

## **“Infrastructure is much more important than architecture.”**

Rem Koolhaas (Dutch architect)

The past few years have seen a flurry of ambitious new infrastructure plans and projects around the world. The European Commission launched Next Generation EU, a €750 billion fund to help EU Member States rebuild their economies following the coronavirus pandemic, and made sustainable infrastructure a pillar of its seven-year InvestEU programme. It also launched Global Gateway to mobilise €300 billion for infrastructure projects outside the European Union.

In the United States, President Joe Biden launched a \$2 trillion infrastructure plan, putting roads, bridges, energy and digital networks back on the public agenda. China has been pushing its Belt and Road Initiative as a way to create infrastructure links between the country and the rest of the world. In Ukraine, much of the discussion about reconstruction after the war has focused on the need to rebuild damaged infrastructure.

At a global level, the G20 is considering how to crowd in public and private investment to cope with growing demand for wide-ranging infrastructure around the world.

Infrastructure is a precondition for long-term sustainable growth. If properly planned, implemented and maintained, it has a positive environmental and social impact, supports economic efficiency and job creation and provides safety and resilience against the effects of climate change and other security threats. However, infrastructure alone is not sufficient: it has to be smart, sustainable and climate-proof. The world needs quality infrastructure that will allow humanity to adopt and benefit from innovative, disruptive technologies and to shift from fossil fuels to renewable energy sources.



## FACTS AND FIGURES

The European Investment Bank (EIB) has been financing infrastructure since its foundation in 1958, and remains at the heart of Europe's major upgrading effort. As a public bank owned by the EU Member States, the Bank is in a unique position to invest in long-term projects such as high-quality, sustainable infrastructure.

Below are some examples of large-scale projects financed by the EIB that have defined Europe's landscape over time. Most of these have reduced distances and gaps within Europe's countries and facilitated cross-border connections and integration.

### Bringing Europe closer together

**Autostrada del Sole (Italy):** Italian motorways started to connect the poorer south with the industrial north in the 1960s. At that time, 43% of EIB lending in the country went to infrastructure projects such as the **Autostrada del Sole**, connecting Milan with Naples, via Rome and Florence, and the construction of a major section of highway in the Brenner Pass, between Italy and Austria.

**Viaduc de Millau (France):** Built between 2001 and 2004 and partly financed by the European Investment Bank, the viaduct provides a crossing of the Tarn valley compatible with motorway standards, and represents a key component of the A75 motorway on the Paris-Barcelona route. It is part of the Trans-European Transport Network.

**Eurotunnel (United Kingdom, France):** Between 1989 and 1998, the Bank provided approximately €600 million in financing for the Eurotunnel, a key element of the Trans-European Transport Network. The EIB's loans for the construction of the tunnel peaked at about €1.95 billion.

**Öresund Bridge (Denmark, Sweden):** Link between Denmark and Sweden. In total, the EIB has lent some €1.8 billion for the development of the Öresund Fixed Link project, including financing for new trains. It is part of the Trans-European Transport Network.

**Bosphorus Tunnel (Turkey):** This tunnel, also known as the Marmaray rail tunnel, was inaugurated in 2013 and connects one side of Istanbul to the other, strengthening the city's position as a hub and making life easier for its population of 12 million. It is the largest project ever supported by the Bank outside the European Union, with an investment of €1.05 billion.

## EIB GROUP FINANCING IN 2021



All figures are unaudited and provisional. All figures are for the EIB Group unless otherwise specified. The EIB Group's total financing figure excludes a small overlap due to joint engagements of the European Investment Bank and the European Investment Fund. Small to medium-sized enterprises (SMEs) have fewer than 250 employees and mid-caps have fewer than 3 000 employees.

Infrastructure projects fall mainly under the "sustainable energy and natural resources" and "sustainable cities and regions" categories. Some projects, like health and education investments, also fall under "innovation, digital and human capital." This underscores the fact that infrastructure lies at the heart of almost everything the European Investment Bank does, and that quality infrastructure is indispensable in all sectors. In 2021, the Bank provided €13.8 billion to support sustainable cities and regions, and €15.38 billion in support of sustainable energy and natural resources.



## PURSUING HIGH-QUALITY INFRASTRUCTURE INVESTMENTS

Infrastructure assets have a very long lifetime. However, given the fast pace of climate change, what works in today's environment may no longer be suitable in the future. The world's population and the global economy are expected to grow in the coming decades. By 2050, most of the population growth will be in Africa and Asia.

