



**Key messages**

- EU's **Sustainable Finance Action Plan** reorients capital flows towards sustainability, mainstreams such aspects into risk management and fosters transparency and long-termism.
- The EU-27 spent **EUR 269 billion on environmental protection** a year, including **51.5 billion in capital investment** in 2019.
- Current **investment levels need to be doubled** approximately to put the EU on a path by 2030 towards sustainability.
- **Green bonds issuance** markedly slowed in 2018, but picked up pace again in 2019 reaching almost USD 260 billion, while the share of green, social and sustainability bonds continued to rise.

**Background**

The UN's 2030 Sustainable Development Agenda and the Paris Agreement on climate change set out a **global transition** towards environmental and socio-economic sustainability that respects planetary boundaries. This transformative change requires large-scale investments in various types of infrastructure, including energy, transport and other infrastructure (e.g. water and waste) in order to halt climate change and protect nature/ecosystems by delivering a decarbonised, resource-efficient and circular economy. To this end, the **Sustainable Finance Action Plan**<sup>i</sup> has a key-, enabling role. The Action Plan sets 3 broad aims.

*To reorient capital flows* towards sustainability, the Action Plan includes an EU classification system of sustainable activities (EU Taxonomy, operational as of 2023), standards and labels for sustainable financial products (e.g. EU Green Bond Standards, GBS), assistance to develop sustainable projects, incorporating sustainability in financial advisory and sustainability (e.g. low-carbon) benchmarks.

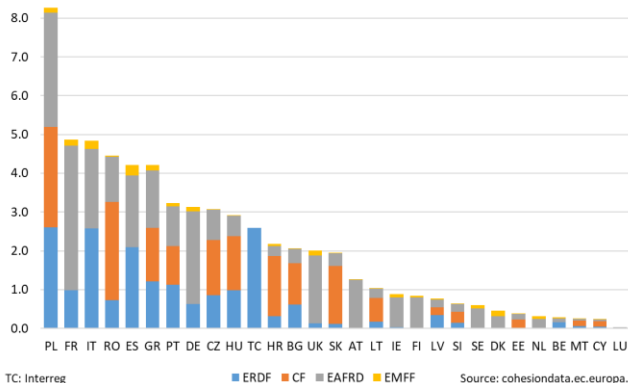
*Mainstreaming into risk management* includes integration of sustainability in ratings and market research, in prudential requirements of banks and insurance companies and clarifying institutional investors' and asset managers' duties (fiduciary duty).

Enhancing *transparency and long-termism* requires sustainability disclosure- (of non-financial information) and environmental accounting by companies, as well as fostering sustainable corporate governance and tackling short-termism of capital markets. A **renewed Sustainable Finance Strategy** will be adopted in 2020, to strengthen the EU's approach to sustainable investments and finance, as an integral part of the EU Green Deal.

**Environment-related EU funding**

In the **2014-20 period**, the EU's Multiannual Financial Framework targeted 20% on climate projects/policies (EUR 180 billion). Under Horizon 2020 – EU's Research and Innovation programme with EUR 80 billion budget – the EU committed to spend 60% (EUR 48 billion) on projects promoting sustainable development, and minimum 35% on climate.<sup>ii</sup> The European Structural and Investment Funds (ESIFs) allocated EUR 62 billion to environment protection and resource efficiency in 2014-2020, 41% of that under the European Agricultural Fund for Rural Development (EAFRD), 30% under the European Regional Development Fund (ERDF), 26% under the Cohesion Fund and 3% via the European Maritime and Fisheries Fund (EMFF).<sup>iii</sup> Further green funding came via LIFE (EUR 864 million) and COSME.

