and higher energy costs, as shown in the **EIB Investment Report 2022-2023**<sup>1</sup>. 30% of small and medium-sized businesses in cohesion regions cite the availability of finance as a major obstacle, compared with 17% of such businesses in more developed regions.

At the same time, innovation is vital in addressing these challenges. According to the **2022 European Innovation Scoreboard**, the European Union remains a good place to innovate and is slowly closing the performance gap with its innovative competitors, overtaking Japan and reducing the gap with South Korea and the United States. However, there are still significant gaps between the Member States and these are only widening. We need to take action to address this innovation divide by boosting **public and private investment in research and development**, creating the right conditions to allow innovation to flourish, and ensuring that innovative solutions benefiting people and the planet find their way to the markets.

With many national budgets already tight, policy support should be precisely targeted, focusing on the groups and regions most affected. As with any economic transformation, corporate investment and innovation are equally necessary for the green and digital transformation. Investment and innovation can only flourish if they are fostered by an appropriate regulatory environment, sufficient public capital and high-quality public services. **Governments should enable firms to transform, grow and innovate.** Good governance is also critical for improving the business environment, but is an area of weakness in cohesion regions. Municipalities frequently cite access to finance as a constraint, particularly in cohesion regions. EIB Group lending and EU funds can provide ample support to improve the conditions for growth and convergence in cohesion regions by helping to prepare and successfully implement those projects selected for investment.

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1. [EIB Investment Report 2022-2023: Europe must take action now to address structural challenges](#)



# FOREWORD

## BY ELISA FERREIRA

European Commissioner for Cohesion and Reforms

**C**ohesion means sticking together, and seldom has it been more important for Europeans to stick together. The aftermath of the COVID crisis. Russian aggression, which has created a triple refugee, energy and cost of living crisis. The twin transition to a green and digital economy, which offers opportunities, but also poses risks for many people and places. And all this against the backdrop of a momentous demographic change, where by 2040 more than half of Europeans will live in a region with a shrinking population.

As Europeans, one of our key values is solidarity. Amid all these crises and changes, we must leave no one behind — and no region feeling forgotten. No matter how rough the seas, we must not let any of the crew go overboard. This is not just political principle, it is also economic efficiency: one of the key findings of the Regional Competitiveness Index, published by the European Commission earlier this year, is that the most successful countries have the smallest territorial imbalances. In other words, territorial cohesion is key, not only for the regions, but also for national success, and for the success of the European Union as a whole.

So I welcome this EIB Group 2022 Cohesion Report. I particularly welcome the Bank's clear commitment to cohesion. The 2021-2027 targets for increased lending volumes, and the concentration of resources in less developed regions, are a concrete signal of this commitment. I am satisfied to see that the 2022 results were in line with these goals. Proof that, although the targets were ambitious, they were achievable — and that the investments are paying their first dividends for Europe's regions and people.

It is very encouraging that cohesion regions received approximately half of the EIB's total EU lending for climate action and environmental sustainability in 2022. It is now important to increase the share of cohesion regions in lending for innovation, digital and human capital, small and medium-sized enterprises (SMEs) and mid-caps. And to increase the focus on the less developed cohesion regions.

This is in line with the work of the 2021-2027 cohesion programmes, which will mobilise investments of €545 billion, of which €378 billion is EU money. These investments are expected to support the creation of 1.3 million jobs and to increase the European Union's gross domestic product (GDP) by 0.5% on average, and up to 4% in some Member States. They will also help deliver many local public goods, from the classic investments in businesses, skills, infrastructure and local services, to newer investments in the digital economy and e-governance, as well as in renewables, recycling and renovation.

We are particularly conscious of the risk of development traps. Although development gaps have seriously reduced in the last 20 years, in some regions we see the emergence of development traps, where, for structural reasons, a region gets stuck at a certain point on the development path. We are committed to tackling these traps, for example with the Talent Booster Mechanism to support regions at risk of a skills trap, including brain drain. And the Just Transition Fund for regions heavily dependent on carbon-intensive industries, to help them diversify their economies and support workers in obtaining the skills necessary for the new jobs being created.

But we know that Cohesion Policy will need to adapt even more in the future. The discussion has already begun. Since one of our key values in Cohesion Policy is partnership, we are discussing with different levels of government, from the national to the very local level, as well as with economic and social stakeholders, and the public.

You are welcome to join this discussion. And of course, we will continue to work together with our partners in the EIB Group to ensure that every region benefits from the future green and digital economy — and that no person or place is left behind. This is the meaning of cohesion. And this is our joint commitment.



# INTRODUCTION

**T**he European Union's Cohesion Policy aims to ensure economic, social and territorial cohesion between the various EU regions to bring about a convergence in living standards and prosperity. By tackling regional disparities, the policy contributes to the harmonious development of the European Union and reduces the risk of fragmentation. In addition to regional differences in GDP, it seeks to redress other inequalities such as differences in opportunities or varying exposures to the negative impacts of globalisation and climate risks.

Cohesion priority regions for each programming period are defined by the EU Cohesion Policy map and fall into two categories:

1. **Less developed regions:** GDP per inhabitant less than 75% of the EU average
2. **Transition regions:** GDP per inhabitant between 75% and 100% of the EU average.

The European Union's Cohesion Policy for its 2021-2027 long-term budget devotes special attention to regions where economic development is below the EU average.

Cohesion was one of the original reasons behind the foundation of the European Investment Bank (EIB) in 1958 and remains one of its core priorities.

The EIB Group, which includes the European Investment Bank and the SME-focused European Investment Fund (EIF), provides loans and other financial instruments<sup>2</sup> that complement and leverage EU grants to support investments in cohesion regions that target social inequalities by providing employment and educational opportunities, access to public infrastructure and services, and a healthy and sustainable environment. All the EIB Group's financing for projects in less developed and transition regions count towards its cohesion lending.

The Bank also advises public authorities and project promoters in cohesion regions on how to improve the technical and financial quality of their projects, adopt successful investment strategies, strengthen their institutional capacity and attract funding from the private sector.

This report analyses the EIB Group's activity in cohesion regions in 2022. It focuses on the Group's contribution towards innovation for an inclusive, green and digital transition in line with the Innovation, Digital & Human Capital (IDHC) Orientation 2021-2027<sup>3</sup>.

Acknowledging the vital role that innovation plays in the European Union's cohesion efforts, the 2022 report highlights the Group's contribution to innovation as a key enabler for the inclusive, green and digital convergence pursued across EU regions. Drawing from research undertaken by the EIB in 2022 across the EU investment ecosystem and EU municipalities alike, the essay section of the report outlines key challenges and gaps hindering regional convergence and illustrates how the EIB Group's targeted investments in the public and the private sector foster innovation so as to unlock structural bottlenecks and encourage cohesion and growth. The Group's overall support for economic, social and territorial cohesion is presented in relation to policy objectives, activity sectors, countries, contribution to the UN Sustainable Development Goals (SDGs) and sector-specific project results. Case studies of flagship projects and advisory assignments signed or undertaken during the year are included to illustrate the Group's impact and provide inspiration on the range of investments and advisory support the Group offers in cohesion regions.

2. Referred to as "lending" throughout the body of the report.

3. [Innovation for inclusive Green and Digital Transition \(eib.org\)](https://www.eib.org/en/innovation)



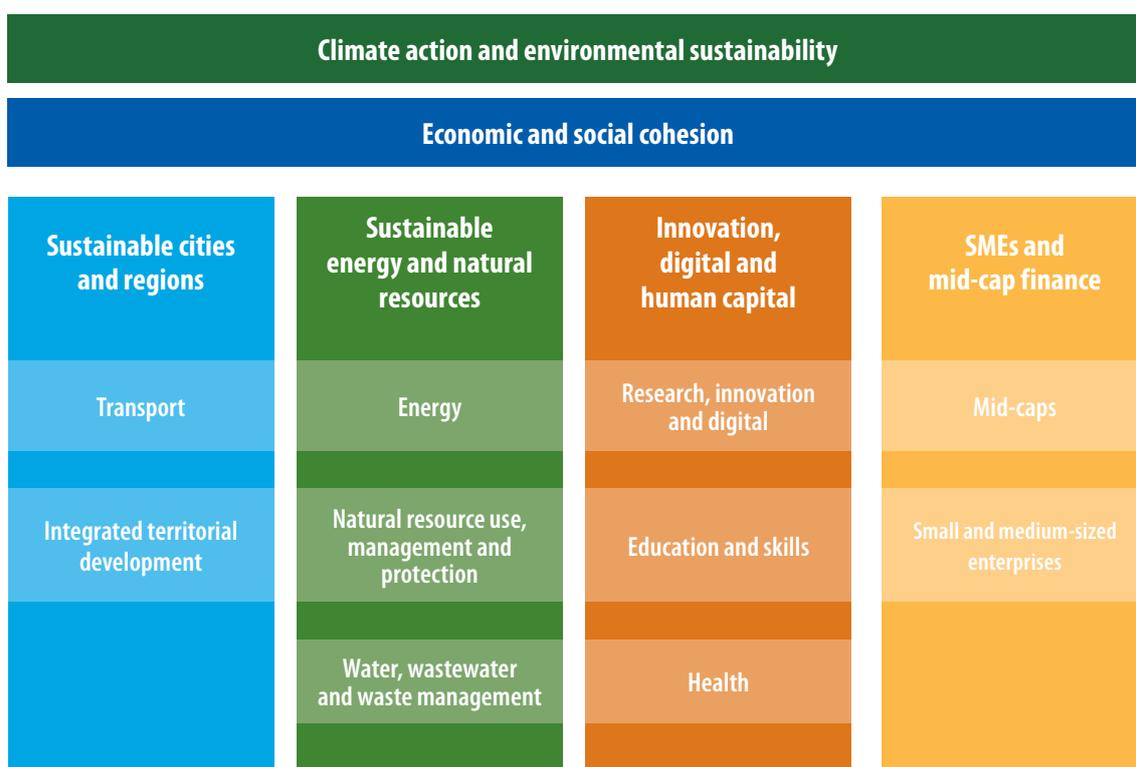


# EIB COHESION LENDING BY PUBLIC POLICY GOAL

Lending in cohesion regions covers a wide spectrum of economic activities, which are reflected in the European Investment Bank’s public policy goal framework. The framework reflects the Bank’s lending priorities and ensures that these are aligned with the political priorities set by the European Union. It also enables the Bank to balance its support across the different policy goals and provides clear guidelines for communicating and reporting on its lending.

The current public policy goal framework relies on four **vertical** public policy goals: sustainable cities and regions; sustainable energy and natural resources; innovation, digital and human capital; and SME and mid-cap finance. In addition, two **horizontal** objectives are embedded in the framework: economic and social cohesion; and climate action and environmental sustainability.

Figure 1 – EIB public policy goals and sectors

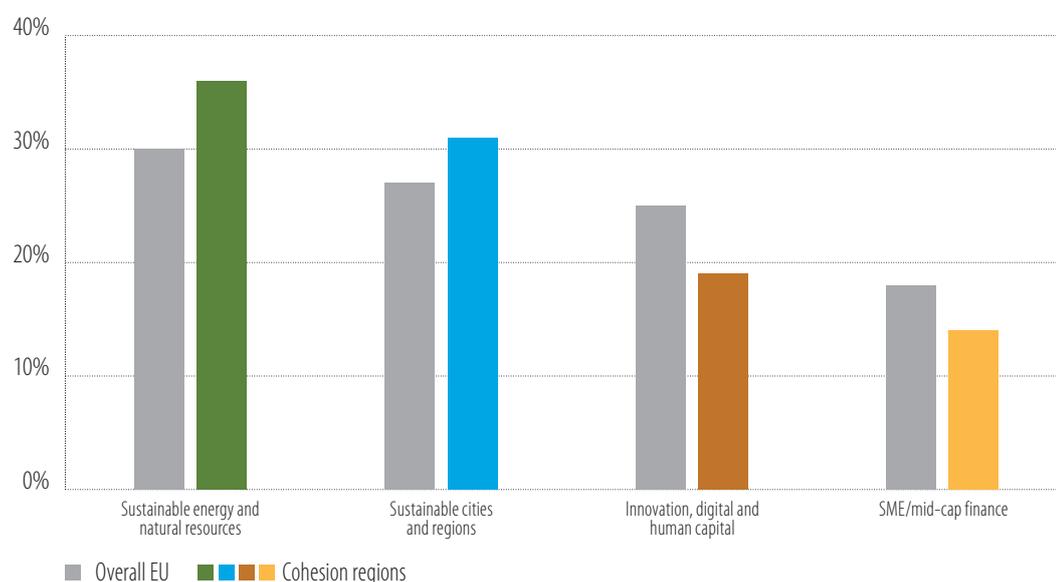


The pattern of EIB lending activity by public policy goal may differ between cohesion regions and non-cohesion regions because cohesion regions have specific needs. In 2022, cohesion regions received a relatively greater share of the EIB’s overall EU lending for two policy goals (sustainable energy and natural resources; and sustainable cities and regions) but a relatively smaller share for the other two (innovation, digital and human capital; and SME and mid-cap finance).

The EIB's lending to the four public policy goals in the European Union and cohesion regions was distributed as follows in 2022:

- Support for the **sustainable energy and natural resources** policy goal accounted for 30% of total EU lending, of which 55% in cohesion regions (€8.8 billion). This represented 36% of lending to cohesion regions, thanks to a significant concentration of large renewable energy and electricity network projects in cohesion regions in 2022.<sup>8</sup>
- Support for the **sustainable cities and regions** policy goal accounted for 27% of total EU lending, of which 53% in cohesion regions (€7.8 billion). This represented 31% of lending to cohesion regions, primarily driven by lending under the transport policy objective<sup>9</sup> for safe and sustainable infrastructure as well as lending for social housing, urban development and regional development.
- Support for the **innovation, digital and human capital** policy goal accounted for 25% of total EU lending, of which €4.6 billion (34%) was in cohesion regions. This represented only 19% of lending to cohesion regions, mainly due to a low share of EIB lending for investment in innovation by private sector entities.
- Lending under the **SME/mid-cap finance** policy goal in 2022 accounted for €9.7 billion (18%), of which €3.5 billion (36%) went to cohesion regions. This represented 14% of lending to cohesion regions.

Figure 2 – EIB lending in the European Union and cohesion regions by public policy goal

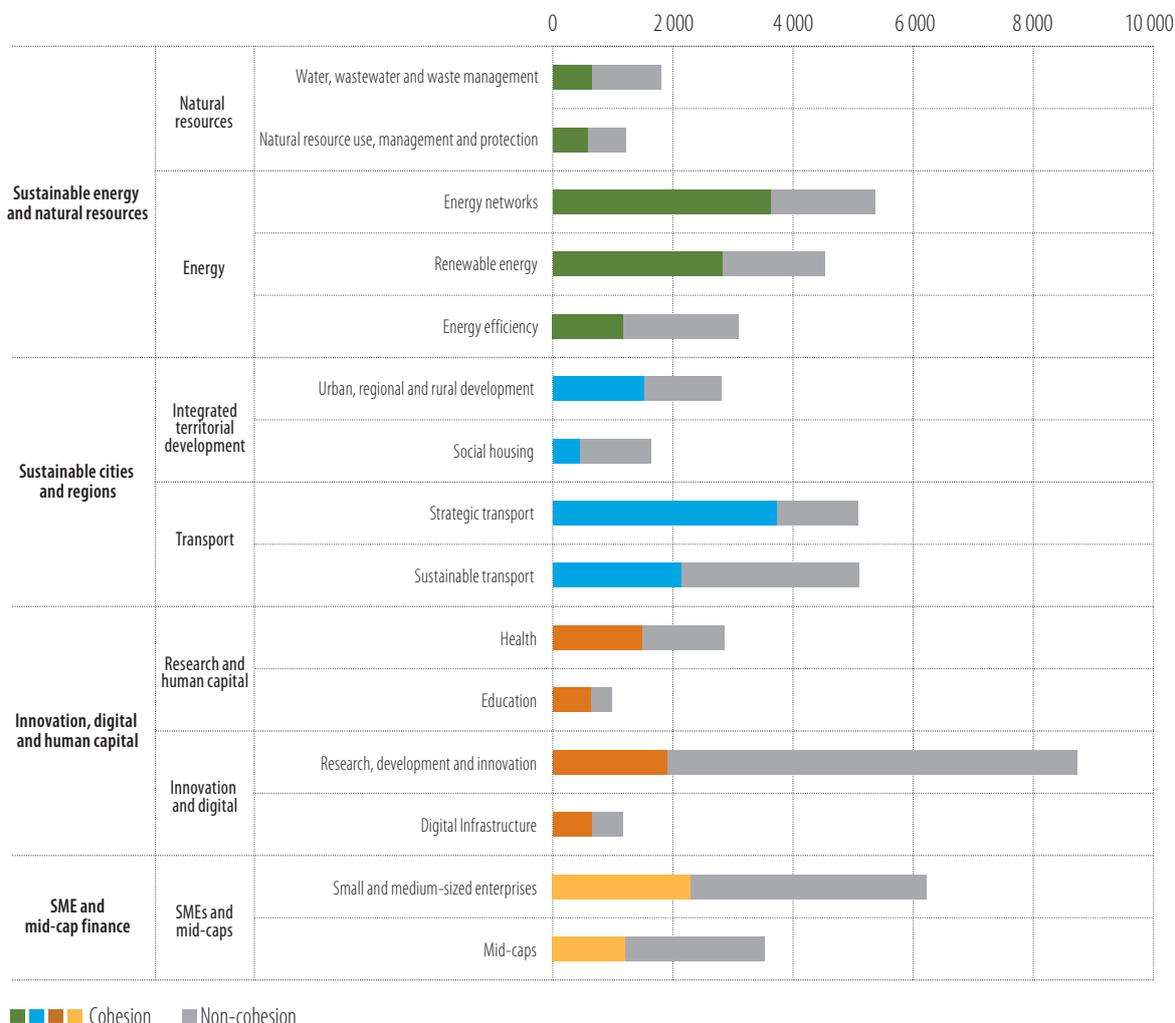


In terms of the horizontal policy goals, the EIB's lending for **climate action and environmental sustainability** in 2022 amounted to €32.4 billion for the European Union as a whole (60% of the total), whereas its lending for the same goal in cohesion regions amounted to €16.2 billion, or 66% of the total volume of lending for cohesion. This means that cohesion regions received approximately half of the EIB's total EU lending for climate action and environmental sustainability in 2022.

8. For more information on EIB lending for energy projects please refer to the [EIB energy lending policy: Supporting the energy transformation](#).

9. For more information on EIB lending for transport projects please refer to the [Transport Lending Policy 2022: The Way Forward \(eib.org\)](#).

**Figure 3 – EIB lending in the European Union and cohesion regions by public policy goal and sector**



Notes: 1. EIB sectors are sorted by decreasing absolute (€ million) contributions to cohesion lending.  
 2. The 15 sectors shown in this figure can be mapped into the ten activity areas reported under the public policy goals in Figure 1 as follows: Energy includes energy networks, renewable energy, and energy efficiency; innovation and digital includes research, development and innovation, and digital infrastructure; integrated territorial development includes urban, regional and rural development, and social housing; finally, transport includes strategic transport and sustainable transport.