Infrastructure decision-makers, planners and providers face the following challenges:

- **A larger world population will need more infrastructure capacity.**
- **Greater wealth will translate into demand for higher-quality infrastructure services.**
- **Demand for infrastructure services will shift geographically — to Asia and Africa — reinforced by the move to urban centres.**
- **Technological advances require tomorrow's infrastructure to become more sophisticated and flexible enough to incorporate the latest technologies quickly.**

This requires a modified investment approach that focuses on the long-term quality of infrastructure assets. "Quality" here refers both to the ability of infrastructure assets to retain their service level until the end of their lifetime and their flexibility to accommodate changes in demand patterns. This requires a multi-pronged approach:

- **Extending the life of existing assets through better maintenance and rehabilitation.**
- **Expanding infrastructure capacity in areas of high demand.**
- **Keeping new infrastructure flexible enough to be modernised and upgraded within its expected lifetime.**
- **Integrating future digital technologies.**

## EIB PARTNERSHIPS

- ✓ The European Investment Bank is working together with the European Commission and other multilateral development banks on linking infrastructure with sustainable finance. The Bank is part of the Just Transition Mechanism, which addresses the social and economic effects of the energy transformation.
- ✓ Heeding a G20 call to boost investments and bridge the infrastructure gap, the EIB is helping to develop infrastructure as an asset class. The Bank is part of the D20 Long Term Investors Club, which aims to bring together the public and private sectors.
- ✓ In June 2022, the EIB joined the Coalition for Disaster Resilient Infrastructure, launched in 2019 at the initiative of the Indian Prime Minister Shri Narendra Modi in support of sustainable infrastructure development.

# PROJECT HIGHLIGHTS

## CLEAN ENERGY

The Bank provides financial services to companies offering secure and sustainable energy, investing in efficiency and new infrastructure, to help meet European climate goals.

In 2021, the EIB financed about **€9.9 billion** in the energy sector for:

- 29 new operations in wind and solar sector for a total signed amount of €3.8 billion;
- 82 200 km of power lines installed or upgraded;
- 11 400 MW of new renewable energy to sustain the needs of 8.1 million households.

### A LEADER IN RENEWABLE ENERGY

**€21 billion**

invested in **renewable energy projects** between 2015 and 2020



**Clean energy** for **57 million households** around the world

### Offshore floating wind farm in Portugal (2018)

Off the northern coast of Portugal, a first offshore wind farm of its kind, equipped with semi-submersible platforms, **was funded by the European Investment Bank via a €60 million loan.**

### Photovoltaic systems in Palestinian schools (2019)

The Bank signed a loan agreement worth \$18 million with the Palestine Investment Fund to finance the installation of rooftop photovoltaic systems in 500 public schools in the West Bank. The project will generate 35 MW of clean energy to provide for the power needs of more than 16 000 homes.

## WATER MANAGEMENT

In 2021, the Bank invested about **€1.63 billion** in the water sector, with positive effects including:

- Better access to safe drinking water for 10 million people.
- Reduced risk of flooding for 826 000 people.
- Improved sanitation for 3.8 million people.

### Drinkable water in Brazil (2019)

The EIB invested €145 million to finance new wastewater treatment plants and water supply in Brazil, providing drinkable water to 140 000 households and improved sanitation infrastructure to more than 700 000 Brazilians.

### Decontamination of the Mediterranean Sea and Lake Mariout (2020)

The Alexandria Waste Water Treatment Plant will be upgraded and expanded through a financing agreement of €120 million with Egypt. The project will increase the plant's capacity and improve the quality of sewage, further contributing to the decontamination of Lake Mariout and the Mediterranean Sea.

## SUSTAINABLE TRANSPORT

In 2021, the EIB provided around **€11 billion** for greener and innovative solutions to make an impact on the mobility sector, financing climate-friendly projects all over the world. The Bank contributed to:

- The construction or upgrade of over 539 km of bus lanes, railways and tram/metro lines.
- Enabling 346 million passenger trips across the world.

### Green metro line in Kanpur, India (2020)

The EIB invested €650 million in the construction of Kanpur's first metro line, enabling 3 million people to benefit from green, fast and affordable public transport. The project will create 1 100 new jobs and reduce greenhouse gas emissions, improving air quality across the city.