ESIFs financing in the EU-28 in 2014-2020, EUR billion

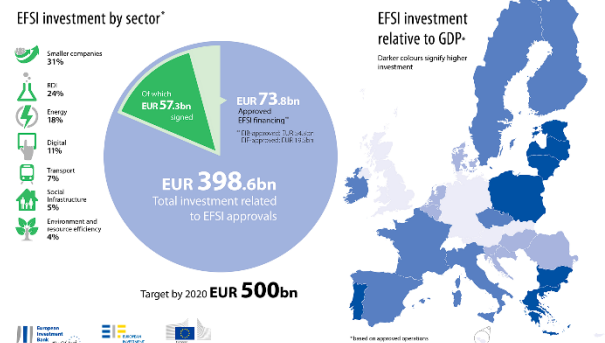


**Financial instruments** for climate and environment, such as the Natural Capital Financing Facility (NCF) and the Private Finance for

Energy Efficiency (PF4EE), combine European Investment Bank (EIB) and EU Commission funds. NCF (under the LIFE programme) offers funding to projects for conservation, restoration, management and enhancement of natural capital, incl. ecosystem-based solutions. It is designed to demonstrate the economic viability of projects related to biodiversity and climate adaptation, with EUR 125 million in the pilot phase (until end 2019): projects thereunder need to generate revenues or cost savings. PF4EE (managed by DG CLIMA) addresses limited access to adequate and affordable commercial financing for energy efficiency investments via an EUR 80 million fund with a leverage of EUR 480 million in long-term financing.

The European Fund for Strategic Investment (EFSI), the EU's **investment plan** up to 2020, aimed to mobilise private and public investment in the field of innovative, higher risk projects (climate, energy- and resource efficiency, renewables, circular economy) via two 'windows' (infrastructure and innovation; SMEs). EFSI, with an EUR 16 billion EU budget guarantee and an EUR 5 billion EIB allocation, planned to mobilise EUR 315 billion in total additional investment over a three-year period (multiplier: 1:15). By mid-2018, EFSI catalysed EUR 398.6 billion in total additional investments, with one-fifth relating to energy and 4% to environment.<sup>iv</sup> **Extended** up to 2020, EFSI 2.0 tops up EU guarantee to EUR 26 billion and EIB's contribution to 7.5 billion (EUR 33.5 billion together), to raise additional investments to EUR 500 billion by 2020. The Smart Finance initiative can leverage an extra EUR 10 billion of public and private funds by 2020 via new project aggregation and efficiency financing platforms. The maritime and fisheries sector receives EUR 6 billion to implement sustainable blue growth.

**EIB Group figures** As of 15/05/2019



In **2021-27**, under the new Multiannual Financial Framework (MFF), the investment plan continues as **Invest EU**, contributing to the Sustainable Europe Investment Plan / European Green Deal Investment Plan (SEIP/EGDIP). Compared to the May 2020 EU Commission proposal, the Invest EU has decreased in size (to around EUR 8.5 billion in budgetary amount / ca. 22-23 billion in guarantee, and around 300 billion in total leveraged investment), while EU funding has been vastly reinforced by the **Next Generation EU (NGEU) recovery fund** in response to the COVID-19 crisis. Total NGEU amounts to EUR 750 billion, of which 672.5 billion (with 312.5 billion in grants) is under the **Recovery and Resilience Facility (RRF)**, for which the contribution to the green transition is a prerequisite to receive EU funding.

The EU's direct and indirect steps towards sustainability are now integrated into the **European Green Deal**, the EU's new growth and sustainability strategy, focussing on the twin green and digital challenge. EU policies need to live up to the **green oath of 'Do no harm'** of the European Green Deal, and to support the achievement of the climate and environmental objectives by 2030 and 2050.

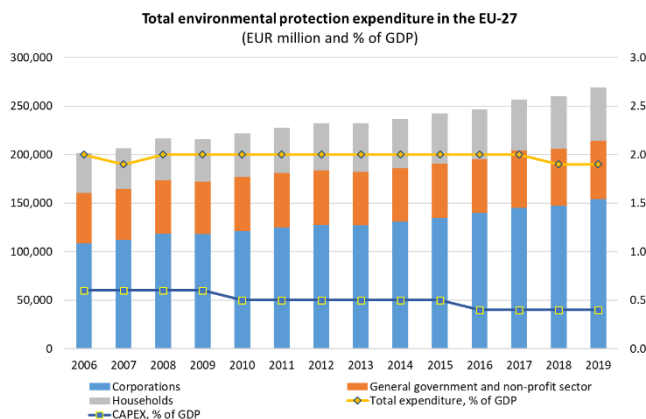
A high degree of **public-private collaboration** is essential to achieve the scale of funds needed to meet the investment challenge. The Energy Efficiency Financial Institutions Group (EEFIG) – set up by the EU and UNEP – called for instance to increase private investments in **energy efficiency** five-fold by 2030. To increase building renovation rates across the EU, micro-level incentives (e.g. preferential interest



