The amount of waste generated globally is growing. People and businesses in the European Union alone produce more than 2 billion tonnes of waste per year, or 4.8 tonnes per capita, primarily from construction, mining and industry. On average, each person in Europe produces half a tonne of municipal waste a year, of which less than half is recycled. This waste has negative effects on the environment, biodiversity and health, and is costly to manage. It also shows that we are not using the Earth’s finite resources efficiently.

The world population consumes over 100 billion tonnes of materials every year and over 90% of all materials extracted and used are wasted. The circular economy aims to fix this by eliminating waste altogether. This can be achieved by extending the life and use of resources, materials and products, rethinking and redesigning products and business processes, developing innovative solutions and service models, and encouraging more sustainable consumption patterns. If we do this, we will reduce material and energy consumption, waste generation and emission of greenhouse gases. The European Investment Bank supports the transition to a circular economy with three mutually reinforcing activities: finance, advisory support and awareness-raising.

From 2019 to 2023, the EIB provided €3.83 billion to co-finance 132 circular economy projects in a variety of sectors. We stand ready to do more. Circular economy projects with a higher risk profile have received financing through our risk-sharing instruments benefiting from EU guarantees.

In addition to capital, the EIB provides financial and technical advisory support to improve the bankability and investment-readiness of circular economy projects.

Lastly, awareness-raising and partnerships are key to enabling the transition to a circular economy.
The European Green Deal has set an ambitious objective, for Europe to become the first climate-neutral continent by 2050. Accelerating the transition to a circular economy is one of the Green Deal’s key pillars. The European Commission’s Circular Economy Action Plan has led to a wide range of initiatives, with a focus on the sustainable management of waste and materials and on the circularity of consumer products (batteries, packaging, plastics, textiles, construction, food and water). Despite the large number of EU policy initiatives, the increase in circularity in the European Union stood at 11.5% in 2022 and is slow to progress.

Investing in the circular economy can be a true game changer in the green transition. In 2019, the EIB launched the Joint Initiative on Circular Economy together with the European Union’s largest national promotional banks and institutions to boost investments in the circular economy in Europe. Together with the European Investment Advisory Hub we also launched the Circular City Funding Guide website and the Circular City Centre – C3, a competence and resource centre within the EIB that aims to support EU cities in their circular economy transition. The C3 is now being deployed with support from the European Commission.

The EIB is also an active member of the multilateral development bank (MDB) circular economy working group, along with the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, the Inter-American Development Bank, the International Finance Corporation, and the World Bank. The working group is an exchange network to support the transition to greater circularity within the institutions themselves and externally.
FACTS AND FIGURES

A circular economy conserves resources, reduces our impact on the climate and the environment, fosters sustainable economic growth, generates new jobs and can help secure the supply of critical materials.

About 45% of global greenhouse gas emissions come from product use and manufacturing, along with food production. Applying circular economy strategies in just five key areas (cement, aluminium, steel, plastics and food) could eliminate almost half of global greenhouse gas emissions from the production of goods — 9.3 billion tonnes of CO\(_2\)e by 2050. That is equivalent to cutting current emissions from all transport to zero.

Circular economy interventions can also halt global biodiversity loss and help the world’s biodiversity recover by 2035 to the same levels as in 2000. By reducing pollution in the air, water and soil, a circular economy also helps protect our health.

Additionally, moving to a circular model can benefit businesses. By redesigning business models, production processes and products, circular businesses can significantly reduce their material, energy and waste management costs, resulting in higher yields and competitive advantages.

The International Labour Organization estimates that transitioning to a circular economy could increase global employment by 7-8 million jobs by 2030.

Yet today, less than 10% of global economic activity is circular.

By launching its Climate Bank Roadmap, the EIB has committed to aligning all its new operations with the goals and principles of the Paris Agreement, and to supporting €1 trillion of climate action and environmental sustainability investments in the decade to 2030.

