

EIB Group Climate Bank Roadmap 2021-2025

Version discussed by the EIB Board of Directors
on 11 November 2020



**European
Investment
Bank Group**

EIB Group Climate Bank Roadmap 2021-2025

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The EIB Group Climate Bank Roadmap was approved by the EIB Board of Directors on November 11, 2020. This document will be further edited following the Board discussion.

For further information on the EIB's activities, please consult our website, www.eib.org.
You can also contact our InfoDesk, info@eib.org.

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ACRONYMS AND ABBREVIATIONS

CAB	Climate Awareness Bond
CBR	Climate Bank Roadmap
COP	Conference of the Parties to the UNFCCC
CO ₂ e	Carbon dioxide equivalent
CRA	EIB Climate Risk Assessment system
DNSH	Do No Significant Harm (in connection to EU Taxonomy)
EIB	European Investment Bank
EIF	European Investment Fund
EII	Energy Intensive Industry
ELENA	European Local Energy Assistance
ELP	EIB Energy Lending Policy
ESG	Environmental, Social and Governance
ETS	Emissions Trading System
EU	European Union
GDP	Gross Domestic Product
GHG	Greenhouse Gas
HLEG	High-Level Expert Group
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
JASPERS	Joint Assistance to Support Projects in European Regions
JTM	Just Transition Mechanism
LULUCF	Land Use, Land Use Change and Forestry
MBIL	Multi-Beneficiary Intermediated Loan
MDB	Multilateral Development Bank
NDC	Nationally Determined Contribution
NDICI	Neighbourhood, Development and International Cooperation Instrument
OECD	Organisation for Economic Cooperation and Development
PRI	Principles for Responsible Investments
RDI	Research, Development and Innovation
SAB	Sustainability Awareness Bond
SDGs	Sustainable Development Goals
SME	Small and Medium-size Enterprise
TCFD	Task Force on Climate-related Financial Disclosures
TEG	Technical Expert Group
UN	United Nations
UNCBD	United Nations Convention on Biological Diversity
UNFCCC	United Nations Framework Convention on Climate Change

FOREWORD

To come.

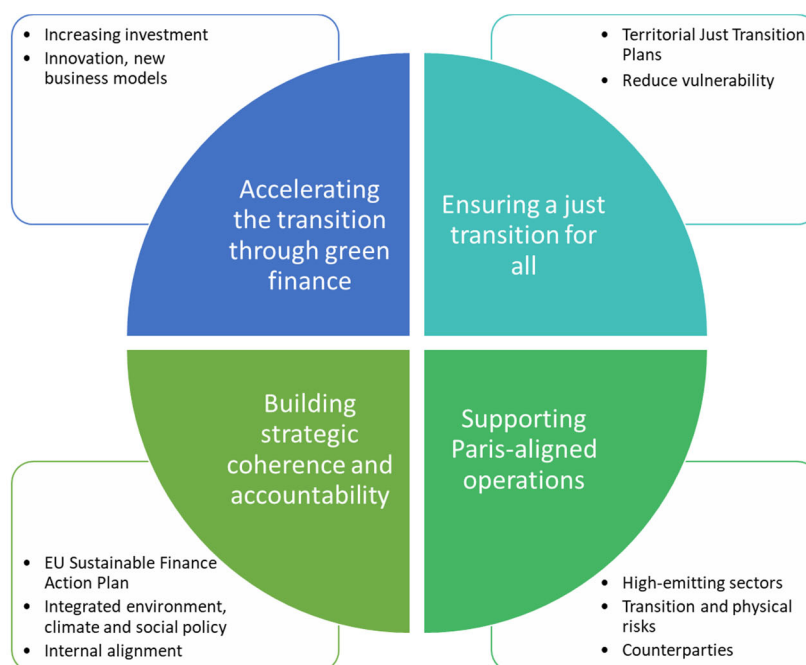
EXECUTIVE SUMMARY

1. In November 2019, and in line with the political ambition behind the European Green Deal, **the EIB Board of Directors decided to increase the level of climate and environment commitment for the EIB Group**. This increased ambition has far-reaching implications on the Group, in effect transforming it from being “an EU Bank supporting climate” into “The EU Climate Bank”. This document – **the Climate Bank Roadmap** – sets out how the EIB Group intends to deliver on this expectation.
2. The context behind this decision is alarming and clear. The combination of climate change and the destruction of ecosystems poses an increasing risk of environmental collapse with enormous human consequences. As illustrated by the Intergovernmental Panel on Climate Change’s [Special Report on Global Warming of 1.5°C](#), **the 2020s is the critical decade** to meet the long-term temperature and climate-resilience goals of the [Paris Agreement](#) and to address the environmental crisis. Through the [European Green Deal](#), the EU has become **the first continent to endorse climate neutrality by 2050**, and has committed to build Green Alliances with partner countries and regions worldwide. It works within the wider context of policies designed to enhance Europe’s natural capital and eliminate pollution. The European Commission and the European Parliament have recently proposed to increase the level of ambition of greenhouse gas emissions reduction by 2030 – from the current 40% on 1990 levels to 55% and 60%, respectively.
3. This is a **global development challenge**. Climate change and environmental degradation do not respect national borders. Their adverse impacts undermine the ability of all countries to achieve sustainable development. However, poor and developing countries, particularly least developed countries and small island developing states, will be among those most adversely affected and least able to cope with the anticipated shocks to their social, economic and natural systems. More severe droughts, sea level rise, biodiversity loss and other impact create increasing risks to food and water security, coastal communities, and livelihoods. These challenges require internationally coordinated solutions, and international cooperation to help developing countries move toward a low-carbon, climate-resilient and sustainable economy. Meeting the United Nations (UN) **Sustainable Development Goals** also requires **sustained long-term investment**: to decarbonise the physical capital stock and ensure it is resilient for a changing climate, to preserve and enhance natural capital, and to train and re-skill people to work within a climate-neutral economy.
4. The **coronavirus pandemic** has made the challenge harder. It is currently placing an unprecedented burden on people, health systems, as well as countries’ economies and government finances more generally. The EU has responded decisively to ensure recovery through an ambitious €750 billion package, [Next Generation EU](#). Outside the EU, it has launched the [“Team Europe” package](#), which is part of its global response to the crisis and reaches almost €36 billion. Nevertheless, the recovery from COVID-19 is likely to dominate global public finances over the short to medium term, heeding calls from many stakeholders for a **green recovery**.
5. The **European Investment Bank Group** – the European Investment Bank and Fund – **can help support the EU** to deliver on the long-term goals of the European Green Deal and UN Sustainable Development Goals more broadly. The EIB Group is one of the **largest global financiers** of sustainable development in general, and climate action and environmental sustainability in particular. Through a wide spectrum of [financial products](#) and [advisory services](#), it can work with partners to help support long-term green investment needs. Importantly, the EIB Group can support the entire spectrum of technological innovation: from seed capital for very early-stage development through to senior debt for mature technologies.
6. The decision of the EIB Board has **two broad elements**. Firstly, the EIB will **increase its level of support to climate action and environmental sustainability to exceed 50%** of its overall lending activity by

2025 and beyond, and thus help to leverage **€1 trillion of investment** by the EIB Group over the critical decade ahead. This new level of commitment is designed to accelerate the transition to a climate-neutral, climate-resilient and sustainable economy. Importantly, this includes a commitment for a proposal regarding a **just transition**.

7. The second core dimension of the EIB Board decision is to ensure that **“all financing activities are aligned to the goals and principles of the Paris Agreement by the end of 2020”**. As the EU Climate Bank, the EIB Group cannot support the Agreement with 50% of green finance if, at the same time, it undermines the goals with the remaining 50%. In line with the principles of sustainable finance, the EIB Group needs to ensure that all its activities **do no significant harm** to the low-carbon and climate-resilient goals of the Agreement.
8. Working within the joint MDB Paris alignment framework, the Roadmap breaks this commitment into four core workstreams. The first concerns **accelerating the green transition** worldwide – increasing green investment and supporting long-term innovation and new business models. A second core workstream is focussed on ensuring that the transition is **just for all** – working to support communities exposed to structural change or climate risks.

Figure 1 – Main workstreams of the Climate Bank Roadmap



9. The EIB Group will continue to support a wide range of activities in line with its public policy goals. A third workstream, therefore, is directed at ensuring that **none of these activities significantly harms the transition**. In other words, all its financing activities should be aligned with the goals of the Paris Agreement. Finally, the Roadmap takes a step back to ensure that these different elements are embedded within a **coherent policy approach towards supporting sustainable finance**, supported by the EIB Group’s internal systems and building in the necessary accountability.
10. Before turning to the substance of this Roadmap, it is important to stress its ambition. This next five-year period will undoubtedly be challenging, but it is also likely to be a defining period in which the European Green Deal becomes Europe’s new growth strategy. It is a significant opportunity for the EIB Group to **strengthen its dialogue with EU Member States** to help deliver long-term green investment needs.
11. This degree of ambition holds equally outside the EU. Meeting the goals of the Paris Agreement requires significant efforts to reduce greenhouse gas emissions and build climate-resilience across the

world. Building on its experience, the EIB will strengthen its **support for EU external action through development financing**, helping to ensure that this external action, environmental and social sustainability and development cooperation is more than the sum of its parts. In close cooperation with all partners, it will seek to **support countries adopting ambitious Nationally Determined Contributions (NDCs)**, ensuring access to long-term finance and advisory support.