The relative concentration of the EIB’s cohesion lending in its vertical public policy goals is linked with the sectors of activity that are financed in cohesion regions. The chart below presents the breakdown of the EIB’s EU lending in 2022 by sector, distinguishing between cohesion and non-cohesion regions<sup>10</sup>:

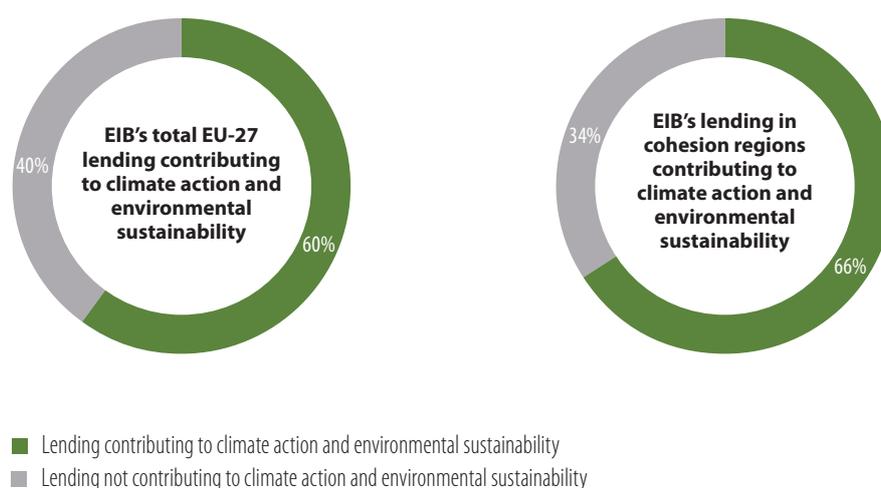
- For the **sustainable energy and natural resources** policy goal, Figure 2 shows strong contributions from EIB projects concerning energy networks and renewable energy, both in absolute and in relative terms — with cohesion regions accounting for 67% and 62% of total lending, respectively. By contrast, in projects related to energy efficiency and water, wastewater and waste management, cohesion regions are slightly under-represented compared to the overall EIB cohesion lending share (46%).

10. An operation’s contribution towards each of the Bank’s public policy goals (including cohesion and climate action and environmental sustainability) is established at the level of the overall project to be financed. For the purpose of this analysis, if projects only partially fall under the Bank’s cohesion objective, it is assumed that the project’s cohesion component shows the same relative contribution to each of the vertical public policy goals as the overall project.

- Looking at the **sustainable cities and regions** goal, the weight of cohesion regions was particularly high (73%) in strategic transport projects in 2022, as trans-European transport networks (TEN-T) remain to be completed, and it was still above average in urban and regional projects (54%). By contrast, lending to non-cohesion regions dominates in social housing projects.
- The share of EIB lending in cohesion regions under the **SME** (37%) and **mid-cap** (34%) goal are comparable to the weight of cohesion regions in EU GDP, but fall short of the overall EIB cohesion lending share. A large proportion of this lending comes in the form of multi-beneficiary intermediated loans (MBILs) signed with commercial banks operating throughout Member States. Therefore, the geographical breakdown of the lending tends to reflect the pattern of investment demand in the economy.
- Similarly, for the **innovation, digital and human capital** public policy goal, the share of cohesion regions (34%) was almost identical to the overall weight of these regions in the EU economy, although this hides strong differences at the level of individual sectors. On the one hand, cohesion regions continued to be strongly under-represented (22%) in the Bank's lending for research, development and innovation in 2022. On the other hand, their share was clearly above average in education (64%) and health investments (52%). This underlines the EIB's contribution to addressing social infrastructure investment gaps and reducing geographic inequalities.

As discussed above, climate action and environmental sustainability is, like cohesion, a **horizontal** objective of the EIB. In 2022, there was no trade-off between the two horizontal policy goals as, for the second year in a row, the share of climate action and environmental sustainability was higher in the Bank's cohesion lending than in its overall EU lending.<sup>11</sup> This development is a marked improvement over the previous programming period 2014-2020. It is also fully in line with the EIB's cohesion orientation, which committed to "increasing significantly the share of climate action and environmental lending across transition and less developed regions."<sup>12</sup>

**Figure 4 – Climate action and environmental sustainability lending in the European Union and in cohesion regions**



11. For the purpose of the analysis, if projects only partially fall under the Bank's cohesion objective, it is assumed that the project's cohesion component shows the same relative contribution to climate action and environmental sustainability as the overall project.

12. [EIB Cohesion Orientation 2021-2027](#), p. 35

## EIB LENDING IN COHESION REGIONS BY COUNTRY

**O**f the European Union's 145 cohesion regions, 67 are transition regions and 78 are less developed regions. The less developed regions are mostly located in Central and Eastern Europe, as well as in Portugal, Greece and the southern parts of Italy and Spain. Many of the transition regions, by contrast, are former wealthy industrial regions struggling to cope with globalisation and technological change. They can be found across the European Union, including in wealthier Member States such as France, the Netherlands and Finland (see Map 1 on page 9).

As shown on this cohesion map, several Member States only have cohesion regions (Bulgaria, Croatia, Cyprus, Estonia, Greece, Latvia and Malta), whereas Luxembourg is the only Member State with no cohesion region. All other Member States consist of a mix of cohesion regions and more developed regions, with the weight of cohesion regions in each country's GDP ranging from 25% or less in Austria, Belgium, Denmark, Germany, Ireland, the Netherlands and Sweden to more than 60% in the Czech Republic, Hungary, Poland, Portugal, Romania and Slovakia, which have more developed capital regions but GDP per capita below the EU average everywhere else.

Against this backdrop, the figure below shows the EIB's total EU lending for 2022 by country, providing both the absolute lending figure and its distribution (in %) between cohesion and non-cohesion regions. In most countries, the EIB's lending for cohesion regions is comparable to the weight of those regions in the country's GDP.

At the same time, looking across EU countries, the 19 Member States made up predominantly or exclusively of cohesion regions<sup>13</sup> tend to attract a large proportion of total EIB lending in comparison to their weight in the EU economy.<sup>14</sup> In total, these countries, which contribute 54% to the European Union's GDP, attract some three-quarters of the EIB's total lending in the European Union. France, Italy and Spain were the three countries with the highest EIB lending volume overall, each of them absorbing more than €8 billion. In terms of absolute lending volumes in cohesion regions, France (€4.8 billion), Spain (€4.2 billion) and Poland (€3.8 billion) received the most.

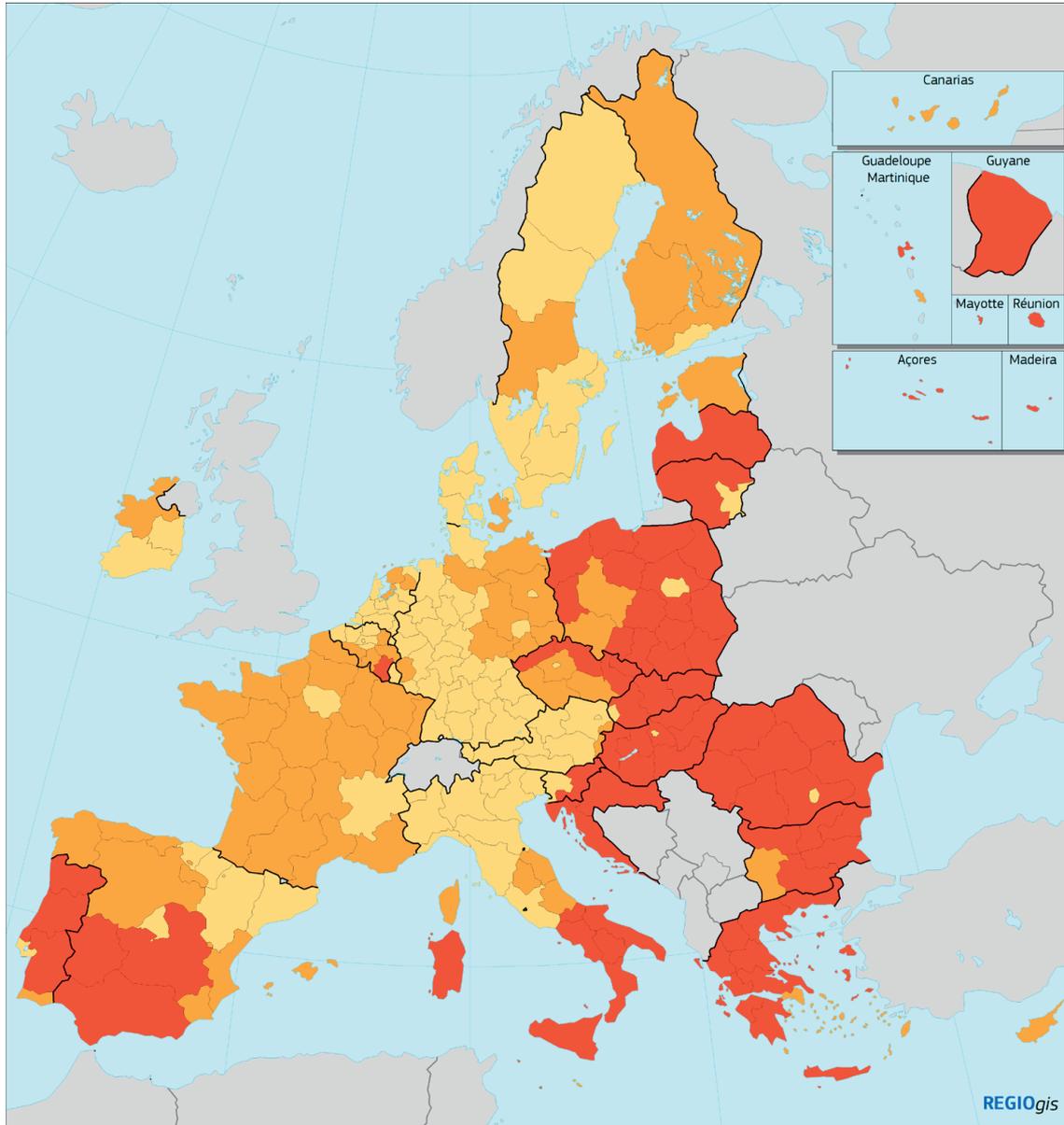
Zooming in on the cohesion lending to each Member State — and bearing in mind the above finding of particularly strong investment demand for transport, energy and other infrastructure projects in cohesion regions — the next figure breaks the volumes down in terms of the EIB's public policy goals. This breakdown is based on the last two years of EIB lending (2021 and 2022) to even out the potential impact of individual large projects on the sector pattern in a given year.

Overall, financing in the areas of **sustainable energy and natural resources** accounted for 38% of lending to cohesion regions, while **sustainable cities and regions** accounted for 28%. 20% of cohesion lending went to **innovation, digital and human capital** and the remaining 14% to **SME and mid-cap finance**.

13. These Member States are Bulgaria, Czech Republic, Estonia, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Portugal, Romania, Slovenia, Slovakia and Finland. In all of them, the share of GDP produced in cohesion regions is above 25%.

14. This "composition effect" explains why the EIB cohesion lending share (46%) is significantly above cohesion regions' share in EU GDP (35%).

Map 1 – Regions by cohesion classification



**Investment for jobs and growth goal (ERDF and ESF+) eligibility, 2021-2027**

Categories of regions

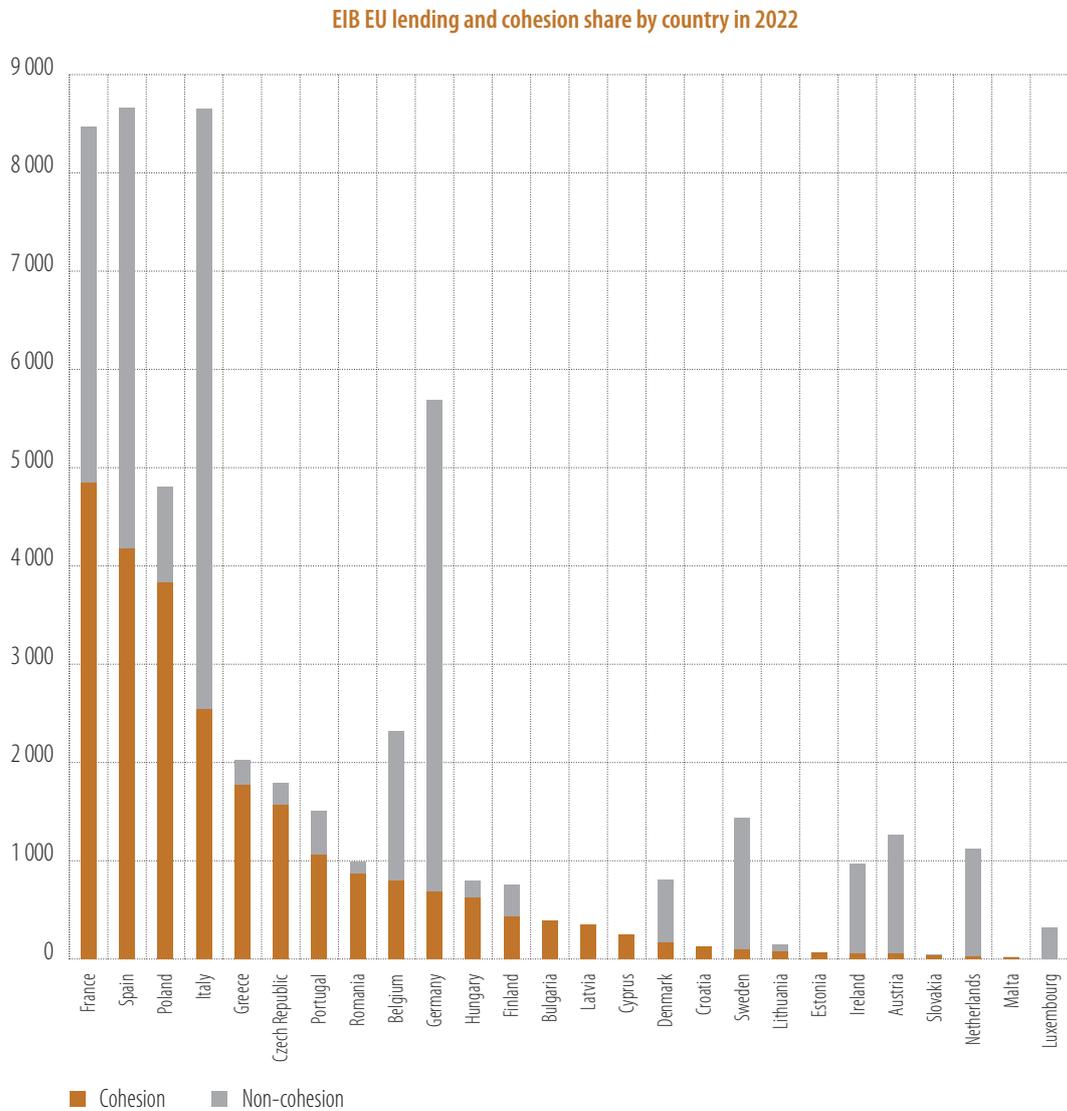
- Less developed regions (GDP/head (PPS) less than 75% of the EU-27 average)
- Transition regions (GDP/head (PPS) between 75% and 100% of the EU-27 average)
- More developed regions (GDP/head (PPS) above 100% of the EU-27 average)

GDP/head: average 2015-2016-2017

0 500 km

© EuroGeographics Association for the administrative boundaries

Figure 5 – Total EIB EU-27 lending in cohesion and non-cohesion regions in 2022

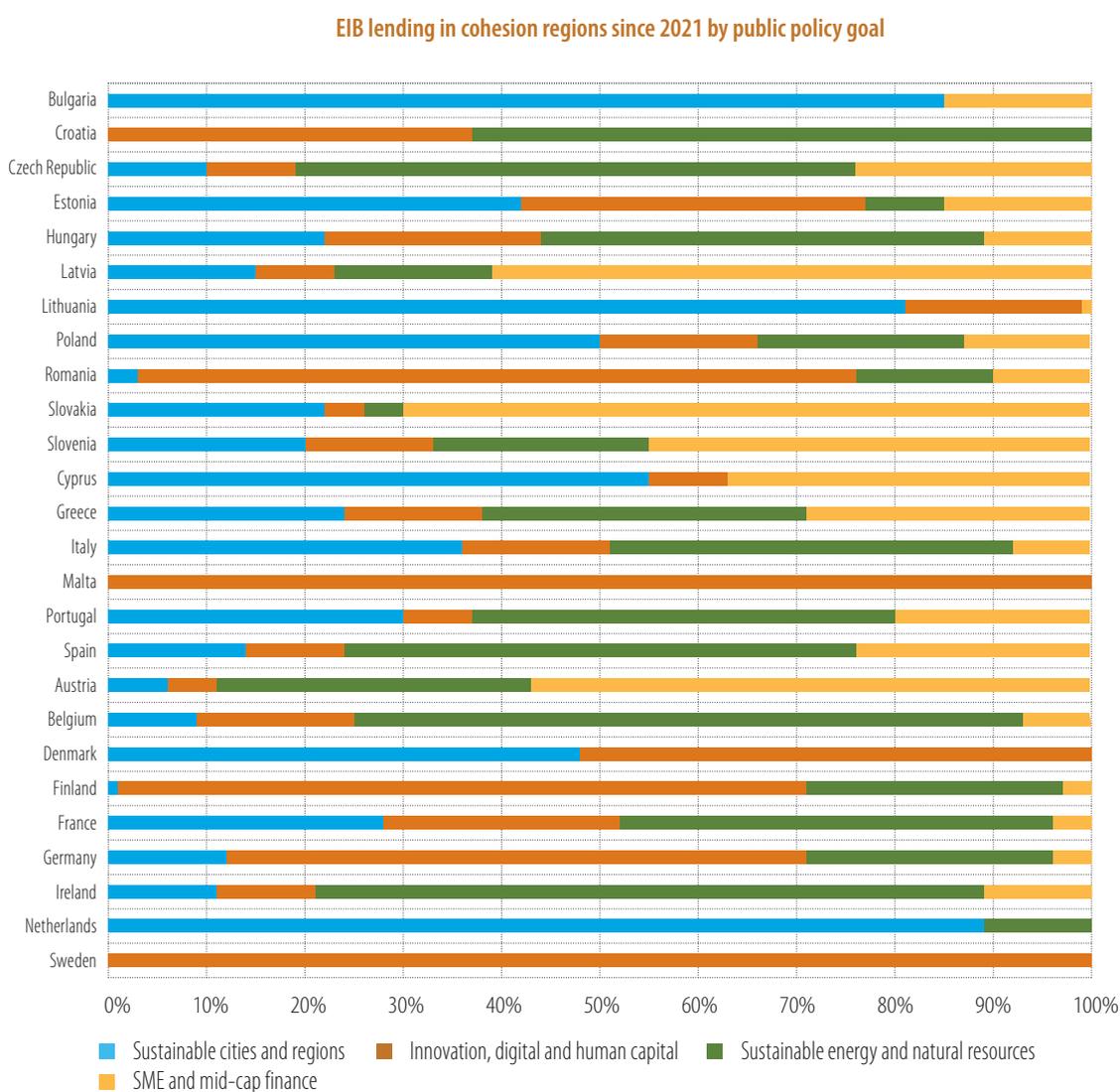


Notes: Countries are sorted in decreasing order of absolute EIB cohesion lending amounts. The cohesion percentage may be lower than 100% even in countries that are “pure” cohesion countries in the 2021-2027 programming period (i.e. all their regions are classified as either less developed or transition regions) if the EIB signed a loan approved before 2021 for projects located in regions formerly classified as more developed.

