

ANNUAL REPORT 2018

EIB OPERATIONS INSIDE THE EUROPEAN UNION



European
Investment
Bank

The EU bank

EUROPEAN INVESTMENT BANK

ANNUAL REPORT 2018

EIB OPERATIONS INSIDE THE EUROPEAN UNION

EIB Operations Inside the European Union

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Flowers from around the world decorate the covers of the European Investment Bank's main publications for 2019. Flowers remind us of life's diversity and beauty, and reinforce the importance of protecting our natural environment.

This report has been written with the active assistance of many individuals in the operational and internal divisions of the EIB. Our sincere thanks go to all of them for their support.

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Once a year, **the European Investment Bank (EIB)** takes a hard look at its operations throughout Europe to determine the extent to which it is meeting its public policy goals: innovation and skills, financing for small business and mid-caps, infrastructure and the environment.

In this report, you will find a number of indicators that try to measure the expected results and potential direct impact, going beyond the financing volumes. The report provides a comprehensive overview of our operations throughout the European Union and the new services that were made available thanks to our support. It explains our mission: we strive to add economic value that would not have been generated by the private sector alone. The value we add comes in many forms. It may be getting financing to small business with good projects that otherwise would not receive it, or improving public transport through new metro lines, greener buses, rail cars and safer roads. Increasingly, we are helping national and local governments adapt to climate change to hopefully prevent its more destructive consequences.

This report is broken down into three main sections. “Our focus in 2018” explains our role in adding economic and social value and in addressing market failures. The section on new operations in the European Union describes projects we financed. And last, the section on new operations by sector breaks down our lending into different economic areas, like research and development, education, health and many more. At the end of the report is an annex detailing the 2018 operations of the European Fund for Strategic Investments (EFSI).

We hope this report provides insight into the impact we had in European Union in 2018. It should give the reader a clearer idea of how the EIB’s work is helping to shape Europe’s future.

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AT A GLANCE



All EIB projects contribute to at least one of the Bank’s four public policy goals: innovation and skills, finance for small and medium-sized businesses (SMEs) and mid-caps, infrastructure and environment. In addition, much of EIB finance supports the two cross-cutting objectives of cohesion, which addresses economic and social disparities across the European Union, and climate action, which covers climate change mitigation and adaptation. This report focuses exclusively on the expected impact of the 323 new operations¹ signed in 2018, which represent a total financing of €37.4 billion. Of that, 136 operations (€11.3 billion) were backed by the European Fund for Strategic Investments.

PUBLIC POLICY GOALS

- €12.04 BILLION** of new operations supporting innovation and skills
 - €9.36 BILLION** of new operations supporting SMEs and mid-caps
 - €8.01 BILLION** of new environment operations
 - €8.02 BILLION** of new infrastructure operations
-

CROSS-CUTTING OBJECTIVES

- Climate action: **28% OF TOTAL SIGNATURES**
 - Cohesion: **30% OF TOTAL SIGNATURES**
-

¹ A new operation is one for which the first contract was signed during the reference year.

OUR FOCUS IN 2018

All our lending contributed to our four public policy goals (innovation and skills, SME and mid-cap finance, infrastructure and environment), and was often combined with our two cross-cutting objectives of climate action and cohesion. Our investments furthered the development and adoption of new digital and greener technologies, while reducing greenhouse gas emissions in the European Union. Our work supported the Europe 2020 strategy, the European Union's agenda for smart, sustainable and inclusive growth.

Overall, the Bank maintained its focus on promoting long-term investments in the real economy and on mobilising investment, including through the European Fund for Strategic Investments (EFSI). The new operations signed in 2018 are expected to support around 540 000 jobs during the project implementation phase and to create about 60 000 new jobs when projects are up and running. The EIB has profiled some of the individuals who have benefited from this new employment in a recent blog series, "I Got A Job" (<https://www.eib.org/en/stories/series/i-got-a-job>)

At the end of 2018, the Bank began preparations to realign its lending to meet the requirements of the European Commission's forthcoming Multiannual Financial Framework 2021-27 and to deal with the consequences of Brexit.

ADDITIONALITY AND IMPACT

This report reviews the additionality and impact, rather than the financial volume, of new EIB operations in the European Union in 2018. Although definitions of additionality vary among public financing institutions, the basic premise is that interventions should bring a socially valuable contribution that would not otherwise materialise. Additionality and impact are measured at an operational level through a set of project-specific indicators. At the portfolio level, our impact is less easily quantifiable because of the variety of operations financed. Nonetheless, certain project level indicators are sufficiently similar to enable aggregation across operations, allowing us to highlight a specific impact for a broader project portfolio.

THE ADDITIONALITY OF EIB OPERATIONS

According to Article 16 of the EIB's Statute: "... the Bank shall grant finance ... to the extent that funds are not available from other sources on reasonable terms." Although precise definitions of additionality vary between public financing institutions, the basic premise is that interventions should contribute something socially valuable that would not otherwise happen.

As a policy-driven bank, the EIB is required to make a tangible contribution to EU policy objectives as defined in its Statute and in treaty provisions governing our

mission and functioning. Article 18 of the EIB Statute calls for the Bank's investments to support increased economic productivity and to promote the internal market. Article 309 of the Treaty on the Functioning of the European Union calls on the Bank to back projects in less-developed regions, projects of common interest to several Member States and projects which support the functioning of the internal market and cannot be wholly financed by other means available to the Member States. These statutory obligations define our remit.

Fulfilling the role of a policy-driven bank requires the EIB to ensure that projects meet *eligibility* criteria and that they deliver *additionality*. Neither eligibility nor additionality alone suffice.

The *eligibility* criteria ensure that our activities are in line with the EIB's Statute and well-defined EU policy objectives. Eligibility criteria also consider whether projects fall within our own public policy goals.

Conceptually, the underlying foundations of *additionality* are rooted in market failures, which cause investment to drop below levels that are optimal for the good of society, resulting in investment gaps. EIB support creates additionality and the Bank's impact is achieved through sustainable investment in sectors confronted with market failures. Thus, *additionality* is present when a given Bank operation has made a difference over and above any private sector contributions. This is only possible if EIB involvement complements (as opposed to replacing or crowding out) support from other sources for projects that advance EU policy objectives. Specifically, EIB interventions should facilitate and/or strengthen an eligible project from a public welfare perspective by mitigating market failures, in a way that the market alone would not deliver – at least not to the same extent or in the same time frame.



EIB'S ROLE IN ADDRESSING MARKET FAILURES

In principle, open and competitive markets for goods, services, information and capital allocate resources efficiently to support economic growth and overall welfare. In practice, however, markets are often distorted by failures. When left alone, markets may not deliver an optimal level, scope or quality of investment within the desired time frame. Such market failures are numerous and are caused by myriad factors linked to externalities, the provision of public goods, coordination failures, information gaps, financial market frictions, economic downturns and macroeconomic shocks. These factors can reduce the risk-bearing capacity and influence the preferences of investors, as well as the smooth functioning of the financial system. They tend to vary across regions and markets and over time. A country's institutions, development and policies can result in private choices that deviate from socially desirable ones.

In line with standard economic concepts, EIB interventions address the following types of structural market failures:

-
- i) **public goods**
 - ii) **externalities**
 - iii) **imperfect competition and market power**
 - iv) **incomplete/missing markets and coordination failures**
 - v) **incomplete/imperfect information (asymmetric information)**
 - vi) **information failures (informational inefficiency).**
-

Market failures can cause significant resource misallocations, misperceptions and intertemporal rigidities in the real economy that affect, either directly or indirectly, financial markets. They can quickly erode the financial incentives required to safeguard economic growth through sustainable long-term investments. Whenever such situations arise, public-sector intervention and support are justified to promote sustainable investments.

Some market failures are structural in the sense that they persist over time. Others are fleeting or intertemporal, and pertain primarily to how financial markets respond to risks and to new information (for example, unexpected events). The resulting market volatility increases the returns on capital required in irreversible long-term investments. Furthermore, the role of public financial support differs when facing structural market failures or intertemporal financial market failures. In the first case, financial support is supposed to boost investment to socially optimal levels, while in the second case, support is supposed to mitigate financial market failures and their adverse impact on investments.

The EIB Group's public policy goals address market failures in the following ways:

- **Innovation and skills:** Investments in innovation and skills, including education, **generate positive externalities** by creating new information and improving human capacity, which can benefit the broader economy and society.
 - **SMEs and mid-caps:** Operations improve access to credit for small businesses and mid-caps with competitive terms. These firms' access to finance can be restricted by **incomplete markets and imperfect information**.
 - **Infrastructure:** Investments in public infrastructure generate **public goods** which, in the case of cross-border infrastructure projects, suffer from **coordination failures** without EU support.
 - **Environmental protection:** Operations **generate positive externalities and abate negative externalities** for the benefit of the broader economy and society.
 - **Climate action (an objective of all policy goals):** Investments **mitigate catastrophic risks that the market tends to underestimate and generate positive externalities** for the benefit of society as whole.
 - **Economic and social cohesion (an objective of all policy goals):** Operations improve access to credit in less-developed regions where access is restricted by **incomplete markets and imperfect information**.
-

The EIB's long-term financing plays a pivotal role in supporting investments in **public and quasi-public goods**, such as climate action and climate change mitigation, certain types of transport, education and healthcare infrastructure. The problem with openly accessible non-rival and non-exclusive public goods is that no private group is willing to pay for them because the public enjoys the benefits for free. Therefore, private markets fail to adequately supply public services. The problem is solved by government intervention, such as public education.

The second type of market failure concerns knowledge, environmental and social **externalities** that may incur significant benefits or costs to society at large – costs that are not taken into account in the decision-making of private groups or individuals. The implication is that private groups or individuals invest too little in activities having positive externalities, too much in activities having negative externalities, and too little in the abatement of existing negative externalities.

Government regulation and standards typically address environmental and social externalities. Other possible policy instruments include taxes on the production of negative externalities (for example, fossil fuels), subsidies for the production of positive externalities (for example, grants for research, development and innovation, or RDI) and the abatement of already existing negative externalities. For some environmental problems, market-oriented solutions have also been developed (for example, Emission Trading System, ETS). Patents and registered trademarks are examples of regulations protecting intellectual property rights, which make research, development and innovation more attractive to private investors.

The EIB Group's activities address externalities in at least two important ways. First, externalities are included in the project's cost benefit analysis. Second, the EIB Group's lending activities specifically target the reduction of negative externalities (for example, environmental emissions) and the production of positive externalities, such as carbon sequestration, biodiversity and support for innovative small businesses and research, development and innovation (RDI).

Market distortions

Market distortions caused by **imperfect competition and market power** are becoming increasingly prevalent. In sectors characterised by significant economies of scale, open markets tend to concentrate production, logistics and trading so that the remaining market players obtain not only efficiency gains but also the power to control prices and quantities. That control allows market players to maximise their own profits to the detriment of consumers and society as a whole.

Several traditional infrastructure sectors are characterised as natural monopolies, in which one provider supplies the service the most efficiently. A competing additional supplier would just increase costs and prices for all, reducing consumer welfare. Examples of natural monopoly markets are found in railways, electricity transmission and water distribution systems.

Concentrated market structures are becoming evident in other sectors as the result of ongoing global consolidation and technology developments. This is the case in many high-tech industrial and service sectors as well as in trading platforms characterised by a combination of significant network effects and economies of scale. A highly competitive race may yield only one winner ("winner takes all"). This dynamic is found in information businesses and in financial trading platforms.

Once the market concentrates to such an extent that it is controlled by one or a few entities, these entities have market power that enables them to implement monopolistic or collusive pricing, which harms a society's welfare and causes market distortions. To prevent collusion and distortive pricing, the public sector supplies services in areas that are natural monopolies and the private sector is regulated.

The EIB Group's activities are designed to mitigate the failures of concentrated markets in two ways. First, the EIB only finances projects within concentrated markets and in sectors characterised as natural monopolies when a solid welfare-enhancing regulatory framework is in place and enforced in a credible manner. Second, EIB lending activities support the development of balanced and competitive market structures by financing

investments located in EU cohesion regions and EU neighbourhood regions, thus promoting economic and social cohesion.

Large infrastructure projects with a long economic life, particularly those that cross national or other administrative borders, are typically confronted with **incomplete/missing market and coordination failures**. The EIB plays a pivotal role in promoting EU-level coordination and in supplying long-term credit for these kinds of operations.

Information failures

The last type of market failures addressed by the EIB Group are rooted in **information failures and asymmetries** in the borrower/lender relationship. These asymmetries are particularly relevant for small businesses. The availability and quality of information about smaller – and often younger – enterprises is worse than for bigger, more mature companies. This can result in an insufficient supply of private capital and credit to economically viable investment projects. The EIB Group addresses these market failures through loans to small businesses, credit guarantee schemes, and support to the European securitisation market.

Private markets also have a tendency to underestimate serious, systemic risks. The probability that a widespread event may occur is very low and it is likely to be far in the future, but that event could cause catastrophic outcomes. Examples of such risks are low frequency natural disasters and, in particular, the far-reaching consequences of climate change. Reducing the consumption of fossil fuels by increasing energy efficiency and converting fossil-based economies to renewable energy and materials is one of the main challenges posed by climate change.

Overall, any public intervention, including that of the EIB Group, should not go beyond addressing market failures. Intervention should complement the private sector and should not introduce distortions into already efficient markets. Operations should comply with market standards for feasibility and financial and economic performance.

QUALITY INFRASTRUCTURE LENDING

Much of the EIB's investment targets infrastructure projects. Quality infrastructure is necessary for long-term sustainable growth. If properly planned, implemented and maintained, infrastructure has a positive impact on the environment and society. Good infrastructure supports economic efficiency and job creation and provides a bulwark against the effects of climate change and other security threats.

Infrastructure assets have a very long lifetime. A large proportion of their social and economic benefits stems from their longevity. As far as infrastructure projects are concerned, the EIB's intervention often results from market failures related to the public goods that infrastructure supports. Those public goods may not have strong financial returns, which may result in commercial

banks' being reluctant to supply the long-term credit needed to make projects financially feasible. The other rationale for our presence in such projects comes from the beneficial spill-over effects that are of little interest to private investors.

Our infrastructure lending for the six-year period 2013-2018 has improved lives across the European Union. For example, 75 million people benefited from improved sanitation services and a further 72 million from enhanced waste treatment. New or refurbished social or affordable housing is now available to some 1 million people as a result of EIB operations. EIB investments in the transport sector resulted in 1.7 billion additional trips being taken in the Union from 2013 to 2018, while over 1 000 lives were saved because of investments in safer roads.

HIGHLIGHTS OF EXPECTED IMPACT (2013-2018)

Population benefiting from the upgraded/new infrastructure and services through EIB co-financed multisector regional development investment programmes in the EU **66 MILLION**

Population benefiting from upgraded or new urban infrastructure and services through multisector municipal framework loans **46 MILLION**

Persons benefiting from improved sanitation services **75 MILLION**

Persons benefiting from new waste collection systems **4 MILLION**

Persons benefiting from safe drinking water **67 MILLION**

Persons facing reduced risk of flooding **10 MILLION**

Persons served by new sanitary landfill **168 000**

Persons served by new waste treatment facility **72 MILLION**

Persons with reduced exposure to drought risk **1.3 MILLION**

Households in new or refurbished social and affordable housing **1 MILLION**

THE THREE-PILLAR ASSESSMENT: HOW THE EIB IDENTIFIES QUALITY PROJECTS

The EIB provides support to projects that have difficulty finding finance elsewhere. For a project to receive the EIB's support, a promoter must illustrate that the project could not have proceeded (at least not to the same extent) without the Bank's backing.

The Three-Pillar Assessment (3PA) has been central to our project appraisal procedures since 2005. Since then, we have honed the methodology to take into account our experiences and to stay in line with best practices and EU policy changes. Today, the 3PA forms the foundation of our due diligence process. All our projects are subject to a rigorous evaluation carried out by a multi-disciplinary appraisal team.