rates for energy efficiency loans, tax deductions on green returns etc.) are important, as is tapping into private capital pools e.g. of institutional investors (such as pension- and insurance funds). The EU's **Renovation Wave Strategy**<sup>v</sup> aims to double renovation rate, cut emissions, adding to the recovery and improve energy poverty. The Institutional Investors Group on Climate Change for instance, representing EUR 18 trillion potential investment, foresees a 10% target for energy-efficiency (a potential of EUR 1.8 trillion), if smaller projects/pools are aggregated to bigger infrastructure investments. The whole financial sector spans over EUR 100 trillion in assets, providing huge potential for green and sustainable investments.

### Environmental protection expenditure

EU-27 **environmental protection expenditure** was EUR 269 billion in 2019. Current amounts have increased with time, but remained around 2% of GDP despite more ambitious environmental policies, likely due to innovation and efficiencies in responding to legislation.



In 2019, 57% of the environmental protection expenditure belonged to **corporations** (mostly specialist producers for wastewater and waste), 22% to governments and 21% to households.<sup>vi</sup> **Capital expenditure** in 2019 amounted to 51.5 billion euros in the EU-27 (1/5 of the total), operating expenditure and final consumption are around 40% each. 57% of capital investment is made by firms, 43% by general governments. The share of environmental protection investments in total investments of firms is low, 1.7% in 2019, while it's 4.9% for governments - mostly without resource management (energy, materials etc.). Post-2008- and 2015, **environmental protection investments fell**, in absolute terms and compared to GDP, especially in manufacturing, without full recovery to date.

### Green investment needs

The **COVID-19 recovery package**<sup>vii</sup> assessed the economic and social impacts of the crisis that shocks both the supply- and the demand side of the economy, leading to losses in incomes, capital and in capacity to invest which set back growth, raise unemployment and slow the transition to a greener, more innovative economy – implying the need for a strong and co-ordinated economic response at EU level to support crisis repair and recovery efforts as well as longer-term investment challenges in specific policies and sectors. It found that **additional investments necessary to achieve the green transition** amount to EUR 470 billion, and the digital transformation to EUR 125 billion per annum, and confirmed that the green transition investment gap covers not only the 2030 climate and energy targets (EUR 240 billion p.a.), but also sustainable transport (EUR 100 billion p.a.) and **broader environmental objectives** (EUR 130 billion p.a.).<sup>viii</sup> **Climate adaptation**, not included in above estimates, may cost EUR 35-62 billion (narrower scope) or EUR 158-518 billion (wider scope) per year.<sup>ix</sup>

**Re-assessed environmental investment needs** are estimated to range EUR 80-130 billion a year (medium estimate: 100 billion euros p.a.). A **broad categorisation of environmental objectives**, similar as in the Sustainable Finance Taxonomy, covering both environmental protection- and resources, shows that half of the environmental

investment gap (around 50 billion euros a year) relates to pollution, 25-30 billion to water, 5-20 billion to circular economy, 7-15 billion to biodiversity and ecosystems and around 3-10 billion to R&D.<sup>x</sup>

**Global investment needs** for achieving the SDGs are broadly estimated between 1-10% of global annual GDP. Earlier estimates reported 1.3–2.0%<sup>xi</sup>, while recent ones tend to be higher, 2-8%<sup>xii</sup> corresponding to USD 3-10 trillion a year (or 5-7 trillion more narrowly)<sup>xiii</sup>. A significant part relates to energy: global energy investments reached USD 1.8 trillion in 2017 (with 10% in Europe). This scale is far beyond public funds available, hence the crucial role of private capital mobilisation and public-private partnerships.