The pattern from Figure 5 above is confirmed, with **southern and eastern Member States** consisting entirely or mainly of cohesion regions absorbing high financing volumes for projects in the areas of **sustainable energy and natural resources** as well as **sustainable cities and regions**. For example, EIB lending to Bulgaria, Lithuania and Poland had a strong focus on **sustainable cities and regions** whereas the **sustainable energy and natural resources** goal was dominant in Croatia, the Czech Republic and Spain.

By contrast, EIB lending in the group of **northern and western Member States**, where more developed regions dominate, tends to be strongest for **innovation, digital and human capital**, with Sweden, Finland, Germany and Denmark being the most salient examples.

Figure 6 – Cumulative EIB lending in cohesion regions by public policy goal<sup>15</sup> since 2021



Nonetheless, some Member States have distinctive patterns. For example, Malta and Romania present very high shares of innovation, digital and human capital when compared to other cohesion region-only countries. On the other hand, the high lending shares for **sustainable energy and natural resources** in Belgium and Ireland and for **sustainable cities and regions** in Denmark and the Netherlands testify to the high need for related projects in richer Member States too.<sup>16</sup>

Concerning **SME and mid-cap finance** in cohesion lending, there appears to be no clear connection between the level of economic development of the Member State and the share of the SME goal in EIB lending. Some Member States strongly lean towards this goal, with shares above 50% notably in Latvia and Slovakia. Very low or no shares are, however, observed for Lithuania, Italy, Malta and Croatia.

15. Since results may differ substantially based on the specific business mix in each country in a given year, the figure shows cumulative data from 2021 to avoid overestimating the results of public policy goals. However, where countries only have a single public policy goal bar, this corresponds either to one EIB operation (Malta) or, in the case of Sweden, to lending to the only transition region, Norra Mellansverige.

16. However, all these counterexamples concern Member States where the sample of EIB loans for 2021 and 2022 is relatively small, meaning that a few individual projects may skew the EIB lending pattern in that country.

# IMPACT OF EIB LENDING IN COHESION REGIONS

The European Investment Bank's support for investment projects in cohesion regions over the decades has contributed to the European Union's economic development in a meaningful way. The project examples that follow help highlight what cohesion means in practice and how such projects contribute to the United Nations' Sustainable Development Goals (SDGs).

## Contribution to UN Sustainable Development Goals

The European Investment Bank has been tracking and reporting how its projects contribute to the SDGs<sup>17</sup> since 2016. Recently, the Bank expanded its reporting to give a clearer picture of the impact of its investments throughout the European Union and beyond.

The European Investment Bank's methodology for SDG reporting, in financial terms and in terms of project outputs and outcomes, is comparable to those adopted by other multilateral development banks. It defines the relationship between the Bank's detailed policy objectives, sector-specific project outputs and outcomes, and the Sustainable Development Goals. All these indicators are mapped to the appropriate goal independently of the actual projects, with each indicator mapped to up to three different SDGs. Each EIB-financed project thus contributes to all of the SDGs to which its data has been mapped through the policy objectives under which the project falls and through the sector-specific result indicators that it feeds.

The following chart gives a visual summary of the EIB's impact through the lens of its contribution to the SDGs<sup>18</sup> in Europe's cohesion regions, based on operations financed by the Bank in 2022.

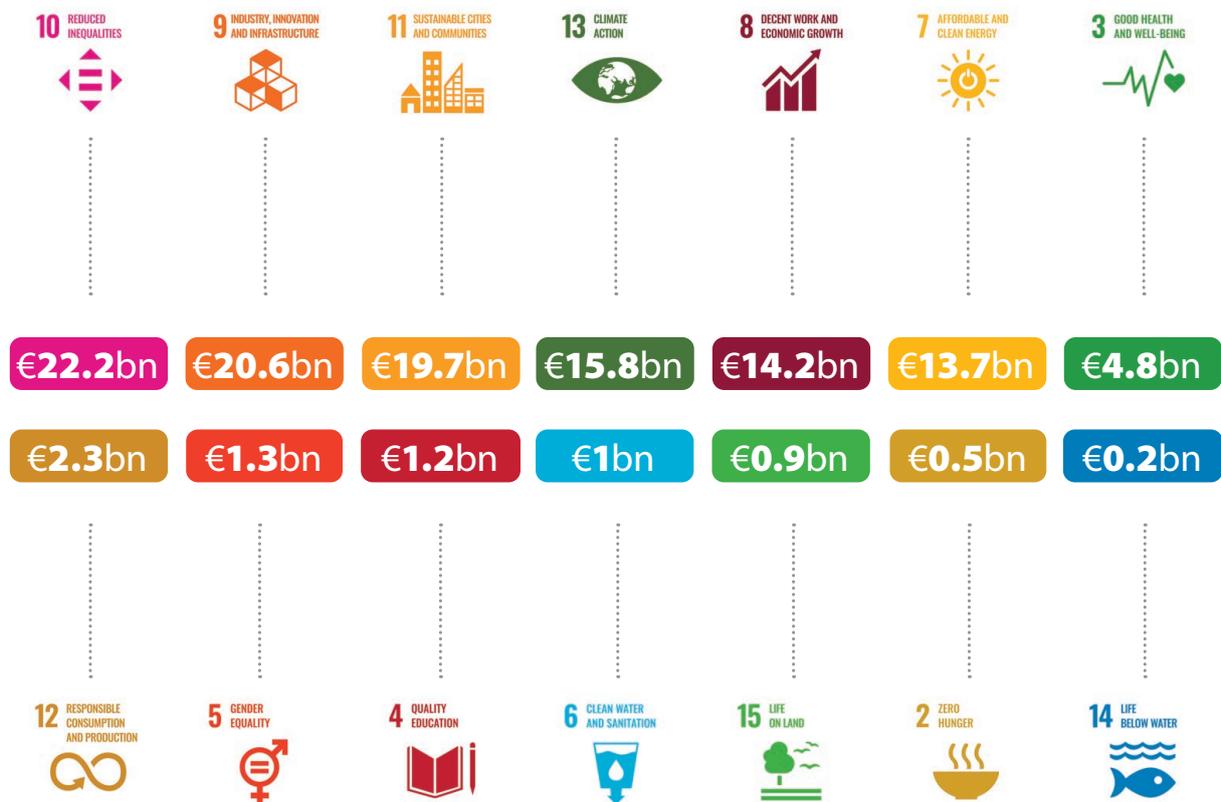
As was the case in 2021, SDG 10 (reduced inequalities) and SDG 9 (industry, innovation and infrastructure) appeared to be those supported by most EIB projects (as measured by lending volume), followed by SDG 11 (sustainable cities and communities). This is consistent with the high shares of the sustainable energy and sustainable cities policy goals in cohesion lending discussed above.<sup>19</sup> SDG 13 (climate action) and SDG 7 (affordable and clean energy) come in fourth and sixth, respectively, corroborating the earlier finding that the EU climate bank strongly supports climate action and the low-carbon energy transition in cohesion regions.

17. The United Nations' 17 Sustainable Development Goals (SDGs) provide a framework for measuring international efforts to end world poverty, protect the planet and ensure that everyone can enjoy peace and prosperity. The goals are explicitly taken into account in the formulation of all European Union policies.

18. More details can be found in [The European Investment Bank's contribution to the Sustainable Development Goals \(eib.org\)](https://www.eib.org/en/press/2023/01/eib-contribution-to-sustainable-development-goals).

19. Note that the sum of reported lending volumes across SDGs by far exceeds the EIB cohesion lending total for 2022 (€24.8 billion). This is because many EIB projects contribute to more than one SDG and a percentage breakdown of SDGs is not provided at the project level.

## EIB's financial contribution towards the UN SDGs in cohesion regions in 2022



## CLOSING INNOVATION GAPS IN EUROPE'S COHESION REGIONS

Acknowledging the vital role that innovation plays in the European Union's cohesion efforts, the 2022 EIB Group Cohesion Report highlights the Group's dedication, attention and contribution to innovation as a key enabler of the inclusive, green and digital convergence pursued across all regions of EU Member States. Drawing from research undertaken by the EIB Group in 2022 across the EU investment ecosystem and EU municipalities alike<sup>20</sup>, this section will proceed to outline a number of key challenges and gaps hindering regional convergence, and illustrate how targeted EIB Group investments in the public and the private sector foster innovation to unlock structural bottlenecks and encourage cohesion and growth.

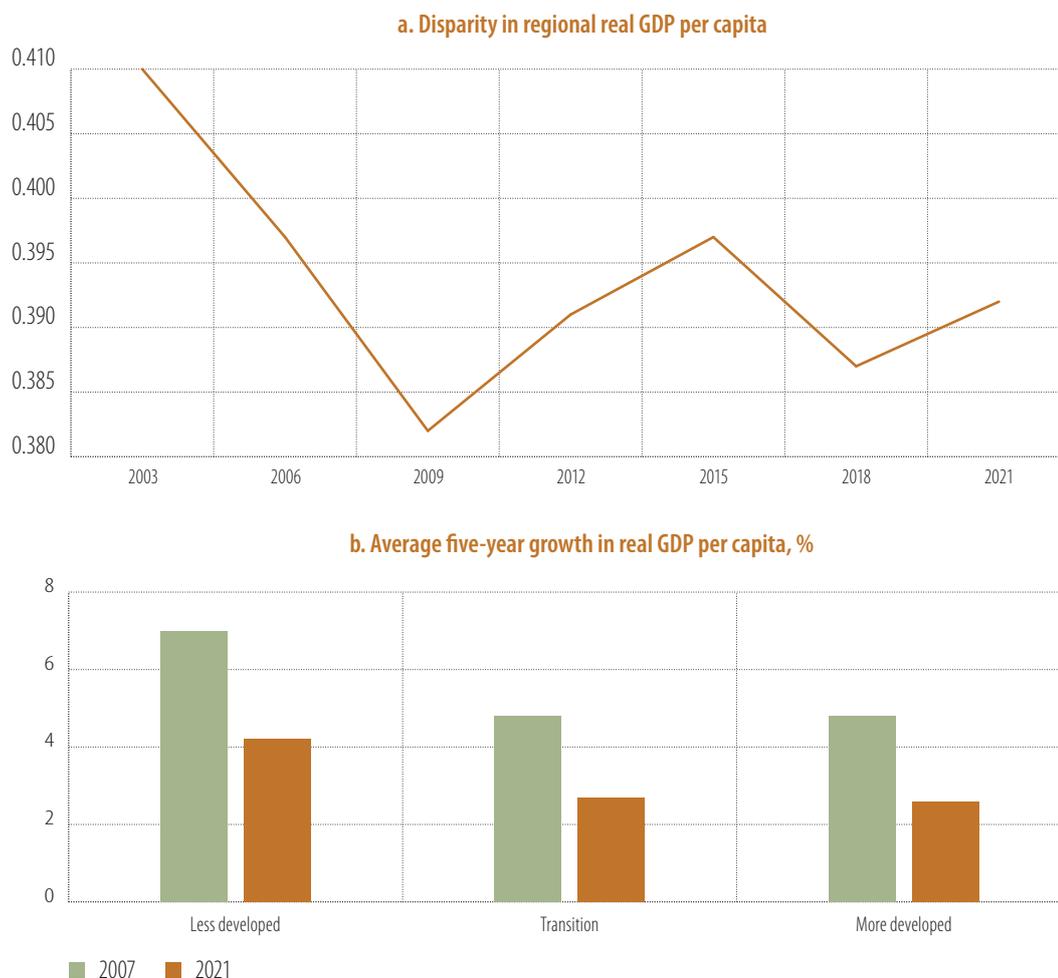


20. EIB Group Survey on Investment and Investment Finance (EIBIS) 2022.  
EIB Municipality Survey 2022.

## Greater innovation needed for stronger regional convergence

**The economic crisis triggered by the pandemic negatively affected the economic convergence of EU regions in 2020.** However, the shock from the pandemic seems to have been overcome more quickly than that of the 2009 crisis, with the gap between regional GDP narrowing again in 2021 (see Figure 7a). Less developed regions have, on average, been catching up with the rest of the European Union (see Figure 7b) but economic growth is slower than during the five-year period leading up to 2007 when cohesion regions showed strong convergence. To jumpstart growth, a key priority is for less developed and transition regions to improve their capacity to innovate.

Figure 7 – Evolution of regional real GDP

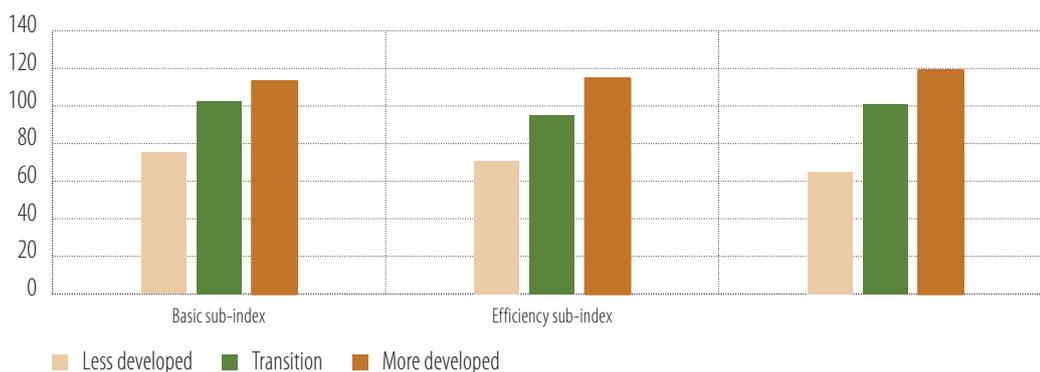


Source: EIB Economics Department calculations based on Eurostat.

Notes: Figure (a) shows the dispersion of gross domestic product (GDP) per capita at purchasing power standard prices by NUTS 2 regions in the EU-27 compared to the average (the coefficient of variation). Figure (b) shows the average annual growth rates in real GDP per capita per region type, i.e. less developed, transition and more developed, as classified for the programming period 2021-2027.

**Innovation is critical to closing the economic output gap between EU regions.** The 2022 Regional Competitiveness Index (RCI) shows that there are still large differences between EU regions in each subcategory, such as basic institutional factors, market efficiency and innovation (Figure 8). The category with the widest gap is the capacity to innovate, where less developed regions score only half as well as more developed ones.

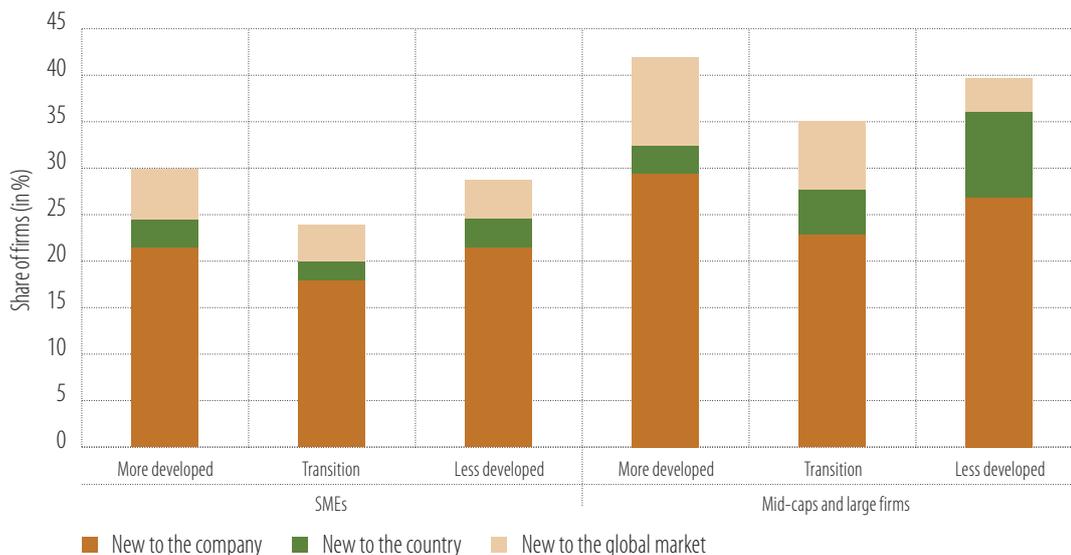
**Figure 8 – Regional competitiveness, standardised scale**



Source: EIB Economics Department calculations based on the EU Regional Competitiveness Index 2.0 by NUTS 2 regions in the EU-27.  
 Notes: Methodological details behind the EU Regional Competitiveness Index 2.0 are available at: [https://ec.europa.eu/regional\\_policy/information-sources/maps/regional-competitiveness\\_en](https://ec.europa.eu/regional_policy/information-sources/maps/regional-competitiveness_en).

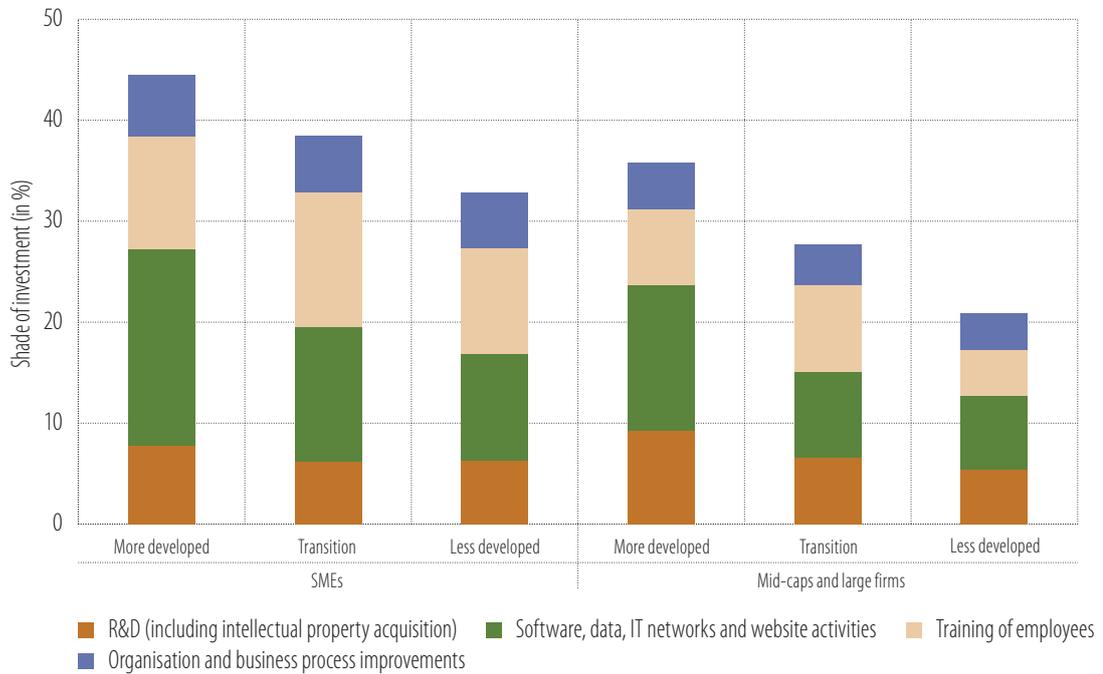
**Firms in transition and less developed regions are trailing behind in innovation.** Although larger firms across all regions tend to be more innovative, those in less developed regions adopt significantly fewer innovations that are new to the global market compared to their counterparts in other regions (see Figure 9). Furthermore, these larger firms in less developed regions have invested the least in intangible assets, including critical categories such as digital infrastructure (software, data, IT network and website activities) and employee training (see Figure 10).