The 3PA identifies and prioritises projects by assessing them against a number of benchmarks. By facilitating the identification of market failures, this approach documents the rationale for EIB intervention and provides a number of indicators to measure the Bank's additionality. It also supports the tracking of projects through their implementation and early operational phases. By requiring project team members to conduct a thorough analysis of each project proposal, the methodology

ensures that the EIB invests in quality projects that fall under the Bank's remit.

Why, what and how

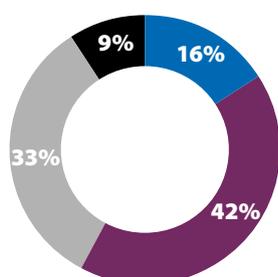
PILLAR 1 of the Three-Pillar Assessment addresses the "Why" of the project. The project's contribution to EU policy objectives is rated and it is established whether the project falls within one of the high priority areas, such as cohesion or climate action. Pillar 1 also requires identifying the specific market failures addressed through EIB support.

PILLAR 2 relates to "What". The project's impact on growth, environmental and social sustainability, and employment are examined. This pillar also assesses the promoter's ability to deliver the project. The assessment of the project's economic viability is based on a set of rigorous and publicly available appraisal guidelines developed in-house in line with international standards and best practices. Pillar 2 establishes the extent to which a given project effectively mitigates the market failure(s) identified in Pillar 1.

HOW NEW LOAN SIGNATURES FOR 2018 STACK UP

PILLAR 1

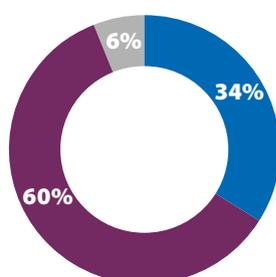
Contribution to EU policy



■ High
■ Significant
■ Moderate
■ Eligible

PILLAR 2

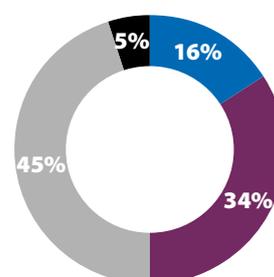
Quality and soundness of the project



■ Excellent
■ Good
■ Acceptable

PILLAR 3

EIB technical and financial contribution to the project



■ High
■ Significant
■ Moderate
■ Low

PILLAR 3 assesses how EIB support complements financing already available on the market. This pillar also looks at the impact of technical assistance that comes with the Bank’s involvement. Does EIB funding make a difference, offering better conditions than other lenders? Will the Bank’s presence catalyse financial support from other sources? Can the EIB make a difference by contributing technical advice?

Projects receive a rating for each pillar. Taken together, these ratings give EIB decision-makers an overview of the potential and actual use of a project, enabling them to prioritise efficiently. The methodology enshrines current best practices to ensure that projects backed by the EIB meet the highest possible environmental, social and climate-impact standards.

PILLAR 1 Contribution to EU or EFSI² policy objectives	PILLAR 2 Quality and soundness of the project	PILLAR 3 EIB technical and financial contribution
<ul style="list-style-type: none"> • Consistency with and contribution to the Bank’s public policy goals • Contribution to cohesion and/or climate objectives, EIB key sectors 	<ul style="list-style-type: none"> • Economic viability: preferably quantified by the economic rate of return, otherwise using sector benchmarks • Promoter capabilities: qualitative assessment of the promoter’s ability to deliver the project in a timely, efficient manner • Sustainability: environmental and social sustainability assessed using EIB in-house guidelines³ • Employment: during construction and operation of the project 	<p>Pillar 3 measures the value originated by EIB/EFSI involvement for:</p> <ul style="list-style-type: none"> • Financial contribution: the superiority of EIB funding conditions compared to alternative sources • Financial facilitation: catalysing funds from other lenders • EIB contribution and advice: the provision of non-financial services for the transfer of knowledge to facilitate project implementation, enhance institutional capacity, and advice on financial structuring.

Complementary indicators

The outputs, outcomes and core results of the project

- Expected results: project investment cost, project execution schedule
- Outputs (sector-specific)
- Outcomes (sector-specific)
- Core result indicators: Employment during construction and additional direct jobs during operation; energy efficiencies achieved; carbon footprint

² European Fund for Strategic Investments, one of three elements of the Investment Plan for Europe (IPE), which is also called the “Juncker Plan”.
³ EIB Environmental and Social Standards.



Assessment throughout the project lifecycle

EIB project team members award project proposal points according to the criteria set out within each pillar. A rating is calculated for each pillar based on the total points received.

Project initiation – determining the eligibility of a project for EIB financing

Strict screening guidelines enable the Bank to filter out high-risk projects or to recommend support for projects with manageable risks that could offer substantial economic benefits.

Project appraisal – preparing to present a project to the Management Committee and the Board of Directors for approval

The appraisal process identifies the challenges a project is likely to face during implementation, allowing the Bank's services to define loan conditions that minimise risks and surveillance during project implementation and operation. This approach can lead to complex and sometimes lengthy negotiations, but the number of projects with strong ratings that have received finance testifies to the appraisal process's value in identifying the strengths of each project.

Implementation, completion and early operation

Projects are monitored throughout their implementation and early operation with a view to gauging success and drawing up lessons learned⁴. The level of monitoring is adapted to the individual project and is influenced by the promoter's⁵ experience, project complexity, specific project conditions and location. Monitoring can also vary throughout the life of the project to respond to external changes, such as the servicing of

the loan, the questionable use of funds and other project or promoter-specific developments.

Monitoring enables the Bank to:

- Deliver strong project outcomes, identifying emerging or potential problems and mitigating project-related risks as early as possible. Monitoring ensures that each project is implemented and operates according to the Bank's standards, as agreed with the client during the project's appraisal and as defined in the finance contract.
- Maintain and develop the Bank's expertise, adding value to its financial services. Every project monitored provides feedback on the Bank's processes, and the knowledge accumulated gives the EIB a better understanding not only of project risks, but also of project merits. This has helped ensure the long-term success of the Bank's financial operations and, by extension, of its clients.
- Provide an accurate account of the impact of the Bank's investments. Project outcomes are documented, quantifying the direct contribution of EIB investments to the appropriate public policy goals. Sector-specific indicators and benchmarks are used to assess projects at completion and, in some cases, also after three years of operation. As the monitoring process runs its course, the documentation produced helps to tell the story of individual projects.

Overall, the EIB's monitoring operations are effective in helping projects to succeed. Promoters are diligent in meeting their contractual obligations, and many of them actually do more than required. Monitoring also ensures that the Bank has sound, first-hand information and data on how our investments support EU economic growth and new jobs.

⁴ All projects are monitored with the exception of those financed via Multi-Beneficiary Intermediated Loans (MBILs) for which monitoring is delegated to the Financial Intermediary.

⁵ The EIB uses the term "promoter" to identify the organisation responsible for the development, implementation and operation of the project. The promoter may or may not be the borrower.

A close-up photograph of a male worker wearing a bright green hard hat and a green safety jacket. He is focused on his work, looking down at a piece of industrial machinery. The background is slightly blurred, showing more of the industrial environment with various pipes and components. The lighting is bright, highlighting the worker's concentration and the metallic surfaces of the equipment.

NEW OPERATIONS IN THE EUROPEAN UNION

The Bank's total lending in 2018 stood at €47.6 billion, of which €37.4 billion comes from the 323 new operations signed in the European Union. Of these operations, 136 (€11.3 billion), were backed by EFSI. Details of EFSI operations are presented in Annex 1.

OPERATIONS BY POLICY OBJECTIVE (2018 SIGNATURES) (IN € MILLION)⁶

Policy objective	All signatures	First signatures	Project cost (first signatures)
Innovation and skills	13 543	12 041	35 013
Research and development	11 691	10 657	31 791
Education and training	1 852	1 384	3 222
SME and mid-cap finance	12 480	9 363	31 600
Infrastructure	10 185	8 024	28 240
Strategic transport (incl. TEN-T)	3 793	3 102	9 100
Competitive and secure energy (incl. TEN-E)	2 958	1 803	8 369
Integrated territorial development (incl. health)	3 434	3 119	10 770
Environment	11 367	8 010	26 544
Sustainable transport	4 687	3 124	10 822
Environmental protection and natural resource efficiency	2 811	1 561	4 491
Renewable energy and energy efficiency	3 869	3 324	11 231
Total	47 574	37 438	123 500
Total number of operations	392	323	
	€12.3 billion	€11.3 billion	

EFSI contribution to operations by policy objective

146

136

Cohesion
30%

Climate Action
28%

Some 28% of new lending within the European Union was dedicated to combating climate change, surpassing the target of 25%.

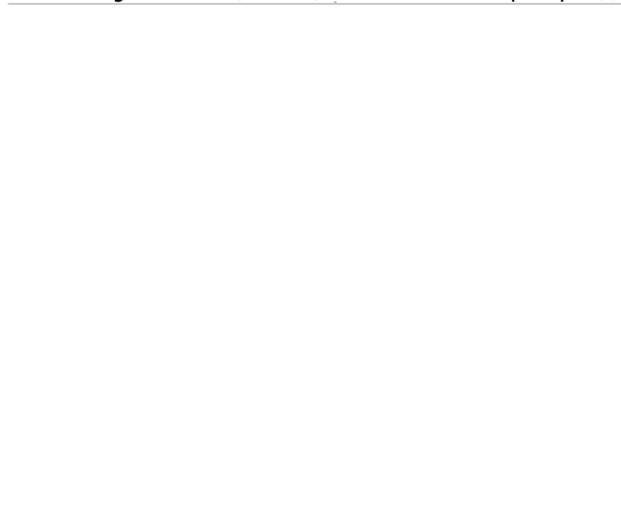
The highest levels of funding per capita in 2018 were in Finland, Cyprus, Ireland, Spain, Portugal and Greece. In terms of the volumes signed, the top six borrowers were Spain, Italy, France, Germany, Poland and the Netherlands.

Luxembourg was the only EU country that did not receive any EIB financing in 2018.

⁶ EIB financing and project cost have been allocated proportionately across EIB policy objectives when a project contributed to multiple objectives.

OPERATIONS BY COUNTRY

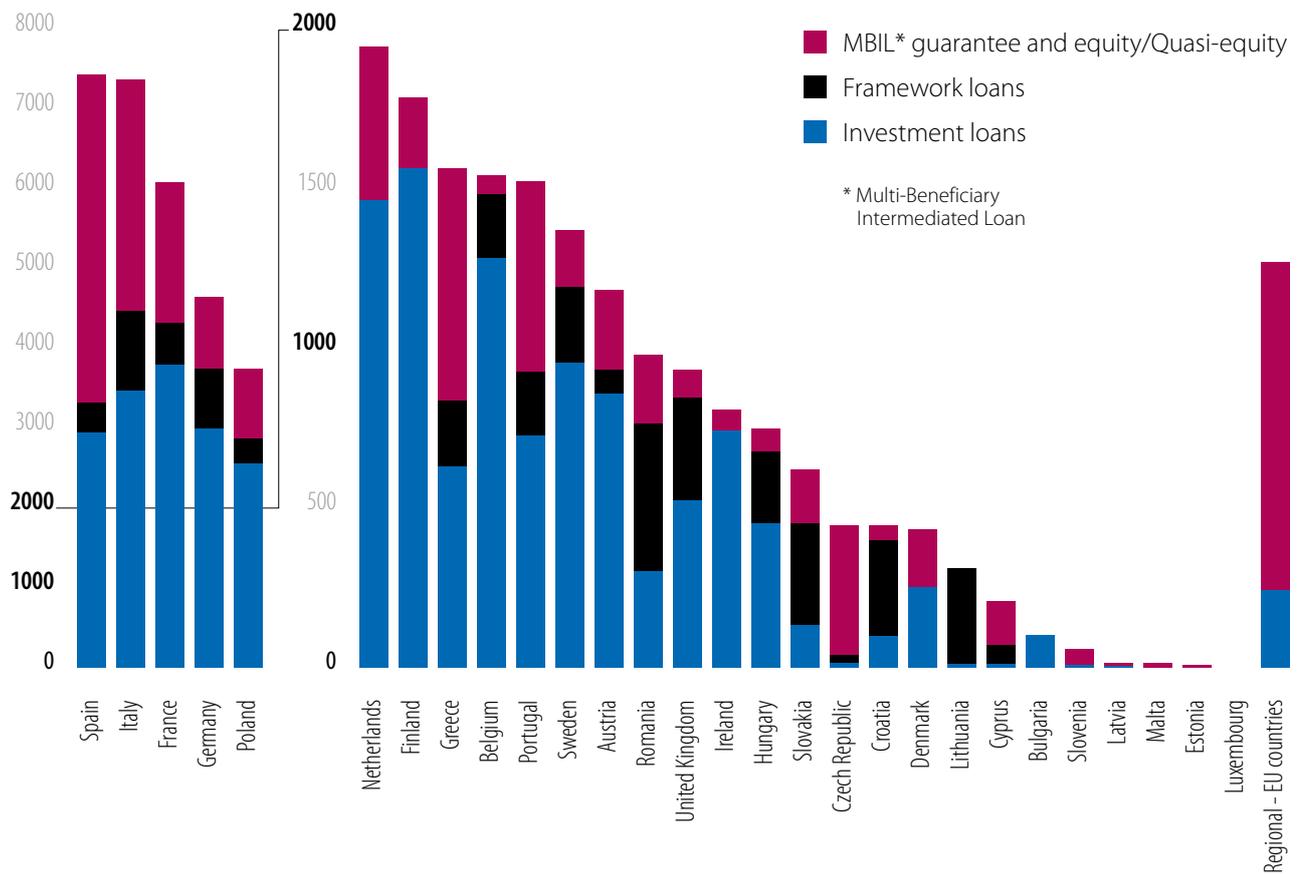
Amount signed in 2018 (€ billion) Amount financed per capita (€)



Country distribution (amount per capita)		2018
> €200		CY, FI
€150 - €200		ES, IE
€100 - €150	AT, BE, EL, HR, IT, LT, NL, PT, SE, SK	
€50 - €100	DE, DK, FR, HU, PL, RO	
€0 - €50	BG, CZ, EE, LU, LV, MT, SI, UK	



EIB SIGNED OPERATIONS⁷ BY COUNTRY AND OPERATION TYPE (IN € MILLION)



7 2018, all signatures. Data extraction as of 15 January 2019.

As regards the Bank's individual products, 2018 signatures follow the trend established during 2013-2018. Investment loans account for the greatest proportion of signatures in 2018, followed by Multi-Beneficiary Intermediated Loans.

OPERATIONS SIGNED BY TYPE (ALL SIGNATURES 2013-2018)

Product	€ million	%
Equity/quasi-equity	6 136.28	1.6
Framework loan	45 882.41	12.3
Guarantee	9 481.05	2.5
Investment loan	197 927.24	53.2
Multi-Beneficiary Intermediated Loan	112 534.34	30.3
Total	371 961.32	100

For 2013-2018, credit lines to small and medium-sized enterprises and mid-caps were the single largest area of EIB operations, accounting for 32% of new finance. Transport (17.5%) and energy (13.2%) were the next biggest sectors.

OPERATIONS SIGNED BY SECTOR (ALL SIGNATURES 2013-2018)

Sector	€ million	%
Credit lines	120 426.36	32.4%
Transport	65 019.86	17.5%
Energy	49 249.27	13.2%
Industry	35 511.02	9.5%
Urban development	18 771.45	5.0%
Education	18 622.19	5.0%
Services	17 184.93	4.6%
Water, sewerage	16 729.32	4.5%
Telecommunications	14 162.40	3.8%
Health	8 322.66	2.2%
Composite infrastructure	3 611.54	1.0%
Agriculture, fisheries, forestry	2 731.95	0.7%
Solid waste	1 618.37	0.4%
Total	371 961.32	100

BEYOND FINANCE: THE EIB'S ADVISORY ROLE

The EIB offers more than finance. With significant lending experience across sectors, the Bank also adds value through technical advisory services, particularly in less-developed regions and countries. Drawing on the EIB's high standards, technical assistance and advisory services play an important role in the preparation of technically, economically, environmentally and socially sound projects, and in the acceleration of their implementation.