### Ultra-fast charging stations (2018)

The EIB supported Greenway EV's charging network with a €17 million loan, which was needed to increase the number of charging stations in Central and Eastern Europe for the growing number of electric vehicle drivers.

### High-speed rail in southern Italy (2020)

The European Investment Bank signed a €2 billion loan with Rete Ferroviaria Italiana to upgrade the existing Naples-Bari railway line and increase the maximum design speed to 200 km/h. The project will improve the quality of rail services in less-developed regions of southern Italy by reducing travel times and promoting public sustainable transport.



### **A new metro for sustainable commuting in Alexandria and Cairo, Egypt (2020)**

The Bank signed the second tranche of a €1.1 billion loan to finance metro and tram projects in Alexandria and Cairo, the two biggest cities in Egypt. The project includes the extension of the existing Cairo Metro line 3, partly financed by the Bank, and 23 km of metro line 2 to improve the city's public transport links. The lines are air conditioned and automated, helping to reduce road traffic and greenhouse gas emissions. In Alexandria, the plan is to improve current urban mobility, converting 22 km of railway into a metro system. The metro network in Cairo currently carries several million people every day, providing them with a sustainable solution to reduce pollution and traffic jams.

## **DIGITAL INFRASTRUCTURE**

A better connected and digital world represents the future of our societies, and the EIB invests every year to guarantee better coverage of services around Europe and beyond.

In the last ten years, the Bank has provided **€22.4 billion** to upgrade or install new networks. In 2021 alone, **we enabled 5G services for 6.8 million subscribers and provided fixed fibre connectivity to 3.5 million households.**

### **A new satellite for advanced broadband services in Europe (2021)**

The EIB provided a €200 million loan to Eutelsat, one of the world's leading satellite operators, for the procurement and launch of the KONNECT VHTS satellite. The space infrastructure will guarantee advanced broadband services in Europe and neighbouring areas, with unprecedented upload and download speed capacity for both fixed and mobile broadband services.

### **Digital infrastructure in Poland (2021)**

The Bank provided the Polish company Nexera with a €73 million loan to deploy fibre-to-the-home (FTTH) infrastructure in five rural regions, providing high-speed internet connection to 530 000 households and 1 400 schools. Additionally, the EIB financed the telecommunication company Światłowód Inwestycje, providing €130 million to develop a fibre network in underserved areas in Poland as part of the European Union's efforts to help develop so-called cohesion regions.

### **Connecting Cabo Verde (2019)**

The Bank provided \$25 million for the construction of a new telecom connection to Cabo Verde, enabling access to 4G mobile services on the islands. The project is based on a submarine cable connection that will reduce the risk of communications disruption, and link Cabo Verde to Latin American and European systems via EllaLink.

## **SUSTAINABLE COMMUNITIES**

In 2021, EIB investments contributed to:

- **163 000 households in new or renovated energy efficient housing units;**
- **12 million people benefiting from a new waste collection system.**

### **Energy-efficient social infrastructure in Sweden and Finland (2021)**

The Bank provided a €99 million loan to Hemsö Fastighets AB to create more energy-efficient social infrastructure in Sweden and Finland. Nine buildings for social services will be built, including nursing homes, a medical facility, preschools, and school services.

### **Recycling plastic in Spain (2021)**

The EIB invested €30.8 million in Repetco Innovations to deliver a plastics delamination and recycling plant in Spain, supporting the circular economy and giving new life to plastic waste.

## **HEALTH AND LIFE SCIENCE**

In the period 2014-2021, the EIB signed new deals totalling **€13 billion for the health and research sectors within the European Union, and a further €2 billion for projects outside the European Union.** In 2021, the Bank helped provide improved sanitation services to more than 3.8 million people and improved health services, including COVID-19 vaccines, to another 783 million people.

### **Subatomic facility in Sweden (2021)**

The EIB contributed €50 million to the construction of one of the largest research infrastructure projects in Europe: the European Spallation Source (ESS). The ESS will be home to the world's most powerful neutron source, aiming to pave the way for pioneering scientific breakthroughs and examining materials on a nanoscale level through subatomic particles.



### **New hospital in Serbia after a 50-year delay (2018)**

The construction of the Niš Clinical Centre in Serbia was stalled for half a century, until [EIB financing helped build the country's most modern clinical centre](#) under a €430 million investment programme to improve medical centres around the country.