**Figure 9 – Types of innovation adopted, by firm size (in %)**



Base: All firms (including don't know/refused to answer).  
 Source: EIB Group Survey on Investment and Investment Finance (EIBIS) 2022.

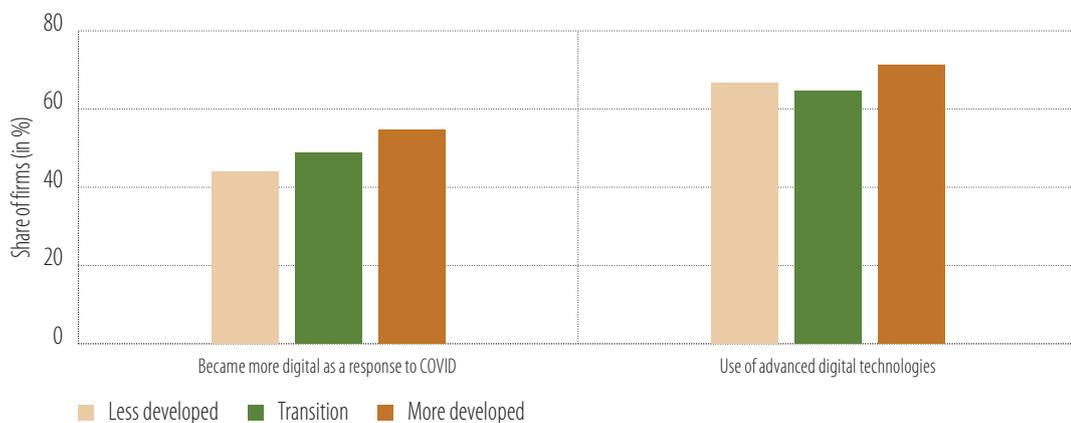
**Figure 10 – Firms’ investment in intangible assets (in %)**



Base: All firms that invested in the last financial year, excluding don't know/refused to answer.  
Source: EIBIS 2022.

**The proportion of firms in less developed regions that have embraced digitalisation in response to the pandemic is lower than in other regions.** Less developed and transition regions fell behind in terms of becoming more digital in response to COVID (see Figure 11), affecting their ability to withstand the impact on their activity. The differences in the rates at which firms adopt digital technologies across regions are partly due to differences in size, since firms tend to be larger in more developed regions, and large firms tend to digitalise faster. The disparity is less pronounced when it comes to adopting more advanced digital technologies such as 3-D printing, advanced robotics, the internet of things, big data analytics and artificial intelligence, drones, augmented and virtual reality, and platforms. The share of firms implementing these technologies has increased substantially since 2019, though smaller firms are in a much weaker position to adopt these newer technologies.

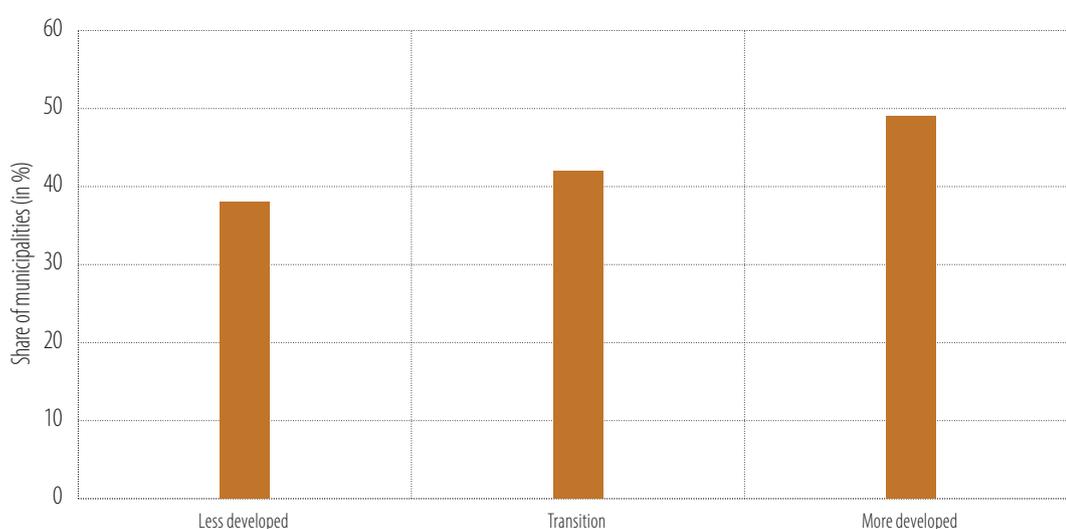
**Figure 11 – Use of advanced digital technologies and becoming more digital as a response to COVID (in %)**



Base: All firms (excluding don't know/refused to answer).  
Source: EIBIS 2022.

**Municipalities in less developed and transition regions have implemented fewer digitalisation measures compared to their counterparts in other regions.** They are also less likely to have implemented at least three of the five digital measures that the EIB Municipality Survey inquired about (see Figure 12). These are integrity/protection of IT systems; provision of digital/online government services; systematic assessment of adequacy of municipal digital infrastructure; deployment/use of remote sensors; and dedicated staff working on digitalisation plans. The proportion of municipalities that have cybersecurity measures in place is substantially lower in less developed regions than in the other regions. An increase in digitalisation efforts is needed to facilitate economic activity in regions that are lagging behind.

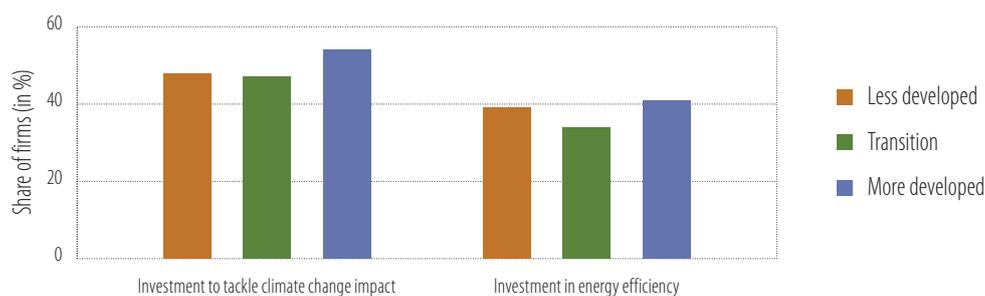
**Figure 12 – Share of municipalities that have adopted at least three digital measures (in %)**



Base: All municipalities (excluding don't know/refused to answer).  
Source: EIB Municipality Survey 2022.

**When it comes to green innovation, a lower proportion of firms in less developed and transition regions are addressing climate change risks.** Specifically, fewer firms in these regions are investing in measures to address the impact of weather events and reduce carbon emissions. Additionally, firms in these regions are less likely to have invested in sustainable transport or to have implemented climate adaptation strategies. Firms in transition regions are also the least likely to have implemented energy efficiency measures (see Figure 13).

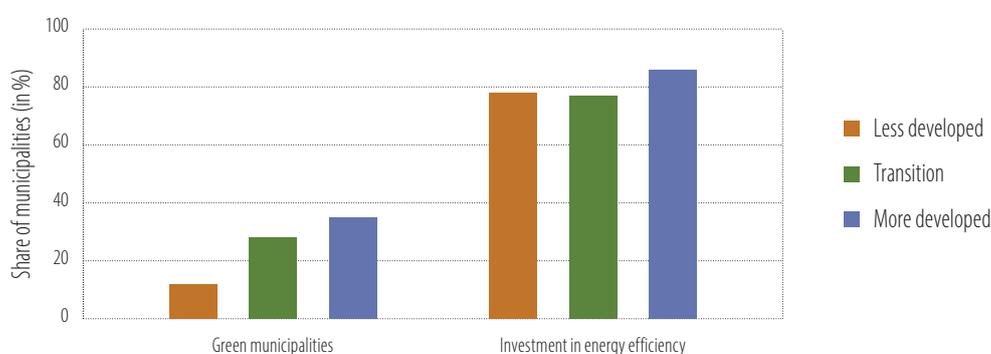
**Figure 13 – Investment to tackle climate change impact and investment in measures to improve energy efficiency (% of firms)**



Base: All firms (excluding don't know/refused to answer).  
Source: EIBIS 2022.

**Similarly, a lower share of municipalities in less developed and transition regions have invested in environmental or sustainable measures.** Municipalities in less developed regions are the least likely to be classified as “green”, meaning that they are less likely to have implemented at least three out of the five green measures mentioned in the EIB Municipality Survey (see Figure 14). These green measures are green budgeting, circular economy activities, systematic assessment of the energy efficiency of municipality assets, systematic assessment of municipality assets for resilience to climate change, and dedicated staff working on climate change plans. While 43% of municipalities in less developed regions have not implemented even one of the five green measures that the survey inquired about, 31% of municipalities in transition regions and 24% of municipalities in high-income regions have not implemented any of them. The proportion of municipalities that have invested in energy efficiency is highest in more developed regions. However, the proportion of municipalities that have invested in energy efficiency is still quite high and very similar in less developed and transition regions.

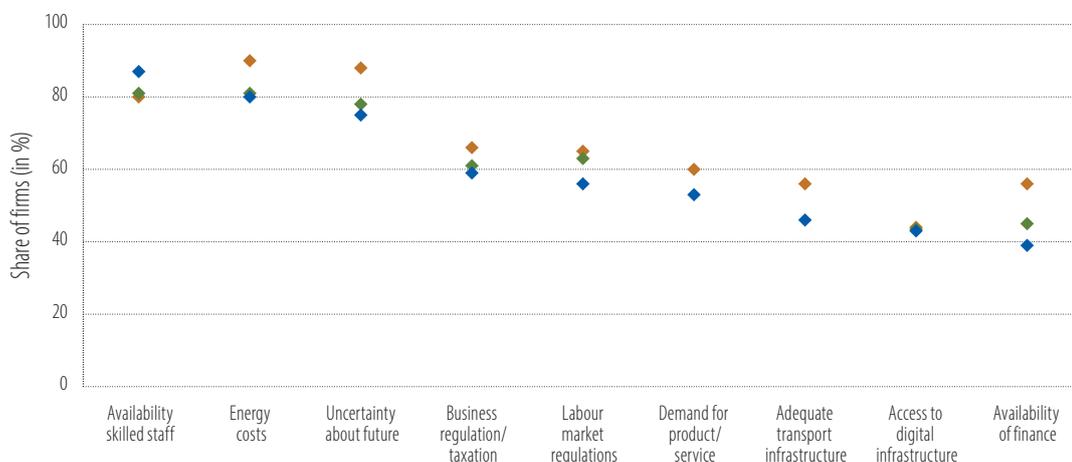
**Figure 14 – Green municipalities and municipalities investing in energy efficiency of municipal assets/social housing (% of municipalities)**



Base: All municipalities (excluding don't know/refused to answer).  
Source: EIB Municipality Survey 2022.

**Barriers to investment remain high in less developed and transition regions.** While firms across the European Union report that limited availability of skilled staff and high energy costs are the main investment obstacles, firms in less developed regions face a greater number of factors that they consider investment barriers than firms in other regions (see Figure 15). This suggests that firms in less developed regions operate in a more challenging business environment.

**Figure 15 – Firms’ long-term barriers to investment (in %)**

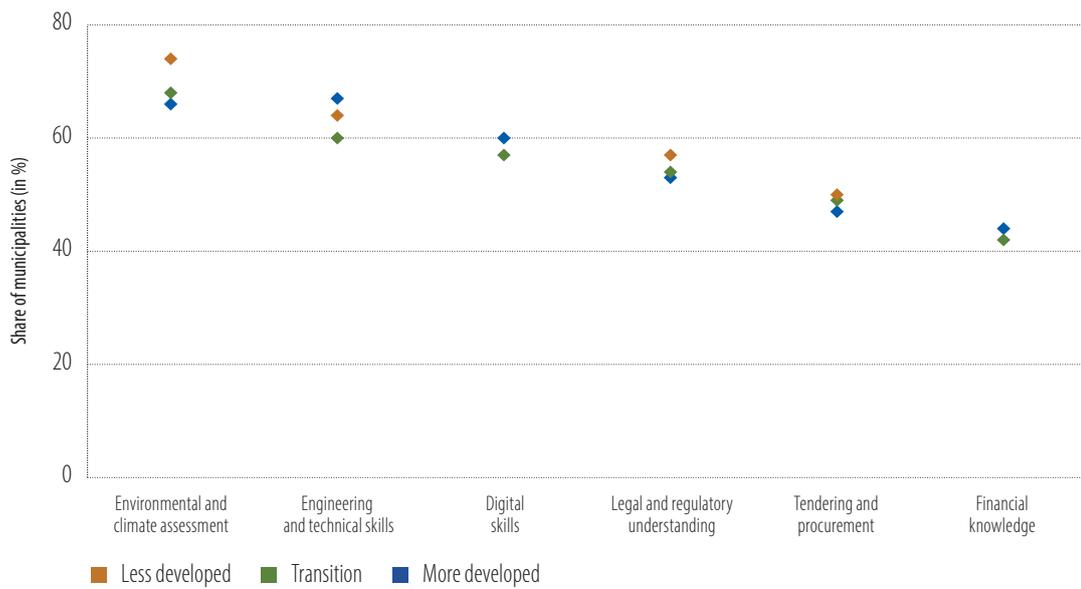


Base: All firms (data not shown for those that said not an obstacle at all/don't know/refused to answer).  
Source: EIBIS 2022.

**Skills are a large constraint to implementing investment programmes in these regions.**

Municipalities throughout the European Union share firms' concerns about the availability of skilled staff and identify it as one of the main barriers to implementing their investment plans, along with supply chain constraints. Accessing experts with environmental and climate assessment skills is reportedly the most challenging, with one-third of municipalities in less developed regions considering it a major obstacle to the implementation of their investment plans. This proportion is marginally lower in municipalities in more developed and transition regions. Approximately two-thirds of municipalities in more developed regions perceive access to experts with engineering or technical skills as problematic. This perception is slightly lower in less developed regions and transition ones (see Figure 16). Municipalities in less developed regions are more pessimistic about two demographic trends that could further exacerbate the scarcity of skilled labour: outward migration and population ageing.

**Figure 16 – For each of the following areas, to what extent is access to experts a major/minor problem to the delivery of your municipality's investment programme (in %)**



Base: All municipalities (excluding don't know/refused to answer).  
Source: EIB Municipality Survey 2022.

## Boosting innovation in Europe's cohesion regions

**Innovation is a key driver of growth and competitiveness and a strategic priority for both national and EU policies.** Although the approach towards innovation is very different across countries and economic sectors, one of the common factors to accelerate and stimulate innovation at scale is the existence of **a supportive ecosystem providing adequate infrastructure.** Such ecosystems also allow for spillover effects and catalyse further innovation through collaboration and partnerships between different entities along the full value chain and across different sectors. Strong innovation ecosystems include enabling infrastructure, such as connectivity, and very importantly, a skilled workforce with technical and technological knowledge of the industry able to introduce innovations in systems and processes that can then enable wide-ranging and transformative changes.

**Investments in innovation-enabling infrastructure usually involve strengthening physical capital allocation** — i.e. investment in tangible assets that are the foundations for innovation — which allow for investments in intangible assets to happen at a later stage. According to the European Investment Bank's Investment Survey (EIBIS) 2022, investment in intangibles, such as research and development (R&D), training, improving processes or software and IT is lagging behind in less developed regions and transition regions compared to more developed regions. Higher innovation in non-cohesion regions entail higher spillover effects, as many knowledge-intensive activities tend to cluster around innovation hubs.

**Relying on an adequate and supportive operating environment — including access to finance — can be a determining factor** and even a game-changer for companies to grow and for the wider ecosystem to develop further. The EIBIS (2022) shows that large firms tend to innovate more than small and medium businesses. Indeed, as companies wish to expand their activities into new markets — either geographically, to new client segments or to broaden their product range — innovation becomes more relevant and crucial for their survival in a more competitive environment.

EIB action in support of the **innovation, digital and human capital** public policy goal mirrors the patterns described above and also reflects changing realities and different financing needs. As a matter of fact, the distribution of such financing across countries and regions shows the Bank's capacity to accommodate different development stages and economic structures thanks to a strong value proposition and product offering.

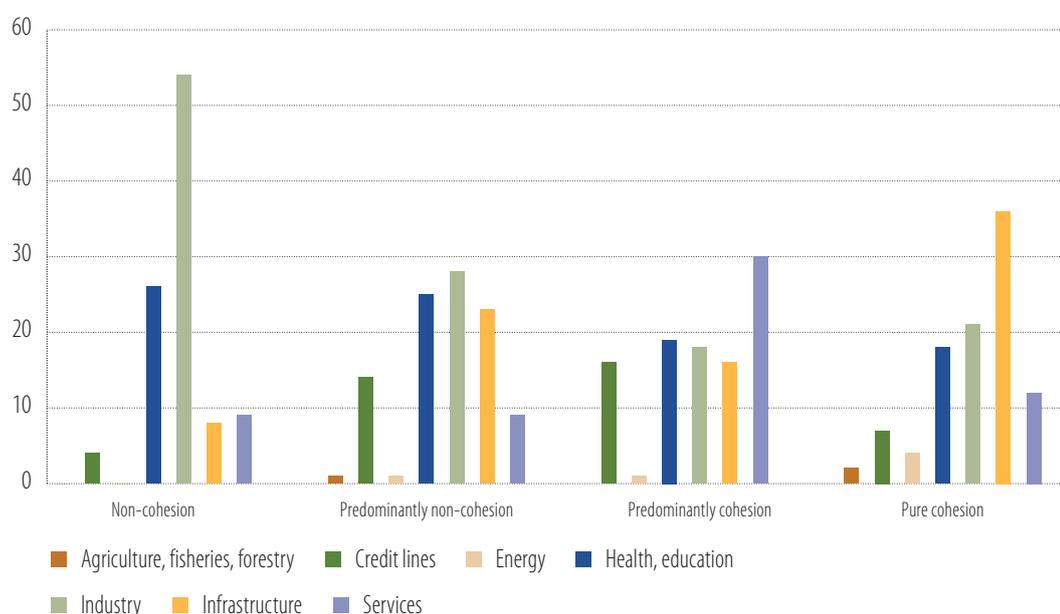
In cohesion regions, EIB action is mostly focused on putting in place the key elements for an innovation-supportive ecosystem. As evidenced in Figure 17 below, projects contributing to the **innovation, digital and human capital** public policy goal in "pure" cohesion countries<sup>21</sup> have a strong infrastructure component (e.g. composite infrastructure, transport and fibre access network), with a positive impact on the destination country's/region's capital allocation and, hence, on its growth potential and ability to compete in wider markets.