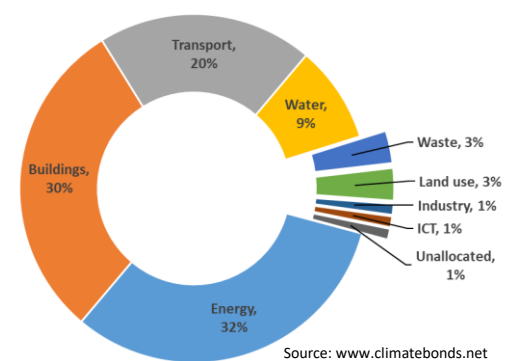
### Green bonds

Green bond markets grew quickly since the first issuance in 2007 by EIB. **Cumulative issuance** of the global green bond market reached USD 754 billion in 2019, with the USA (USD 171.5 bn), China (107.3 bn) and France (86.7 bn) in the lead in terms of issuers. As regions, Europe stands first with USD 307.4 billion, followed by North America (190.4 billion) and the Asia-Pacific (183.6 billion).

**Annual green bond issuance** was USD 171.1 billion in 2018 globally, growing to USD 258.9 billion in 2019, driven by growth in Europe. European issuance amounted to around USD 117 billion in 2019, growing vastly, by ¼, upon previous year. Sustainability and SDG bonds (that allow proceeds to be allocated both to green and social projects) issuance totalled at USD 65 billion in 2019, which is a three-fold increase upon 2018. Adding sustainability- and SDG bonds to green bonds, the annual issuance reaches around USD 323 billion. Non-financial corporates fuelled growth within private sector issuance, with their issuance doubling to USD 59.1 billion. Green bonds represented around 2% of global bond issuances pre-2018, rising to around 4% late 2018. Green, social and sustainability bonds (excl. government issuances) rose from 4-5% of the European bonds market to 10% late 2018.

**The top 5 issuers in 2019** were the USA (USD 51.3 bn), China (31.3 bn), France (30.1 bn), Germany (18.7 bn) and the Netherlands (15.1 bn). The **developed markets (DM)** segment, making up 69% (USD 115 bn) of the overall 2018 market, grew to 72% in 2019.<sup>xiv</sup>

The use of proceeds of the 2019 issuance, %



### More information

European Commission, DG Environment, Unit F1  
SDGs, Green Finance & Economic Analysis  
<http://ec.europa.eu/environment>

<sup>i</sup> Action Plan: Financing Sustainable Growth. COM(2018)97.  
<sup>ii</sup> European Commission. Horizon 2020. Environment & Climate Action.  
<sup>iii</sup> <https://cohesiondata.ec.europa.eu/overview#>  
<sup>iv</sup> EFSI investment figures. European Investment Bank (EIB).  
<sup>v</sup> A Renovation Wave for Europe – greening our buildings, creating jobs, improving lives. COM(2020)62.  
<sup>vi</sup> Environmental protection expenditure (EPEA) accounts. Eurostat database, env\_at\_apea dataset.  
<sup>vii</sup> [https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/recovery-plan-europe\\_en](https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/recovery-plan-europe_en)  
<sup>viii</sup> <https://ec.europa.eu/info/sites/info/files/economy-finance/assessment-of-economic-and-investment-needs.pdf>  
<sup>ix</sup> SWD(2018)292. Impact assessment accompanying the Proposal for the LIFE Regulation (COM(2018)385).  
<sup>x</sup> Environmental investment needs and financing in the EU's green transition. DG ENV, July 2020.  
<sup>xi</sup> G. Schmidt-Traub: Investment Needs to Achieve the Sustainable Development Goals. 2015.  
<sup>xii</sup> Rozenberg – Fay eds.: Beyond the Gap. Sustainable Infrastructure Series. World Bank, Washington. 2019  
<sup>xiii</sup> Resource-efficient and green economy and EU policies. EEA, 2014. and UNCTAD/UNDP.  
<sup>xiv</sup> Green bonds Global State of the Market 2019. and 2019 Green Bond Market Summary. Climate Bonds Initiative, 2020., [www.climatebonds.net](http://www.climatebonds.net)