ACCELERATING THE TRANSITION THROUGH GREEN FINANCE

12. Progress globally in some aspects of the transition has already been extraordinary. This is most obviously the case with respect to **electricity**. Over the last decade, the cost of solar energy has fallen by over an order of magnitude, and continues to fall. As a result, it is the cheapest form of electricity generation in large parts of the world. Battery costs have undergone a similar cost reduction over the decade, helping ensure that electric vehicles are on the cusp of becoming competitive in many segments of the market. In addition, although less publicised, the technical performance of heat pumps has improved enormously over the decade, allowing electricity to replace carbon-intensive energy sources in heating homes or providing heat for industrial processes.
13. Faced with strong European political ambition, backed up through a comprehensive legal framework, developing low-carbon technologies is increasingly a question of securing **long-term global competitiveness**. In other words, economic growth and green investment are increasingly interlinked.
14. In many other areas, however, the **transition has barely begun**. Global investment in **natural capital** – carbon sinks, biodiversity, eco-system preservation – remains insufficient. Significant innovation in low-carbon technologies is still required to cut emissions throughout the economy, notably in the “**hard-to-abate**” sectors. New business models are required to **drive deployment** and reduce the cost of the transition. And all this needs to happen in a way which **leaves no one behind**: no people, no place.
15. The European Green Deal addresses these challenges. The EIB Group will seek to support this through its new level of commitment – gradually increasing its share of finance dedicated to green investment to over 50% by 2025 and beyond. The Roadmap identifies **twelve focus areas** for EIB finance, including the just transition. This structure will help shape EIB Group business development, including with respect to **financial** and **advisory product innovation**.
16. In reviewing each of these focus areas, four general messages emerge as to the role of the EIB Group. The first is the need to increase substantially **adaptation efforts**, with specific actions, prioritisation and initiatives that will be developed and enhanced in light of the forthcoming EU Adaptation Strategy. A second takeaway is the need to increase investment in **innovative green technologies** – from early-stage research through to pilot demonstration of technologies, complemented with support for **new business models** (battery storage, demand response, low-carbon hydrogen, e-charging). A third theme is the importance of driving down the long-term cost of capital in **capital-intensive green infrastructure** – urban public transport, rail and energy networks, waste and water networks, carbon sinks. A fourth theme is the importance of **aggregation, scalability and replicability** in ensuring investment at scale; this is particularly relevant for adaptation, energy efficiency and sustainable agriculture. The EIB Group is active across all these areas today, in the EU and in developing countries. More can be done.
17. These focus areas help shape business development. In practice, local conditions are critical in shaping the way in which the EIB Group can most effectively support green investment. Within the EU, the EIB Group is therefore strengthening its dialogue with Member States, using **National Energy and Climate Plans, National Adaptation Strategies and Plans, and Recovery and Resilience Plans** as a basis for reviewing how the EIB Group can refine its support.

18. The EIB is equally committed **outside of the EU**. There is an urgent need to **strengthen resilience to climate change** amongst some of the most vulnerable regions across the world. The EIB business development activity will be anchored in the context of **Nationally Determined Contributions (NDCs), National Adaptation Plans and Long-Term Strategies** under the Paris Agreement, looking to engage in particular with countries with ambitious plans. Through this engagement, the EIB is ready to play a **more active role in supporting country NDCs**. This advisory service would need to be developed in close collaboration with the European Commission including through EU delegations, the European External Action Service as well as partner Multilateral Development Banks (MDBs) and international organisations.
19. The EIB Group has significant capability to support a broad range of green investment, from large-scale infrastructure projects to development of innovative green technologies. Given the scale of the challenge and the extent of the investment needs identified, the EIB Group needs to build on its existing capability but also to focus on **product innovation**. Work will continue to develop green loan and green debt products, together with deployment of advisory offering in order to support green investment through the provision of technical and financial expertise. Equity, funds and other innovative financial products will be utilised to support development of higher-risk technologies and to address specific investment gaps and policy priorities.

ENSURING A JUST TRANSITION FOR ALL

20. Supporting **cohesion** was one of the founding principles of the EIB when it was established in 1958. It continues to be a core priority – and hence the EIB Group will seek to ensure that **no people or places are left behind** along the transition pathway. This is of particular concern to regions that currently rely on carbon-intensive industries as a major source of local employment and income, and to those sectors and livelihoods most at risk from climate change impacts.
21. The EIB has a solid track record in supporting the transition and economic restructuring of former coal and carbon-intensive regions through financing stand-alone environmental remediation projects, as well as multi-sector investment programmes for modernisation and integrated urban and regional development. Recent examples include projects to **rehabilitate former opencast lignite mines**, extensive **restructuring of regional waste water systems** through industrial regions in order to restore environmental quality, or **urban renewal** in towns dependent on the mining industry.
22. The **Just Transition Mechanism** is the cornerstone of the EU response to this challenge. The EIB Group will play a central role within the Mechanism, supporting to varying degrees each of its three main pillars. Most prominently, it will be the financing partner for the public-sector loan facility (or third pillar), expecting to unlock investment of at least €25 billion. However, it will also support the mechanism through InvestEU (and thus the second pillar designed to unlock private investment). Finally, through Structural Programme Loans, it will look to support the Just Transition Fund itself (the first pillar). The EIB Group is also able to provide advisory services in support of all pillars of the mechanism, as illustrated through current activities of JASPERS.
23. The EIB Group continues to prepare its support towards the Just Transition Mechanism. A number of key wider aspects (e.g., legal base, formal selection of territories, etc.) remain to be approved by the EU. The EIB will therefore revert to the Board with a **comprehensive proposal** shortly after these aspects are agreed. This is expected by the middle of 2021.
24. The focus on a just transition has a wider interpretation worldwide in the context of **social development**. The EIB Group seeks to invest in projects that simultaneously support the transition and improve socio-economic development. It will also entail focusing on building resilience of the people and employment sectors most vulnerable to climate change, both in Europe and worldwide,

supplemented by advisory services to enhance the social impact of climate and environment eligible projects. For more than 40 years, the EIB has been functioning as the EU's development bank outside the EU. The Climate Bank Roadmap forms a key component of the EIB Group's vision of how to achieve greater policy impact, focusing on the synergies between EU climate and other priorities such as economic resilience, gender equality, and conflict, fragility and migration.

SUPPORTING PARIS-ALIGNED OPERATIONS

25. The EIB Board has committed to “align all its financing activities with the principles and goals of the Paris Agreement by the end of 2020”. Drawing on the Agreement, this implies that financing activities need to be aligned with the Paris Agreement temperature and adaptation goals, and “consistent with pathways towards **low-carbon** and **climate-resilient** development”. This chapter presents an **alignment framework** to put this commitment into practice. It covers both dimensions – low-carbon and climate-resilience. It first develops an approach in the context of new projects, and then generalises this across all EIB Group operations.

ALIGNMENT TO LOW-CARBON PATHWAYS

26. The EU has committed to reduce greenhouse gas emissions significantly by 2030 and to achieve carbon neutrality by 2050. Despite the clarity of the overall pathway to climate neutrality, **interpretation is required** at the level of an individual operation. The purpose of the alignment framework is to provide such interpretation that is **appropriate for the EIB Group**, as the EU Climate Bank, and with its own particular public policy goals and business model.
27. In developing this framework, it builds upon key reference points. The **EU Taxonomy** is a natural starting point, with the expected adoption shortly of technical screening criteria to establish whether an activity “does no significant harm” to climate change mitigation or adaptation objectives. The Paris alignment methodological work of the MDBs is also helpful in this regard.
28. In developing an approach to ensure alignment at a project level, the EIB has also looked to build on its economic assessment of investment projects, including the use of a shadow cost of carbon. The principles of this economic assessment is provided in the EIB [Guide to Economic Appraisal](#). The test helps ensure that EIB project add net social benefits: i.e., that the benefit to society of a project outweighs the costs, including all externalities. This is equally the case along a transition pathway.
29. **Energy.** In the case of the energy sector, alignment is secured through the adoption of the recent [EIB Energy Lending Policy](#).
30. **Aviation.** There remains a lack of clarity on the pathway to decarbonisation for the aviation sector. The EIB Group will therefore focus on **improving existing airport capacity** including safety, security, rationalisation, resilience and decarbonisation investment. Support will be withdrawn from **airport capacity expansion and conventionally-fuelled aircraft**.
31. **Road infrastructure.** Given the relatively clear sectoral pathway towards decarbonisation, the EIB will address concerns around capacity expansion through an **adapted economic test** for large projects. In particular, demand forecasts will be adapted in line with recognised long-term modelling studies, with due attention to penetration rates of electric vehicles. Net emissions from the project will be valued at a **shadow cost of carbon**, which is consistent with the path towards a 2050 climate neutrality target. This approach will screen out projects dependent on high short-term traffic growth (and hence emissions). The EIB will continue to support robust **projects designed to improve existing traffic flows, rehabilitation projects**, or projects with **strong safety elements**.
32. **Road vehicles.** In the first instance, the EIB Group will focus support on decarbonising vehicle fleets and ensuring a substantial contribution where possible. In the current context of the economic

downturn, and notably the difficulties of many smaller companies, it is proposed to adopt the recommended values for “doing no significant harm” under the **EU Taxonomy** across multi-beneficiary intermediated loans (MBILs) and similar types of products.

33. **Energy Intensive Industry.** The EIB does not support industry per se – but rather addresses the market failures associated with innovation, pollution and carbon externalities. The EIB Group will therefore focus support its support for innovation (research and development, pilot and demonstration projects) on **low-carbon technologies**. Support will be withdrawn from any new capacity based on traditional high-carbon processes (and without abatement technologies). In the case of existing conventional plants, the EIB Group will support **energy efficiency, depollution or circular economy projects** that have an economic life **running out before 2035** – i.e., well in advance of the 2050 date by which the sector should be operating on a net zero emissions basis.
34. **Research, development and innovation (RDI).** The EIB Group will continue to support research, development and innovation in general. However, support will be withdrawn from activities that are no longer being supported under this framework (e.g., the internal combustion engine or fossil-fuel based propulsion systems in the maritime and aviation sectors).
35. **Agriculture and forestry.** The EIB Group will ensure that activities do not expand into areas of **high carbon stocks or high biodiversity value**. Moreover, given the importance of livestock as a source of emissions, the EIB Group will focus support on **meat and dairy industries** adopting sustainable animal rearing methods that contribute to improved greenhouse gas emissions efficiency. In addition, given the approach adopted towards the aviation sector, it is proposed to no longer support **export-orientated agro-business models** that **focus on long-distance air transport** for commercialisation. This measure would exclude investments dependent on the international shipping of fresh, perishable agricultural goods through long-haul air cargo.
36. These principles are to be applied across EIB Group operations **globally**. However, in some cases, these principles have been interpreted with reference to EU regulations. In such instances, **appropriate interpretation in the local context will be made for operations outside the EU**. This is relevant to buildings, industry, agricultural practice and roads.
37. As illustrated in the context of road infrastructure, the **shadow cost of carbon** is an integral part of the EIB Group alignment framework. It is a key technical parameter in the EIB economic assessment of projects. The current EIB carbon values are based on studies that pre-date the Paris Agreement, and in particular does not reflect the net zero emission target by 2050, or 1.5°C of global warming.
38. Based on a review of the latest modelling evidence, it is proposed to increase the EIB **shadow cost of carbon to €250 per tonne by 2030**. By the time of net zero emissions in 2050, this shadow cost rises to €800 per tonne. These values are close to the recommendation of a recent study by [France Stratégie](#), which has subsequently been adopted to assess public sector projects in France. The shadow cost is a technical parameter used to estimate the full value to society from saving a tonne of carbon.
39. The latest analysis on an appropriate shadow cost of carbon will be **reviewed on an annual basis** and the cost adjusted accordingly (both up and down). Details of the monitoring will be reported to the Board annually, and any changes presented to the Board for approval.