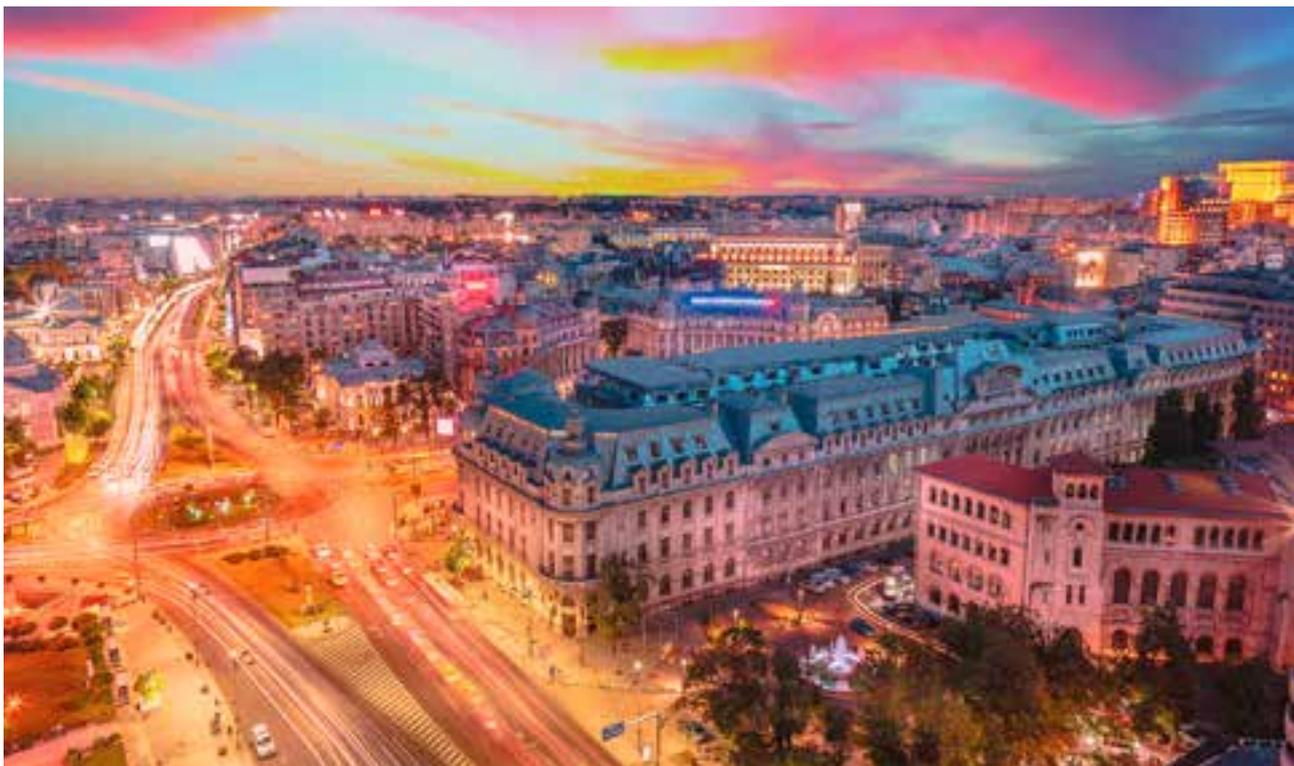
In addition to project-specific support, the EIB plays an important capacity-building role in EU Member States and financial intermediaries by providing sector specific and policy advice, and sharing best practices in areas such as climate, the development of financial instruments and public-private partnerships.

The EIB's technical assistance and advisory services also contribute to the Bank's lending and blending activity, developing a pipeline of mature projects ready for EIB financing. Some 80 projects approved in 2018 benefited from advisory support during their project cycle.

The Bank's advisory activity is growing steadily, with 528 new assignments in 2018, 692 active assignments ongoing and 431 assignments completed. Technical assistance and advisory activity in 2018 consisted of direct project support (73%), market studies and needs assessment (15%), institutional capacity building (7%) and support to investment platforms (5%).

More specifically, activity under the European Investment Advisory Hub (EIAH) has also increased, with 260 new requests in 2018. The majority – 70% – of these assignments were generated by expert sources such as EIB services, while the remaining 30% were channelled through the EIAH website. In line with EFSI 2.0 priorities, requests cover many different sectors, with transport and environment and resource efficiency accounting for more than 40% of the total. Energy remains an important sector for EIAH requests, together with SMEs and small mid-cap support (26.5% of the total).

In 2018, advisory services such as the Project Advisory Support Unit (PASU), URBIS, the advisory support to urban authorities, and units dedicated to small businesses and mid-caps delivered concrete support to ensure optimal project implementation.



PROJECT ADVISORY SUPPORT UNIT (PASU): KEY ACTIVITIES

PASU provides project implementation advice to promoters in Bulgaria and Romania. The PASU team also contributes expertise on the use of EU funds and on the engineering and economic aspects of infrastructure projects.

- **Disaster risk management:** PASU worked with the Romanian authorities to prepare an application for a €678 million investment in equipment and training centres to improve the speed and quality of emergency service response. Working with third-party consultants, PASU helped the authorities determine the scope of project components, analysing different options and risks and studying the cost benefit. PASU's involvement significantly shortened the project preparation phase and ensured that the application was completed much sooner than would have been the case otherwise. As a result, the project, which was co-financed by the European Commission, will be implemented within the current EU programming period of 2014-2020, boosting the absorption of EU funds in Romania.
- **Solid waste management – development of an implementation toolkit:** PASU worked with the Joint Assistance to Support Projects in European Regions (Jaspers)⁸ and third-party consultants to overcome technical, tendering and contractual problems holding up the opening of a solid waste plant built with EU financial support in Giurgiu County, southern Romania. Besides dealing with technical complexities, the EIB team worked with both local authorities and private operators to manage the project. After three months of fieldwork and negotiations, implementation tools were finalised and positively tested. The new implementation tools developed for this project will be used by PASU to support other solid waste projects in Romania.
- **Bucharest ring road:** EIB analysis of an application to build a new ring road around Bucharest revealed the need to articulate an overall strategy for developing the capital's road network. PASU worked with independent consultants to collect and analyse data on the existing road network and traffic patterns to help prepare a €1.7 billion project, which will be largely financed by European Structural and Investment Funds.
- **Public procurement reform:** The European Union had required Romania to reform its public procurement practices to continue receiving EU funds. Reforms that would normally take a decade to implement were completed in two years with the help of PASU. Consultants brought in by the EIB helped simplify procedures for meeting conditions placed on EU funds, moving from the systematic control of around 20 000 procedures to the control of a sample of the most relevant 3 000 procedures per year.
- **Support for water project implementation:** Bulgaria is currently upgrading its water and wastewater networks. In December 2018, the EIB and the Bulgarian Management Authority for Environment signed a new advisory support agreement to kick-start water projects for a total volume of €1 billion. PASU will facilitate technical assistance worth €4.9 million over the next five years to boost monitoring and controls over project implementation by the 16 newly established water operators, which cover most of the country. Support will include regular site visits, analysis of projects' status and project management units' performance, identifying issues and risks. As a result, some 1.5 million people will benefit from improved wastewater treatment services and 220 000 from a higher quality water supply.

8 Jaspers is a technical assistance partnership between the EIB and the European Commission, and is an important instrument of the EU Cohesion Policy.

URBIS: ADVISORY SUPPORT TO URBAN AUTHORITIES

The 34 requests received by URBIS in its first year of operation were largely from ministries, managing authorities, national promotional banks and institutions as well as capital, secondary and smaller cities in 17 Member States, of which 10 are in cohesion regions. Requests for support included the development of new investment programmes, tailor-made support for urban projects and the development of new urban-focused investment platforms.

Operating within the framework of the European Investment Advisory Hub, URBIS constitutes a single point of advisory support for urban authorities that draws together technical and financial expertise and complements the technical assistance available to municipalities and municipal enterprises from other sources. As is characteristic of the Hub, the programme has also enhanced collaboration between different Bank services, with several assignments staffed by joint teams. The value URBIS adds is visible in complex multisector assignments and in new, innovative areas.

Preliminary estimates indicate that total investment mobilised by URBIS assignments currently underway could exceed €4.3 billion (€2.7 billion is project-related and €1.6 billion through investment platforms). URBIS assignments also tend to make authorities aware of the possibility of securing EFSI investment. Some 65% of allocated URBIS assignments, which were sufficiently mature by the end of 2018 to analyse, have the potential to lead to EFSI-supported investment.

URBIS has demonstrated that there is a clear role for a transversal urban investment advisory facility for the current Multiannual Financial Framework (MFF) and beyond. The Bank is considering a gradual expansion of the service post-2020.

ELENA (EUROPEAN LOCAL ENERGY ASSISTANCE)

Under the ELENA programme, two new contracts were signed in 2018 for transport projects in Germany and Poland with innovative components.

For the Hub's assignments in the transport sector, by the end of 2018, 33 requests had been initiated and 23 allocated (approved). In relation to support for the Connecting Europe Facility Transport Blending Call for Proposals, 55 project-specific requests were received by the end of 2018.

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ADVISORY SUPPORT TO TRANSPORT PROJECTS

By the end of 2018, 41 technical assistance assignments in transport were using trust funds, blending facilities and other initiatives in conjunction with the European Union. The EIB used its own funds on 18 new initiated contracts in 2018 to support projects and/or mobility sector studies.

Alongside technical assistance provided by the EIB either through its own funds or from third parties, typically in support of projects outside the European Union, the EIB is responsible for managing a number of initiatives and facilities for transport that include technical assistance components. These programmes include the ELENA, the European Investment Advisory Hub, InnovFIN Advisory and Jaspers.

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ADVISORY SUPPORT FOR SMALL BUSINESSES AND MID-CAPS

The Advisory Hub complements the EIB's existing offering for small businesses and mid-caps. To date, the Hub has responded to 200 requests from SMEs throughout Europe. Those businesses are provided with information and useful resources through the Hub's website, as well as through a partner network of national promotional banks and institutions across Europe.

The EIB is also actively engaged in supporting innovative sectors. Under the fi-compass programme, the Bank has provided targeted advisory services to 25 European managing authorities and facilitated the creation of ESIF/EFSI Investment Platforms to support small businesses in the agricultural sector. Several projects are being showcased to raise awareness and understanding of financial instruments. The Bank has also developed early-stage assessments to support the design and development of SME-focused financial instruments.

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CLIMATE ACTION

We support climate action throughout our lending process and address it in a variety of ways, according to the specificities of each project:

- Use of an economic price of carbon in project appraisal
- Use of an emissions performance standard for fossil fuel-fired power generation projects
- Provision of technical assistance to promote energy efficiency
- Assessment of climate change risks and impacts
- Estimation of and reporting on greenhouse gas (GHG) emissions in all investment projects above certain thresholds.

The EIB's carbon footprint methodologies are publicly available on the Bank's website. The audited 2018 carbon footprint estimates the greenhouse gas emissions from investment projects financed in the European Union at 1.9 Mt CO₂eq/year. Estimated savings from the same financing are 2.2 Mt CO₂eq/year. Carbon footprint data of projects signed in 2018, both inside and outside the European Union, can be found in the Bank's Sustainability Report 2018 (<https://www.eib.org/en/infocentre/publications/all/sustainability-report-2018.htm>).

SUPPORTING THE SUSTAINABLE DEVELOPMENT GOALS

As the EU bank, the EIB plays an integral role in the European Union's efforts to ensure the implementation of the United Nations 2030 Agenda for Sustainable Development. The EIB considers the Sustainable Development Goals (SDGs) to be vital for a safe and secure future that brings prosperity, inclusiveness and human rights for all.

The EIB is supporting the achievement of the SDGs by unlocking investment in social, green and sustainable projects and by catalysing the acceleration in investment and knowledge-sharing that is needed to achieve the goals.

To measure our contribution to each of the SDGs, we have developed a methodology to map our project output/outcome indicators to the SDG targets. Our existing output/outcome indicators enable us to demonstrate our participation in progress for 14 of the 17 goals. Key examples of the EIB's role in achieving the SDG targets worldwide are 3.7 million jobs sustained in small and medium-sized businesses (SDG 8), clean drinking water for 20 million people (SDG 6), upgraded or new urban infrastructure benefiting 18.3 million people (SDG 11), and additional road and rail infrastructure for 291 million people (SDG 9).

Regarding 2018 operations within the European Union, the charts below illustrate the flows of EIB investments from the different sectors in which we are active to finance public policy goals and, as appropriate, the SDGs.

OUR CONTRIBUTION TO THE SDGs

SDG	Indicator name	Value
 3 GOOD HEALTH AND WELL-BEING	Citizens benefiting from improved healthcare services (#)	19.6 million
	Patients treated per year in new/rehabilitated hospitals (#)	1.4 million
 4 QUALITY EDUCATION	Students directly benefiting from EIB projects, EU (#)	314 000
	Graduates (#)	42 000
 6 CLEAN WATER AND SANITATION	Population benefiting from improved sanitation services (#)	6.5 million
	People benefiting from safe drinking water (#)	6.2 million
 7 AFFORDABLE AND CLEAN ENERGY	Electricity generation capacity from renewable energy sources (MW)	7 200
	Electricity produced from renewable energy sources (GWh/year)	15 100
	Households to be powered with clean electricity	3.8 million
	Heat/refrigeration production capacity from renewable energy sources (MW)	280
	Heat/refrigeration produced from renewable energy sources (GWh)	1 500
 8 DECENT WORK AND ECONOMIC GROWTH	Temporary employment (person-years)	540 000
	Jobs sustained in SMEs and mid-caps through intermediaries	3.7 million
	Jobs supported in skill-intensive industries and services through direct support to SMEs and small mid-caps	287 000
	Total potential sales resulting from the projects directly financed by the EIB (EUR)	89 billion
	Additional SME finance leveraged through intermediaries (EUR)	31.6 billion
 9 INDUSTRY INNOVATION AND INFRASTRUCTURE	Time savings (hours/year)	92 million
	Additional national/international patents applications (#)	1 100
	Households covered by very high speed broadband	29 million
	Passengers benefiting from additional road and rail infrastructure (#)	221 million
	Railway tracks built or upgraded (km)	21 500
 11 SUSTAINABLE CITIES AND COMMUNITIES	Highway lanes or roads built or upgraded (km)	2 070
	Households in new or refurbished social or affordable housing (#)	40 150
	Urban rail or bus lanes built or upgraded (km)	620
	Public transport vehicles and rolling stock purchased or rehabilitated (#)	1 500
	Citizens benefiting from upgraded or new urban infrastructure and services (#)	17.6 million
 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	People facing a reduced risk of flooding (#)	1.3 million
	Amount of recyclables/bio-waste collected separately (t/yr)	1.3 million
	Amount of waste handled in new or rehabilitated waste treatment facilities (t/yr)	1.4 million
 13 CLIMATE ACTION	Population served by new waste collection and treatment facilities (persons)	2 million
	Absolute emissions (mln t CO ₂ eq/yr)	1.88
 15 LIFE ON LAND	Relative emissions (mln t CO ₂ eq/yr)	-2.2
	Forestry on agricultural land covered by improved management (ha)	488 293
	New area planted – afforestation (ha)	9 630