The EIB’s support for the circular economy covers various sectors, including agriculture and bioeconomy, industry and services, mobility, small and medium-sized enterprises (SMEs), urban development, waste management and water management.
Circular economy projects use a variety of strategies to preserve the materials, energy and labour invested in products. From recycling to redesigning processes to reuse, remanufacture or repair products, circular solutions can be implemented in any sector. Below are some examples of EIB-supported projects and initiatives for a more sustainable economy:

**Sustainable food packaging in Spain**

PackBenefit, a Spanish company manufacturing high-performance fibre-based food bio-packaging, signed a €13 million venture debt agreement with the EIB to finance a new production plant, as well as research and development projects for sustainable food packaging solutions. The financing will enable PackBenefit to expand its manufacturing capacity of recyclable and compostable food trays for the European market.

*More information online*

**Recycling aluminium scrap**

Elval, the aluminium rolling division of the Greek copper and aluminium manufacturer ElvalHalcor, is investing in state-of-the-art equipment to increase its aluminium scrap recycling capacity and to manufacture recyclable aluminium packaging solutions. The EIB will support the investment with a €75 million loan over ten years.

*More information online*

**Waste sorting and biogas facilities in Belgium and the Netherlands**

Renewi, a leading European waste-to-product business, is building two new waste sorting facilities with the help of a €40 million loan from the EIB: one in Belgium, in response to the Flemish regulation on waste (Vlarema 8), and the other in the Netherlands, for recycling plastics and expired food waste into gas. These projects will enable the extraction of high-quality secondary raw materials.

*More information online*
Energy efficiency and waste reduction in industry

Highly advanced, specialised machining tools and equipment are essential for improving energy efficiency and reducing waste in industrial sectors such as component manufacturing, mining and infrastructure. The EIB signed a €500 million loan agreement with Sandvik, a Swedish machining, mining and rock processing solutions company, for research and development investments that will improve circularity and process efficiency for advanced metal cutting. The research will be undertaken at Sandvik’s research centres in Sweden, Finland and Germany.

More information online

Fighting plastic pollution in Asia

The EIB made a $20 million equity investment in the Circulate Capital Ocean Fund I-B to prevent plastic pollution in the ocean and advance the circular economy in Asia. The fund invests in innovators that implement solutions in biotechnologies, sustainable fashion and smart materials, and in the digitalisation of the recycling value chain to combat plastic waste and climate change. The companies include Arzeda, Circ, Phase Change Solutions and Recykal, which produce some of today’s most cutting-edge innovations.

More information online

Masonry blocks that consume carbon

Cement production is the source of 2.4% of global carbon dioxide emissions from industrial and energy sources. Four Belgian companies are working together to develop an innovative masonry block made with carbon dioxide gathered from other industrial processes. The product could have significant implications for industry across the globe, and for the battle against global warming. The companies estimated the cost of developing the block at €7.5 million and requested backing and advice from the Innovation Fund, a European Commission funding programme for innovative, low-carbon technologies. The project received support from experts on the EIB’s Innovation Fund team. The European Climate, Infrastructure and Environment Executive Agency pre-selected the project for a grant of €4 million (60% of the capital expenditure for process development) under an Innovation Fund call for small projects.

More information online

Executives of the four companies that make CO2ncrEAT, innovative masonry blocks that use by-products of steelmaking, with their product.
Waste management programme in Jujuy, Argentina.
RESOURCES

WEBSITES

• The EIB in the circular economy
• The Circular City Funding Guide
• Circular City Centre – C3

PUBLICATIONS

• The EIB Circular Economy Guide
• Cutting plastics pollution
• The 15 circular steps for cities
• A Guide for Developing a Circular City Strategy
• A catalogue of circular city actions and solutions
• A guide for circularity in the urban built environment
• Joint Initiative on Circular Economy
• The virtuous circle

BLOGS

• Ever-increasing circles
• Food waste nourishes rural jobs
• Europe must get serious about critical minerals
• Fungus fashion
• Say voltaic!
• Scaling up plastic recycling
• Automating solid waste treatment
• Where can I throw this?
• Add to green cart
• The Swedish space shower

PODCAST

• Converting waste to taste

VIDEOS

• Making circularity part of everything we do
• Letting our oceans breathe
• Jujuy waste-pickers stories
In Serbia, Jelena Miletić, fourth from left, came up with an idea to use red pepper waste to produce natural cosmetics.