ALIGNMENT TO CLIMATE-RESILIENT PATHWAYS

40. The second dimension of alignment concerns climate-resilience. Climate change is already having profound consequences on all regions and across all sectors of the world. In order to manage this risk at the level of a project, the EIB has introduced a **Climate Risk Assessment (CRA) system** to provide a systematic assessment of the physical climate risk in direct lending. Drawing on robust climate data,

the CRA system is a business process that helps the EIB and its clients understand how climate change may affect their projects and identify adaptation measures.

41. The **CRA is the cornerstone of the EIB alignment framework**. It focuses on the specific project and the client's operating environment. However, it is important to situate the project within the **wider strategic context** of climate-resilience of the system. Over time, this wider aspect will need to be tackled systematically across all projects to ensure that EIB investments support broader resilience goals in line with clients' priorities.

IMPLEMENTATION ACROSS NEW OPERATIONS

42. It is necessary to apply the approach set out above across a wide range of EIB Group operations. This raises two issues: firstly, how to consider and then support the alignment of a counterparty, rather than a project; secondly, how to generalise from a direct investment loan to the full range of EIB Group products.
43. The EIB Group is currently working to develop **counterparty alignment guidelines**. In the meantime, the EIB Group will continue with its existing approach anchored in an assessment of the relevant corporate decarbonisation plans of high emitting counterparties to be presented in the Board report. The guidelines will be presented to the EIB and EIF Board in 2021.
44. In terms of products, the full alignment framework will be applied in the case of direct investment loans, framework loans, infrastructure funds and advisory assignments. The EIB Group also supports projects through intermediary financial institutions. In the case of **MBILs and other intermediated products of a similar nature**, low-carbon alignment will focus on three sectors: (i) **energy**, through implementation of the EIB's energy lending policy; (ii) mobile assets for **transport** services and (iii) **energy-intensive industries**, by excluding support towards a limited number of industries. It should be noted that exclusions under points (ii) and (iii) would not apply to clearly defined investments in climate action or environmental sustainability activities, e.g., under dedicated MBIL climate action and environmental sustainability windows. In terms of resilience, the EIB Group is developing an approach to integrate systematically climate resilience considerations into the due diligence process for financial intermediaries.

CLIMATE-RELATED RISK MANAGEMENT

45. As a prudent financial institution, the EIB Group needs to be able to assess and mitigate risks towards its balance sheet with respect to physical climate change risk and transition risk.
46. At the level of a **project**, risk assessment is based on the alignment framework set out above, underpinned by detailed climate-related due diligence. At the level of **counterparties**, climate risk screening tools have been developed for each of the EIB's main credit segments to assess climate risk, and for the EIF's equity portfolio. Initially, the screening tool will be used for **portfolio** monitoring as well as internal reporting and disclosures. It will provide transparency on the EIB Group's exposure to climate risk and allow informed risk management decisions.
47. As of end-2019, the EIB manages a portfolio of approximately 7,500 operations, with more than 4,000 counterparts with a total signed exposure of approximately €560 billion, including €65 billion loans granted in 106 different countries outside the EU. Climate change risks in the portfolio have been assessed by approaching the portfolio as an aggregation of projects and as an aggregation of counterparts. The climate change risks for the credit portfolio will be assessed through the aggregation of the results of the climate risk-screening tools for counterparts.

BUILDING STRATEGIC COHERENCE AND ACCOUNTABILITY

48. In order to deliver on the actions laid out in the previous sections – to accelerate the transition through green finance, ensure a just transition for all, and align all operations to the goals of the Paris Agreement –, these dimensions need to be placed into a coherent policy approach towards supporting sustainable finance. This approach must also ensure robust and timely delivery of all Paris alignment activities, and allow for monitoring, learning and improving. The EIB Group approach will be based on **three cross-cutting aspects: (1) policy**, to set out how climate-related activities fit within the wider context of sustainable finance and overall environmental and social sustainability; **(2) transparency, accountability and quality assurance**; and **(3) institutional support** to the EIB Group’s activities.

A COHERENT APPROACH TO POLICY

49. The EIB Group’s approach to support sustainable finance will **mirror important parts of the EU and international efforts** in this field, particularly the European Commission’s action plan for financing sustainable growth. Two elements of the European Commission’s action plan require particular attention: the EIB Group’s use of the EU Taxonomy and a planned approach for climate and nature related disclosures in line with EU Guidelines.
50. The EIB Group will align its tracking methodology for climate action and environmental sustainability finance with the framework defined by the EU Taxonomy Regulation, as this develops over time. Whilst aligning with the Taxonomy, both in its approach and technical criteria, the EIB Group will also remain within its externally audited tracking system for climate finance, which is harmonised with other international financial institutions.
51. The EIB will remain active in supporting the emergence of a global sustainable finance sector through its active participation as a Member in the **EU Sustainable Finance Platform** and its involvement as an Observer/Partner in the International Platform on Sustainable Finance, the Network on Greening the Financial System and the Coalition of Finance Ministers for Climate Action.
52. The update and consolidation process of the **EIB Group’s Environmental and Social Policy Framework** will lead to a stronger and systematic integration of climate, environmental and social actions into EIB Group policies and standards. As an important first step in the policy framework, the **EIB Climate Strategy** will be updated to bring its language in line with the Paris Agreement, the latest EU and international policy developments, and the latest scientific knowledge, and to incorporate the new EIB Group climate action and environmental sustainability targets. Moreover, the EIB Group is in the process of further developing its **Environmental and Social Policy Framework** to address the new policy developments, emerging environmental and social issues, incorporating lessons learned and meeting the changing needs of its clients and promoters. In this context, the new Environmental and Social Policy and the revision of the EIB Environmental and Social Standards, including updating the climate-specific standard will be publicly consulted on during 2021.

TRANSPARENCY, ACCOUNTABILITY AND QUALITY ASSURANCE

53. To further integrate climate change, environmental and social considerations into its financing activities, the EIB will enhance and develop additional risk management tools to assess physical, transition and systemic risks at project, portfolio and counterparty levels.
54. The EIB Group will also seek to generate the data necessary to track progress in meeting its commitments through further development of climate and environment impact measurement and reporting systems, including to allow for reporting on climate impact of intermediated financing.
55. A coherent EIB Group approach must include a results framework that will allow the EIB Group to monitor progress, and to assess and report on the outcomes of its activities related to the Climate

Bank Roadmap, both to its shareholders and other stakeholders. This results framework must allow the EIB Group to continuously improve its practices and policies over time.

INSTITUTIONAL ELEMENTS

56. Several additional, “institutional” elements are designed to complete the EIB Group’s efforts to align financing activities with the goals of the Paris Agreement and to support the Climate Bank Roadmap from an institutional perspective. They encompass specific EIB Group initiatives to: (i) align internal operations to the goals of the Paris Agreement; (ii) share knowledge and experience with key stakeholders and develop strategic partnerships; (iii) communicate clearly and regularly on the progress, challenges and lessons learned through the implementation of the Climate Bank Roadmap; and (iv) enhance the management of the human resources needed to achieve its ambitious goals.

NEXT STEPS

IMMEDIATE STEPS

57. Three key elements are needed by the end of 2020 to establish a coherent framework for the EIB Group’s new climate and environmental commitments towards climate action and environmental sustainability. These are: (1) the establishment of a framework to ensure the Paris alignment of all new operations, underpinned by an updated shadow cost of carbon; (2) the strengthening and widening of the system to track EIB Group climate action and environmental sustainability finance; (3) the update of the 2015 Climate Strategy.
58. To manage the changes required by the Paris alignment of new financing activities, the EIB Group will continue to approve projects already under appraisal until the end of 2022. For the purposes of tracking, accounting and reporting climate action and environmental sustainability finance, the enhanced system will be applicable to all operations signed as of 1 January 2021.

IMPLEMENTATION OF THE CLIMATE BANK ROADMAP

59. This EIB will structure future work around ten new **Action Plans**, which will build on the first five years of implementation of the EIB’s 2015 Climate Strategy. This structure revolves around the four main workstreams of the Roadmap – (1) accelerating the transition through green finance; (2) ensuring a just transition for all; (3) supporting Paris-aligned operations; and (4) building strategic coherence and accountability. The Action Plans are conceived as an internal planning tool to ensure progress in all areas. They are an internal document focussing on specific actions and deliverables by each relevant team.
60. Based on a results framework to be established by the end of 2021, the EIB Group will prepare progress reports every year to update its governing bodies on the implementation of the Climate Bank Roadmap. The EIB Group will conduct an assessment of the Climate Bank Roadmap in 2024, in view of informing revisions or modifications for subsequent implementation periods, in accordance with the Paris Agreement’s 5-year ‘ratchet mechanism’ cycle.