EIB FINANCING IN THE EUROPEAN UNION HELPS ACHIEVE THE SUSTAINABLE DEVELOPMENT GOALS

20 MILLION CITIZENS access improved healthcare

92 MILLION HOURS/YEAR saved through improved transport infrastructure

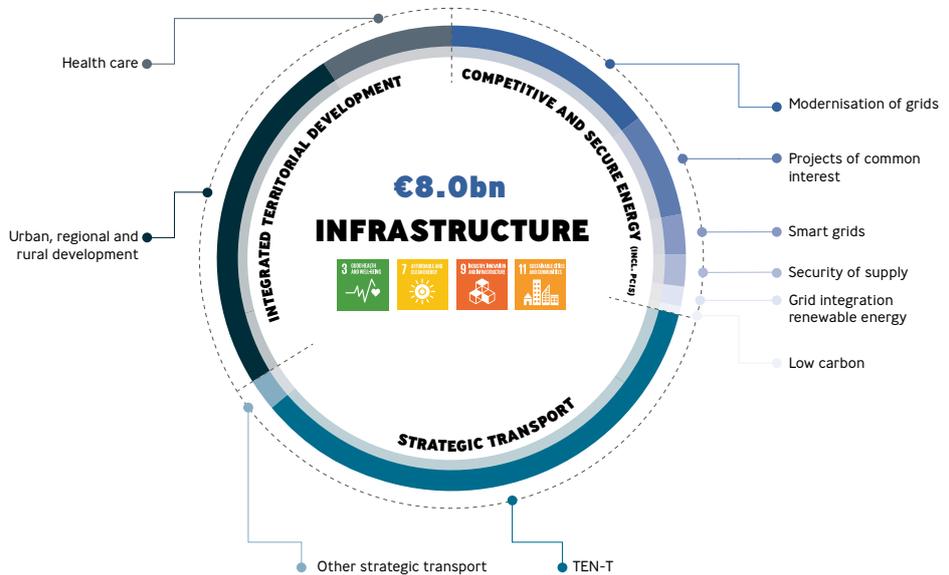
21 500 KM RAILWAY tracks built or upgraded

1 940 KM ROADS built or upgraded

€84 MILLION saved in vehicle operating costs via better roads

17.6 MILLION CITIZENS benefit from new or improved urban public infrastructure and services

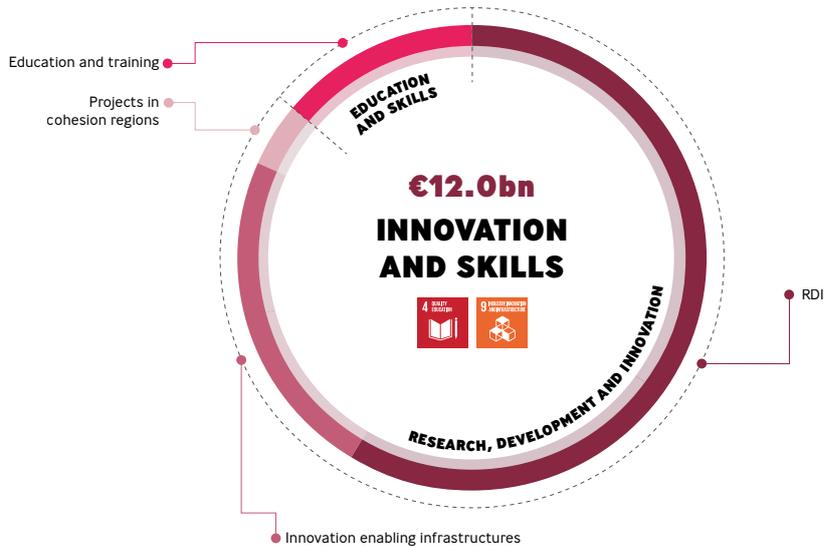
40 000 HOUSEHOLDS living in new or refurbished social or affordable housing



29 MILLION ADDITIONAL HOUSEHOLDS covered by very high-speed broadband services

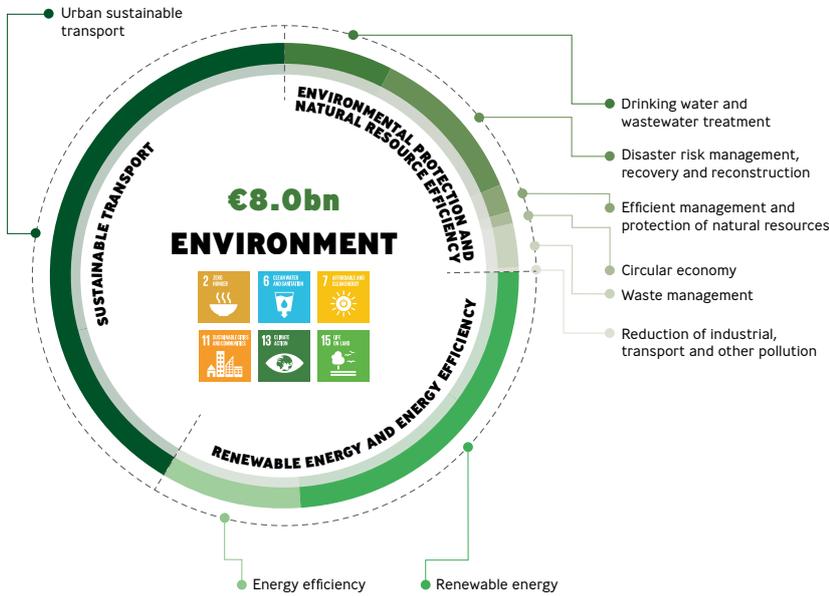
300 000 STUDENTS benefit directly from EIB projects

287 000 JOBS supported in skill-intensive industries and services



Cross-cutting poverty reduction impact: **€14.3bn (30%)** of loans for projects in less-developed and transition regions of the European Union





1.3 MILLION PEOPLE face a reduced risk of flooding

Additional production capacity of **59 400 T/YR** of food and agricultural products

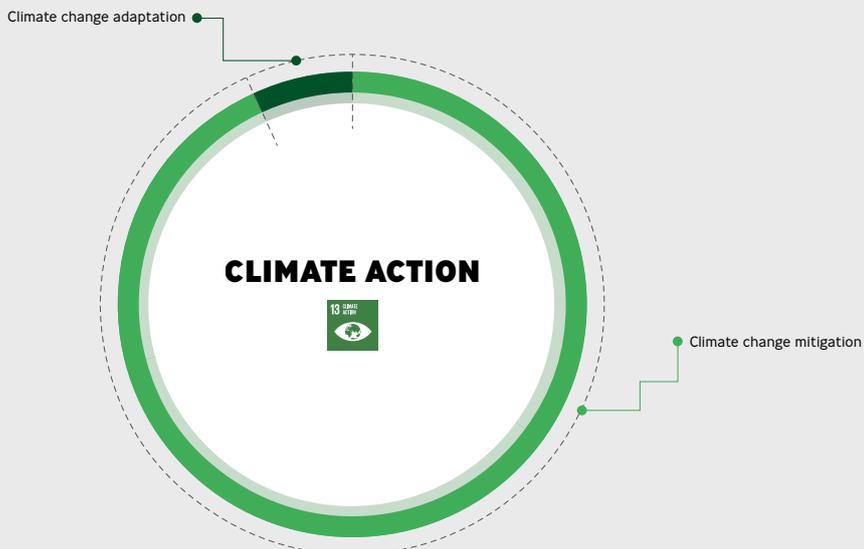
Over **6 MILLION PEOPLE** benefit from improved water supply and **6.5 MILLION PEOPLE** have access to improved sanitation

Improved management on some **500 000 HA** of agricultural and forestry land

Energy production from renewables sufficient for some **3.8 MILLION HOUSEHOLDS**



Supporting an estimated **€31.6bn** of investment while sustaining approximately **3.7 MILLION JOBS**



Cross-cutting indicator representing **€13.3 BILLION (28%)** of the total lending volume

2 600 GWH of energy savings per year from energy efficiency measures

1.88 MT CO₂ EQ/YEAR of GHG emissions from financing of investment projects

2.20 MT CO₂ EQ/YEAR of carbon sequestration from forestry projects

GENDER ACTION PLAN

The EIB Strategy on Gender Equality and Women's Economic Empowerment has been underway since early 2017 and our accompanying Gender Action Plan (GAP) since 2018. The Bank focuses on three thematic areas:

- Protecting the rights of women and girls in EIB operations (protect)
- Increasing the positive impact of EIB operations on gender equality (impact)
- Promoting women's economic empowerment (invest)

An increasing number of EIB operations seek to enhance their impact on gender equality and/or to increase women's financial inclusion. It is essential to be able to track our progress and additionality in this regard. As agreed by the EIB Board in 2017, implementation of the strategy and Gender Action Plan will be assessed in two ways: (a) through the measurement of results achieved on gender equality and women's economic empowerment, and (b) through the planned evaluation of the strategy and the action plan.

The gender strategy commits to developing "a system for ongoing sex disaggregated data collection, results measurement and monitoring, as appropriate." The long-term vision is for the EIB to:

- Where appropriate, provide sex disaggregated data on final beneficiaries and on employment created and sustained. In some cases, these numbers will be estimated – appropriate methodologies will need to be developed, particularly for data-poor environments.
- Whenever possible and relevant, report the gender-specific results of a particular operation. Reflecting the voluntary nature of the strategy's Impact and Invest pillar, the results will be calculated when the client is willing and/or where technical assistance or other types of support are provided.
- Readily identify those operations that have integrated gender specifications or gender equality/women's economic empowerment as an intended outcome.

Work is underway, with specialist support, to help services and clients better track, measure and report gender-specific results of lending, blending and advisory activities.

PROJECTS COMPLETED

In 2018, more than 231 projects reached completion with a documented Project Completion Report. 87% of them were based in the European Union. Two such projects were supported under EFSI – the first EFSI projects to reach completion.

Every project completed in 2018 was monitored from the start of its implementation to project completion by an expert in the appropriate economic sector. As the scope and level of the Bank's lending has increased, the number of projects under monitoring has also risen. In recent years, this expansion has been largely due to the impact of EFSI.

The smooth running of the monitoring process, coupled with the efforts made by the Bank's project teams and promoters, has resulted in the EIB being able to demonstrate that more than 76% of projects reaching completion in 2018 were rated as "High" or "Good" against the Bank's quality and soundness criteria. Promoters continued to take their reporting obligations seriously and the majority of documents required for monitoring reached the Bank within the deadlines contained in the finance contract. As a result, the EIB was able to process reporting data and take any appropriate action in a timely manner. All completed EU projects lie within the scope of the Bank's public policy goals.

Only a small fraction of projects completed in 2018 received an unsatisfactory quality rating. The most common problem areas were procurement, project management and project planning. While the number of problem projects is small, solutions and corrective actions are given a high priority. Was the problem due to "force majeure", unforeseeable external events, or systemic problems and phenomena and would more intense monitoring or more stringent project conditions have prevented the situation? The aim is to learn from these experiences to identify appropriate preventive strategies.

The stories of a number of EIB projects that reached completion in 2018 are illustrated in this report. These case studies were chosen to show the quality of the Bank's monitoring portfolio across different economic sectors and regions. Each project is different, but each one touches the lives of EU citizens in a variety of ways: sustaining or creating jobs, supporting innovation and knowledge, boosting the use of renewable energy, improving the security of the energy supply or helping provide transport systems that meet the demands of the modern traveller. Whatever the specific focus of the project, the Bank has worked to ensure an environmentally friendly, smart and sustainable outcome: one that develops the efficiency and efficacy of the European Single Market while supporting the welfare of its people.

INVESTMENT BY SECTOR

RESEARCH, DEVELOPMENT AND INNOVATION (RDI)

The European Union's manufacturing and process industries received significant support from the EIB in 2018 to help them face the challenge of digitalisation. While digital technologies promise large benefits, they also create uncertainty and challenges when integrated with legacy processes.

Traditionally, process innovation is adopted gradually to minimise disruption. However, this is not always possible, as in the case of advanced manufacturing technologies based on digitalisation. It is precisely because these technologies are disruptive that the potential gains to productivity and to entire business models are significant. Confronted with the prospect of significant disruption, however, traditional manufacturing companies, especially smaller and mid-sized ones, are likely to adopt a wait-and-see attitude. This in turn generates the risk that European manufacturers could be upstaged by overseas newcomers that have benefited from innovative business models and technologies from the outset.

In 2018, the Bank signed about 30 projects with industrial companies under the umbrella of innovation lending, which supports RDI across a wide range of industries. A number of industrial digitalisation projects have focused on process innovation, advanced measurement and control systems, higher energy and resource efficiency and higher productivity. Other innovation

lending projects have financed upstream research and development across a number of disruptive technologies like batteries for electric and autonomous vehicles, semiconductors, telecommunications technology, specialised chemical products, advanced materials, renewable energy technologies and digitalisation in manufacturing, process industries and services.

Altogether, these projects have generated just over 25 000 direct jobs (person-years) during implementation, while supporting around 287 000 EU jobs and €83 billion of global sales for beneficiaries, primarily skill-intensive companies.

The Bank has continued its investments in very high-speed and ultra-high-speed broadband networks. Signed loans in 2018 will result in an additional 29 million homes wired, compared with 7.4 million in 2017, reflecting the Bank's commitment to ensure Europe has the infrastructure in place to meet Europe's Gigabit Society targets.

In support of the European Union's plans for future digitalisation, the Bank financed the R&D activities of Ericsson and Nokia for 5G mobile broadband technology. Furthermore, the Bank financed DNA's 5G early network rollout plan in Finland, pushing competitors to make the costly investment in fully-fledged 5G networks when radio spectrum becomes available.

DIGITAL

Additional households covered by very high-speed
broadband services

29 MILLION HOMES

Very high-speed broadband lines activated

7.5 MILLION LINES

New or upgraded 4G and 5G sites

16 000 SITES

Development of LPWA⁹ sites **120 000 SITES**

Additional subscriptions with high-speed mobile
data services enabled

10.7 MILLION SUBSCRIBERS

⁹ Low Power Wide Area ("LPWA") network: wireless network specifically conceived for the Internet of Things ("IoT") and independent from the existing high bandwidth mobile cellular networks.



FRANCE: NAVYA'S AUTONOMOUS ELECTRIC VEHICLES

Navya is launching autonomous electric shuttles and taxis.

The company builds driverless collective transport vehicles, mostly covering the first and last mile of journeys on closed or private sites, as a complement to existing transport services. Because the use of autonomous vehicles on public roads is heavily restricted at present, Navya's approach is supporting the early commercialisation of its vehicles.

An EIB investment of €30 million under EFSI will support Navya's spending on R&D, technology development and the scaling-up of production. The EIB's involvement in the project addresses a number of market failures. Specifically, our presence promotes competition in the nascent European market for advanced autonomous and assisted driving technologies; it stimulates flows of new knowledge stemming from RDI activities leading to the development and deployment of innovative technologies; and it reduces the difficulties experienced by smaller companies in obtaining appropriate financial support at a reasonable cost.

Navya's investments will contribute to the development of a more efficient, safer and sustainable European transport system. The introduction of autonomous driving technologies is expected to accelerate the adoption of zero-carbon emission vehicles, leading to reduced carbon dioxide and polluting emissions, particularly in metropolitan areas. Driverless vehicles are also expected to help reduce traffic accidents caused by human error and, in the future, to increase the range of mobility options, notably for older passengers or more remote communities, by complementing existing public transport networks, especially in the first and last mile. The Navya investment will also contribute to increasing skilled employment opportunities in Europe, particularly in RDI, which already involves one-third of the company's employees.

This project supports the Union's R&D Horizon 2020 strategy and contributes to both EU and EIB innovation policy objectives.

GERMANY, FRANCE, FINLAND: REMAKING BIOPHARMEUTICAL MANUFACTURING (COMPLETED IN 2018)

This R&D project supported the development of new single-use products and flexible manufacturing solutions for the biopharmaceutical industry and of laboratory equipment designed with an eye on ergonomics.



Most of the R&D activities of the promoter, Sartorius, were carried out in Germany over the 2014-17 period, with some work taking place in France and Finland. The project also included vocational training at the German headquarters of Sartorius. The EIB supported the project with a €90 million loan, which represents 38.2% of the promoter's actual R&D investment in the region (€230 million).

The promoter's performance during the project implementation period was outstanding, resulting from a balanced combination of consistent organic growth and key strategic acquisitions. The impressive rise of bioprocess solutions is linked to the strong demand for novel single-use products and solutions to be used in all phases of the development and production of biopharmaceuticals. Single-use technologies are changing the development and production of biopharmaceuticals.