As we move away from "pure" cohesion countries, EIB financing for **innovation, digital and human capital** tends to be increasingly concentrated around industry and manufacturing, with intangible investments in the development and deployment of advanced manufacturing and innovation being predominant. What also stands out is the high share of financing in the area of (academic) research (included in the category of "services" in the graph below), especially for the "predominantly cohesion" countries.

The versatility and flexibility of EIB financing to adapt to different stages also shows the Bank's strong capacity to accommodate evolving needs and support the modernisation and convergence process of cohesion regions. The next section showcases the various areas of intervention through which the EIB helps to promote innovation in cohesion regions.

21. Countries where all territories are classified as less developed or transition regions on the 2021-2027 cohesion map.

**Figure 17 – Innovation, digital and human capital finance by sector in different cohesion type countries (Percentage of total investment in the public policy goal), 2015-2022**



## Public sector R&D and research infrastructure

Public R&D and research infrastructure are important catalysts both for European research excellence and for a more equitable distribution of innovation-led growth across EU regions. Public R&D provides a foundation upon which competitive private sector R&D and innovation can grow. Notable progress can be observed in some areas, while challenges remain in others. Poland, Slovenia, the Czech Republic and Portugal, for example, have made visible progress in elevating their economy-wide R&D intensities in recent years.

The EIB's focus on regions with poor innovation capacity is reflected in the 46% share of its public R&D projects that are located in cohesion regions. Europe still lags behind some of its main competitors, however, with regard to the research intensity of its workforce, and R&D and innovation performance across EU Member States remains very mixed. Horizon Europe<sup>22</sup> aims to address these priorities by supporting broader participation and equitable, widespread research excellence, and strengthening the European Research Area<sup>23</sup>. In support of these policy objectives, the EIB will continue focusing on the following key areas and priorities:

- **Public sector R&D facilities** and activities, which includes investments in university campuses and equipment, salaries of qualified research personnel for the time dedicated to research, and grants competitively awarded for research.
- **Research infrastructure**, which includes facilities used by the scientific community. Research infrastructure is often international in nature, which makes it essential for the EU research ecosystem. It serves as a catalyst for common research programmes and allows resources to be shared to foster interaction between public and private entities.

22. [Horizon Europe \(europea.eu\)](https://europea.eu).

23. [European research area \(europea.eu\)](https://europea.eu).

- **Science and technology parks** and other technology transfer infrastructure, including digital innovation hubs to support innovation and the effective deployment of scientific research in the wider economy. Priority is given to (i) supporting excellent research in order to make the European Union's research and innovation system more competitive on a global scale; (ii) alleviating the territorial polarisation of R&D and innovation, which limits the European Union's overall innovation potential and innovation-led convergence; and (iii) public research related to climate action.

## Business sector R&D and innovation

The Group's lending for business sector R&D, innovation and digitalisation is widely distributed across industries and countries. In addition to upstream, early-stage corporate R&D, the Bank also supports the demonstration and first commercial deployment of socially beneficial breakthrough technologies and the digital transformation of industry going beyond the state of the art when market failures result in suboptimal investment situations relative to what is optimal for society. The following areas are prioritised in the EIB's lending to business sector R&D, innovation and digitalisation:

- **Development and deployment of breakthrough low-carbon and circular economy technologies:** In line with its Climate Bank Roadmap, the EIB focuses on innovation supporting deep decarbonisation of the energy, industry and transport sectors, while also financing training and reskilling for workers so that they can contribute to and function within a climate-neutral economy.
- **Experimental business innovation based on the development and deployment of transformative digital technologies:** These include the industrial internet of things, semiconductors, data collection and analysis, cloud computing, artificial intelligence, blockchain technology, quantum technologies, digital manufacturing and simulations, actuators, robotics, predictive maintenance, cyber-physical systems, etc.
- **Resilience of strategic industries:** One example is semiconductor manufacturing. The European Union is highly dependent on imported semiconductors and needs to strengthen its domestic manufacturing capacity to reduce its vulnerability to supply disruptions such as those that occurred during the COVID-19 pandemic and in light of geopolitical tensions.
- **Development of new innovative drugs and innovative new medical technologies:** These need to be safe, efficient, easy to use and affordable. Prioritised projects are those that address global health challenges by providing novel insights into severe diseases; provide opportunities to fulfil unmet medical needs; have a significant impact on quality of life; support technology transfer from universities into new businesses; foster the creation of European intellectual property and provide and disseminate novel scientific insights and knowledge.
- **Support for highly innovative small and medium enterprises:** In particular, those in life sciences, digital technology and transformation, and industries supporting the development and deployment of low-carbon technologies across all industry sectors. Whether through direct financing in the form of quasi equity/venture debt (on the basis of EU budget-financed risk-sharing arrangements), or through intermediated lending or funds, the EIB Group has been able to and will continue to support an important category of players in the innovation chain: small and medium businesses, and most notably startups. Such companies often take the lead in the development, validation and testing of trailblazing innovative technologies, which can then be further developed and commercialised either on their own or in partnership with more established players. However, these typically young, small and innovative startups carry most of the risks (and investment burden) in the early stages of the innovation process; risks that larger incumbents are often either unwilling to bear or organisationally less well equipped to manage. Startups are typically well placed to develop radical innovations.

## Supporting the digital transformation of Europe's cohesion regions

Broad-based digital infrastructure across Europe is a key precondition for all regions to reap the benefits of the digital economy. These benefits, if obtained, can be substantial. In areas such as health, education, communication and financial services, digitalisation can help provide crucial high value-added services to regions that have been underserved when dependent on physical service provision. Having access to high-capacity digital infrastructure and digital services is also the foundation for digital entrepreneurship, where reliable connectivity can allow regional firms to address a wider market. Digitalisation can help better connect less developed and transition regions to infrastructure, services and job markets that are geographically removed. Services such as e-commerce have also been shown to allow smaller entrepreneurs to access larger markets with smaller upfront investments in marketing and distribution. Remote working allows companies to draw on pools of skilled labour in regions where job opportunities are lacking.

A successful digital transformation requires a combination of several reinforcing factors. First, for the digital transformation to be successful, it needs to be inclusive, both socially and geographically. A digital revolution that leaves large segments of the population and industry trailing only widens the digital divide. This has consequences for how the EIB views the financing of digital infrastructure, which in particular aims to support the **expansion of high and very high capacity fixed and mobile networks to all regions**. In addition, when it comes to supporting the digitalisation of small and medium businesses there is still a very substantial digital divide. To **encourage the wider adoption of digitalisation among such companies, especially in cohesion regions**, a supportive policy framework needs to be in place, both at EU and Member State level. In addition to financing, this includes technical and financial advisory services and the creation of ecosystems for local knowledge sharing, such as digital innovation hubs.

Second, **digital innovation is greatly enabled by having a suitably skilled labour force**. Digital transformation is a skill-dependent enabler of innovation. Leading larger firms in particular have a greater concentration of the skills required and are also typically the ones that are ahead in terms of digitalisation. There is therefore a great need to adopt a wider and more inclusive approach to digital skills formation, so that a pool of workers with at least basic digital skills are available to small and medium businesses as well. Finally, there is widespread concern that digitalisation will destroy jobs, and indeed empirical evidence suggests that some cohesion regions have an industrial composition that is particularly exposed to these risks. At the same time, if the necessary reskilling for the digital economy can be achieved, and the necessary investments made, this will give rise to new jobs and new business opportunities. Because of their ability to overcome barriers of distance, digital transformation and digital connectivity are particularly important for cohesion regions as they allow them to connect to wider markets, not just for goods and services, but also for jobs.

Digitalisation is already a prominent feature in all areas of the EIB's integrated support package, which includes investment as well as technical and financial advisory services. With a foundation in digital infrastructure and the deployment of digital technology in industry and services, digitalisation can facilitate revolutionary transformations in R&D methodology and the provision of healthcare services and education. It is also an important component in transforming the energy system with the smart grids and smart buildings necessary for a higher share of energy coming from intermittent renewables. In short, digital technologies are vital for the green revolution and the two go hand in hand in a twin transition.

## The EIB's focus on innovation-enabling digital infrastructure and skills

European digital infrastructure lags behind the leading regions of the world. In terms of mobile networks, there are pronounced differences across regions. In 2019, 4G as a percentage of total subscriptions was only 42% in Central and Eastern Europe. But even Western Europe, with a 69% 4G share, lagged behind Northeast Asia (88%) and North America (91%). The rollout of 5G has also not been very brisk. As of the fourth quarter of 2019, only 1% of 4G sites had been upgraded to 5G across the EU-27, compared to 98% in South Korea and 7% in the United States. The rollout of 5G in China also appears to be more advanced than in Europe. By 2025, Western European investment in 5G is expected to represent just 9% of the global total, compared to South Korea's 7%, 23% for the United States and 45% for China. As with other technologies, there are first-mover advantages in scaling up early, and countries that take the lead in rolling out 5G are also more likely to retain technological leadership, including in downstream innovation that builds on the 5G infrastructure.

Underinvestment is particularly evident in rural areas and less developed regions, contributing to the digital divide. The slow rollout of 5G technologies and very high capacity fixed networks threatens to aggravate the situation, justifying the need for EIB intervention. The EIB supports **investments in 5G mobile networks** in line with the EU-wide broadband connectivity targets of the Digital Compass 2030. The Bank has also partnered with the European Commission through the Connecting Europe Facility, in establishing the Connecting Europe Broadband Fund, which targets **smaller rural broadband initiatives to support digital inclusion**.

There is a large gap between urban and rural areas when it comes to very high capacity fixed network coverage, which underlines the regional disparities in digital opportunities. Less densely populated, rural areas typically suffer from an imbalance between high upfront investment costs and limited cash flows from a lower number of consumers. Because of this lack of commercial viability, private investors are often reluctant to invest in projects in rural areas, which deepens the digital divide. The EIB also addresses the digital divide directly by supporting **very high capacity network projects with rural components across the European Union**. It does this through a number of different financial instruments, including direct blended lending, project finance structures or co-financing with regional subsidy plans initiated by Member States. One of many examples of such support can be found in **Poland**, where the EIB financed **Nexera** for the rural fixed high-capacity network rollout in five regions in the country.

An important complement to the EIB's digital infrastructure projects is its **support for reskilling and upskilling the population for the digital transition**. We know from the EIB Investment Survey<sup>24</sup> that a shortage of digital skills is one of the key impediments to the growth of digitally enabled companies. The gap is clearly visible between large urban centres and rural areas. But the digital divide is not just regional. It is also very much present across the social spectrum. As the digital transition progresses and new jobs increasingly require at least a basic level of digital skills, this threatens to widen income inequality further between the higher and the lower educated segments of the population. Investing in digital skills, purposefully integrated in school curricula, as well as in the knowledge and skills of teachers, is essential to tackling the digital divide. The EIB is very keen to support investments and provide advisory services related to the digital strategies of education providers and governments, as part of a more comprehensive strategy to align education systems with the ambitions of the twin transition.

24. EIB Investment Survey for 2022.

## Working with the Cohesion Policy Funds to address the digital divide

In the area of Cohesion Policy Funds, the EIB has provided support to countless small and medium businesses in cohesion regions by managing **decentralised financial instruments (DFIs)**, which typically target small and medium firms in the early, growth or international expansion phases, or in specific sectors such as agriculture. In addition, the EIB is co-financing the public-sector endowment of decentralised financial instruments supported by Cohesion Policy Funds in the context of structural programme loans. Demand for decentralised SME guarantee instruments tends to be stronger from poorer regions than from wealthier ones. Looking ahead, “enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments” is among the specific objectives of the European Regional Development Fund (ERDF)<sup>25</sup>.

Through their redistributive nature, Cohesion Policy Funds help level the playing field between the less developed and richer regions of the European Union. In many lower-income Member States and less developed regions, the EIB has facilitated the implementation of investments under the funds by **co-financing the national co-financing obligations**, including for the “Smarter Europe” objective that includes investments in ICT and digitalisation. In this way, **local e-administration and ICT projects with municipalities and provincial administrations** have received funding from both the European Union and the EIB.

The EIB’s **structural programme loans** will continue to support the implementation of the respective operational programmes. Over and above the redistributive impact that the allocation of Cohesion Policy Funds has across regions, the “**Smarter Europe**” objective, which groups together support for R&D, innovation, digitisation, ICT and small and medium enterprises, occupies centre stage within the European Regional Development Fund through “thematic-concentration” obligations. This means that less developed regions need to use at least 35% of their allocations from the fund for “Smarter Europe” investments. Looking ahead, “reaping the benefits of digitisation for citizens, companies, research organisations and public authorities” is one of the specific objectives of the fund<sup>26</sup> in the EU programming period 2021-2027. The EIB will continue to support the European Regional Development Fund programmes through structural programme loans, the Bank’s well-tested EU fund co-financing instrument.

EIB support for digitalisation is also provided through **intermediated lending for the digitalisation of technology adopters** among small and medium firms and mid-caps to help meet the European Union’s target under the Digital Compass 2030<sup>27</sup> of 90% of companies in this segment attaining at least a basic level of digitalisation. This objective is pursued in alignment with the EIB’s support for the enabling environment, especially digital infrastructure, and for innovative small and medium businesses and mid-caps, which tend to generate demonstration and spillover effects by encouraging technology adopters to accelerate the pace of their digital transformation. For this purpose, the EIB can leverage its intermediated financing in tandem with additional financial or non-financial incentives such as advisory services offered by digital hubs to financial intermediaries to build viable pipelines, especially in countries that have identified SME/mid-cap digitalisation as a priority under their NextGenerationEU Recovery and Resilience Plans.

25. See ERDF Regulation 2021/1058, Art. 3.1 (iii).

26. See ERDF Regulation 2021/1058, Art. 3.1 (ii).

27. EUR-Lex - 52021DC0118 - EN - EUR-Lex (europa.eu).

The EIB's advisory services have undertaken extensive work on the challenges and opportunities of digitalisation across Europe with a specific focus on regions in Central, Eastern and South-Eastern Europe (CESEE), which are mostly cohesion regions. The gap between digital natives and digital adopters has in particular been studied through the EIB advisory services report on [Digital innovation and scale-ups in Central, Eastern and South-Eastern Europe](#), which highlights the need for, on the one hand, dedicated financial support, but also the need to complement it with technical and advisory support. The aim is to help countries in the CESEE region to develop innovation programmes that help digital startups succeed and support the wider adoption of digital technologies.

The report looks at the level of digitalisation across the private sector and makes recommendations in terms of financial and technical support to overcome the challenges. In addition, it includes some specific country case studies to assess the technology transfer capabilities of one country and the level of digitalisation of small and medium businesses in another, providing insights and lessons that could be appropriate for other cohesion regions.

There is an opportunity to close the digitalisation gap through broad-based investment, which is not only a question of investing in digital technologies per se, but in the convergence of digital with traditional 'physical' technologies. Digital technology cannot prosper in isolation, in particular because of the link between, on the one hand, digital deployment, and on the other, digital skills and inclusive access to infrastructure across sectors, firms and individuals.

Effectively embracing this opportunity also requires striking the right balance between technology development and diffusion, which both vie for scarce economic and human resources. It has been observed that, while the United States is a global leader as an ICT producer, this sector makes use of economic and human resources to an extent that may starve the ICT-using sectors of the economy of resources needed to reap the full benefits from digitalisation. Europe's ICT-producing economy is notably smaller, allowing for greater diffusion of scarce human and other resources across ICT-using sectors, broadening the productivity gains from digitalisation throughout the EU ecosystem.

The economic impact of investing in innovation and digital transformation would be stunted without the necessary human capital, in the form of a healthy and relevantly educated and trained working population. A healthy and better educated population not only contributes to innovation and growth; it is also more resilient in the wake of technological transformation and global health crises. Carefully considering social inclusion is also essential in this context, for building up human capital across socioeconomic groups and characteristics (e.g. gender, age, ethnicity) or geographical location (regional cohesion). The EIB will continue to finance innovation in life sciences (pharmaceuticals, vaccines, medical technology, diagnostics), health infrastructure and education projects in accordance with the objectives of the European Education Area, the Digital Education Action Plan, Horizon Europe and the EU4Health programme launched in the wake of the COVID-19 pandemic. Increased emphasis will also be given to gender equality and the economic empowerment of women, recognising that gender equality and equal access to financing is essential for maximising the effective use of human capital and for inclusive economic growth.

As was highlighted in the EIB report on digital innovation and scale-ups in Central, Eastern and South-Eastern Europe, access to finance and ecosystem development gaps can and should be addressed at different levels from local to global. In the context of the European Union, it is especially important to acknowledge the role that each Member State has in terms of its responsibility and competence to provide financing opportunities and develop its own national digital ecosystem. The recommendations of this study will help to inform their work and propose the design of financial and non-financial products offered by the European Commission incorporating EU-level institutions.

A study by the EIB's advisory services on access-to-finance conditions for [digital innovation hubs](#)<sup>28</sup> highlights how the propensity to digitalise and the digital maturity of small and medium businesses is not only affected by financial factors (access to finance) but also by non-financial factors (knowledge and ambition to digitalise). In particular, the study shows the crucial role of digital innovation hubs and the wider ecosystem in supporting the digitalisation of such companies. Many digital innovation hubs have taken rapid action to respond to the COVID-19 crisis and better help small and medium firms in the current circumstances.

28. [Financing the digitalisation of small and medium-sized enterprises: The enabling role of digital innovation hubs \(eib.org\)](#).

# SECTOR-SPECIFIC PROJECT RESULTS AND CASE STUDIES

The following pages present a selection of key sector-specific project result indicators for operations that were signed in 2022<sup>29</sup>. These figures represent concrete, sector-specific measures of project outputs and outcomes, expressed in physical units (such as the number of people receiving improved healthcare, or benefiting from safer drinking water, etc.)<sup>30</sup> and are based on data gathered at appraisal for each project located in a cohesion region.

## EMPLOYMENT DURING PROJECT CONSTRUCTION AND OPERATION

EIB operations achieve both temporary and permanent effects on employment. Temporary employment is associated with the implementation phase of projects. For example, investment in new urban infrastructure, schools or flood defences will lead to the employment of construction workers in a given region during the construction period. New operations signed by the Bank in cohesion regions in 2022 are expected to generate employment of about 432 500 person-year equivalent over the period of their implementation.

The second type of direct employment effect concerns new permanent jobs during a project's operational phase. For example, a project to develop new transport infrastructure such as a rail connection will almost certainly mean recruiting additional staff to maintain the infrastructure or to operate the equipment using the new infrastructure. The new operations signed for projects in cohesion regions in 2022 are expected to generate over 9 000 full-time equivalent jobs.

Projects supported by the Bank can also generate significant indirect or induced employment effects. Continuing with the railway example, new jobs may be created in the local economy because firms are able to trade more cost-effectively with key markets elsewhere. Similar types of effects can be found in the fields of innovation and skills, and the environment. For example, EIB investment in small and medium enterprises should enable them to innovate and grow, thereby creating new job opportunities. Although more difficult to measure, it is the longer-term direct and indirect or induced employment effects arising from EIB-financed operations that are likely to be the most significant. These types of effects are further discussed in the second part of the report.

The Bank's operations in support of small and medium businesses and mid-caps in 2022 are expected to sustain a further 518 200 jobs in such companies.