Chapter 1. THE CRITICAL DECADE

1.1 In November 2019, the European Investment Bank's Board of Directors approved new commitments for climate action and environmental sustainability:

-
- A. *The EIB Group¹ aims to support €1 trillion of investment in climate action and environmental from 2021 to 2030;*
 - B. *The EIB will gradually increase the share of its annual financing dedicated to climate action and environmental sustainability to 50% by 2025 and beyond;*
 - C. *The EIB Group will align all its financing activities² with the principles and goals of the Paris Agreement by the end of 2020.*
-

1.2 The EIB Group's decision was based on several observations. Firstly, **2021-2030 is the critical decade** to address the climate and environment emergency. Secondly, **trillions of investment are required to address climate change and environmental sustainability**, to limit global warming to 1.5°C above pre-industrial levels by the end of this century, combat environmental degradation, halt catastrophic biodiversity loss, and stop the widening inequalities. Thirdly, **the European Union (EU) is at the forefront of global efforts to reduce greenhouse gas (GHG) emissions and to adapt to a changing climate**, while playing a leading role in implementing the Paris Agreement. Fourthly, as requested by the European Council and EU Member States, **the EIB Group is playing a key role in putting sustainability at the heart of the EU project**, by supporting the design and implementation of the European Green Deal and by accelerating the transition to a 'net-zero' emissions and climate-resilient EU economy by 2050. Lastly, **for many years, the EIB Group has been an integral part of the EU's global response to climate and environmental challenges**, with strong experience over the last decade in many areas of climate finance.

1.3 The EIB Group's new objectives are twofold: (1) to **accelerate the transition to a low-carbon, climate-resilient and environmentally sustainable economy** by investing and mobilising significant volumes of 'green finance'; and (2) going forward, to **align all financing activities with the principles and goals of the Paris Agreement** and withdraw support that is not aligned with the Agreement.

1.4 The new commitments also highlight **the intention to leave no one behind** and to support a 'just transition' for the communities and regions affected by the shift to low-carbon economies, and those that are most vulnerable to the negative impacts of a changing climate and that have the least ability to adapt. Therefore, **an increase in financing towards climate adaptation and resilience is also central to the EIB Group's actions.**

1.5 The EIB Group will continue to support long-term development objectives under a wide range of other EU public policy goals; notably through investments aimed at cohesion, innovation, infrastructure and for small and medium-sized enterprises (SMEs).

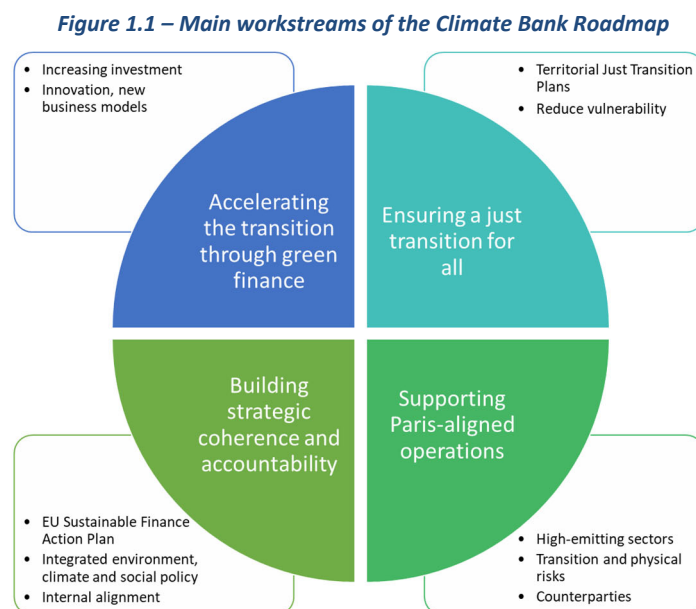
¹ The European Investment Bank Group consists of the European Investment Bank (EIB) and the European Investment Fund (EIF).

² This includes new, direct and intermediated financing operations (including lending, guarantees, securitisation and equity), and advisory assignments approved from 1 January 2021 onwards. It also includes treasury operations.

- 1.6 The new commitments towards climate action and environmental sustainability finance and to the Paris Agreement constitute the EIB Group’s contribution to the international community as a whole. They sit alongside its pledge to the citizens of the EU and the world to support the [European Green Deal](#) and the [United Nations \(UN\) 2030 Agenda for Sustainable Development and the Sustainable Development Goals \(SDGs\)](#). The increase in financial support will also stimulate a green recovery in the EU and beyond, including those actions proposed within the [Next Generation EU](#) and the “[Team Europe](#)” package.
- 1.7 To put the new commitments into practice, the EIB Group has developed this Climate Bank Roadmap. The Roadmap provides an operational framework for its activities on climate action and environmental sustainability from 2021 to 2025, together with an update of the EIB Climate Strategy.

STRUCTURE OF THE CLIMATE BANK ROADMAP

- 1.8 The Roadmap builds on the first five years of implementation of the EIB’s 2015 Climate Strategy and its related Action Plans. It reviews and summarises the **Climate Strategy implementation progress to date**, ongoing actions, and feedback received on the Climate Bank Roadmap during its development phase. It also **lays out the key elements to ensure that the EIB Group can fulfil its commitments** starting in January 2021. Furthermore, it **explains the steps envisaged for the five-year period** to strengthen and expand upon those key elements. As such, the Roadmap should be thought of as **an iterative planning tool** over the long-term to help the EIB Group achieve its new commitments. Finally, it sets out how these climate-related activities fit within the wider context of sustainable finance and overall environmental and social sustainability, and lays out a starting point for the upcoming public consultation in 2021 of the EIB Group’s new environmental and social (E&S) policy.
- 1.9 After the **introduction in this Chapter** to set the scene for the EIB Paris alignment approach, the Roadmap revolves around four main workstreams laid out in Chapters 2, 3, 4 and 5. These chapters continue developing the three strategic areas of the EIB Climate Strategy³.



³ The three pillars of the EIB Climate Strategy adopted in 2015 are to: (1) reinforce the impact of climate financing; (2) increase resilience to climate change; and (3) further integrate climate change issues across all standards, methods and processes.

- 1.10 **Chapter 2** looks at the **acceleration of the transition using green finance** and describes the activities envisaged to significantly increase and mobilise climate action and environmental sustainability financing in core markets, to accelerate the transition towards an inclusive low-carbon, climate-resilient and environmentally sustainable economy. This acceleration is predicated on special areas of focus, which will serve as a basis for business development.
- 1.11 **Chapter 3** considers the role that the EIB Group can play in **ensuring that no people or places are left behind** in the transition to low-carbon, climate-resilient and environmentally sustainable economies. This is of particular concern for regions that currently rely to on carbon-intensive industries for local employment and income. This is also of concern for the regions and communities that are highly exposed to the negative (physical) impacts of a changing climate. Therefore, this chapter also considers the question of social development and climate change more generally, and possible ways in which the EIB Group can help to increase resilience.
- 1.12 **Chapter 4** lays out the proposal for making sure that the EIB Group’s operations **meet the goals and principles of the Paris Agreement through an “alignment framework”**. It describes the activities that the EIB Group will support and those that it will not support any longer. An integral part of this alignment framework is a revised shadow cost of carbon. Finally, chapter 4 sets out **the first steps of a future approach to assess and support counterparties’ alignment with the Agreement**, stressing that more detailed guidelines are being developed, **and an approach to strengthen the climate-related risk management framework** of the EIB Group.
- 1.13 **Chapter 5** describes how a coherent approach to **policy, transparency, accountability and quality, and institutional support**, will be ensured, through the various elements of a framework within which the commitments can be undertaken. These include the proposal to: (i) **support the European Commission’s Sustainable Finance Action Plan**, in particular by **aligning with the EU Taxonomy** for tracking climate action and environmental sustainability finance, and by **adopting climate-related disclosures**; (ii) **further develop an integrated sustainability policy framework**, to mainstream climate, environmental and social actions into EIB Group policies and standards; (iii) **enhance the scope and use of EIB’s GHG accounting methodology and other impact metrics**; (iv) **establish a solid results framework** to assess and report on Roadmap progress and to improve delivery during its implementation; and (v) further **strengthen specific institutional elements** of the EIB Group, including the Paris alignment of internal operations, outreach, partnerships and knowledge sharing, internal and external communication, and human resources development.
- 1.14 **Chapter 6** provides an overview of the **next steps** in implementing the Roadmap.
- 1.15 Several decisions are required to start implementing the Roadmap in January 2021. As laid out above, these include the adoption of:
1. a framework for aligning new financing operations with the Paris Agreement, underpinned by a new carbon pricing policy;
 2. the proposal to migrate to the EU Taxonomy for tracking EIB Group climate action and environmental sustainability finance; and
 3. an updated Climate Strategy, to make sure that it remains fit for purpose at the start of 2021, by bringing its language in line with the Paris Agreement wording, reflecting the latest scientific knowledge and incorporating the new EIB Group climate action and environmental sustainability targets.
- 1.16 For the implementation phase of the Climate Bank Roadmap, the EIB will structure its work around ten new **Action Plans** (see Chapter 6). This structure revolves around the four main workstreams of

the Roadmap, as illustrated in *Figure 1.1* above. The Action Plans are conceived as **an internal planning tool to ensure progress in all areas**, as they articulate the interpretation of the new climate action and environmental sustainability commitments across the different EIB Group services involved and the activities needed to achieve those commitments. They are an internal document as they spell out specific actions and deliverables by each relevant team.

CONTEXT

- 1.17 A clear understanding of the context underpinning the Climate Bank Roadmap is fundamental. This section explains this in brief. A more detailed overview is provided in **Annex 1**.