Single-use systems are employed in a wide range of applications, such as filtration operations, separations and purification steps. The need by manufacturers to

minimise costs and maximise operational flexibility drove the rapid expansion of single-use technology to a number of applications that were traditionally the domain of stainless steel equipment (bioreactors, buffer/media storage containers, mixers, bulk, and final filling equipment).

The continuing progress in developing single-use technologies is fundamentally changing bio-manufacturing facilities, resulting in faster, less expensive and simpler plant design, start-up and operation. Two key issues are driving the decision to adopt single-use technology: the elimination of cleaning steps, limiting the risk of cross contamination, and the significant reduction of production prep time between two batches of products.

Single-use technology contributes to environmental and social sustainability because of the lower energy and water consumption required by the technology compared to conventional – "stainless steel-based" – bioprocessing technology.



GREECE: SUNLIGHT EXPANDS BATTERY PLANT CAPACITY

Sunlight, a member of the Olympia Group, manufactures lead-acid batteries in Xanthi, in the less-developed (cohesion) region of East Macedonia and Thrace in northeastern Greece.

An EIB loan backed by EFSI, which is now eligible to invest in industries in cohesion regions, supports the expansion of Sunlight's existing production by about 65%, to 2.5 million cells per year. In addition to supporting the capital expenditure necessary for the expansion, the project will boost the working capital the company needs to ramp up production and to pay for additional R&D.

The capital increase will make the Sunlight facility the largest lead-acid battery manufacturing plant in Europe. The resulting decrease in production costs will help to improve the plant's competitiveness, enabling the company to address new markets and to expand its product range into higher value-added products.

The R&D component of the project is crucial in helping Sunlight confront future challenges to its established products. Lead-acid battery technology is expected to stay in use due to its low production cost and established manufacturing base. It will, however, face competition from newer Lithium-Ion (Li-Ion) technology which, once cost and safety issues have been resolved, will ultimately gain a considerable market share. Sunlight's R&D

programme, along with work on its current technologies, includes further developing Li-Ion based solutions, formative and reserve power applications.

The EIB loan addresses a dearth of credit and investment in Greece. The local market does not provide long-term financing to mid-cap companies like Sunlight, which operates in a mature, global, competitive and capital-intensive industry. EIB funding is provided over a duration that would not otherwise be available to Sunlight. The Bank's involvement will send a strong signal to other potential financiers, including foreign banks, and improve Sunlight's financial profile. The EIB's presence also acts as a positive endorsement of the company.

Sunlight is based in a region with high unemployment, particularly among young people (53.4% in 2016). The project is expected to create 70 direct jobs (both skilled and unskilled), of which 60 will be in manufacturing or production and 10 in sales or marketing. EIB funds will also help the company to keep its existing 740 jobs.

FRANCE: SUPPORTING GROUPE ROULLIER'S RESEARCH AND DEVELOPMENT

Groupe Roullier's RDI activities include identifying novel active ingredients and nutrient absorption mechanisms for plants and animals, new products and processes, as well as the related capital expenditures. Most of the RDI activities will be conducted in France with smaller investments planned in Spain and Italy.

The EIB's involvement in the project was an opportunity to promote sustainability in agriculture and the wider bioeconomy through RDI investments in plant and animal nutrition. The project is aligned with Horizon 2020 priorities in food security, sustainable agriculture, marine research and the bioeconomy, and it will support investments in coastal and rural regions of France.

The company's research on plant nutrition focuses primarily on finding ways to limit the leaching of nitrogen from fertilisers, which leads to nitrous oxide (N₂O) greenhouse gas emissions and which can contaminate

ground water. Around 50% of the investment will go to research into innovative and more efficient fertiliser products. Because of its positive implications for the reduction of greenhouse gas emissions, the investment contributes to the EIB's climate action (mitigation) objective.

The EIB's investment will help generate significant gains in knowledge and technology and better protection of the environment, through the creation of innovative processes, products or services and through skills development.





FINLAND: DEVELOPING 5G WITH NOKIA

Nokia, headquartered in Espoo, Finland, is a leading manufacturer of network equipment for telecom operators. The company also offers advanced technology services and licensing with a particular focus on digital media and digital health.

The project relates to the development of a new 5G network product portfolio that meets the industry's global 5G standards, and the complementary IP/Optical solutions to address the challenges posed by the massive amount of traffic that will be generated by 5G customers.

5G is a crucial enabling technology for Industry 4.0, or the transformation of manufacturing through digitisation like automation, data exchange and the Internet of Things. Applications like autonomous driving and remote emergency surgery require high-performance mobile networks with little or no delay (low latency).

The Nokia project supports one of the two remaining European developers of mobile technology, while protecting high-skilled employment in Europe.

EDUCATION

Education facilities built or rehabilitated **1.1 MILLION M²**

Students to benefit directly from EIB projects **300 000 STUDENTS**

Graduates from universities with the help of EIB financing **42 000 GRADUATES**

New equipment supplied to educational facilities **€177 MILLION**

Student loans to students in tertiary education **16 500 STUDENTS**
(of which 1 500 students are from disadvantaged backgrounds)

Education providers are challenged by the pace of digitalisation and the evolution of societies, which requires institutions to update their competencies and offerings in response to the changing demands of the job market.

Educational institutions are increasingly required to rethink their priority areas, and improve the alignment between educational curricula and societal and industrial needs, while strengthening and updating their teaching methods. Higher education is particularly prone to information asymmetries and a lack of timely investments, which can result in a lasting mismatch between the demand and supply of skills, affecting the competitiveness and technological readiness of a whole region.

The EIB financed numerous projects in 2018 for higher education institutions. The Bank's support spans wide

areas of education, such as the development of public universities, the renewal and expansion of tertiary technological colleges, and increased attention to a more international approach and improved quality of teaching in management schools. The Bank also continued to accompany the local authorities and regions that need to update their educational offering and infrastructure of pre-primary, primary and secondary schools to ensure that all schools provide the high-quality education needed to shape younger generations.

New education operations in 2018 will benefit a total of 300 000 students across the European Union, including 42 000 individuals who will graduate from university with the help of EIB financing.

The EIB's activities in education from 2013 to 2018 have enabled 3.8 million students to benefit from a new or refurbished education facility.



IRELAND: DELIVERING EDUCATION AND REGENERATION IN THE HEART OF DUBLIN

Grangegorman is one of the largest urban regeneration projects in Dublin. The site comprises an innovation hub, commercial and residential developments and a new campus for the Dublin Institute of Technology (DIT). DIT is an important part of the Irish higher education system as it provides a variety of academic and vocational education and training programmes that focus on learning while working.

The EIB is helping to fund the Grangegorman PPP (public-private partnership), which will build two new campuses for DIT by the end of May 2020, completing a transformative consolidation for the education provider. The project will provide over 50 000 square metres of new academic, teaching, laboratory and administrative space. These state-of-the-art facilities will serve 10 000 students in the schools of culinary arts, optometry, and music and design, enabling DIT to train its students in modern learning environments and equip them with the skills the Irish economy needs.

EIB funding will enable and accelerate the construction of the new DIT buildings, facilitating the transfer of the majority of DIT's activities to Grangegorman. The new campus will act as a hub in the Grangegorman strategic development zone, encouraging further investment and supporting additional employment in a new, innovative neighbourhood.

The EIB does more than just finance infrastructure projects. Complementing its significant experience in infrastructure lending, the Bank also adds value through technical advisory services, particularly in less-developed regions and countries.

GREECE: 22 NEW SCHOOLS (COMPLETED IN 2018)

The first ever public-private partnership for Greek schools plans to design, build, finance and maintain 22 new pre-primary, primary and secondary schools in the Attica Region in and around Athens. The Bank appraised the project at the height of the financial crisis when raising money through debt was very difficult. Construction started in 2014 and was completed by the end of 2017.

The new schools were designed to higher standards than traditional public school projects. The project came with more demanding requirements for energy efficiency and management, modern teaching and learning facilities, and specially equipped facilities for vocational classes on certain sites. Four school sites involved the renovation of dilapidated buildings that were almost in ruins, providing new classrooms and helping to transform the affected local communities.

The financing for this project was unique in that it blended the use of JESSICA¹⁰ funds with a long-term loan from the EIB and a medium-term loan from Alpha Bank, which enabled the project to close its financing in 2014. Without the involvement of the EIB and JESSICA, the project would never have been implemented. Private financing was difficult to come by as Greece was suffering from a severe lack of liquidity. The EIB's contribution went beyond just providing money. The Bank brought JESSICA on board, while through its financing terms (in combination with JESSICA) it managed to support the investors in maintaining their pre-crisis financial and technical offer for the benefit of the promoter/public sector. Following project completion, the Bank supported a review of the lessons learned to encourage future public-private school projects in Greece.

Despite the typical debate around the use of public-private partnerships in Greece, the project has been a tremendous success. The high building standards used in the new schools underscore the need to replace run-down school buildings. The quality and appearance of the schools has resulted in a lot of positive press coverage. The hope is that the new infrastructure will inspire the next generation, enabling them to improve their education and future employability.

¹⁰ JESSICA (Joint European Support for Sustainable Investment in City Areas) is a policy initiative of the European Commission (EC) developed jointly with the EIB and in collaboration with the Council of Europe Development Bank (CEB)

HEALTH

Equipment and ICT supplied to health facilities **€500 MILLION**

Floor area in health facilities constructed or upgraded **450 000 M²**

Population covered by improved health services **19.6 MILLION PEOPLE**

Innovation in the delivery of healthcare services, research and medical education attracted EIB support throughout 2018. A total of €882 million in loans was signed, representing 17 new projects. The Bank also expanded its technical assistance operations in the health sector, providing or managing activities to support reforms and developments.

Above and beyond the obvious benefits to society that universal access to quality medical services provides, healthcare plays an important role in the economy. The sector employs 8% of the European workforce and accounts for about 10% of the European Union's gross domestic product.

Medical research is characterised by high financial and economic risk and often long delays before new products reach the market. Medical research projects have variable, but often highly valuable outcomes, such as

breakthrough discoveries that redefine public health (e.g. vaccines), imaging techniques and treatments for rare and orphan diseases (e.g. gene therapies). Effective medical research requires investment in institutes and university hospitals, which not only deliver healthcare services, but are also centres capable of testing novel medical technologies. The Bank has contributed to the design, construction and refurbishment of research laboratories and institutes, medical universities, university hospitals and larger projects such as biomedical campuses that combine health and science. Another emerging area of Bank activity is modern, long-term care infrastructure, especially for the elderly, which addresses an important investment gap and social need.

The EIB's investments in 2018 will help provide improved health services to 19.6 million people. Our investments in the 2013-2018 period have facilitated access to healthcare for 78 million EU citizens.



POLAND: WARSAW MEDICAL SIMULATION CENTRE

Poland faces a significant shortage of medical professionals and depends on domestically trained physicians and nurses. Consequently, the country needs to increase the number of medical and health students while modernising undergraduate curricula and providing continuous education opportunities for medical professionals.

Advanced medical simulations are becoming an integral part of medical education as they (i) facilitate the modernisation of medical training; (ii) increase the abilities of students; and (iii) increase the number of locally trained staff for the health sector.

An EIB loan supported the design, construction and equipment for a new state-of-the-art Medical Simulations Centre at the Medical University of Warsaw. The centre will feature modern installations such as a simulation operating theatre, an intensive care facility, an emergency ward and an obstetrics room. The facilities will also contain advanced and basic life support simulation rooms, as well as simulated dental ambulatory and didactics facilities. A mortuary will be incorporated to provide training in anatomy and surgical procedures using specially prepared human cadavers. In addition, the project includes renovations to the university's Litewska Street building in central Warsaw, an energy efficiency upgrade of the Faculty of Pharmacy building as well as the creation of a smaller, auxiliary medical simulations unit. All of the university's undergraduate doctors, midwives, nurses and dentists will undergo training at the new Medical Simulations Centre at various stages in their training programmes. The centre will

also provide a wide range of postgraduate and lifelong learning courses for medical professionals.

This project will provide higher quality education for undergraduate students; tailor training for medical professionals after their studies; and broaden the range of educational services provided by the university. Furthermore, the higher quality of education and training given to medical professionals will translate into better healthcare services and improved patient safety. These advances will improve life expectancies and lower morbidity by encouraging healthier behaviour. The project will also increase the number of medical students at the university, a significant benefit for a country with a shortage of medical professionals.

The creation of the new Medical Simulations Centre will strengthen the university's academic position, giving it a competitive advantage over other schools that do not offer medical simulation, and will increase the supply of well-qualified physicians and nurses to the Polish and European health sector. Furthermore, by developing innovative educational services based on digital technologies, the project adds to the EC Digital Single Market Strategy for Europe.

SMALL BUSINESSES AND MID-CAPS

Small businesses and mid-caps are strong drivers of economic development, innovation and employment. They represent 99.8% of all non-financial enterprises in the European Union, employ 93 million people (two-thirds of employment for non-financial enterprises) and produce 57% of the Union's added-value. Yet, small and medium-size firms face structural issues when trying to get credit.

Evidence suggests that the situation has improved over the past few years. Nonetheless, almost one-third of small businesses in the euro currency area were still reporting that they were having trouble finding finance in 2018, with figures ranging from one-half of small and medium-sized businesses in Greece, to one in 10 in Finland. The maturity of the individual company, the sector in which it operates and the type of financing required also has an impact on how easily small businesses and mid-caps can obtain funds.

The financial pool for smaller businesses is shallower than that for larger corporations, and their external financing sources are more limited. Credit lines and bank loans remain the most important sources of financing, together with leasing and trade credit. Yet smaller loans (to small enterprises) are often provided on less competitive terms – in terms of pricing, tenor or collateral requirements – compared to larger loans (to corporations). These conditions are exacerbated in certain regions, and the added cost for small businesses becomes apparent when their loan terms are compared to the average lending rates for larger loans in the European Union. Whereas larger enterprises make greater use of their direct access to capital markets, the share of publicly listed SMEs or those that received venture capital or private equity funds is very small.

The market failure that generally impairs financing for smaller companies and the still noticeable impact of the 2008 financial crisis on specific areas of SME financing in several countries justify public support.

Support for small businesses and mid-caps is one of the EIB's four public policy goals. Through our involvement in this sector, the Bank aims to expand access to finance for small firms while improving financing conditions and diversifying sources of funds. EIB support for the European Union's smaller companies helps them maintain employment levels while enhancing the overall innovation and competitiveness of the EU economy. In the wider EU policy framework, EIB Group financing for small businesses and mid-caps also contributes to the objectives of the Capital Market Union (CMU) set out under the Investment Plan for Europe.

The EIB offers a variety of funding possibilities to small businesses and mid-caps, from risk sharing and guarantees to equity products. Nearly all activity follows an intermediated business model, which relies on a wide network of partners including commercial banks, national promotional banks, leasing companies, venture capital or private equity funds and providers of alternative finance.

In 2018, first signatures between the EIB and financial intermediaries for SMEs and mid-caps came to €9.4 billion, funding that supported an estimated €31.6 billion of investment while sustaining approximately 3.7 million jobs.

Key indicators	€bn	Number of sub-loans
Volume of intermediated loans to SMEs and mid-caps	9.4	113 600
Additional SME finance leveraged through intermediaries	31.6	

OVERVIEW OF NEW SMALL BUSINESS AND MID-CAP OPERATIONS SIGNED IN 2018

Results

Three new risk-sharing operations for a total of €565 million

Through risk sharing, the EIB provides backing for individual loans, directly supporting intermediaries' financing of SMEs and mid-caps. These transactions are expected to generate €1.6 billion of new investment for those firms.

22 new operations deployed as loan substitutes through asset-backed securities or covered bonds for a total of €2.8 billion

The EIB continued to diversify its range of financing options with loan substitute transactions accounting for a 30% share in new volume of activity. Loan substitutes involved funded transactions or guarantees, enabling intermediaries to expand their lending to SMEs and mid-caps. These new operations are expected to support €10.1 billion of new investment for those firms.