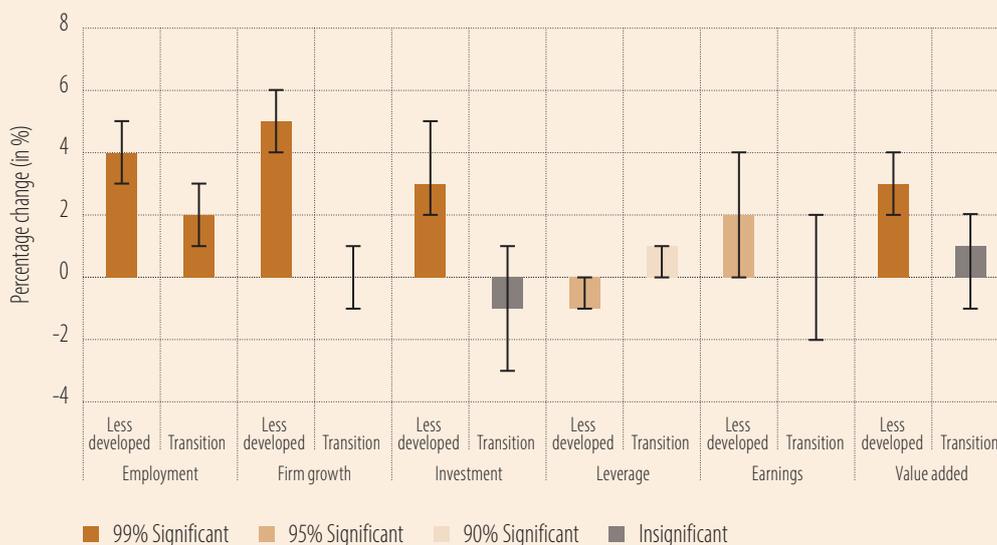
29. To avoid the double counting of project results across years, output and outcome indicators are reported for each project only once, in full, in the year of the first contract signature.  
30. Expected outputs and outcomes are established during the appraisal stage, at the level of the overall project to be financed. The figures presented in this report refer to projects located either entirely or partially in cohesion priority areas. For projects contributing only partially to the Bank's cohesion objective, output and outcome indicator values are considered here pro-rata, based on the size of the project's cohesion component relative to the total project size. In addition, to avoid double counting project results (outputs and outcomes) across years, the indicator values in this section refer only to those projects for which the first financing contract was signed with the EIB in 2022 (in other words, projects financed in 2022, which were already partially financed by the EIB in previous years, are excluded from these figures).

## HIGHER IMPACT OF INTERMEDIATED LENDING FOR FIRMS IN COHESION REGIONS

A 2022 impact assessment of the EIB's intermediated lending to small and medium businesses found that three years after receiving financing, firms experience significant benefits and that these positive impacts are even greater in cohesion regions. The impact assessment encompasses loans provided to 96 830 businesses between 2008 and 2017, i.e. the largest sample of EIB beneficiaries analysed to date. A counterfactual analysis was then carried out selecting a comparable control group from over 2 million firms for which data are available. The results show that EIB loan beneficiaries (relative to their peers who have not accessed EIB lending) create significantly more jobs, benefit from both an increase in productivity and an increase in earnings, and show a significant increase in their innovation capacity. EIB intermediated lending beneficiaries report employment numbers on average that are 5.4% higher, investment that is 15.3% greater, firm growth that is 6% bigger and productivity that is 5.3% above that of non-beneficiaries in the three years after the loan.

The benefits of EIB intermediated lending are much greater for firms in cohesion regions. Figure 18 plots the relative impact when we group firms using the 2014-2020 cohesion region classification. We observe that beneficiaries in less developed regions experience a higher impact on employment, firm growth, investment, earnings and productivity by 2% to 5%, relative to beneficiaries located in more developed regions. Recipients in transition regions report increases in employment that are about 2% higher than those in more developed regions.

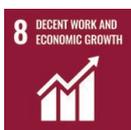
**Figure 18 – Impact by cohesion type region (relative to firms in more developed regions)**



Notes: For each output variable, the graph reports the average impact for MBIL recipients in less developed regions and transition regions relative to their peers in more developed regions in the three years after the loan. The whiskers around the bars show the 95% confidence intervals. The categorisation of MBIL recipients is done at NUTS2 level using the 2014-2020 cohesion region classification.

Source: [Impact assessment of the EIB's intermediated lending to businesses](#)

## RESEARCH, DEVELOPMENT AND INNOVATION



OUTPUTS	OUTCOMES
<p><b>€2.156 million</b> in EIB financing for <b>new research, development and innovation projects</b></p>	<p>An additional <b>€14 billion of potential sales</b> resulting from the projects financed</p> <p><b>Employment of 22 388 full-time equivalent</b> staff supported by the projects</p>

### ADVISORY FOCUS

#### SCALING UP PEA PROTEIN SUPPLY IN LATVIA

**Latraps** provides agricultural services to its cooperative of small, independent farms in the Baltic region. Originally founded by 12 farmers in the main cereal-growing region of Latvia, the organisation has become the largest agricultural company in the Baltics with 1 046 members.

It enables farmers to pool their produce together, supply the market with higher volumes and secure higher prices. Key products are cereals, grains, malt, rapeseed oil, and derivatives. The company provides its members with services such as crop insurance, freight transport, and the supply of raw materials (fertiliser, seeds, etc.), machinery and agronomic consulting.

It is looking to expand and diversify its product range to include pea protein isolate, which is extracted by splitting yellow peas, drying then rehydrating them to produce pea flour. The isolate is a high-quality protein and a great source of iron typically used as a food ingredient and for sports nutrition. However, for Latraps to develop commercial-scale production of pea isolate it will require a new operating plant.

The group estimates the total project cost for an 8 500 m<sup>2</sup> site in Jelgava, Latvia to be around €86 million. As part of its innovation angle, it is focusing on supplying pea protein isolate to food manufacturers in the high-priced, low-volume vegan and gluten-free markets.

## RESEARCH CENTRE SUPPORT, GREECE

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This project concerns the construction, renovation and modernisation of R&D infrastructure at four leading Greek research centres, including the establishment of an Advanced Centre for Infectious Diseases and Precision Imaging Diagnostics and the purchase of scientific equipment dedicated to advanced organic materials and cancer theragnostic and bioelectronics applications.

Although Greece's performance in innovation relative to the EU average has improved significantly, particularly since 2018, the country needs to improve on indicators such as public and private expenditure on R&D as a percentage of GDP, training of doctoral students, and knowledge production.

By investing in crucial public research infrastructure and equipment, the project will promote research and public-private innovation partnerships, enhancing Greece's standing as an innovator and hence its international competitiveness and productivity growth.

The operation consists of an €80.69 million loan to finance about 50% of the total project cost, with the remaining amount to be financed by the borrower through funds from the Recovery and Resilience Facility.

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## ICOSAGEN, ESTONIA

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This project supports the research, development and innovation investments of the Estonian biotechnology company [Icosagen AS](#). The investments are related to the discovery and development of biologics, including recombinant proteins and antibodies, as well as the construction and necessary certification of a facility for manufacturing biologics for clinical use.

Icosagen has developed a suite of proprietary technologies for biologic drug development and manufacturing over the years. These technologies include antibody-cloning technologies from B-cells (HybriFree), further powered by the proprietary protein expression platforms QMCF and IcoCell.

The transaction addresses a market gap in terms of funding an EU-based, innovative, fast-growing small business with a high-risk credit profile, as the company's financial sustainability largely depends on its capacity to make advances in its research, development and innovation programmes. Given the limited financing amounts and tenors available to such companies, the planned acceleration of the investment plan would not have been possible without the support of the EIB's financing.

The operation consists of an €18 million loan drawn in three tranches, each with a five-year maturity, under InvestEU. The loan schedule will support Icosagen in reaching the next growth stage without constraining its cash needs upfront, while also providing the flexibility to take on higher debt levels only in proportion to the relative success of its business plan.

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## EDUCATION



OUTPUTS	OUTCOMES
<p>New or refurbished <b>education facilities</b> covering over <b>478 100 m<sup>2</sup></b></p> <p>Some <b>€310 million</b> worth of new <b>educational and ICT equipment</b> supplied</p>	<p>Some <b>194 700</b> students enrolled in education facilities benefiting from <b>student loans</b></p>

### ADVISORY FOCUS

#### HIGHER EDUCATION INSTITUTIONS IN ROMANIA

The EIB's advisory services have supported the financial structuring and modelling of a number of universities in Romania, namely Cluj Babeş-Bolyai University, Technical University of Cluj-Napoca, University of Medicine and Pharmacy Carol Davila, and Târgu Mureş University. These projects subsequently received EIB financing under a €100 million higher education programme loan.

Under a second loan, advisory services will continue, through InvestEU, to support the selected universities: Grigore T. Popa University of Medicine and Pharmacy Iaşi, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca and Iuliu Haţieganu University of Medicine and Pharmacy Cluj-Napoca.

During the implementation of the projects, additional support may be provided to the universities that are in the programmes.

## **TÂRGU MUREŞ UNIVERSITY OF MEDICINE, ROMANIA**

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The Bank lent €20 million to refurbish and upgrade educational infrastructure and clinical laboratories on the campus of the George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Târgu Mureş.

Although it is among Romania's top six medical schools, the university decided that to keep up with the growing number of local and international students, it needed to renovate and expand its current infrastructure to create new jobs in education and research and make more room to invite specialised teachers and other health professionals. This will put its research centres in a better position to train future generations of doctors, engineers, economists, lawyers and teachers.

Renovating and modernising its seven buildings and adopting sustainable eco-friendly measures to make them energy efficient will help the university to reduce its carbon footprint, save energy and lower its operational costs. It is also constructing two new buildings as part of the campus development programme, which will serve as new educational centres. They will feature more modern learning spaces, educational equipment and additional residences for 400 people, including students and visiting staff.

In addition to the loan, the university received technical assistance from the EIB Advisory Hub, which helped it structure its investment proposal. Similar advisory support was provided to other universities in Romania, leading to the successful deployment of the Bank's €100 million streamlined support for university investment in Romania (the Romania Higher Education Programme Loan initiative) launched in 2020.

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## HEALTH



OUTPUTS	OUTCOMES
<p>New or refurbished <b>health facilities</b> covering an area of <b>862 700 m<sup>2</sup></b>.</p> <p><b>7 329 beds</b> in new or refurbished health facilities</p> <p><b>€205 million worth of equipment</b> and ICT supplied to health facilities</p>	<p>Some <b>12 542 000 people</b> with access to <b>improved health services</b></p> <p><b>778 000 patients</b> benefiting from improved health services</p>

### ADVISORY FOCUS

#### UNIVERSITY CHILDREN'S HOSPITAL IN BULGARIA

The EIB's advisory services are supporting the Municipality of Burgas, on Bulgaria's Black Sea coast, in assessing the feasibility of building a new specialised children's university hospital of regional importance.

The municipality requested assistance in developing a full feasibility study (including functional planning and preliminary design) in line with best European and international practices and standards. The EIB will also work on next-stage planning and design-related activities.

## **KANTA-HÄME CENTRAL HOSPITAL, FINLAND**

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This project is the latest example of the EIB financing investments in the healthcare sector in Finland. It concerns the construction of a new, highly efficient hospital building in the city of Hämeenlinna, located about 100 km north of Helsinki, to contribute to the overall well-being of the approximately 170 000 people living in the Kanta-Häme region.

The investment involves replacing outdated facilities in the current central hospital, built in 1979, with a new adjacent hospital building of about 79 000 m<sup>2</sup>.

Additionally, the new climate-friendly hospital has been designed to be energy efficient, performing about 20% better than the legally required minimum.

The operation consists of a €175 million EIB loan for the Kanta-Häme Health Care Joint Authority (KHSHP). It will help the region deal with some of its most urgent issues, including an ageing population, a shortage of qualified healthcare staff, an increasing disease burden, and the greater cost of healthcare services.

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## REGIONAL AND URBAN DEVELOPMENT



### URBAN RENEWAL AND RURAL DEVELOPMENT

#### OUTPUTS

Some **1 375 000 m<sup>2</sup> of built surface** newly constructed or upgraded

Over **1 184 000 m<sup>2</sup> of open space** developed or remediated

**50** social, cultural and recreational **facilities** built or renovated

#### OUTCOMES

Over **15 527 000 people benefiting** from new or improved infrastructure

Some **2 278 000 people with access** to new or upgraded urban infrastructure and services through multi-sector municipal framework loans

**3 750 000 visitors per year** to new or renovated cultural, recreational and sports facilities

### SOCIAL AND AFFORDABLE HOUSING

#### OUTPUTS

Over **13 350** new or refurbished **social, affordable housing units**

#### OUTCOMES

Over **13 350 households** in new or refurbished **social, affordable homes**

#### ADVISORY FOCUS

##### ECO-DISTRICT IN CHRZANÓW, POLAND

Comprehensive project development support was offered to the city of Chrzanów to develop an eco-district urban concept. The mixed-use residential area would cater to the needs of all social groups, especially older people, people with disabilities, and families, maximising sustainability and residents' quality of life.

The Advisory Hub is helping to prepare a feasibility study and an optimal project implementation and financing plan. The sustainability measures must meet the highest standards, applying best practices in energy efficiency, natural solutions and the circular economy.

## EU FUNDS CO-FINANCING ANDALUCÍA 2021-2027, SPAIN

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Andalucía is the second largest region in Spain (87 597 km<sup>2</sup>). With 8.5 million inhabitants, it is the most populous region in the country. Its economic position in terms of per capita GDP has deteriorated significantly in recent years, sliding from 78% of the EU average in 2008 to 63% in 2020, as the recovery from the economic and financial crisis was weak and the COVID-19 pandemic hit the region particularly hard.

Supporting Andalucía is a priority for EU Cohesion Policy in the current programming period. The European Regional Development Fund (ERDF) and the European Social Fund Plus (ESF+) will enable a total investment volume of some €6.67 billion from 2023 to 2029, of which €5.69 billion will be financed with EU funds.

An EIB framework loan of up to €650 million will fund most of the regional government's co-financing obligation for the project. The first tranche of €195 million, signed at the end of 2022, will help kick-start the implementation of the many small investment schemes jointly supported by the EU funds and the EIB.

The project will contribute to various policy objectives, including education and training (29%), research, development and innovation, and digitalisation (18%), health (12%), integrated territorial development (11%) and sustainable transport (10%). The remaining 20% will cover sustainable energy, natural resource use, management and protection, and small and medium enterprises and mid-caps.

As a result of its multi-sector nature and strong policy conditionality, the project is expected to bring economic benefits that are greater than the private financial return. This is thanks to positive knowledge spillovers from research, development and innovation, reduced greenhouse gas emissions because of investment in energy efficiency and renewable energy, and the expected modal shift from private cars to sustainable public transport. It is also expected to bring public health benefits due to improved access to healthcare infrastructure and drinking water.

The project will also support two large investment schemes.

In the first, the new hospital of Málaga will replace the old existing buildings and boost the quality and efficiency of healthcare in the greater Málaga area.

The second scheme will help mitigate climate change and ensure that the extension of Metro Line 3 in the regional capital of Seville is environmentally sustainable. The specific goals are to reduce air pollution and greenhouse gas emissions, but other benefits such as shorter journey times are also expected to be generated.

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## TRANSPORT



### SUSTAINABLE TRANSPORT

#### OUTPUTS

- Over **1 360 km of rail** tracks built or upgraded
- Over **80 km of public transport** lanes or tracks built or upgraded
- 180 stations** or stops built or upgraded
- 2 861 vehicles** or rolling stock units purchased or rehabilitated
- Over **1 500 alternative fuel stations** built

#### OUTCOMES

- Over **152 million additional trips** on public transport a year
- Almost **16 million hours** a year in journey **time saved**
- €19 million** a year in vehicle operating costs saved

### STRATEGIC TRANSPORT

#### OUTPUTS

- 775 km of road** lanes built or upgraded

#### OUTCOMES

- Over **70 300 daily road passengers** benefiting from improved road infrastructure
- An estimated **28 road fatalities** avoided each year

## ADVISORY FOCUS

### DRONE DEVELOPER IN BULGARIA

Dronamics is a new type of cargo aeroplane — small, uncrewed and extremely fuel efficient. It can transport 350 kg over 2 500 km for half of what it would cost with other aeroplanes. It flies autonomously, can be monitored and managed remotely via satellite, and the whole system costs less than a sports car. During 2022, the EIB's Innovation Digital Finance Advisory (IDFA) team worked with Dronamics to explore potential financing under the Bank's applicable thematic financing instrument. The Bank's advisors and technical experts gathered key information to evaluate and prepare the company for potential further due diligence.

### GDYNIA OUTER PORT PROJECT IN POLAND

In 2022, a team made up of the European PPP Expertise Centre (EPEC) and EIB maritime sector experts provided project advisory support on the Gdynia Outer Port project (expected to be the biggest public-private partnership project in Poland). The support included advice on the draft public-private partnership agreement and was designed to strengthen the promoter's capacity in project preparation and tender negotiation and its awareness of best practices in the general European public-private partnership market and maritime port terminal markets.

### HUNGARY BUS FLEET RENEWAL

This assignment supported the implementation of EIB financing for Volán Buszpark Kft.'s comprehensive bus fleet renewal programme between 2019 and 2022. It aimed to set the foundations for the sustainable and climate-friendly growth of public transport, contribute to Hungary's efforts to comply with the revised Clean Vehicles Directive (2009/33/EC), and tackle immediate operational needs by improving the fleet's availability to stop the continuing downward trend in passenger traffic.

### ROAD SAFETY FOR BUCHAREST SECTOR 1

Sector 1 Bucharest has requested EIB support for financing and advice on a road safety programme. The scope of the advisory assignment is to develop a road safety impact assessment that, together with the related investments, will help Sector 1 City Hall to meet EU standards.

## PLK E65 SOUTHERN SECTION PHASE II, POLAND

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The Będzin–Katowice–Tychy line is one of the most congested railway lines in Poland. The lack of capacity has led to a decline in the share of rail traffic and to greater congestion on the road network in Katowice and the surrounding area.

A €600 million EIB loan is supporting a project to upgrade over 80 km of rail and build two additional tracks for regional traffic that are expected to facilitate a significant shift from road to rail for trips to the city of Katowice, the regional capital.

Upgrading the rail line between several towns in the Upper Silesia region including Będzin, Sosnowiec, Katowice, Tychy, Pszczyna and Bielsko-Biała will provide faster and more efficient passenger rail connections within the Katowice area. Furthermore, it will provide efficient rail freight connections between the highly industrial Upper Silesia region, the Czech Republic and Southern Europe via Zebrzydowice.

Once the works are finished, the frequency of local and regional passenger trains is expected to increase significantly, which will elevate the role of rail in the city's public transport system. The line's capacity will be significantly increased and passenger numbers are expected to rise from 8.9 million to 12.5 million on the Sosnowiec–Katowice section.

On the freight side, the annual volume transported will remain at 4 million tonnes a year. Regional and some intercity services for passengers will be covered by public service contracts, while high-speed passenger services and freight services will be operated on a commercial basis.

Existing users can expect to benefit from shorter journeys. Travellers switching from road to rail can also expect to save time and pay less vehicle operating costs, and there are expected to be less accidents. Journey times will also be significantly reduced on some sections and nearly halved on the Będzin–Zebrzydowice route.