GLOBAL ENVIRONMENTAL CHALLENGES, GLOBAL POLICY RESPONSE AND INVESTMENT NEEDS

- 1.18 According to the latest [Global Climate Report](#), 2019 was the second warmest year in the last 140 years. The five warmest years in the 1880-2019 record have all occurred since 2015. This is coupled by an unprecedented rate of biodiversity loss, and significant threats across global ecosystems. These trends increase the risk to people – the wellbeing of today’s generation and the next generations to come. These impacts are due to be felt disproportionately by the poor – within communities and regions, across the globe.
- 1.19 The [Paris Agreement](#) represents the global response on climate change, clarifying that global average temperature rises, as compared to pre-industrial levels, must remain “*well below 2°C*” while “*pursuing efforts to limit such a rise to 1.5°C.*” It is a multilateral structure requiring action by all countries. Each Party commits to “*prepare, communicate and maintain successive Nationally Determined Contributions (NDCs)*” that it intends to achieve every five years. Recognising the importance of finance in meeting these goals, the Agreement commits signatories to “*make finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development*”. It is currently endorsed by 190 countries (out of 197), representing 96% of global emissions⁴.
- 1.20 As illustrated by the Intergovernmental Panel on Climate Change (IPCC) [Special Report on Global Warming of 1.5°C](#), meeting the long-term temperature goals requires immediate action – the 2020s is a critical decade. Through the [European Green Deal](#), the EU has become the **first continent to endorse climate neutrality by 2050** and has committed to build Green Alliances with partner countries and regions worldwide. It works within the wider context of policies designed to enhance Europe’s natural capital and eliminate pollution. In order to ensure a smoother structural adjustment towards 2050, the European Commission has recently proposed to increase the level of ambition of emission reduction by 2030 – from the current 40% on 1990 levels to 55%.
- 1.21 Although the sum of current NDCs are not sufficient to keep the world on track to meet the Paris Agreement temperature goals, there are reasons for optimism. Other countries are responding to the challenge, in line with the ratcheting mechanism of the Agreement. According to a recent statement by President Xi, China will aim to reach climate neutrality by 2060. This reinforces the sense of a global structural change, underlining the importance of climate and environmental issues to **long-term competitiveness and growth**.
- 1.22 Climate change and environmental degradation are global challenges. Their adverse impacts undermine the ability of all countries to achieve sustainable development. However, poor and

⁴ Although the United States, the second largest emitter after China and accounting for 13% of global emissions, began the procedure to withdraw from the accord in 2019 and will leave on 4 November this year.

developing countries, particularly least developed countries, will be among those most adversely affected and least able to cope with the anticipated shocks to their social, economic and natural systems of more severe droughts, sea level rise, biodiversity loss and increasing risk to food and water security, coastal communities, and livelihoods. These challenges require internationally coordinated solutions and international cooperation to help developing countries move toward a low-carbon, climate-resilient and sustainable economy. Meeting the long-term **UN SDGs** requires **sustained long-term investment in green innovation**: to decarbonise the physical capital stock – energy, industry, transport infrastructure – and ensure it is resilient for a changing future climate; to preserve and enhance natural capital – forests, oceans, wetlands; and to train and re-skill people to work within a climate-neutral economy.

- 1.23 Much of this long-term investment will be driven by the private sector. The public sector plays three important roles. Firstly, it needs to create a **predictable regulatory framework**. The European Green Deal, and associated national policies, is designed to provide this certainty within the EU. Secondly, it provides sources of **direct and indirect financial support**. For instance, at the EU level, climate represents 25% of the overall EU budget, and at least 30% of InvestEU. Finally, increasing green investment requires a significant reorientation of pools of global savings and international capital markets. As part of the wider development of the Capital Market Union, the EU is establishing common standards and approach towards **sustainable finance**.
- 1.24 This long-term structural challenge needs to be confronted in the context of the economic, social and regional fallout from a **global coronavirus (COVID-19) pandemic**. This has placed an unprecedented burden on countries' economies and government finances, with the EU economy currently 5 percent below capacity. The euro area budget deficit is expected to increase to 8.5% of gross domestic product (GDP) in 2020 from 0.6% last year. The EU has responded decisively to ensure recovery through the [Next Generation EU](#) – a €750 billion package, split between grants and loans. Nevertheless, the recovery from COVID-19 is likely to dominate global public finances into the medium term years, heeding calls from many stakeholders to ensure that short-term investment undertaken in support of recovery is aligned with long-term green goals (“build back better”).

THE ROLE OF THE EIB GROUP IN SUPPORTING THE EUROPEAN GREEN DEAL

- 1.25 The EIB Group, as the EU Bank, is in a strong position to support the long-term goals of the European Green Deal. It is one of the largest global financiers of climate action and environmental sustainability. Through a **wide spectrum of financial products and advisory services**, it can work with partners to help deliver long-term green investment needs. At the more mature end of the market, the EIB can help drive down the costs of capital with long-tenors and large tickets. Through various **risk-sharing mechanisms**, it is increasingly able to help leverage debt in projects exposed to revenue or technological risks typically associated with the developing “green” regulatory frameworks. These instruments, supported through advisory services, provides a powerful mechanism to support the deployment of green technologies.
- 1.26 The opportunities for the EIB to strengthen its support towards EU external action through development financing are also strong, to ensure that EU external action, climate action and development cooperation is more than the sum of its parts. Against this background, through the implementation of the Roadmap, the EIB will build on its long-standing expertise of investing in development and other EU external objectives. In doing so, it will seek closer alignment and complementarity with the European Commission, the European External Action Service and the EU Member States to improve the EU's capacity to deliver on external policy goals in general, and on the

Paris Agreement and UN Sustainable Development Goals in particular. Through the implementation of the Roadmap, the EIB will support coordinated European actions aiming to mobilise more private sector investment and to channel public sector investment towards the achievement of these goals.

- 1.27 Overall, the EIB will help the EU deliver on several interlinked objectives, reflecting its comparative strengths and expertise: (1) supporting the transition to a low carbon, climate-resilient and environmentally sustainable economy taking an integrated approach inside and outside the EU; (2) strengthening EU competitiveness, inclusive growth and cohesion; and (3) reinforcing Europe’s geopolitical relevance on a global scale by serving as the investment arm for external action. The EIB’s comparative strengths to achieve the above rests on its technical, financial and project development expertise, its alignment with EU values and policies, its capacity to leverage scarce resources, take them to scale and enhance impact, and the use of partnerships to complement its capacity where needed. The EIB, as the EU Bank, is in a unique position to transfer financial and technical expertise from the EU economies to EU partner countries globally. This is especially true in the EIB Group’s areas of core strength, namely infrastructure and support for the private sector.
- 1.28 The EIF adds an important dimension to the EIB Group. Through the EIF, the EIB Group is able to support the development of a wider innovative, green ecosystem: venture capital funds, technological transfer, business angels through to private-sector equity (infrastructure funds) more generally. In effect, this ensures that the EIB Group can cover the full range of innovation – from the very early stage, right through the deployment of mature technologies.

The MDB Paris alignment framework

- 1.29 The multilateral development banks (MDBs) have worked closely to develop a common approach to aligning their activities with the goals of the Paris Agreement. The Climate Bank Roadmap builds closely on this MDB framework.
- 1.30 The MDBs’ Paris alignment framework is based on six building blocks (see Table 1.1 below) around which specific strategies for alignment can be developed.⁵ This framework is holistic: it goes beyond new financing commitments to address all aspects of the MDBs’ operations, mindful of their role in setting norms and good practices. This approach has been referred to by the EIB Group of 20 (G20) and the European Council in the lead-up to the UN climate conference in Madrid (COP25), and ambitious progress on the MDB joint work is being called for by EU Climate Ambassadors.
- 1.31 The Climate Bank Roadmap is firmly built on this framework and provides a first, comprehensive example of its application. It covers all six building blocks, as summarised in the table below.

Table 1.1 - Mapping the MDB Paris alignment framework with the Climate Bank Roadmap

MDB framework	Climate Bank Roadmap
Building block 1 – Alignment with mitigation goals	Chapter 4 – alignment framework for new operations and transition risk management
Building block 2 – Adaptation and climate-resilient operations	Chapter 4 – alignment framework for new operations, and Chapter 2 – focus area on increasing support for climate adaptation and resilience, and physical climate risk management

⁵ For more details on this, please see the [MDBs declaration on their joint framework for aligning their activities with the goals of the Paris Agreement](#).

Building block 3 – Accelerated contribution to the transition through climate finance	Chapter 2 – accelerating the transition through green finance, including innovative financial instruments to mobilise private sector finance, and Chapter 5 – tracking climate action and environmental sustainability finance
Building block 4 – Engagement and policy development support	Chapter 2 – engagement with counterparts through advisory services, and focus area on greening the financial system, Chapter 3 – just transition for all and Chapter 5 – policy development support on sustainable finance
Building block 5 – Reporting	Chapter 5 – ensuring a coherent approach to policy, transparency and accountability
Building block 6 – Align internal activities	Chapter 4 – Treasury operations, and Chapter 5 – alignment of internal operations, and capacity building

1.32 The EIB Group’s approach must be commensurate with its role as the EU climate bank and in line with EU policy, including the EU Taxonomy. In some cases, this requires going a step further⁶ than the MDB common approach.

BUILDING ON A DECADE OF GREEN INVESTMENT

1.33 It is useful to put this initiative into the context of recent EIB Group activity towards climate action and environmental sustainability, and of the assessment of progress made since 2015.

Overview of recent activity

1.34 Since the adoption of the EIB Climate Strategy in 2015 and its first implementation plan in 2017, the EIB has made significant progress on climate action. The progress goes well beyond the volume of climate action lending, which has seen the EIB exceed its targets every year since 2015 (and even before). The EIB has become one of the largest multilateral financiers of climate action in the world.

1.35 **From 2012 to 2019, the EIB has supported more than €150 billion in climate action**, including over €20 billion in developing countries.⁷ The EIB has steadily increased the proportion of financing for climate action, from 25% in 2014 to 31% in 2019⁸.

1.36 The EIB is also on track to fulfil the commitments made in September 2015, in the run-up to the 2015 UN climate conference in Paris (COP21). From 2016 to 2019, the EIB supported US\$84 billion of climate action investment, and is on track to achieve its target of providing US\$100 billion in climate action finance by the end of 2020. Outside the EU, the EIB is on track to fulfil the commitment made to increase its share of climate action financing in developing countries to 35% by 2020.

1.37 Climate action and environmental sustainability investments have, thus far, not been tracked in the EIF. Nevertheless, the SMEs and enterprises in EIF’s portfolio have contributed to the EU’s drive for resource efficiency and green transition for many years, e.g. by investing in energy efficiency or eco-innovation. The EIF was also an early and pioneering investor in the European clean technology space.

⁶ As stated in the 2018 joint declaration on the MDB framework, the building blocks serve as the basis for a joint MDB approach towards alignment with the objectives of the Paris Agreement, while fully acknowledging each MDB’s mandate, capability and operational model. Accordingly, differentiated ways and timing of implementation are possible within robust common principles, framework, criteria and timeline.

⁷ The EIB tracks its progress against climate action targets by applying a robust, credible methodology that was jointly established with the other MDBs. These climate action finance figures have been third-party audited every year since 2016 and project-level data are published on the EIB [public register](#).