A €13 million increase in the EIB's commitment to the SME Initiative Malta and the continued use of existing SME Initiatives in Bulgaria, Romania and Spain resulted in €81 million in additional guarantees signed.

The SME Initiative instrument, currently available in Bulgaria, Italy, Finland, Malta, Romania and Spain, aims to catalyse private investment and foster job creation by supporting European small businesses through risk-sharing financial instruments. The increase in funds available for SME Initiative Malta is expected to increase the guaranteed portfolio and add €22 million in new loans for domestic small businesses.



**CZECH REPUBLIC:
KOMERCNI BANKA 'JOBS
FOR YOUTH' LOAN**

Together with Komerční Banka, the Bank is financing small and medium-sized projects supporting youth employment that are carried out by smaller firms.

The EIB's €200 million loan provides long-term finance in the Czech Republic and Slovakia for climate action investments that seek to improve the energy efficiency of renovated buildings and renewable energy projects. The EIB's Jobs for Youth initiative encourages the employment of people under 30, vocational training programmes for young people and cooperation agreements with technical colleges, schools and universities.

Most of our lending for SMEs and mid-caps goes to countries where finance constraints are most pronounced, and the EIB continued to focus its activity on key policy objectives including support to cohesion regions, innovation and climate action. Support also targeted certain sectors where access to finance for small businesses and mid-caps is particularly difficult.

Lending through local partners like national promotional banks helps us target specific policy objectives, such as youth unemployment through the “Jobs for Youth” initiative. The EIB also continued to develop new initiatives such as fostering female entrepreneurship. The Bank signed its first loan partly dedicated to female entrepreneurs in the European Union, supporting SMEs and mid-caps in Romania that are majority owned by women. The EIB’s Gender Action Plan provides a sound framework to address the issue of gender balance among small companies.

Recent years have seen a growing presence of non-bank financing alternatives for small businesses and mid-caps, such as private debt, mini-bonds, crowdfunding and fintechs (financial services based on technology). Through a series of innovative operations, the EIB supports novel approaches to finance, underpinning the European Union’s efforts to forge a capital markets union, part of the third pillar of the Investment Plan for Europe. Furthermore, securitisation is an important tool for mobilising institutional investors’ resources for small businesses. The EIB remains a key investor in European securitisation issues of SME loans and leases as illustrated by its involvement in the first-of-a-kind, direct lending platform in Spain managed by Be-Spoke Capital.

FINLAND: A CO-INVESTMENT PLATFORM

A €50 million investment made possible by EFSI is helping Finland get money to innovative small businesses and mid-caps.

The funding will be used to create an investment platform in conjunction with Finnish Industry Investment that will focus on equity and equity-type investments (shareholder loans and convertible loans) for innovative firms. The fund will ideally pull in private sector investors as well.

SPAIN: BE-SPOKE SECURITISATION

With the support of the EFSI Guarantee, the EIB is investing €80 million in the mezzanine note of a term securitisation that will increase the funds available for a lending platform managed by Be-Spoke Capital.

Be-Spoke’s one-of-a-kind platform provides small businesses with an alternative to traditional bank loans, thereby addressing a significant market gap.

AGRICULTURE

Since 2013, over 80 000 farmers, foresters and fish producers have benefited from EIB financing, 25 000 of them in 2018 alone. To give an idea of the scope of our impact, in 2018 our operations supported increased food and agriculture production of 60 000 tonnes.

Additional production capacity of food and agricultural products **59 400 TONNES/YEAR**

Agricultural or forestry land with improved management **500 000 HA**

Farmers benefiting **25 000 FARMERS**

Rural access roads **900 KM**

WATER, WASTE, SEWERAGE AND FLOOD PROTECTION

The EIB is the world's largest multilateral lender in the water sector. In 2018, the Bank signed 24 loan agreements for water, sewerage and flood control projects worth over €2.5 billion.

Water sector projects address a series of highly relevant market failures: water and sewerage projects generate positive externalities, like the environmental and public health benefits that come from limiting ground and surface water pollution or flood control infrastructure, a public good that is not attractive to the private sector. In 2018, water sector projects financed by the EIB brought safe drinking water to 6.2 million people, improved sanitation to 6.5 million, and flood protection to 1.3 million. The Bank's activities contributed to the achievement of Sustainable Development Goals #6 (clean water and sanitation) and #11 (sustainable cities and communities).

WATER AND SEWERAGE

In 2018, the EIB financed the construction and rehabilitation of 33 600 kilometres of sewer mains, helped increase the capacity of water treatment plants by almost 750 000 m³/day, and financed an increase in the capacity of wastewater treatment plants to serve the equivalent of 2.6 million people. Compliance with European Commission directives on drinking water and urban wastewater treatment remains the most important driver of capital investment in water supply and sewerage. As demographics change and more people move to cities, capital investments in water supply and sewerage become more important, particularly as the number of small households increases. In some countries, water and sewerage utilities need to raise their capital investments (notably in water pipes and transmission mains) to adapt to the adverse impacts of climate change, especially as rising sea levels cause saline intrusion into freshwater sources.

WATER

Length of water mains or distribution pipes built or upgraded **19 300 KM**

Capacity of water treatment plants constructed or rehabilitated **746 000 M³/DAY**

Domestic connections to water supply created or rehabilitated **65 200 UNITS**

Population benefiting from safe drinking water **6.2 MILLION PEOPLE**



WASTE

New treatment facility capacity **1.3 MILLION TONNES/YEAR**

Population benefiting from new waste collection system **2 MILLION PEOPLE**

SEWERAGE

Length of sewer pipes built or upgraded **14 300 KM**

Capacity of sewage treatment plants constructed or rehabilitated **2.6 MILLION PEOPLE EQUIVALENT**

Domestic connections to sanitation services created or rehabilitated **49 000 CONNECTIONS**

Population benefiting from improved sanitation services **6.5 MILLION PEOPLE**

FLOOD PROTECTION

Construction and rehabilitation of dykes, flood barriers and flood retention basins **127 KM**

Population facing reduced risks of flooding **1.3 MILLION PEOPLE**

In 2018, flood control projects accounted for over 15% of total water sector lending, more than in previous years. Capital investments in flood protection are increasingly driven by climate change, which is causing more extreme weather. Expanding populations and economic growth mean that the value of assets exposed to flood risks is increasing over time. This dynamic makes flood control even more important.

THE NETHERLANDS: FLOOD DEFENCE

Since 1932, the Afsluitdijk dyke has protected a large part of the Netherlands from flooding by the sea, but the rising sea levels caused by climate change mean the dyke no longer meets flood safety standards. Discharges of water from the IJsselmeer, Holland's biggest lake, into the Wadden Sea, controlled by the dyke's discharge sluices, will soon be insufficient. Periods of high water influx into the IJsselmeer are expected to occur more frequently in the coming decades.

The project, to which the EIB contributed €330 million, aims to upgrade the Afsluitdijk, a 32-km long dyke that separates the IJsselmeer from the sea. The A7 highway runs over the dyke, as does a biking path connecting North Holland and Friesland. The project will upgrade the dyke's pumping system in phases, allowing the project to evolve as climate change demands and leaving

open the possibility of future investment. The project will protect the lives and livelihoods of the millions of inhabitants that live behind the dyke, while the improved management of water levels and the construction of passages for fish will contribute to the quality of the environment.

The project is being led by RWS, a division in the Dutch Ministry of Infrastructure and Environment that is responsible for the development and maintenance of national infrastructure. The contract for the public-private partnership was structured in such a way that payments are based solely on the availability of the infrastructure, subject to potential performance deductions. A private company won the tender for the design, construction, financing and maintenance of the project for 25 years from the completion of construction, plus for the maintenance of existing infrastructure during construction.



SPAIN: PROTECTING AND RESTORING COASTAL AREAS

The Ministry of Agriculture, Fisheries, Food and Environment led an investment programme worth €272 million from 2012-2016 to rehabilitate coastal areas and forests and improve methods of fighting forest fires. The Bank contributed €120 million to the project.

The programme covered approximately 110 coastal protection and restoration projects located in all Spanish coastal regions. It called for the rehabilitation of over 100 000 ha of forests damaged by severe fires during the 2012-2016 period and the acquisition of an amphibious fire-fighting aircraft.

The project generated three key environmental benefits: (i) coastal management, protection and restoration; (ii) forest protection and firefighting; and (iii) forest

regeneration and erosion control. Because the project delivered multiple environmental benefits, it helped contribute to the EU environmental policy objectives in climate change mitigation and adaptation, biodiversity protection, resource efficiency and sustainable forest management. The operation also contributed to EU cohesion policy by bringing finance to less-developed regions. During implementation, the project generated over 2 800 jobs (full-time equivalent).

Signed during the global financial crisis, the EIB's participation played an important role in supporting the Spanish government's investment programme. Without the Bank's contribution, the project would have been carried out on a smaller scale, with fewer economic benefits for the rural areas and local economies concerned.



POLAND: 200 PROGRAMMES TO IMPROVE WATER AND WASTEWATER SERVICES

An EIB loan to AQUANET in Poland enabled the water utility to finance its 2012-2016 investment programme, which consisted of 200 projects to improve water services in 10 locations in Poznań and the surrounding Wielkopolske region, which includes the cities of Mosina, Puszczkowo, Czerwonak, Luboń, Suchy Las, Murowana Goślina, Swarzędz, Kórnik and Brodnica. The projects sought to make Poland compliant with EU directives concerning drinking water and wastewater collection and adhere to treatment guidelines mandated by national legislation.

The project, which was co-financed with grant funds from the European Commission under cohesion funds, cost PLN 895 million. The projects generated economic benefits that included (i) a reduction in health hazards through the improved quality of water and wastewater services, (ii) increased efficiency in the provision of services through a rationalisation of the wastewater disposal system, and (iii) environmental benefits from the reduction of untreated wastewater discharges into the Warta river, which is a tributary of the Odra river.

The project achievements are indicated in the table below:

Indicator	Achieved
Length of water mains or distribution pipes built or upgraded	30.5 km
Length of sewer pipes built or upgraded	100.5 km
Capacity of water treatment plants constructed or rehabilitated	121 274 m³/day
Population benefiting from safe drinking water	1 495
Population benefiting from improved sanitation services	19 820



URBAN AND REGIONAL DEVELOPMENT

Promoting economic and social cohesion is one of the EIB's key priorities. The Bank combines its lending with advisory services to help deliver growth and jobs, thereby addressing regional economic imbalances and raising living standards across the European Union. EIB support to EU cohesion priority regions in 2018 accounted for 30% of our lending volume.

The Spanish social enterprise Ilunion shows how EIB finance can be used to improve employment prospects in the less-developed regions of the European Union, including for people living with disabilities.

SPAIN: ILUNION, A SOCIAL ENTERPRISE

Ilunion, a social enterprise, provides employment opportunities for people with disabilities. Over 41% of its 35 800 employees are disabled and it is ranked among the leading companies in Spain focusing on the inclusive economy and responsible management.

The company is active in a range of labour-intensive sectors, such as facilities management, business intelligence, tourism, industrial laundries and manufacturing. Through its research and development activities, the company harnesses the latest technology to support people with disabilities in the workplace and in their daily lives.

The EIB's €35 million loan backs a four-year investment programme including improvements in the energy efficiency of Ilunion's industrial laundries, which contributes to the climate action goals of the Bank; reconstruction of existing hotels and construction of a new hotel, all located in cohesion areas of Spain; and research and development in the area of accessibility. The Bank's financing will facilitate energy savings of 60 000 MWh per year and will create 725 temporary and 200 permanent jobs.

The EIB was able to provide financing on the desired terms thanks to the EFSI guarantee, enabling Ilunion to proceed with its investment programme on schedule.



POLAND: RENEWING WAŁBRZYCH

While most European cities are growing from their participation in the global economy, a number are undergoing the difficult process of deindustrialisation. Along with other cities where steel production and coal mining were once the mainstay of the local economy, Wałbrzych has had to reinvent itself. The shutdown of the mining and coal processing industries caused the city's population to shrink from 140 000 in the 1990s to 115 000, a period that also saw high unemployment, which peaked at 30%. Today, however, the city has returned to its pre-industrial role as a regional centre for tourism and has successfully restructured its local economy, reducing unemployment to 7%.

Wałbrzych's urban regeneration has enjoyed government support from the outset. The EIB provided financing to support the second phase of the programme in the form of a multi-component framework loan. This has enabled the city to implement a range of large and small investments contributing to the improvement of the city's historical centres, in connection with its new tourism focus, and of its social and cultural infrastructure with the aim of stemming further population decline. Specifically, living conditions will be improved in Wałbrzych's historical central districts, which lagged

behind the purpose-built housing for workers in the coal mines and related industries.

The EIB is also providing advice, via the URBIS Urban Investment Support initiative under the European Investment Advisory Hub, to help the city manage the process of physically downsizing its footprint after deindustrialisation and population decline. The URBIS assignment will include a workshop to bring together representatives of a wide range of European cities, which have had to address similar challenges to those of Wałbrzych, and will hopefully help the city to optimise and prioritise its investment programme according to potential impact. The EIB loan is supported by an EFSI guarantee, which enables the EIB to offer the city a long tenor.

The involvement of the EIB and EFSI will ensure that the city will be able to finance the full range of necessary investments, reaping the benefits far earlier than would otherwise be the case. EIB involvement will also highlight the city's success in its restructuring, providing an example of how a city dependent on the coal industry can transform its economy and living conditions. That story is particularly relevant given the wider challenges faced by coal regions in Europe in light of climate change and the move to a low-carbon future.





TRANSPORT

Additional passengers to be transported
221 MILLION TRIPS/YEAR

Time savings **92 MILLION HOURS/YEAR**

Vehicle operating cost savings
€84 MILLION/YEAR

TRANSPORT

The EIB's investment in transport in 2018 resulted in travellers saving 92 million hours a year, the upgrading or building of 21 400 km of railway tracks, and the purchase or rehabilitation of 1 500 vehicles for urban transport systems.

In 2018, the EIB signed deals for 43 new transport projects inside the European Union for a total value of €6.2 billion. Alongside more traditional transport infrastructure investments like railways, roads, airports and ports, notable projects signed in 2018 include fleets of buses using electric and/or alternative fuels. Investments supporting innovative companies in the rollout of alternative fuel charging and refuelling infrastructure were also signed in 2018. These investments represent the first deals for alternative fuel infrastructure on strategic transport networks signed under the Bank's Cleaner Transport Facility. The EIB has also continued to support public-private partnerships for roads, including significant projects in the Netherlands, Germany and France.

The EIB contributes to the development of strategic transport infrastructure, including Trans-European Transport Network (TEN-T) projects, through financial instruments, blending and advisory support.

The EIB's investments in transport contribute to our public policy goals by improving infrastructure and protecting the environment. In 2018, strategic transport projects (including TEN-T) accounted for 46% of overall loan signatures, while sustainable transport projects made up the remaining 54%.

In 2018, the European Commission released its third and final mobility package (the first and second packages were released in 2017). In his 2017 State of the Union address, the President of the European Commission, Jean-Claude Juncker, set a goal for European industries to become world leaders in innovation, digitisation and decarbonisation. In the transport sector, the agenda called for safe, clean, connected and automated transport. The mobility packages included strategies, policies, standards and action plans to modernise transport. The EIB supports the objectives of the mobility packages through its existing policies and its recent focus on cleaner, safer and smarter transport.

ROAD

Length of road built or upgraded **2 070 KM**

CO₂ savings due to increased use of electric vehicles **9 GCO₂/KM**

Road fatalities avoided due to road safety measures **35 LIVES/YEAR**

RAIL

Railway tracks upgraded or built **21 400 KM**

Stations constructed or upgraded **10 STATIONS**

CLEANER TRANSPORT FACILITY

The EIB and the European Commission launched the Cleaner Transport Facility (CTF) in December 2016. The facility supports the accelerated deployment of cleaner transport vehicles and their associated infrastructure, building on the European Commission's goal of reducing transport emissions.