Overall, the upgraded line, on a route which forms part of the trans-European transport network (TEN-T), is expected to give a significant boost to economic development and social integration in Upper Silesia, the Katowice area, and in the Czech Republic and Southern Europe.

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## SUSTAINABLE ENERGY



### RENEWABLE ENERGY

#### OUTPUTS

**8 435 MW** of **electricity generation** capacity from renewable energy sources

#### OUTCOMES

**15 614 GWh of electricity produced** from renewable energy sources a year

Over **3 885 000 households** could be supplied with the electricity generated

### ENERGY NETWORKS

#### OUTPUTS

Some **19 271 km of power lines/cables** built or upgraded for transmission and distribution of electricity

Over **11 000 MVA capacity of electricity** sub-stations built or upgraded

Some **2 433 000 smart energy meters** installed

#### OUTCOMES

Incremental demand supplied of more than **9 200 GWh a year**

### ENERGY EFFICIENCY

#### OUTPUTS

Some **25 066 housing** units refurbished to be **energy efficient**

#### OUTCOMES

Some **25 066 households** living in refurbished **energy-efficient homes**

Energy savings of almost **833 9512 MWh a year** from energy efficiency measures in new projects financed in cohesion regions in 2022.

## **ADVISORY FOCUS**

### **HYDROGEN CLUSTER IN POLAND**

EIB Advisory is helping Poland to transform its energy sector through an assignment that consists of an advisory “feeder agreement” with the Polish Hydrogen Cluster. The cluster's objective is to identify hydrogen-based investment projects in Poland that could benefit from EIB financing.

### **SUPPORTING THE DECARBONISATION OF ROMANIA’S GAS NETWORK**

EIB Advisory is supporting Transgaz in its transition to carbon-neutral activities. The objective is to create a climate strategy for Transgaz that helps to efficiently decarbonise its activities and strengthen its resilience to climate change, taking into account best practices and national and international climate policies and regulations.

### **NATIONAL DECARBONISATION FUND IN BULGARIA**

EIB Advisory facilitated a comprehensive assessment of the Bulgarian market and the barriers to energy efficiency investments in commercial, public and residential buildings. It also provided a set of financial and legal recommendations to improve the renovation pace of such buildings.

In view of the variety of existing support schemes available for energy efficiency investments in Bulgaria in the short term, the assignment proposed an investment strategy that would encompass all relevant public and private stakeholders, improve coordination among them, and progressively leverage national and EU sources of funding in the medium term.

The recommendations for the fund’s design were structured around an umbrella fund constituted at government level to coordinate energy efficiency policies and financing streams. The umbrella fund would entrust holding funds to provide financing to project promoters via selected public and private financial intermediaries.

## **EOLMED FLOATING OFFSHORE WIND FARM (PORT-LA-NOUVELLE), FRANCE**

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The port of Port-la-Nouvelle near Montpellier, southern France, traditionally handled cereals and other agricultural exports destined for North Africa. Now, the Occitania region is investing €340 million, €150 million of which is being provided by the European Investment Bank, to refurbish ports in Sète and Port-la-Nouvelle. The plans call for Port-la-Nouvelle to be transformed into a Mediterranean hub for the construction, logistics and support of offshore floating wind farms. The hub will also eventually produce green hydrogen from the clean energy generated by the wind farms.

Port-la-Nouvelle's transition is part of an ambitious renewable energy strategy laid out by the Occitania region. The region is hoping to benefit from the development of two floating offshore wind farms planned in the Mediterranean, which are expected to cover the energy needs of 400 000 people. Occitania, which has one of the highest unemployment rates in France, sees renewable energy as an opportunity to revitalise its traditional economy of agriculture, tourism and, further inland, aerospace.

In addition to financing Port-la-Nouvelle, the EIB is also supporting pilot wind farms — one offshore from Leucate-Le Barcarès, run by Les Éoliennes Flottantes du Golfe du Lion, and another close to Gruissan, which will be operated by EolMed. The Bank signed an €85 million loan with EolMed in April 2022 and a €75 million loan with Les Éoliennes Flottantes in May. Both loans are backed by a guarantee from the European Fund for Strategic Investments. The Bank is also providing €50 million for a third offshore park, planned 40 kilometres west of Marseille.

The surrounding region of the eastern Pyrenees has limited industry and unemployment at close to 10%. Turning the port's business towards renewable energy offered an opportunity to revitalise the area's economy. The immediate pilot projects are expected to create about 300 full-time jobs.

The infrastructure and support Port-la-Nouvelle will provide to the wind farms is part of a bigger regional strategy to create a renewable energy hub that also focuses on green hydrogen. A related project, Corridor H2, will develop a network of hydrogen distribution stations in Occitania along the road that runs from the Mediterranean to the North Sea. The EIB is lending €40 million to the Corridor H2 project.

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## NATURAL RESOURCE USE, MANAGEMENT AND PROTECTION



### BIOECONOMY

#### OUTPUTS

**2 405 000 ha** of **agricultural land** with improved management

Over **1 482 00 ha** of **forestry land** with improved management

#### OUTCOMES

Almost **21 000 beneficiaries** — farmers, foresters, fish producers — receiving support for investment

### ADVISORY FOCUS

#### INNOVATIVE RECYCLABLE FOOD TRAY IN SPAIN

PackBenefit is an innovative producer of compostable food trays from wood-based virgin pulp for use in catering, food-to-go and fresh food. It has an innovative solution to produce food trays that are recyclable, as well as being certified for composting, providing the most sustainable end-of-life options for single-use materials.

The company intends to build a second plant producing an additional 180 million trays a year (around 4 000 metric tonnes) in Valladolid, Spain, close to the existing manufacturing site, with the first five production lines in operation since mid-2022.

The EIB's Innovation Digital Finance Advisory team developed a relationship with the promoter by conducting an initial review of its proposal and its fit with the EIB's product portfolio.

The Bank's advisors facilitated information exchanges with the EIB's project teams in order to assess the company's technology and the project's overall eligibility and viability, subsequent to which the project was proposed for financing under the bioeconomy thematic instrument. Following the advisory team's handover to the lending team, a €13.5 million EIB venture debt loan was signed in December 2022.

## **PESCARA CLIMATE ACTION AND CIRCULAR ECONOMY, ITALY**

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This project concerns support for investments in the circular economy, solid waste management and energy efficiency in the city of Pescara, the capital of the Abruzzo region, a transition region in central Italy. The project, expected to run between 2021 and 2025, includes the construction of an anaerobic digestion plant for biowaste, the upgrade of recycling facilities, the acquisition of new collection equipment, and a mix of energy efficiency measures for public buildings.

The operation consists of a €35 million loan for the municipality of Pescara, with the local power company Pescara Energia SpA and the majority-owned waste management company Ambiente SpA as final beneficiaries.

The EIB loan directly helps to support the local economy in its efforts to become greener.

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## WATER, WASTEWATER AND SOLID WASTE



### DRINKING WATER SUPPLY

#### OUTPUTS

Over **1 000 km** of **water mains** or distribution pipes installed or rehabilitated

**64 km** of combined **collectors** installed or rehabilitated

**65 000 m<sup>3</sup>** worth of capacity in retention structures, reservoirs or raw water storage built or rehabilitated

**212 000 m<sup>3</sup> a day** of **water treatment plant capacity** built or rehabilitated

**298 624** domestic connections to **water supply** created or rehabilitated

#### OUTCOMES

Over **3 561 000 people** benefiting from safe **drinking water**

### FLOOD PROTECTION

#### OUTPUTS

**62 km of dykes** built or upgraded

#### OUTCOMES

Over **207 500** people less at **risk of flooding**

### WASTEWATER COLLECTION AND TREATMENT

#### OUTPUTS

Over **360 km of sewer** and/or stormwater pipes installed or rehabilitated

**1 275 000 person-equivalent sewage treatment plant** capacity built or rehabilitated

**491 000 tonnes a year** of new or rehabilitated treatment facility capacity

**119 000 tonnes a year** of new waste facility capacity

#### OUTCOMES

Over **1 122 000** people benefiting from improved **sanitation services**

**400 000** people served by new **waste treatment facilities**

**297 000 tonnes a year of waste** handled in new or rehabilitated waste or waste treatment facilities

**347 500 tonnes a year of recyclable biowaste** collected separately

## **WALLONIA WATER SUPPLY AND CLIMATE – SWDE, BELGIUM**

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Wallonia is home to over 3.5 million people and covers an area of 16 844 square kilometres. With a per capita income lower than the EU average, many parts of Wallonia are considered to be cohesion regions entitled to extra funding from the European Union. Despite its abundant natural resources, climate change, population growth, and industrial development have put immense pressure on the region's water supply.

Climate change means that extreme weather events in the region are only likely to become more frequent. The region's largest water company, Société Wallonne des Eaux (SWDE), is well aware of the challenges. To ensure adequate water supply, the company is undertaking a massive investment plan to upgrade its network, improve connectivity between different municipal networks, and adapt to Belgium's changing climate. Measures include increasing water storage capacity, improving water efficiency, enhancing water quality and strengthening flood resilience. These actions aim to address the impacts of climate change on water availability, quality and infrastructure by bringing down energy costs and ensuring that water remains affordable for everyone, as well as cutting greenhouse gas emissions by 20% by 2030. Protecting biodiversity also features strongly.

To meet this target, SWDE is looking to invest in additional solar power panels and purchase power agreements with wind farms. It is also looking to greatly improve its energy efficiency.

To finance its ambitious investment and climate plans, in 2022, SWDE signed a €250 million loan for its 2022-2026 investment programme. The loan is the fourth from the Bank in 16 years and will support the company in a range of projects aimed at improving the resilience of Wallonia's water infrastructure, such as building new reservoirs, modernising water treatment plants, developing advanced leak detection technologies, and expanding sewer networks.

Thanks to a previous €200 million European Investment Bank loan granted in November 2016, SWDE has invested an average of €120 million a year without raising prices for its consumers.

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## INFORMATION AND COMMUNICATION TECHNOLOGIES



OUTPUTS	OUTCOMES
<p><b>2 629</b> 3G, 4G and 5G <b>sites</b> installed</p> <p>Over <b>1 957 000 homes</b> connected to fibre to the home (excluding VDSL)</p>	<p><b>5 330 000</b> additional subscribers with <b>5G services</b> enabled</p> <p>Over <b>3 098 000</b> homes connected <b>to fibre to the home</b> (excluding VDSL)</p>

### EPIC MALTA MOBILE AND FIXED NETWORK EVOLUTION, MALTA

This project involves upgrading Epic Communications' mobile network with advanced 4G LTE, deploying early 5G networks, rolling out a fixed very high capacity network (VHCN), and upgrading the core network and IT systems.

The operation is the first in Malta included under the InvestEU mandate. It consists of a ten-year €20 million InvestEU-backed EIB loan for Epic Communications (formerly known as Vodafone Malta). Epic is one of the largest private providers of telecommunication services in Malta, offering a full range of mobile voice and data services as well as fixed broadband.

The project will benefit the promoter as it will become less dependent on wholesale agreements with the incumbent fixed line operator. The entire Maltese economy will benefit from faster VHCN broadband coverage. Residents and regional development will also benefit, as VHCN broadband connections directly enhance the digitalisation of economic sectors such as agriculture, tourism and commerce, on which the country is highly dependent.

## SME AND MID-CAP FINANCE



### KEY FIGURES

**€3.3 billion** in new signatures<sup>31</sup> benefiting SMEs/mid-caps in cohesion regions  
(€1.8 billion in less developed regions and €1.5 billion in transition regions)

Approximately **26 500 SMEs/mid-caps supported** in cohesion regions<sup>32</sup>

Around **518 200 jobs sustained** in SMEs/mid-caps in cohesion regions<sup>33</sup>

Small and medium-sized enterprises (SMEs) and mid-caps are a crucial part of the European economy, representing some 99% of all enterprises and employing around 100 million people in the European Union. They account for more than half of EU GDP and are present throughout the full value chain of economic activities in Europe.

However, companies of this size often face significant barriers to growth and competitiveness. These barriers include limited access to finance, high energy costs, inadequate infrastructure and a lack of skilled labour. This is particularly the case for firms in cohesion regions, for which access to finance remains an investment obstacle and the percentage of companies investing remains below the EU average<sup>34</sup>.

The importance of financing small and medium businesses and mid-caps in cohesion regions cannot be overstated. Providing these companies with access to finance and other forms of support can help them unlock their potential for innovation and growth, create new jobs and drive economic development in these regions. This, in turn, can help to reduce regional disparities, promote social inclusion and achieve other economic and social EU objectives.

**These companies are major drivers of innovation, productivity and competitiveness. They also tend to have strong local roots, which can be a significant advantage in regions where social and institutional networks are crucial for economic success.**

The EIB actively supports small and medium businesses and mid-caps in cohesion regions, managing a total of €3.3 billion in new projects signed benefiting such companies in cohesion regions (a very good performance compared to €3.0 billion in 2021). Most of the Bank's financial support for these companies is distributed through financial partnerships with local commercial banks and national promotional banks and institutions. However, the Bank also provides direct support in the form of direct venture debt, as illustrated in the following case studies.

31. Signatures with financial intermediaries in 2022 to support SME/mid-cap final beneficiaries. The total amount benefiting cohesion regions is based on ex-ante estimates, except in cases where the loan has been fully allocated, where the actual split is used. The split between the LDR and TR is based on a historic percentage of allocations between 2018 and 2021 as for the previous year.

32. Figure relates to SMEs/mid-caps that benefited from EIB support in 2022 as a result of operations signed with financial intermediaries up to the end of 2022.

33. Figure relates to SMEs/mid-caps that benefited from EIB support in 2022 as a result of operations signed with financial intermediaries up to the end of 2022.

34. [EIB Investment Survey 2022 - EU overview](#).

## **ADVISORY FOCUS**

### **TECHNOLOGY TRANSFER AND HUMAN CAPITAL INVESTMENT IN POLAND**

Polski Fundusz Rozwoju (PFR), the Polish Development Fund, sought assistance from the EIB for its plans to increase the output from technology transfer initiatives to enhance the growth of small and medium businesses and thereby support economic development and innovation in Poland. It also requested technical assistance to develop initiatives to support talent development within such companies. The main objectives of the assignment included a best practice analysis of talent development and upskilling schemes for small and medium businesses, funding gap estimates for Polish firms, and an analysis of the gender gap dimension with recommendations.

### **UCL ROMANIA LOAN FOR SMES AND MID-CAPS III**

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In 2022, the EIB provided a loan of €70 million to UniCredit Leasing Romania, a market leader in the Romanian leasing industry.

Through this operation, the EIB will support innovative small and medium businesses and mid-caps in Romania that may otherwise experience constrained access to finance, and stimulate new investments in this area. The funding is aimed generally at small and medium enterprises and mid-caps, but with a focus on investments in innovative and/or fast-growing enterprises as well as innovative projects by mid-caps.

The funds mobilised under this operation are expected to address financial market failures and their resulting sub-optimal investment conditions, to improve financial conditions for small and medium businesses and mid-caps operating in cohesion regions in Romania, which continue to be affected by financial market fragmentation, and to act as a catalyst to attract funds for innovative companies of this size.

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## **CODASIP (IDGF)**

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Nowadays, semiconductors are at the centre of strong geostrategic interests and at the core of the global technological race. Countries are keen to secure their supply of the most advanced chips as these determine their financial, industrial and military capabilities and drive the digital transformation. Currently, Europe is too dependent on chips produced abroad. This became even more evident during the COVID crisis when strategic sectors such as industry, health, defence and energy faced supply disruptions and shortages. The European Union's overall global semiconductor market share is 10%, well below its economic weight. Despite its strong global position in materials and equipment manufacturing, the European Union is heavily dependent on third-country suppliers for the design, manufacturing, packaging, testing and assembly of chips. This dependence weakens Europe's strategic competitiveness in high value added products.

Despite this challenging scenario, the Czech Republic has a growing and competitive market for chip design. Several companies in the country are involved in chip design, engineering and technology, with a highly skilled workforce and a strong focus on innovation.

One of these companies is Codasip, a small business that provides the basic design and software suite for chip designers to create RISC-V-based processors; it is seen as the emerging royalty-free technology on the market.

Founded in 2014, Codasip offered its first commercial RISC-V processor in 2015. Today, RISC-V represents a licence-free alternative to the dominant player in the market. The company has 120 employees, primarily based in Brno in the Czech Republic, with some presence in other EU countries, the United Kingdom, and China. In 2022, the EIB provided a venture debt loan of €15 million to Codasip.

Codasip is the only major RISC-V player in Europe. Through this operation, the Bank is supporting the company's R&D efforts in the European Union for a sector considered a strategic priority by the European Commission. EIB financing will help fund Codasip's investment plan, generating a positive crowd-in effect for other investors. The loan will enable the creation of innovative processes, products and services, and promote skills development. This will address the market failure resulting from sub-optimal investment levels in chip design in Europe.

In the last five years, the EIB Group has financed semiconductor projects for a total amount of €1.9 billion across the European Union, mobilising €5.8 billion of investment. The main goal is to reach at least 20%, in value terms, of the world's production of cutting-edge and sustainable semiconductors by 2030.

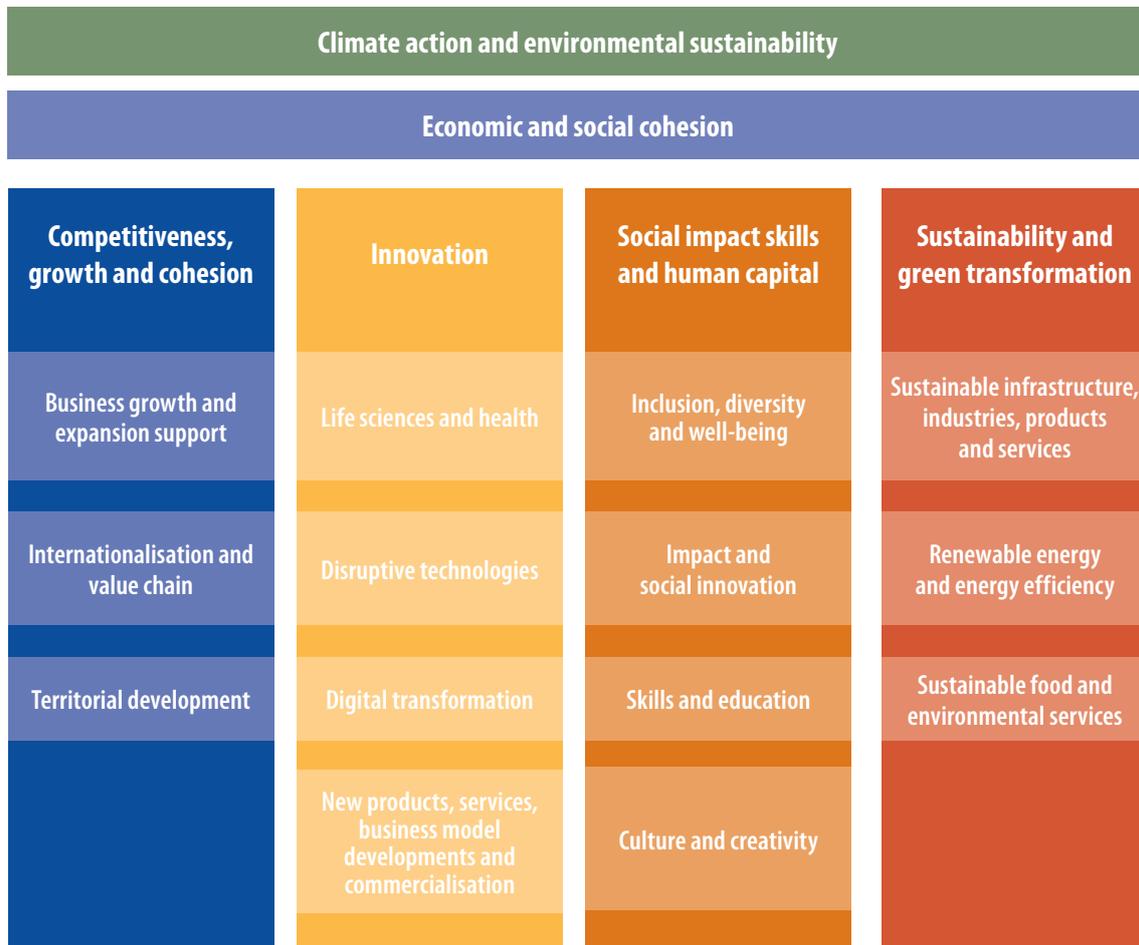
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# EIF ACTIVITY IN COHESION REGIONS IN 2022

Transactions signed by the European Investment Fund in 2022 provided support to small and medium enterprises and other eligible final recipients located in cohesion regions in 26 of the European Union’s 27 Member States, as illustrated in the chart below. The support was mainly provided through debt/guarantee and equity financial instruments in both transition regions and less developed regions.