⁸ The current target, set in 2013, calls for devoting more than 25% of financing each year to climate action.

- 1.38 Regarding climate resilience, **the EIB launched a climate risk assessment (CRA) system in February 2019**. In a major development, all new investment projects are now systematically screened at the appraisal stage for their climate change vulnerability. After that, EIB teams can engage with clients to support them in carrying out climate risk and vulnerability assessments, as needed, and in managing their climate risks.
- 1.39 **Environmental sector lending has long been a priority policy goal at the EIB**. Although environmental sustainability *per se* has not been tracked against a target, internal analysis shows that the EIB has invested more than €6 billion in environmental sustainability over the last three years (2017-2019).
- 1.40 **The EIB Group also invests in a range of social impact sectors**, such as health and education. In addition, the EIB Group contributes to gender equality and women’s economic empowerment, economic resilience, social cohesion, peace and stability and poverty reduction through various investments across regions and sectors. In the context of a changing climate, **these investments remain crucial as reducing social inequality is, in itself, an effective way to build adaptive capacity and climate resilience and to reduce carbon emissions**.
- 1.41 The EIB’s lending activities are essentially funded through the issuance of bonds in the international capital markets. All the bonds issued by the EIB are thus deployed for sustainable development within and outside Europe, contributing to a number of sustainability objectives. The bond issuance programme for 2019 amounted to €50.3 billion across a wide range of currencies.
- 1.42 The documentation of two debt products was linked directly to the EU Taxonomy Regulation in 2018: the **Climate Awareness Bonds (CABs)** and the **Sustainability Awareness Bonds (SABs)**. CABs were the world’s first green bonds; the EIB pioneered this market with its first issuance in 2007. Since then, the EIB has supplied more than €33 billion of CABs across 17 currencies, with maturities of 2 to 27 years. While CAB proceeds are allocated to projects contributing to climate change mitigation, proceeds from SABs are allocated to projects contributing to environmental and social sustainability objectives beyond climate. The EIB issued ten SABs in 2019 and 2020 worth €4.5 billion, adding up to €14.6 billion altogether for both Climate and Sustainability Awareness Bonds.

Assessment of progress since 2015

- 1.43 **Progress vis-à-vis the EIB Climate Strategy encompasses a wide array of topics**, and is particularly notable in several areas. For example, there has been important progress in internal knowledge building through the development of sectoral guidance notes on climate action eligibility and related training, and a dedicated knowledge exchange programme, to share best practices and innovative ideas from specific operations across the EIB. During the same period, the EIB enhanced the mobilisation of resources from the private sector and the piloting of innovative finance instruments, although work remains to be done to further identify gaps and opportunities in terms of financial innovation. The EIB has consolidated its active role to spur the green bond market, from both the funding and asset sides, and to facilitate the emergence of a sustainable finance framework, through the European Commission’s technical initiatives – the High-Level Expert Group (HLEG) and the Technical Expert Group (TEG) – on sustainable finance. Progress has also been made towards an integrated risk management approach, including climate-related risks at project level and the assessment of implications of climate-related risks at portfolio level. In addition, the EIB has improved its “climate mainstreaming” approach into decision-making processes, particularly enhancing its systems in terms of transparency and accountability. The EIB has also successfully established its [Environmental Management System](#), including the EU’s Eco-Management and Audit Scheme (EMAS) certification.

- 1.44 While the EIB has been able to maintain progress on its climate action commitments, which have been met every year, further work is needed to enhance the impact of its financing and to significantly increase lending in several focus areas, in particular adaptation and climate resilience, environmental sustainability and social development. This is addressed in Chapters 2 and 3. Furthermore, a coherent approach is required between climate action lending and other lending activities, in line with the objectives of the Paris Agreement and the EU 2050 decarbonisation strategy. This will be ensured by the systematic application of the Paris alignment framework to all new financing operations, as laid out in Chapter 4, and, gradually, to the wider activities of counterparties. Finally, further work is also needed to enhance the impact of EIB Group financing, through increased prioritisation and value-addition, to further mainstream climate and environmental considerations into its standards and institutional processes, and to strengthen internal coordination. These issues, as well as the need for increased transparency and accountability, are addressed in Chapter 5.
- 1.45 The EIB has maintained and achieved ambitious climate action targets for almost a decade. Nevertheless, the new environmental sustainability dimension of the EIB ambition covers a very wide range of additional areas of investment that, in most cases, still need to be fully explored and developed. Investment volumes in most areas of environmental sustainability are still too low in the face of the existing environmental challenges. The EIB has traditionally been at the forefront of financing in innovative environmental areas. However, several regulatory, market and financial investment barriers still limit the EIB's and other financial institutions' capacity to invest, within and outside the EU

STAKEHOLDER ENGAGEMENT

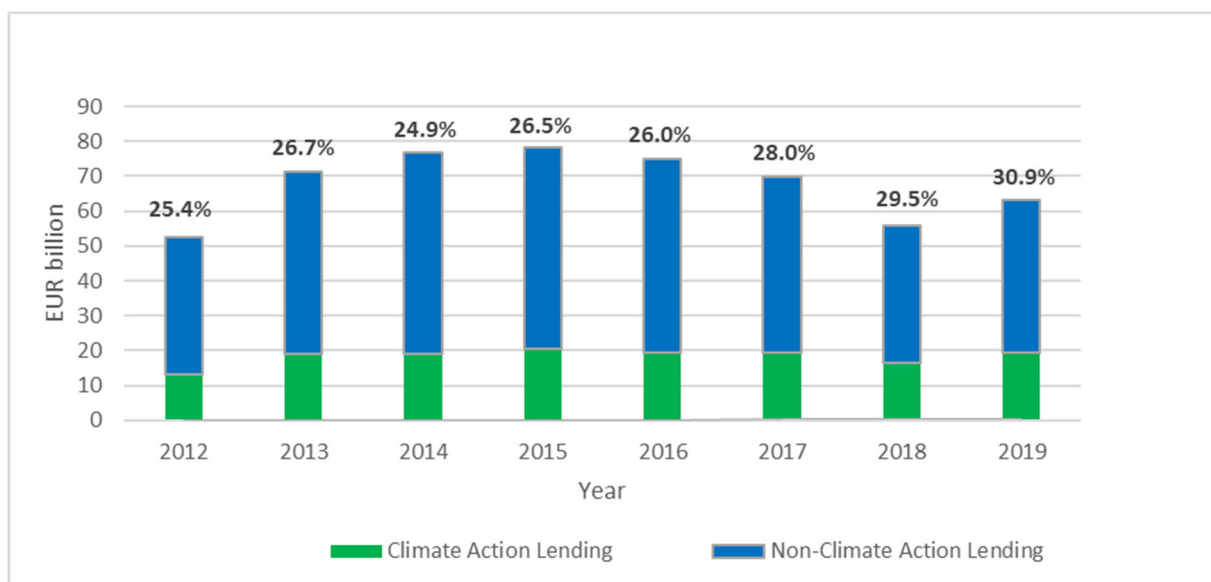
- 1.46 **The involvement of many public and private sector stakeholders was a central factor in developing the Roadmap.** In October 2019, the EIB carried out work to assess its progress on implementing its Climate Strategy, and it held a workshop for stakeholders. Following the Board decisions in November 2019, the EIB Group held meetings with representatives from many organisations, from March to July 2020, on a wide range of topics related to the Roadmap. The EIB Group appreciates the many stakeholders who took the time to contribute to the Roadmap through the webinars and in responses to the public questionnaires. The extensive feedback was instrumental in shaping the Roadmap and refining certain elements, in particular the Paris alignment of infrastructure investments, intermediated financing activities and counterparties, the focus on adaptation, and the need for a just transition to a green economy
- 1.47 A **report** summarising the process and the feedback from stakeholders is available on the [Climate Bank Roadmap stakeholder engagement website](#).

Chapter 2. ACCELERATING THE TRANSITION THROUGH GREEN FINANCE

INTRODUCTION

- 2.1 The EIB Group committed to “support investment in climate action and environmental sustainability of **€1 trillion** in the critical decade from 2021 to 2030”. This is accompanied by an EIB commitment to “gradually increase the share of its financing” in this area to “**reach 50% by 2025** and beyond”. This chapter sets out how the EIB Group will approach this commitment.
- 2.2 As described in Chapter 1, the EIB Group is already one of the **largest financiers of climate action projects in the world**. It has signed approximately €150 billion of support to climate action projects since 2012, including €20 billion outside the European Union. In 2019, EIB climate action financing stood at €19.5 billion, supporting more than 400 projects across the world. As shown in *Figure 2.1*, whilst the absolute volume of support towards climate action varies in function of the overall lending target, its share has steadily grown from 25% in 2012 to 31% in 2019.

Figure 2.1 – EIB Total Climate Action Share of Total EIB Lending 2012 - 2019



- 2.3 The volume of EIB Group support to green projects – i.e. climate action and environmental sustainability – will grow under the new commitment. Under current assumptions on the overall EIB lending, the 50% target translates into just over **€30 billion of climate action and environmental sustainability finance per year**. This chapter describes what type of projects the EIB Group will seek to support, and explains how it intends to build this business.
- 2.4 This volume of EIB Group finance remains only a very modest share of the overall need for green investment. This is so even within Europe – let alone across the globe. A key metric is therefore the extent to which EIB Group finance can help **support additional investment**. This can be done in different ways. Most simply, the EIB usually finances up to 50% of the project cost, ensuring a minimum ratio of 1:1. Mobilisation ratios varies by product. In project finance structures, provision of equity or subordinated debt products can help to mobilise substantial ratios of senior debt from commercial banks (1:3-1:5). The notion also holds more broadly at the advisory level, for instance through advising public bodies to design bankable investment programmes. This need for mobilisation is reflected in the EIB Group target to support €1 trillion of investment over the critical 2021-2030 decade.

2.5 The chapter is **structured** as follows. It starts by presenting the core areas that will benefit from additional EIB Group support, organised around the main focus areas of the European Green Deal, including both the internal and external dimension. It briefly summarises some of the main investment challenges and opportunities, highlighting the possible role for the EIB Group. Having established this focus on green activities, the chapter then considers how to increase EIB Group support, including the need for innovation in EIB Group products.