In 2018, the EIB continued to support both lending and advisory operations under CTF. That lending is focused in part on cleaner buses for public transport networks. The next wave of projects involves expanding the charging infrastructure for electric vehicles and other types of low-emission transport.

MOBILITY EVENTS

- The EIB actively participated and supported a number of mobility events in 2018 in conjunction with the European Commission, the European Parliament, Member States, multilateral development banks and other organisations.
- The EU Transport Commissioner organised the TEN-T days 2018 in Ljubljana, Slovenia.
- The EU Presidency held by Bulgaria and Austria in 2018 included a number of sector events, including on transport.

DELIVERING EU FINANCIAL INSTRUMENTS AND BLENDING

The EIB manages the Connecting Europe Facility (CEF) debt instrument in cooperation with the European Commission. As of 2018, nine active transport operations benefited from the CEF debt instrument and merged financial instruments¹¹. The value of the EU's contribution to these transport operations represents approximately 82% of the total portfolio under the CEF financial instrument.

Due to the complementarity of the CEF and EFSI, during 2018 the EIB and the Commission worked on a proposal for "Future Mobility" financing under the facility. This facility would target higher-risk ventures, supporting the decarbonisation of transport in line with EU policy goals.

In 2018, the EIB signed another agreement with the Dutch bank ING for a total of €300 million to fund the Green Shipping Guarantee Programme (GSGP). ING and the EIB will each contribute €150 million to the

facility. The programme seeks to help companies renew their shipping fleets, enabling them to retrofit polluting ships with sustainable technologies. The new agreement builds on existing signed agreements with other Dutch and French banks. Both EFSI and the CEF can be used to support operations under the shipping programme.

The EIB continued to support the CEF Transport Blending Call for Proposals launched in 2017, which had two call deadlines: July 2017 and April 2018. The call was innovative in that CEF grant funds were, for the first time, conditionally linked to the promoter obtaining finance through the private sector or through the EIB or a national promotional bank (NPB), depending on the type of project and the location. The EIB supported the design of the call and provided support to projects eligible for our help, in addition to providing advisory support through the European Investment Advisory Hub.

AIR

Additional airport capacity **19.5 MILLION PASSENGERS/YEAR**

Additional annual passengers throughput **10.5 MILLION PASSENGERS/YEAR**

URBAN TRANSPORT AND ROLLING STOCK

Public transport vehicles and rolling stock purchased or rehabilitated **1 500 VEHICLES**

Urban rail and bus lanes upgraded or built **620 KM**

Urban roads built or upgraded **130 KM**

Stations or stops upgraded or built **116 STATIONS**

The EIB's investment in the transport sector resulted in 1.7 billion additional trips being taken in the European Union from 2013 to 2018, while investments in safer roads saved over 1 000 lives.

¹¹ Merged financial instruments denotes legacy instruments managed by the EIB including the Loan Guarantee for TEN-T (LGTT) and Project Bond Initiative (PBI).



THE NETHERLANDS: BLANKENBURG TUNNEL

The Blankenburg tunnel project is a public-private partnership to build four kilometres of new motorway connecting the A15 and A20 motorways near Rotterdam in the Netherlands. The project includes the design and construction of 18 new structures, including a 1 kilometre-long immersed tunnel, a 500-metre long land tunnel, a conventional highway bridge and retaining structures. The public-private partnership has been awarded a 20-year Design-Build-Finance-Maintain (DBFM) concession for the construction of the new A24 motorway.

The project will unblock congested traffic and improve accessibility to the Port of Rotterdam, Europe's busiest harbour. By linking the existing motorways, which run parallel to the port on the northern and southern side, traffic from both sides will benefit from an extra crossing point over the Het Scheur River, in the Maas river delta. This will not only improve the flow of goods from the port, but also alleviate traffic for local residents and commuters. Road users will therefore save time and traffic in the corridor will be faster and smoother, as well as safer.

The EIB loan and EFSI guarantee played a significant role in securing the substantial total financing required to complete this important project.

SPAIN: PALMA DE MALLORCA BUS FLEET RENEWAL

An EIB loan, with EFSI guarantee, is supporting the purchase and deployment of greener buses for Empresa Municipal de Transportes de Palma de Mallorca (EMT Palma), a publicly owned company that provides transport services in the city of Palma de Mallorca, Spain. The funds will pay for new Euro 6 emissions standard-compliant compressed natural gas (CNG) or electric buses to replace the 180 diesel buses that constitute the transport company's bus fleet. The loan will also finance the construction of a new CNG refuelling station and the upgrade of EMT Palma's information technology, fleet management and ticketing systems.

The project will improve the quality and sustainability of Palma de Mallorca's public bus transport services. The upgrade will reduce emissions, increase energy efficiency (through the use of cleaner engines, start-stop systems, LED lighting and energy recovery by braking), and improve safety as the new buses will be equipped with controlled acceleration and high-performance braking systems.

EIB and EFSI support was vital in helping EMT Palma to renew its full fleet of buses in the desired time frame as finance for the total project cost was not available from other sources. Implementing the renewal plan helps guarantee the reliability of the city's bus service. The new buses will be less costly to operate and are bigger, meaning that passengers will travel in greater comfort, while the IT upgrade will enhance the system's overall efficiency.



EUROSTAR

ITALY: EFSI-BACKED MODERNISATION OF RAIL CARS (COMPLETED IN 2018)

An EIB loan of €300 million, supported by EFSI, helped finance the acquisition of 49 five-car articulated electrical multiple units and 250 double-deck passenger cars for regional passenger railway services in Italy.

The project is replacing obsolete rolling stock (train wagons with an average age of 32-38 years) as part of Trenitalia's strategy to modernise rail services on regional and suburban networks. The project, which was completed in 2018, promotes sustainable transport in line with EU objectives.

New rolling stock is needed to maintain and improve the quality of existing rail services with significant traffic. The project is also expected to bring economic benefits such as lower maintenance costs resulting from the scrapping of obsolete trains.

The new rolling stock will be operated in five densely populated Italian Regions (Veneto, Piedmont, Liguria, Tuscany and Lazio), which account for 50% of services offered and some 60% of Trenitalia's passengers. Passengers will benefit from top quality trains, with increased on-board comfort, services and accessibility.

EUROSTAR: HIGH-SPEED PASSENGER TRAINS (COMPLETED IN 2018)

The EIB backed a project to replace part of the existing Eurostar fleet on the London-Paris, London-Brussels and London-Amsterdam routes, which form part of the core Trans-European Transport Network (TEN-T), with new high-speed passenger trains. The project also included some improvements to Temple Mills International Depot in the United Kingdom.

The first new high-speed train, a Velaro built by Germany's Siemens, began circulating in November 2015 between London and Paris. In May 2017, services also began on the route between London and Brussels. Services have been running between London and Amsterdam via Brussels since April 2018. Passengers on the new trains have free WLAN access, USB ports and services such as TV streaming and films via an on-board entertainment system. The improved comfort resulted in the train being named "Train of the Year 2017" at the UK's National Rail Awards.

One of the project's key components was the ability of the new trains to meet safety regulations in the four countries where Eurostar operates. The rolling stock was equipped with the standardised ERTMS (European Rail Traffic Management System) signalling system, facilitating cross-border operations.

The fleet, which the EIB co-financed, has already covered 10 million kilometres. Passengers rose from 10 million in 2016 to 10.3 million in 2017, a gain of 3%. New services between London and Amsterdam, which the new trains made possible, are expected to capture a significant part of the 4 million air passengers who travel between the two cities annually.

The EIB provided €300 million in finance with attractive conditions, which lowered the project's total cost. The EIB loan also offered a long maturity, similar to the lifespan of the rolling stock.

The project helped Eurostar International meet the increasing demand for safe, fast and environmentally friendly transport between some of Europe's largest economic centres. With EIB involvement, these benefits materialised faster than they would have if alternative financing was used, allowing Eurostar to focus on its core business.



ENERGY

Since 2013, the EIB's energy lending has targeted the achievement of the European Union's long-term energy goals. The decarbonisation of energy production is paramount to EU energy policy and the EIB has significantly contributed to this effort, notably by helping to build 27 400 MW of new electricity generation capacity from renewable sources through projects signed since 2013. This new capacity enables over 14.6 million households to benefit from electricity generation that does not produce harmful emissions.

EIB support has helped reduce the costs of low-carbon technologies, particularly offshore wind, more quickly than would otherwise have been the case, ensuring the sustainability of the transition to clean energy. EIB investment is also supporting the progressive and increasing integration of these technologies into competitive markets and away from tariff support schemes that were used to incentivise the uptake of renewable energy, helping to reduce costs and improving the energy efficiency markets.

Recognising the importance of energy efficiency in climate change and sustainability, as highlighted by the emphasis on energy efficiency targets at EU and national level, the EIB has supported investments that deliver some 24 TWh (or about 13.7 million barrels of oil equivalent) of energy savings per year across multiple economic sectors. Some of these investments were directed towards highly energy efficient social housing, cutting energy costs for lower income households. Today, finance for energy efficiency and renewables represents some two-thirds of total EIB lending for energy projects.

The EIB also supports energy efficiency through technical assistance. In 2018, 15 new ELENA projects were approved and signed for a total grant amount of €33 million. These new projects should generate around €1.024 billion worth of investment and have an expected average leverage of 31 (dividing the expected investments by the allocated ELENA grant). These projects alone generate 630 GWh in annual energy savings, produce 120 GWh from renewable energy sources and help avoid 226 000 tonnes of carbon emissions per year.

In 2018, the 2017 ELENA Delegation Agreement between the European Commission and the EIB was amended to add €77.3 million to the EU funds available for technical assistance targeting energy efficiency investments in the residential sector. Signed ELENA deals account for 82 ongoing and completed projects, amounting to about €154 million in committed grants by the end of 2018.

Security of supply is another key pillar of the European Union's energy policy. Supply security, along with market integration, has been a key driver of investment in energy networks. Through projects signed in 2018, the EIB has financed the building of 480 MW conventional thermal power plants, providing secure electricity and heating to EU citizens while also supporting the efficient use of energy. The EIB's lending in 2018 ensured that 24 000 kilometres of power lines will be built or upgraded, delivering electricity to new customers and ensuring high quality of supply to existing ones. Similarly, we have supported some 3 100 kilometres of gas pipelines to provide safe, secure and competitive energy to households and businesses. In total, the EIB has also approved financing for the connection of 175 000 new households to energy networks in the European Union.

ENERGY INDICATORS FOR OPERATIONS SIGNED SINCE 2013¹²

Indicator	Achieved
Electricity generation capacity from renewable energy sources	27 400 MW
Share of renewable energy generation capacity	95%
Households that could be supplied with the energy generated by the projects	15.4 million
Estimation of households that could be supplied with clean energy from financed renewable energy projects	14.6 million
Project energy savings (estimate)	24 357 GWh/year

Energy operations signed in 2018 are expected to facilitate the generation of an additional 15 100 GWh/year of electricity from renewable sources and to save 503 600 MWh of energy per year through energy efficiency measures. Investment in transmission networks is expected to support 175 000 new connections to the energy networks in the European Union.

ENERGY NETWORKS

Additional power lines installed or upgraded **24 000 KM**

Additional heat pipelines installed or upgraded **6 KM**

Additional gas and oil pipelines constructed or upgraded **3 150 KM**

Additional connections to energy networks **175 000 CONNECTIONS**

Additional electricity transported **5 130 GWH/YEAR**

Additional heat transported **160 GWH/YEAR**

Additional gas transported or storage capacity utilisation **136 000 GWH/YEAR**

¹² Figures corresponding to additional/new capacity built and provided to additional beneficiaries, calculated from the difference between the expected value at project completion and the baseline value at the beginning of the project construction.

ELECTRICITY AND HEAT PRODUCTION

Additional electricity generation capacity from renewable energy sources **7 200 MW**

Additional heat production capacity from renewable energy sources **280 MW**

Additional electricity produced from renewable energy sources **15 100 GWH/YEAR**

Additional heat produced from renewable energy sources **1 500 GWH/YEAR**

Additional households to be supplied with the electricity generated
by the projects **4 MILLION HOUSEHOLDS**

Additional households to be supplied with the heat generated by the projects **227 000 HOUSEHOLDS**

Additional electricity generation capacity from conventional energy sources **480 MW**

Additional heat production capacity from conventional energy sources **200 MW**

Additional electricity produced from conventional energy sources **1 670 GWH/YEAR**

ENERGY EFFICIENCY

Energy savings from energy efficiency measures **503 600 MW/YEAR**



AUSTRIA: EFSI-BACKED RENEWABLE ENERGY (COMPLETED IN 2018)

EIB funding of €40 million supported the implementation and operation of two wind farms in Lower Austria with a total installed capacity of 36 MW. Both wind farms began commercial operation in December 2016, slightly ahead of schedule. The Bank co-financed the wind farms through two parallel operations: an intermediated EIB loan through a commercial bank and a direct EIB loan for the project.

The borrower is a large group of small private investors, including local farmers, with limited financial resources compared to a typical strategic or financial investor. Consequently, the greenfield wind farm was at the higher end of acceptable risk for a lender.

The EIB brought its experience to the project, which helped to attract a commercial lender to provide long-term funding and reassure the promoter and its investors.

EFSI support allowed the EIB to contribute to the project despite the risk, making it possible to team up with a single commercial lender and streamline the loan documentation. That fast-track approach was key to closing the finance on time and to avoiding project delays. If the EIB had not been involved, the project would still have been implemented but probably later and/or without the financial benefits provided to the large group of small investors.

The development of wind energy supports EU and national targets for renewable energy generation. The project, which is economically viable, generates electricity at lower than market cost and is environmentally friendly.

ITALY: GREEN BONDS

The Foresight Italian Green Bond Fund supports the refurbishment of district heating networks, renewable energy projects, street lighting and energy service companies. By structuring mini-bonds, the fund provides innovative financing for smaller energy efficiency and renewable energy projects and thereby helps to fill a funding gap as such projects often struggle to attract traditional lenders.

While very much aligned with the lending priorities of the Bank and EFSI, the focus on smaller energy efficiency and renewable energy projects combined with an innovative financing instrument is somewhat unusual to investors. The Bank's participation filled a funding gap and was instrumental in attracting further investors, eventually enabling the fund to reach a minimum critical size and start investment activities. In addition, the EIB's work with the fund resulted in a sharpening of its energy efficiency focus, a strengthening of its team, and a clearer environmental and social management system.

In supporting the fund, the Bank is helping Italy and the European Union meet their energy efficiency and renewable energy targets.

LATVIA: MODERNISING THE ELECTRICITY NETWORK (COMPLETED IN 2018)

The EIB backed a three-year investment programme in Latvia to reinforce and modernise the electricity distribution network operated by AS Salades Tikls, a subsidiary of Latvenergo AS. The main purpose of the project, which was active in many areas of Latvia, was to upgrade the electricity network to be able to handle annual growth of 1.5%, to create 23 000 new connection points and to improve the quality and reliability of the electricity supply.

The EIB provided long-term financing and continued support through several operations. The steady finance enabled the promoter to plan for the future and focus on saving money. The project completed a long-term investment plan that has modernised the electricity network. The project benefited the general population by ensuring secure access to electricity and high service quality with minimum power cuts.

ANNEX 1: EUROPEAN FUND FOR STRATEGIC INVESTMENTS IN 2018

BACKGROUND

EFSI, an investment programme created under the Investment Plan for Europe, is supported by an EU guarantee and by the EIB's own funds. Set up in 2014 in response to the financial crisis, EFSI's original goal was to unblock investment in the European economy by targeting high-risk projects in several EU priority areas. The fund originally set out to trigger €315 billion of investment in the European economy by mid-2018, but that figure was extended to €500 billion by the end of 2020 under EFSI 2.0.

EFSI enhances the EIB Group's ability to mobilise additional investments. The fund helps accelerate finance for risky projects that have difficulty attracting private investors. The EIB's intervention pulls in additional investments, putting other investors in a better position to contribute funds.