Figure 19 – EIF public policy goals and sectors



In absolute terms, the cohesion regions that are expected to benefit the most from EIF transactions signed in 2022 are located in Spain, France, Poland and Italy. Relative to GDP, however, EIF support for cohesion areas in 2022 is expected to be greater in Lithuania, Finland, Estonia and Bulgaria.

Figure 20 - EIF public policy goals

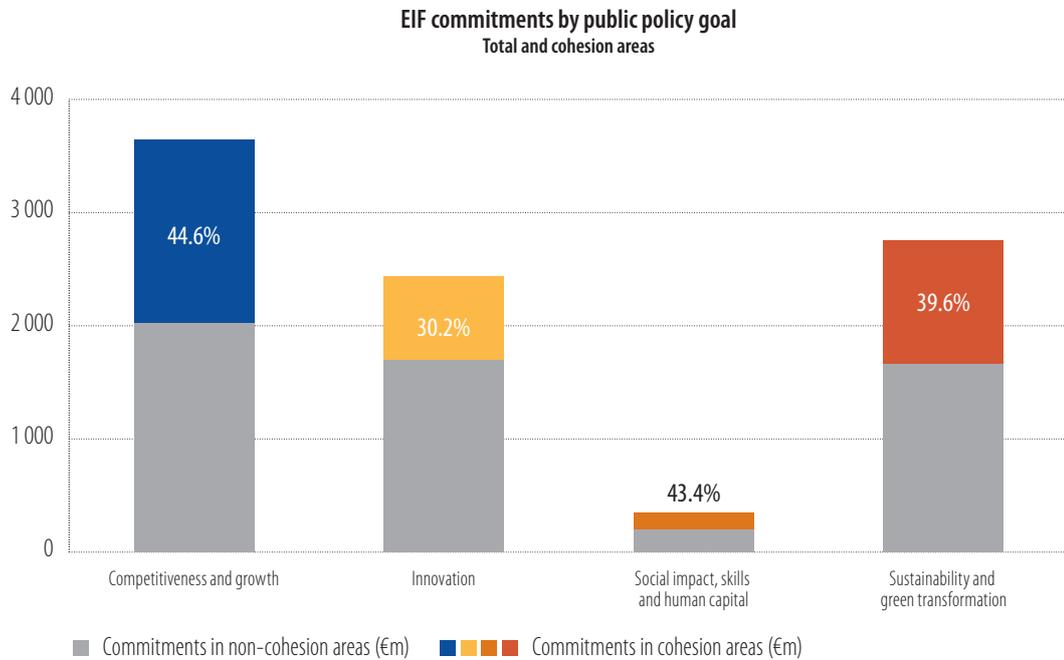
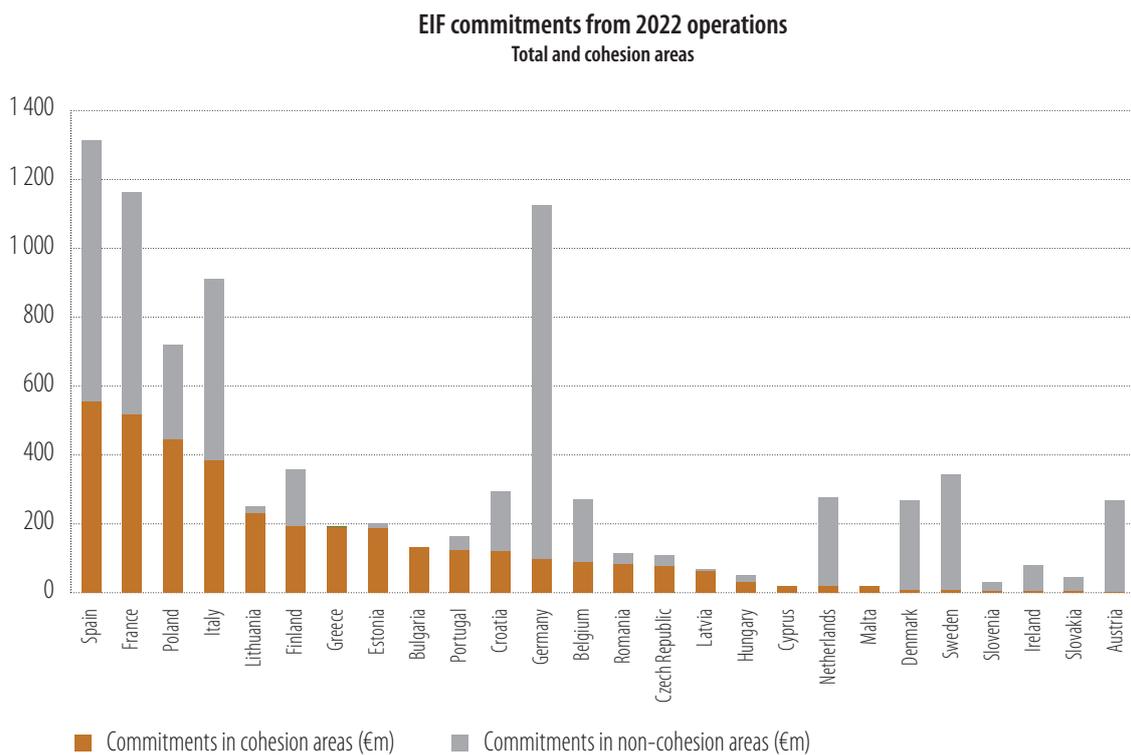


Figure 21 - EIF commitments by country



## EIF decentralised financial instruments targeting cohesion regions

Over the last 15 years, the EIF's decentralised financial instruments (DFIs) have been key to delivering results and impact in cohesion regions. The experience and expertise gained have positioned the EIF as a partner of choice for the implementation of financial instruments under the EU cohesion policy and on behalf of EU Member States/regional authorities.

During the 2007-2013 programming period, the EIF developed experimental precursor decentralised financial instruments. These were deployed under the flagship Joint European Resources for Micro to Medium Enterprises (JEREMIE) initiative, set up in 2007 by the European Commission (DG REGIO) in cooperation with the EIB Group.

Building on JEREMIE's successful track record, the EIF's decentralised financial instruments became a more established activity. For the European Commission — DG REGIO and DG AGRI specifically — financial instruments became the new standard to support income-generating activities and local economies, especially in cohesion areas. As a result, the EIF developed new standard products and pilot mandates to expand its geographical coverage (more French and Italian regions) and scope (Greece and Portugal) as well as engage in new thematic areas (agriculture, renewable energy and energy efficiency, and innovation).

Through its DFI interventions, the EIF has managed to achieve significant policy impact across thematic areas and geographies, leading to substantial results in cohesion areas. Altogether, the EIF manages over €7.8 billion of financial instruments using European structural and investment funds and EU funds. These instruments have supported about 95 000 small and medium businesses and catalysed €14 billion of financing.

In 2022, three additional decentralised financial instruments were launched in France and Bulgaria to cover competitiveness and innovation.





## USING ROBOTICS TO HELP THE ENVIRONMENT

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<b>Sector</b>	<b>Energy efficiency, robotics</b>
<b>Financing purpose</b>	<b>Scaling the business</b>
<b>Location</b>	<b>Riga, Latvia</b>
<b>EIF financing</b>	<b>Baltic Innovation Fund (BIF); InnovFin Equity, EFSI</b>
<b>Financial intermediary</b>	<b>Change Ventures</b>
<b>SME</b>	<b>Aerones</b>

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“We stuck to the problem, not to the solution” says Dainis Kruze, co-founder of the Latvian company Aerones, a robotic wind turbine inspection, maintenance and repair solution that enables a team of two to three people to execute a range of services in hours that would otherwise take days.

The concept of Aerones had originally started off as a heavy lift drone project, when Dainis and his co-founders Janis Putrams and Andris Dambis joined forces in 2015. The co-founders considered applications such as rescue and firefighting but the business model wasn't quite clicking; the market wasn't very large and urban regulation on drone operation meant there were several barriers to success. “But then we thought of the wind energy industry and things fell into place,” explains Dainis. “After testing the drone solution, we continued to improve the technology until we realised that drones were not the most precise technology for this task, so instead we developed a system of pulleys to enable the robots to climb up, clean, inspect and repair wind turbine blades as well as apply things like icephobic coatings and fillers — all with the same system, just by changing different robotic arms.”

With the wind energy industry predicted to grow to 30 times its current size, Aerones saw an explosion in demand and now works all around the world for large wind turbine manufacturers. “We are building something completely different from the currently available solutions. The wind industry can provide energy for our children. If we can be a part of making renewable energy more accessible even by only 5%, that's already something valuable.”

In 2020, the company received investment from Change Ventures, a venture capital firm backed by the EIF, to help it scale its commercial offer. “It's great to be able to discuss ideas or ways in which we can solve problems, and to have a partner which champions our business,” says Dainis. “As founders we also bring different things to the table, and this is important too. I am the sales guy, Janis is the startup veteran, and Andris is the mechanical engineer; it's the perfect combination.” And with giants like GE starting to approach Aerones for offshore maintenance, the sky is quite literally the limit for this future-focused trio.

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## INVESTING IN A LOW-ENERGY HOME

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<b>Sector</b>	<b>Energy efficiency</b>
<b>Financing purpose</b>	<b>Individual loan</b>
<b>Location</b>	<b>Malta</b>
<b>EU financing</b>	<b>EERE Malta</b>
<b>Financial intermediary</b>	<b>Bank of Valetta</b>
<b>Beneficiary</b>	<b>Paul Fenech</b>

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Achieving climate neutrality is a goal that requires a collective effort from all parties, be it governments, NGOs, small businesses, private households, or public or private individuals. For this reason, the EIF and the Maltese government have teamed up to put together a pilot financing programme to incentivise investments in renewable energy and energy efficiency, offering loans with very attractive terms.

One such investment was made by engineer Paul Fenech, from Ta'Xbiex, Malta, to improve the energy efficiency of his new build. He hopes that his home will be the first certified low-energy building on the island. A mechanical engineer by profession, Paul has taken a keen interest in energy efficiency and spent time getting certified as a passive house designer with the PHI Institute in Darmstadt, Germany.

Stable climatic conditions allow for more predictable energy consumption and lower energy bills, but also make it easier to manage the space in terms of comfort. To bring the project to fruition, Paul secured a loan from the Bank of Valetta, backed by the EIF.

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## S&E GUARANTEE PILOT: JANA KUDLICKOVA

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<b>Sector</b>	<b>Higher education</b>
<b>Financing purpose</b>	<b>Student loan</b>
<b>Location</b>	<b>Alicante, Spain</b>
<b>EIF financing</b>	<b>Skills &amp; Education Guarantee Pilot; EFSI</b>
<b>Financial Intermediary</b>	<b>Universia Foundation (Santander Group)</b>
<b>Beneficiary</b>	<b>Jana Kudlickova</b>

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“With everything going digital, the tech industry is very relevant right now, and it is continuing to grow and create new opportunities. I thought, why not me? Why not try it as a career?” says Jana Kudlickova, who lives in Alicante, Spain, and has recently made a complete career change.

Jana, from Ružomberok in northern Slovakia, did Slovak and English studies. Around ten years ago, however, she moved to Spain: “I love languages and I’m always looking to learn new ones, that’s why I came to Spain and I ended up staying, teaching in private academies. Teaching always felt like the obvious path for me. I taught afternoon classes, a few hours per week, sometimes more, but I never had a proper full-time job,” she says.

When the pandemic hit, things got significantly tougher. “With people in lockdown, teaching really dried up. I had no indication of how long this would last and I was not too keen on remote teaching either, so I started looking at other options. I was ready for a career change,” she explains.

She searched for resources online and came across WordPress to create web pages. It sparked her curiosity and she decided to dig deeper. “I learned how to develop websites, work with HTML and CSS on my own. I soon realised that if I was going to do this seriously I needed some guidance. I wanted something that was current, intensive and could be done in a short time. That’s how I came across the Full Stack Development boot camp.”

It was a leap in the dark for Jana. “I’m from a very different world. I had zero IT literacy, so it jolted me out of my comfort zone but they said that it was okay for beginners — so I went for it. I saw it a bit like learning another language. After all, when you are coding you are communicating with computers, right?”

With the boot camp, Jana found balance and renewed motivation. “It was great to be on the other side, to be learning again like a student. It has been very intense, learning to code from scratch. In this field you need to be the kind of person who likes to learn, research and find solutions. It’s not for everyone.” But learning unfortunately often comes at a price: “Boot camps are expensive, I had just lost my job, and had no income, so I needed to figure out a solution.” An income-sharing agreement with Universia Foundation (Santander Group) backed by the European Union through the EIF provided the much-needed financial support. “My course is paid for and I will only start to repay the full amount once I have a stable salary. . .and if anything happens, repayment is paused. It gives me flexibility and peace of mind.”

Jana completed the boot camp in February and immediately afterwards found an internship as a web developer working for a property rental company in Portugal. “I love the fact that I still keep learning and this is a great team. My internship lasts until October, but I’d love to stay and see where this takes me.”

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## ADVISORY FOCUS: FI COMPASS

### LA RÉUNION START-UP BOOSTS DIGITAL BANKING

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<b>Sector</b>	<b>Fintech</b>
<b>Financing purpose</b>	<b>Equity investment</b>
<b>Location</b>	<b>La Réunion, France</b>
<b>EIF financing</b>	<b>Financière Région Réunion (FRR)</b>
<b>Financial intermediary</b>	<b>Essor PME / APICAP</b>
<b>SME</b>	<b>HUB2</b>

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Connect4, a Réunion-based small business, benefited from a €1.25 million equity investment from ESSOR PME La Réunion (a financial instrument funded by Région Réunion and the European Regional Development Fund (ERDF)) to develop HUB2, an application programming interface (API) enabling interoperability between mobile money wallets in Western Africa. Thanks to the investment, the startup was able to accelerate the development of the API on the African market and answer the huge demand for more interoperability in mobile banking and banking systems in Africa.

Located 8 420 km from Paris in the middle of the Indian Ocean, La Réunion was recently labelled a “French Tech Capital” and thus positioned as a global hub for overseas innovation and a popular location for innovative companies.

Although R&D in La Réunion is not yet as developed as in the European Union, the island’s performance is stronger than other countries in the Indian Ocean zone, such as Mauritius, the Seychelles or Madagascar. Since 2010, Région Réunion has initiated several strategies to create a virtuous ecosystem that boosts innovation and access to finance for small and medium businesses. It decided to set up Financière Région Réunion (FRR), a fund of funds financed by the ERDF and its own resources and managed by the European Investment Fund (EIF). FRR has, in turn, designed two underlying financial instruments, a loan fund managed by Banque Française Commerciale Océan Indien (BFC OI) and the equity fund ESSOR PME La Réunion, managed by APICAP.

“In the field of innovation, Essor PME is quite unique and very active in Réunion, so it was not hard for us to find them,” says Ashley Gaüzère, the entrepreneur who created HUB2. He then developed the technical solution and found the first customer of the aggregator in a co-working space as well as tech business partners and investors such as COMPASS and APICAP who have shown trust in the growth of his company. “We started to talk long before the first investment was made. Since then, we have been receiving not only financial support but most importantly, regular support through shareholder follow-ups and advice to anticipate any development needs,” he says.

A graduate of the École Nationale Supérieure des Télécommunications, Ashley Gaüzère got the idea to create his business when deploying broadband networks in Africa. “Having worked for ten years as the director of the mobile operator Orange’s internet business unit in Côte d’Ivoire, I realised that the payment space across French-speaking countries was lacking interoperability as well as e-merchant acquisition capabilities. I decided that this issue should be addressed to unlock the internet economy,” he explains, confident that Africa’s mobile money market will remain the main driver of financial inclusion on the continent.

In addition to securing €1.8 million from Essor PME, the Reunionese startup had previously benefited from BPI investment programmes (Programme d’Investissements d’Avenir, Subvention Innovation Outre-mer, Bourse French Tech). The funds raised enabled new people to be hired to strengthen the team of 18 people and to ramp up marketing activities.

A key development for us was when Essor PME, through the FRR, reinforced the SME base in La Réunion by developing technical R&D on the island and upgrading the transaction processing capacity of the HUB2 platform, as well as its security, governance and compliance standards,” says Gaüzère. Today, 14 employees are working from Saint-Denis (La Réunion) to sell HUB2 payment gateway solutions across all of French-speaking Africa, specifically Senegal, Côte d’Ivoire, Burkina Faso, Benin, Togo, Guinea, Cameroon, Mali, Democratic Republic of the Congo, and Congo.

Based on innovative and reliable payment technologies, HUB2 solutions allow more customers to receive money and make their payments through various channels, mainly mobile money, bank cards and transfers. “Our platform provides the missing interoperability layer to connect all payment methods in a country. It answers the huge demand for more interoperability in mobile banking and banking systems in Africa,” Gaüzère explains, adding that “the banking rate in the West African Monetary Union (WAMU) is extremely low (18% on average). We therefore needed to create an application programming interface that was reliable enough to scale. HUB2 is like a mobile payment system without a credit card, a sort of ‘PayPal’ for Africa.”

In 2018, the year it was created, HUB2 won the Overseas Innovation Competition and the prize for the best overseas start up at NxSe that same year. Two years later, HUB2 was recognised as one of the ten best companies offering digitalisation solutions to African insurers by the Federation of African National Insurance Companies (FANAF) and was ranked third by Hannover Re, one of the largest reinsurance groups in the world.



The Connect4 team during a seminar in Abidjan, Côte d’Ivoire.







# **EIB GROUP ACTIVITIES IN EU COHESION REGIONS**

**2022**