FOCUS AREAS FOR GREEN INVESTMENT

2.6 The EIB Group support for climate action and environmental sustainability can be broken down into twelve focus areas, ten of which correspond directly⁹ to the European Green Deal, as shown in **Figure 2.2**. This chapter addresses eleven areas, whilst the just transition is treated separately in the next chapter. These focus areas, including the just transition for all, cover both the EU internal and external dimension – and thus are **relevant across EIB operations globally**.

Figure 2.2 – The core themes of the European Green Deal



2.7 Structuring around these focus areas helps ensure the **full alignment of the EIB Group with the EU policy framework**, including targets, and, by extension, the use of EU budget. It provides a consistent basis to **strengthen the dialogue with Member States** on investment programmes – ranging from the medium-term [Recovery and Resilience Plans](#), the 2030 [National Energy and Climate Plans](#), [National Adaptation Strategies and Plans](#), [Territorial Just Transition plans](#) or national [Long Term Strategies](#). Outside the EU, it will allow EIB to integrate its activity with the structure of funding from the European

⁹ Figure 2.2. shows 11 areas from President von der Leyen’s presentation of the European Green Deal. This section adopts the same titles. The “Climate Pact and Climate Law” is largely a legislative matter and hence not something to which the EIB Group can directly contribute. “Ensuring Just Transition for All” is dealt with separately in Chapter 3. Two additional focus areas have been added for the purposes of the EIB, both of which are inherent to the European Green Deal even if not appearing in the Figure. The first concerns adaptation to future climate change. The second concerns sustainable cities. The 11 focus areas in this chapter, plus the next chapter, gives twelve focus areas which will underpin the projects supported by the new level of ambition of EIB green finance.

Commission and the EU Member States, who will also be intensifying their own support for climate-related investment, as part of the wider UN Sustainable Development Goals.

FOCUS 1: BUILDING GREATER RESILIENCE TO CLIMATE CHANGE

- 2.8 Even with strong investment to reduce emissions, large parts of the world remain highly exposed to current and future climate change. The Earth's mean temperatures have already risen by approximately 1.0°C above pre-industrial levels, causing more extreme weather events, as well as gradual shifts in temperature and rainfall patterns, sea levels, sea ice, and glacial retreat. The current trajectory of warming raises the risk of **abrupt and possibly catastrophic changes over the next decades**, with consequences for all corners of the world. As described in Annex 1, the EU is vulnerable. Major threats are posed from an increase in summer heatwaves and droughts in southern Europe, and winter floods in Central Europe. Estimates indicate that EU economy could shrink by 3% as early as 2050, with southern and south-eastern Europe likely to be most affected.
- 2.9 From a global perspective, **developing economies are likely to be the hardest hit** because of their geographic exposure, the quality of their infrastructure and their economic structure. Increased competition over fertile land and deteriorating food security means that many developing countries will face social unrest, inward and outward migration, conflict and fragility and increased mortalities, unless efforts are made to limit the impact of climate change.
- 2.10 Current investment is insufficient. There are still **significant investment barriers** hindering the ability of countries, cities, people and businesses to cope with increasing climate threats. This partly results from inertia in engineering practice and building codes¹⁰. Uncertainty, imperfect information and missing markets lead to sub-optimal level of investment. This is reflected both at the regional and national level, through a lack of clarity on the investment agenda and financing priorities required to reduce vulnerability.¹¹ Private sector involvement remains limited, with an absence of scalable models.
- 2.11 The European Commission will put forward a **new EU Adaptation Strategy** in early 2021. After a positive evaluation on the 2013 [EU Adaptation Strategy](#), it has published a [Blueprint for a new, more ambitious EU strategy](#), stressing the high cost-benefit ratios of adaptation actions and setting out potential elements for a “European Green Deal adaptation strategy” designed to improve knowledge, reinforce planning and accelerate action.
- 2.12 The EIB will seek to **support this new EU Adaptation Strategy**. In the context of the recovery package, Next Generation EU, this presents an opportunity to support Europe to build **long-term resilience**. The EIB has gained significant experience in the last years. In 2015, the EIB identified building greater resilience to climate change as a key pillar of the EIB Climate Strategy. Significant progress has been made in the intervening period with mainstreaming climate change adaptation across its operations, deepening its expertise and creating new systems to enhance the climate resilience of its investments. However, financing for adaptation has remained constant at 1 to 2% of annual lending since 2012, against a backdrop of increased urgency for adaptation investments across the globe.

¹⁰ See Climate-resilient Infrastructure. Policy Perspectives. OECD Environment Policy Paper No. 14. 2018. Most engineering practices in Europe rely on standards and codes that are based on historical data and on the assumption of climate and its hazards remaining stationary.

¹¹ Monitoring and evaluation of national adaptation policies throughout the policy cycle. European Environment Agency. 2020.

- 2.13 The EIB will reinforce its approach across **three levels**. Firstly, it will strengthen its efforts to ensure that all the operations it supports are **adapted to current weather variability and future climate change**, in line with the resilience principles of the Paris Agreement and the EU Taxonomy. This approach covers direct lending across all sectors vulnerable to the negative effects of climate change. It is anchored in the further development of EIB tools, including project-level assessment of physical climate risk (see Chapter 4), alongside strengthened internal training and external dialogue with key stakeholders (national standard bodies, industry associations, etc.), as well as dialogue with relevant organisations on the opportunity to integrate adaptation in engineering standards and avoid locking vulnerability in new infrastructure financing.
- 2.14 Secondly, the EIB Group will actively pursue **investment opportunities** in the development and deployment of climate-resilient technologies, products and services. Against the background of worsening climate risks, the need for investment in resilience is expected to grow sharply over the decade ahead. The EIB Group will look support companies, many of whom are European, to play a key role in driving forward **technological innovation** globally, from crops more resistant to droughts and floods, to water saving technologies and satellites for earth observation. The EU is also at the forefront of climate analytics, producing state-of-the-art climate information and services to help organisations adapt.
- 2.15 In addition, the increased risk of weather extremes will drive demand for transformative engineering solutions as well as investments for extreme events preparations, recovery, and contingency planning. This has a strong regional focus, and will be an important element in the enhanced dialogue with EU Member States referred to in *paragraph 2.7* above. Outside the EU, and particularly in **developing countries**, the EIB will seek to work with countries to support opportunities to protect people, assets and the environment, and strengthen adaptive capacity of people and regions most at risk from climate change. Access to concessional finance will be key.
- 2.16 Thirdly, the EIB Group will also look to **work with clients to develop further their approaches** to climate resilience. This involves an important **advisory dimension**, for instance to work with business, banks and public authorities to consider better how climate change may impact their activities and develop resilient investment plans. This requires a deep understanding of the adaptation needs of public and private sector entities, in turn shaping and expanding the EIB toolbox. Dedicated financial products, included blended finance solutions, could help to increase investment.
- 2.17 In order to support fully the forthcoming EU Adaptation Strategy, the **EIB will come forward with a detailed adaptation plan towards the end of 2021** to enhance its support for adaptation, with specific actions, prioritisation and initiatives in line with its ambition as the EU Climate Bank.

FOCUS 2: MAKING HOMES ENERGY EFFICIENT

- 2.18 Renovating the existing building stock is an immense challenge. Nearly half of all European residential buildings were constructed before 1970. No consideration was given at this point about the amount of energy being consumed by materials and standards. At the current rate of renovation, it could take more than a century to reach a highly energy-efficient and decarbonised building stock. Under the European Green Deal, one of the key objectives is to **“at least double or even triple” the renovation rate** of about 1%. This is equally relevant outside of the EU, notably in the Neighbourhood region. Alongside renovation, there are investment needs to support the construction of new efficient and environmentally sustainable buildings.

- 2.19 The EIB Group has built up considerable experience in the last years in supporting thermal rehabilitation projects. A significant portion of support occurs through **intermediated loans or guarantees** via partner financial institutions. The EIB Group also supports housing through operations with municipalities, such as large-scale energy efficiency programmes for public buildings. In many cases, such operations blend finance with grants to help address barriers in some specific markets, including energy poverty, notably social housing or social infrastructure more broadly.
- 2.20 This type of financial support is complemented by EIB support for **technical assistance and advisory services** to help support renovation projects. For a decade, the EIB has managed on behalf of the European Commission the [European Local Energy Assistance \(ELENA\) facility](#) that offers technical assistance to any private or public entity in order to help prepare energy efficient and renewable energy investments in buildings or innovative urban transport projects. In practice, this typically involves support for energy audits, innovative public procurement supporting the market development of energy service companies and energy performance contracting, and/or the creation of one-stop shops helping homeowners by providing local advice for building renovations.
- 2.21 The EIB [Energy Lending Policy](#) recognises the scale of the renovation challenge. It establishes the **European Initiative for Building Renovation, “EIB-R”**, that combines EIB financing experience and existing technical assistance facilities to reinforce support towards attracting investment through aggregation, tailored financial support and accessing new sources of finance. It covers every step of the project cycle across a wide range of promoters. This development of the EIB Group approach will take place in close collaboration with the European Commission, in particular within the wider context of the [Renovation Wave](#). In particular, outside the EU, the EIB is working in close partnership with the Commission and various bilateral donors to develop multi-country blending facilities to support residential and public building renovation at scale. Globally, the EIB will continue also to support the construction of new buildings with high energy performance standards.

FOCUS 3: PROMOTING CLEAN ENERGY

- 2.22 Climate neutrality requires very significant deployment of low-carbon energy, as a basis for the further **electrification of the economy**, as well as for the deployment of renewable and low-carbon fuels, notably **low-carbon hydrogen**. As part of the European Green Deal, the European Commission has proposed updating the 2030 climate and energy policy framework, including with proposed measures to enhance [Energy System Integration](#) and the [EU Hydrogen Strategy](#). The investment needs are in low-carbon power generation, sources of flexibility and grids. The [EU Modernisation Fund](#), established under the revised EU Emission Trading System (ETS) Directive in 2018 and with direct involvement of the EIB¹², targets such investments alongside energy efficiency and a just transition across 10 Member States.
- 2.23 The EIB Energy Lending Policy sets out how the EIB proposes to support decarbonising energy supply, including supporting **market integration, regional cooperation** and the production and integrated of **low-carbon gases**. In the EU, the EIB Group will reinforce support towards the demonstration of pre-commercial technologies, building on experience gained with the [InnovFin Energy Demo Projects](#) facility, and in close alignment with the [EU Innovation Fund](#). The EIB Group will also look to support

¹² The beneficiaries are Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia. The EIB provides certain technical inputs to the Fund, including financial and technical due diligence of non-priority investments, as well as auctioning the allowances and asset management services. A [live-stream conference](#) took place on 20th September 2020.

new types of business models that are emerging in response to improvements in market design (battery storage, demand response and small-scale decentralised energy sources).