The EIB makes use of the EFSI Infrastructure and Innovation Window (IIW), which was initially set at €16 billion but was extended to €26 billion. The IIW targets economically viable, higher-risk projects within the European Union that contribute to any of the objectives set in 2015¹³.

The remaining EFSI funds (initially €5 billion, scaled up to €5.5 billion under EFSI 2.0) are managed by the EIF through the SME Window. The window provides intermediated financial support through portfolio guarantees or fund investments to firms with up to 3 000 employees, although particular focus is put on SMEs and small mid-cap companies (firms with up to 499 employees).

EFSI PROJECT APPRAISAL UNDER THE INFRASTRUCTURE AND INNOVATION WINDOW (IIW)

All EFSI projects under the Infrastructure and Innovation Window are EIB operations. EFSI projects are subject to the EIB's due diligence standards (including on procurement, environment and social impact) and are approved by the EIB's governing bodies.

In addition, the EFSI Investment Committee assesses all EFSI projects to ensure they are eligible for backing under the EU guarantee. Projects need to demonstrate that they:

- are economically and technically sound
- match the eligible sectors
- provide additionality
- contribute to EU objectives and to sustainable growth and employment
- maximise the mobilisation of private sector capital
- are mature enough to be bankable and are priced in line with the associated project risk.

EFSI projects are assessed using a scoreboard of indicators under four pillars, similar to the 3PA framework used to assess EIB projects.

¹³ Article 9 of Regulation (EU) 2015/2017 of the European Parliament and of the Council of 25 June 2015 (revised in Regulation 2017/2396 of 13 December 2017) on the European Fund for Strategic Investments, the European Investment Advisory Hub and the European Investment Project Portal and amending Regulations (EU) No 1291/2013 and (EU) No 1316/2013 — the European Fund for Strategic Investments. Further details and evolution are listed in the revised and extended EFSI Regulation ("EFSI 2.0") CA499/4/16 of 13 December 2016.

EFSI ACTIVITY UNDER THE INNOVATION WINDOW IN 2018

Since 2015, the EIB has approved 514 operations with EFSI backing for a total of €52.9 billion in financing. Investment mobilised for these operations under the IIW reached €244.7 billion. Support for climate action represented 38% of approved finance, contributing to the target of 40% of IIW investments to be dedicated to climate action by the end of 2020.

Of the 514 operations approved, 407¹⁴ had been signed by the end of 2018, worth €39.1 billion. Support for climate action represented 36% of the total and the corresponding expected investment mobilised¹⁵ is estimated to be €196.3 billion. These projects contributed collectively to all EFSI objectives, as follows:

Overview of EFSI operations signed by the end of 2018

Objective ¹⁶	Loan amounts (€ m)
Research, development and innovation	8 421
Development and deployment of information and communication technologies	2 982
Development of the energy sector in accordance with the Energy Union priorities	10 523
Development of transport infrastructure, and equipment and innovative technologies for transport	5 271
Environment and resource efficiency	2 666
Financial support through the EIF and the EIB to entities with up to 3 000 employees	7 797
Human capital, culture and health	1 087
Sustainable agriculture, forestry, fisheries, aquaculture and other elements of the wider bioeconomy	90
Less-developed regions and transition regions	290
Total	39 126

EFSI operations will create jobs in the short and long term. For example, EIB investment in new urban infrastructure, R&D facilities, schools or flood defences will provide jobs during the construction period. The EFSI-supported operations signed by the end of 2018 will support some 780 000 full-time equivalent jobs over the course of implementation across the EU Member States.

The second type of employment concerns permanent jobs linked to the operation of EFSI-backed projects. For example, a project to develop new transport infrastructure such as rail links will require additional staff to maintain the infrastructure or to operate equipment. The operations signed from 2015 to 2018 are expected to support the creation of 135 000 full-time equivalent jobs. Moreover, EFSI projects could result in significant indirect or direct

¹⁴ Signed and not cancelled operations or EFSI loan tranches as of 31 December 2018.

¹⁵ Unlocked investment in terms of eligible investment mobilised as per the EFSI Regulation.

¹⁶ EFSI objectives listed following eligibilities defined in the EFSI Regulation.

employment effects. For example, new jobs could be created locally because firms are able to trade more effectively with markets elsewhere. Similar effects can be found in the fields of innovation and skills, and the environment. For example, an EIB investment in small businesses should enable them to innovate and grow, creating job opportunities. Although difficult to measure, the longer-term direct and indirect employment effects arising from EFSI-backed operations are likely to be the most significant.

The Bank's overall investment in small businesses and mid-caps are likely to sustain a further 3.3 million jobs.

RESEARCH, DEVELOPMENT AND INNOVATION

EFSI-backed loans of €8.4 billion in RDI will unlock €33.3 billion of investment in the development of new technologies needed to promote Europe's long-term industrial competitiveness.

EIB finance provided to European companies under the EFSI objective of promoting RDI will potentially generate €99 billion of additional sales and support 337 000 jobs in skills-intensive industries and services.

An example is Navya, a small French firm that focuses on driverless vehicles for public transport. EIB finance will support Navya's continued investments in R&D, technology development and production.

DEPLOYMENT OF INFORMATION AND COMMUNICATION TECHNOLOGIES

The total amount signed under the EFSI objective of development and deployment of information and communication technologies by the end of 2018 was €3 billion with an overall total of €14.6 billion of investment being mobilised. The projects supported included schemes to help develop broadband networks in all 28 Member States but also mobile networks and improved cybersecurity.

One of these projects is Nokia 5G. It relates to the development of a new 5G network product portfolio according to the telecom industry's global 5G standards, and the complementary Internet Protocol (IP)/Optical solutions to address the transport challenges posed by the massive amount of traffic that will be generated by 5G customers. The project will include development of both hardware and software components.

The financing will support Nokia's research and development (R&D) activities in Europe to further develop 5G, mobile technology and definition of standards. Mobile networks are evolving to deliver superior mobile broadband and communication services with increased data rates and improved coverage, availability and quality that will open up for new services and business opportunities across a broad range of industries in Europe and globally.

The key outputs and outcomes of EFSI loans signed cumulatively over the past four years under this objective are summarised in the table below.

Selection of expected results of EFSI operations signed under the objective of development and deployment of information and communication technologies by the end of 2018

Outputs	Outcomes
Some 10 000 additional 4G and 5G sites	2 million new subscribers for mobile data services
7.3 million additional households covered by very high-speed broadband services	8 million very high-speed broadband lines activated

DEVELOPMENT OF THE ENERGY SECTOR IN ACCORDANCE WITH ENERGY UNION PRIORITIES

Investments in the energy sector are vital for the promotion of secure, sustainable and cleaner energy. Over the past three years, EFSI operations of €10.5 billion, mobilising over €59.5 billion, have been made to finance energy capacity building from renewable

energy sources, to improve energy efficiency and to support electricity network projects. The Foresight Italian Green Bond Fund is a good illustration of an investment fund targeting debt securities related to renewable energy and energy efficiency projects.

The table below summarises some key figures of expected outputs and outcomes of the operations financed in this sector.

Selection of expected results from EFSI projects signed 2015-2018 for the development of the energy sector in accordance with the Energy Union priorities

Outputs	Outcomes
19 000 MW of electricity generation capacity, of which 94% from renewable energy sources	Some 50 000 GWh of additional electricity generated per year, of which over 91% from renewable energy sources
	11.5 million households supplied by the energy generated
1 115 MW of heat production capacity, of which 65% from renewable energy sources	5 700 GWh of additional heat generated per year, of which 60% from renewable energy sources
Over 31 000 km of power lines constructed or upgraded	
Some 7 300 MVA of substation capacity constructed or upgraded	Some 20 500 GWh of additional energy transported per year
Over 8 000 km of gas or oil pipelines constructed or upgraded	An additional 250 000 GWh per year of energy transported/storage capacity utilisation
28.3 million smart energy meters installed	
Some 750 000 new energy (electricity, gas, heating) connections to the network	

TRANSPORT INFRASTRUCTURE, EQUIPMENT AND INNOVATIVE TECHNOLOGIES

Investment in transport infrastructure and the environment are a precondition of Europe's overall economic competitiveness and growth. EFSI-guaranteed loans worth €5.3 billion have been signed over the last three years, unlocking some €21.7 billion to promote mobility transport networks and cleaner fleets, as well as to support projects reducing congestion costs and trade bottlenecks. New projects signed in 2018 include the Blankenburg Tunnel PPP and the Palma de Mallorca Urban Bus Fleet Renewal, consisting of the renewal of a fleet of 180 old diesel engine buses by new compressed natural gas (CNG) buses and the construction of a CNG gas station for the City of Palma de Mallorca's urban bus fleet.

Selection of expected results from EFSI operations signed 2015-2018 in the transport field

Outputs	Outcomes
Some 1 900 lane-kilometres of roads and highways upgraded or built	182 million additional passengers benefiting from new or improved transport infrastructure per year
370 km of bus and tram lanes and metro tracks constructed or upgraded	€59 million per year of vehicle operating cost savings
110 stations or stops constructed or upgraded	
Over 1 000 rolling stock units purchased and 475 km of railway tracks upgraded	40 million hours of time savings per year
13 million tonnes of additional annual cargo capacity	An additional 7.4 million tonnes of annual cargo traffic handled in terminals
Additional airport capacity of 21 million passengers per year	Additional annual airport throughput of 16.5 million passengers

ENVIRONMENT AND RESOURCE EFFICIENCY

Expected results of EFSI operations contributing to the environment, signed 2015-2018

Outputs	Outcomes
4 500 ha of new forestry area planted (afforestation)	13 m ³ per hectare of yearly forest growth
20 km of agricultural/ forestry access roads and 20 km of rural roads built or maintained	€59 million per year of vehicle operating cost savings
Over 22 000 km of sewer and/ or stormwater pipes built or upgraded	14.2 million people benefiting from improved sanitation services
Over 2.3 million persons-equivalent capacity of sewage treatment plants constructed or rehabilitated	Over 1 million people face a reduced risk of flooding
272 000 tonnes per year waste treatment facility	33.3 million people served by new or modernised waste treatment facilities
625 000 m ³ of new sanitary landfill capacity	
Remediation of 685 000 m ² of contaminated land	1.7 million additional citizens benefiting from new waste collection system
Some 190 000 waste collection containers and 52 new or upgraded collection vehicles	
276 000 km of water mains or distribution pipes built or upgraded	19 million people benefiting from safe drinking water
3.5 million m ³ of water per day from constructed or rehabilitated water treatment plants	
2.6 million m ³ capacity of reservoirs or raw water storage facilities constructed or rehabilitated	
669 000 domestic connections to water supply created or rehabilitated	

The European Union's environmental policy is aimed at 'greening' the European economy, protecting the natural environment, and safeguarding the health and quality of life of European citizens. By the end of 2018, the EIB had signed around €2.7 billion of EFSI-supported loans, mobilising €10.7 billion for projects improving water supply and sanitation, waste water and solid waste treatment and recycling, as well as for sustainable urban and rural development. Netherlands Flood Defense PPP is a good example of EFSI's environmental and resource efficiency operations.

FINANCIAL SUPPORT THROUGH THE EIF AND THE EIB TO ENTITIES WITH UP TO 3 000 EMPLOYEES

Small companies often face obstacles to growth and development specific to their size, partly because of market failures that impair their ability to access finance at reasonable terms. EFSI backing and the additional risk capacity it allows the EIB Group enables us to support these smaller companies by expanding the availability of finance at more competitive terms from a variety of sources.

By the end of 2018, the EIB had signed 108 operations under EFSI in support of small companies, amounting to €7.8 billion and mobilising €51 billion of investments in the European Union. Over 3 million jobs are expected to be sustained from these operations.

Expected results from new SME and mid-cap operations signed by 2018 under EFSI

Key indicators	(€ bn)
Volume of loans to SMEs and mid-caps supported	7.8
Additional SME finance leveraged through intermediaries	51

3.3 MILLION JOBS SUSTAINED

HUMAN CAPITAL, CULTURE AND HEALTH

By the end of 2018, financial support under EFSI amounting to over €1 billion is expected to mobilise €6.3 billion for hospitals, various universities and research campuses, employment and various administrative and cultural facilities. For example, several employment and start-up programmes have been signed helping to create the well-qualified workforce that is needed by modern economies as well as opening up employment opportunities for young people, notably the Warsaw Medical Simulations Centre. In the area of social housing, two large projects are good illustrations of the support provided by EFSI: Poznań Social Housing Investment Facility (Poland) and Réseau Canopée Logement Social (France), contributing to the 531 300 social or affordable housing units. Wałbrzych Urban Revitalisation is another project supported by EFSI, focusing mainly on revitalisation of urban areas, energy efficiency measures and other infrastructure schemes.

Expected results from EFSI projects signed 2015-2018 that contribute to human capital, culture and health

Outputs	Outcomes
Over 33 000 places created in new or rehabilitated education facilities	Some 40 000 students benefiting from new modernised educational facilities
Over 531 000 social or affordable housing units and 76 social facilities built or renovated	Over 531 000 households in new or refurbished social and affordable housing
7 administrative facilities and 20 cultural, recreation and sports facilities built or renovated	840 000 visitors per year to new or renovated cultural, recreation and sports facilities
36 million m ² of additional building surface	3.3 million beneficiaries of upgraded or new urban infrastructure and services
5 200 m ² of new park area created and 100 ha of brownfield land regenerated	
6 300 km of new fibre access networks installed	
Over 732 000 m ² of additional health facility floor area constructed with more than 7 000 beds	Some 20 million people covered by improved health services

SUSTAINABLE AGRICULTURE, FORESTRY, FISHERIES, AQUACULTURE AND OTHER ELEMENTS OF THE WIDER BIOECONOMY

Since the introduction of this new EFSI objective last year, two operations have been signed: Sodiaal RDI in Dairy Activities and Groupe Roullier RDI Programme Financing for a total of €90 million and expected to mobilise €185 million.

LESS-DEVELOPED REGIONS AND TRANSITION REGIONS

Another new objective under EFSI has been implemented in 2018 to support less-developed EU regions and transition regions. A total of €308 million of financing, expected to mobilise €802 million, was signed by the end of 2018. One of the projects signed in this area¹⁷ is Batteries Plant Capacity Expansion in northern Greece.

¹⁷ Given the heterogeneous nature of the projects financed and the fact that some of the expected results are included in the above sections, it would not be appropriate to present a table of outputs and outcomes related to this specific objective.

ANNEX 2: EIB OPERATIONS INSIDE THE EUROPEAN UNION (SIGNATURES BY COUNTRY AND TYPE OF FINANCIAL INSTRUMENT)

Country	Equity/ quasi-equity	Framework loan	Guarantee	Investment loan	MBIL	Grand Total
Spain	8	370	482	2 947	3 622	7 430
Italy	150	1 000	100	3 462	2 650	7 362
France	273	530	410	3 789	1 080	6 081
Germany	127	750	70	2 992	705	4 644
Poland	13	301	147	2 562	725	3 749
Netherlands	40		128	1 463	316	1 947
Finland	102			1 563	120	1 785
Greece		205	159	630	572	1 566
Belgium	24	200		1 283	34	1 541
Portugal	5	200		727	590	1 522
Sweden	68	239		953	113	1 372
Austria	24	75	45	857	183	1 184
Romania		464		300	217	981
United Kingdom	17	324		522	69	932
Ireland	65			742		807

Country	Equity/ quasi-equity	Framework loan	Guarantee	Investment loan	MBIL	Grand Total
Hungary	20	225		452	50	747
Slovakia	3	320		132	165	619
Czech Republic	9	27		14	395	444
Croatia	30	300		99	15	444
Denmark	8			252	173	432
Lithuania		300		11		311
Cyprus		60		10	140	210
Bulgaria				103		103
Slovenia				7	50	57
Latvia	10			4		14
Malta			13			13
Estonia	7					7
Luxembourg						-
Regional - EU countries	870		100	241	58	1 269
Grand Total	1 872	5 890	1,654	26 117	12 041	47 574



EIB OPERATIONS INSIDE THE EUROPEAN UNION

ANNUAL REPORT 2018