## **EDUCATION**

The EIB has invested about **€27 billion** in infrastructure projects for education over the past ten years. Additionally, the Bank has provided financing to the European Higher Education Area and the European Research Area, helping reshape the European research sector with high-end infrastructure. **In 2021 alone, 170 000 students benefited from the Bank's financing of education facilities.**

### **Preschools in Armenia (2021)**

The EIB invested [€15 million in Yerevan](#), Armenia's capital, to enhance energy efficiency and earthquake resilience. The Yerevan Energy Efficiency Programme will upgrade 90 preschools, making them safer, more efficient and adapted for people with limited mobility, improving social inclusion. New green buildings will reduce Yerevan's CO<sub>2</sub> footprint, benefiting its citizens and the environment.

### **Upgrading a university in Spain (2021)**

IE University is set to begin renovating its facilities, following the [EIB's approval of a €30 million financial plan](#) to accelerate the university's sustainability strategy and improve energy efficiency.

## **BLUE ECONOMY**

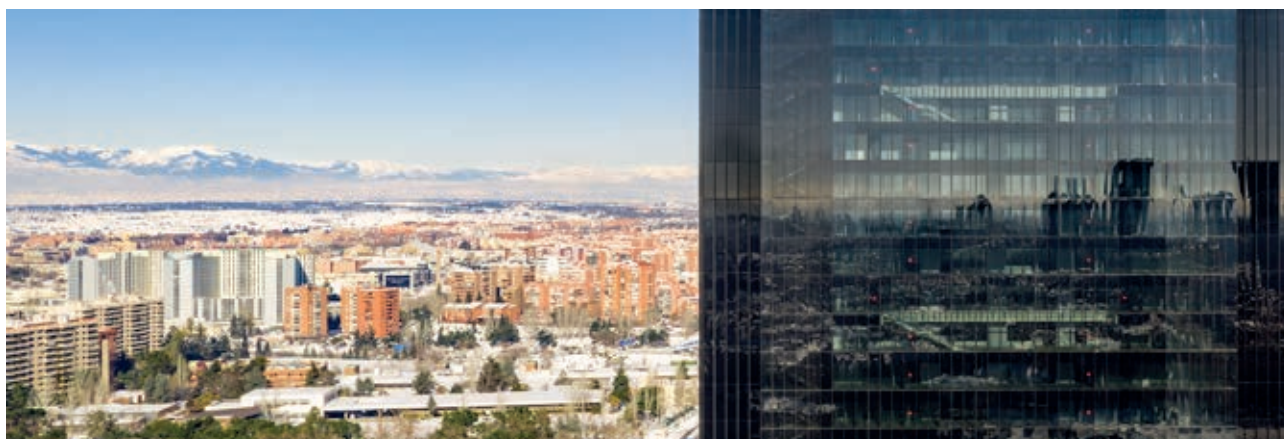
The European Investment Bank is supporting infrastructure initiatives to help preserve the ocean and its biodiversity and ecosystem. In the period 2016-2021, **the Bank invested €903 million in green shipping, and a further €3.5 billion in offshore wind.**

### **Environmentally-friendly shipping in Finland (2016)**

The EIB has invested hundreds of millions of euros to promote green shipping by supporting companies and technologies that make ships more energy-efficient and environmentally-friendly. [With the benefit of a €100 million loan from the Bank](#), the ferry operator Finnlines installed scrubbers on existing ships to filter out sulphur and other harmful particles from exhaust emissions.

### **Wave energy technology (2016)**

AW-Energy developed a wave energy converter called WaveRoller®, capable of meeting the electricity needs of more than 400 homes in Chile, Portugal, France and Ireland. [The Bank provided €10 million under the InnovFin initiative](#) to speed up the product's commercialisation and make a unique clean energy resource available to the public.



Spain: The EIB has approved a financing plan of up to €30 million for IE University.



# RESOURCES

## WEBPAGE

- [Infrastructure and the EIB](#)
- [Infrastructure solutions landing page](#)







## PRESS CONTACTS

Serena Sertore  
+352 437 97 0859  
[s.sertore@eib.org](mailto:s.sertore@eib.org)

Press Secretariat  
+352 4379-21000  
[press@eib.org](mailto:press@eib.org) – [www.eib.org/press](http://www.eib.org/press)

## GENERAL CONTACTS

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

Information Desk  
+352 4379-22000  
[info@eib.org](mailto:info@eib.org) – [www.eib.org](http://www.eib.org)



This overview, with links to stories, brochures and videos, is available at:  
<http://www.eib.org/sustainable-infrastructure-overview>