- 2.24 The Energy Lending Policy also stresses EIB support for the **long-term development of energy networks**. On the power side, particular priority will be given to projects that enable the integration of renewables, as well as the development of electro-mobility and decentralised sources of flexibility.
- 2.25 Outside the EU, there are also opportunities to support the deployment of renewable technologies, with a number of developing and emerging economies enjoying significant potential to develop as **renewable energy hubs**, facilitating the production of **synthetic fuels for the global market**. The EIB is developing blending facilities to support electrification of public facilities (schools, hospitals) and communities through renewable off-grid solutions.

FOCUS 4: SMARTER, MORE SUSTAINABLE TRANSPORT

- 2.26 Decarbonising the transport sector is challenging, although recent market and technology development is encouraging. Modal shift towards electrified or efficient modes is part of the solution (**e-mobility**). Some “hard to abate” sectors, such as aviation, require the development of **advanced biofuels** and sustainable alternative **synthetic fuels (e-fuels)**. Significant additional investment is required in infrastructure (e.g., charging stations, alternative fuel stations), cleaner vehicles and rolling stock.
- 2.27 The EIB Group will continue to support the lowest emissions forms of transport, with many rail, metro and port projects already in its portfolio. Particularly in the context of large, capital intensive transport infrastructure projects, the EIB can help drive down financing costs, often with **public sector counterparties**. Where necessary, this support can be reinforced through project preparation and implementation. This is relevant across the EIB operations globally. As highlighted in Focus 9 below, in the context of public transport in fast-growing urban areas in developing and emerging economies, the EIB will seek to work with public authorities to develop ambitious sustainable mobility investment programmes.
- 2.28 In recent years, the EIB Group has been ramping up its support to accelerate **newer technologies** such as e-mobility and digitalisation under the flag of the [Cleaner Transport Facility](#). Finance costs are important: newer technologies are often characterised by higher capital costs and lower operating costs than conventional alternatives. The EIB Group will continue to deploy a range of financing structures (e.g., programme loans, leasing pools and securitisation) that contribute to accelerating the deployment of cleaner mobile assets. In addition, the EIB Group will look to support the longer-term research and development of **alternative fuels** for the aviation and shipping sector. The EIB Group approach towards supporting the transport sector will be reviewed more formally in the forthcoming revision to its **Transport Lending Policy**.

FOCUS 5: STRIVING FOR GREENER INDUSTRY

- 2.29 To compete in a climate neutral economy, major changes are needed in the way industry consumes energy and produces its products. Investment is required in resource and energy efficiency, greater material recirculation, new production processes based on low-carbon inputs, including greater electrification, as well as carbon capture techniques. Although several of these techniques are not commercially viable today, unable to compete with low virgin-material input costs, they offer strong opportunities for long-term growth. The European Green Deal, including the proposed [European](#)

[industrial strategy](#), has a number of potential measures to improve the regulatory framework, including a possible carbon border adjustment mechanism.

- 2.30 The EIB Group supports the development and deployment of **innovative industrial solutions**. It can do this across the cycle: from seed capital for early stage ideas through to senior debt. The EIF will seek to strengthen its focus on **technology transfer funds**, which can help bridge the gap between research and market rollout. The EIB Group will continue to finance research and development programmes with larger corporates, as well as look to support the **demonstration of low-carbon industrial technologies**, in close cooperation with the EU Innovation Fund. In particular, the EIB Group will look to work with relevant Member States to develop tailored instruments to support the roll out of **low-carbon hydrogen**, including potential support schemes such as carbon contracts for difference to stimulate industries to switch from fossil-based to low-carbon hydrogen. Many industries are essentially global in nature – the EIB will also look to support low-carbon and transitional projects in developing countries, in which access to low-carbon energy can help drive international competitiveness.
- 2.31 The EIB Group will reinforce its activities on the **circular economy** across all geographical areas of operation. Designing products and materials for durability, reusability and recyclability can help substantially reduce emissions. In support of the European Commission [Circular Economy Action Plan](#) the EIB Group will providing advisory and financial support to circular economy projects. It has published a [Circular Economy Guide](#) to promote a common understanding among its financial and project partners.

FOCUS 6: ELIMINATING POLLUTION

- 2.32 Pollution represents a classic market failure and a global challenge. Wider environmental and health costs remain only imperfectly internalized across many private-sector activities. Regulatory standards have reduced pollution in basic infrastructure such as water supply, wastewater collection or solid waste management. Europe, however, is still **lagging behind its targets** to comply with the existing EU environmental acquis. The European Commission is expected to propose shortly a [Zero pollution action plan](#) to reinforce measures to prevent pollution of air, water and soil. The same issues are prevalent in EU neighbouring countries, or developing countries.
- 2.33 The EIB Group will reinforce its support towards depollution projects across various sectors across all countries of operation. This occurs partly as a co-benefit of clean energy or transport projects. The EIB Group will continue to support depollution projects within industry. In the water sector, the EIB Group will continue to support promoters to help EU countries **achieve compliance status** and outside EU countries **to achieve clean water and sanitation for all**. In the waste sector, the EIB Group will support public and private investment for developing **integrated waste management systems**, with an increased focus on material recovery and recycling, as well as Extended Producer Responsibility schemes and Circular Economy initiatives of the private sector. Outside of the EU, access to concessional finance is instrumental in stimulating investment.
- 2.34 Additional investment is required to treat new challenges – such as **micro pollutants** not removed by conventional wastewater treatment, or **plastic waste**. Considering the grave threat posed to oceans, the EIB Group will step up its financing and advisory support to cleaning oceans. In 2018, for instance, the [Clean Oceans Initiative](#) (COI) was launched. Under the COI, the EIB, the German Development Bank (KfW) and the French Development Agency (AFD) have committed to sign up to €2 billion of investments during the five-year period between October 2018 and 2023 in projects that reduce the discharge of pollution to the oceans, with a particular focus on plastics.

FOCUS 7: PROTECTING NATURE

- 2.35 Biodiversity is essential for life. It provides food, health and medicines, materials, recreation and well-being. Measured solely in the narrow terms of standard national accounts, nature is estimated to provide for one half of the world's GDP. Biodiversity loss and the climate crisis are interdependent. Tackling biodiversity loss and restoring ecosystems requires significant additional investment in **conservation, restoration and transition projects**. The recent proposed [EU Biodiversity Strategy for 2030](#) seeks to unlock significant new investment for biodiversity, closely interlinked with the [EU Forest Strategy](#). This can be challenging in practice, not least given a lack of direct revenue streams, as well as the fragmented and small-scale nature of many projects.
- 2.36 The EIB Group has worked actively in the last years to develop financing mechanisms to leverage the private sector for **biodiversity conservation and nature-based solutions** for climate adaptation and resilience. It has worked closely with the European Commission to develop innovative financing instruments such as the pilot [Natural Capital Financing Facility](#), as well as initiatives outside the EU. This experience is being brought to bear to develop a natural capital financing **thematic product under InvestEU**. This product will be structured to maximize the synergies with other sectors such as circular economy and land and marine-based economies, without diluting the emphasis on long-term ecosystem recovery.
- 2.37 **Forestry is a key sector** to sequester and store carbon, enhance biodiversity and ecosystem services. The EIB Group will look to strengthen support for long-term investment in the forestry sector through a focus on environmental protection, nature conservation and commercially-oriented activities. The EIB Group is currently **updating its approach to supporting the forest sector**, taking stock of experience gained and recent policy framework developments. Intermediated products and advisory services will be particularly important to gain scale.
- 2.38 The European Green Deal has a strong external dimension, which will be key for its implementation. Both the new EU Biodiversity Strategy for 2030 and EU Forest Strategy will include strong international goals. The EIB will seek to support the fulfilment of these goals and help implement concrete measures to support “deforestation-free” value chains and an ambitious post-2020 global deal for nature – to be adopted at the 15th Conference of the Parties to the UN Convention on Biological Diversity.
- 2.39 The EIB Group will also strengthen its support for large-scale investment programmes for **restoration and rehabilitation of degraded land** (e.g. desertification and erosion control, wildfire prevention/mitigation), combatting coastal erosion, enhancing biodiversity, health and resilience of forest ecosystems through sustainable forest management practices (e.g. pest outbreak control, forest conservation/protection). Recognising that the rural poor depend heavily on ecosystem services for their livelihoods, the EIB Group will seek to pursue **synergies between environmental and social goals** across EIB's support for nature by targeting and involving local communities – including women and indigenous groups.

FOCUS 8: FARM TO FORK

- 2.40 The food system within Europe is considered to be safe, plentiful and of high quality. It also needs to be sustainable. This is why the European Commission, as part of the European Green Deal, has recently presented a [Farm to Fork](#) strategy. It argues that there is an urgent need to need to reduce dependency on pesticides and antimicrobials, reduce excess fertilization (especially nitrogen and phosphorous), increase organic farming, improve animal welfare and reverse biodiversity loss. The introduction and

successful roll out of sustainable agriculture can help strengthen food security in developing countries, as well as strengthen soil and plant carbon sinks globally.

- 2.41 To enable and accelerate the transition to a fair, healthy and environmentally-friendly food system, within and outside the EU, advisory services, innovative financial instruments, but also research, development and innovation (RDI) are instrumental. They can help resolve tensions, develop and test solutions, overcome barriers and uncover new market opportunities.
- 2.42 Given the dominance of SMEs and mid-cap companies in this sector, intermediated financial products are key to EIB Group support to the bio-economy. Within the context of InvestEU, the Neighbourhood, Development and International Cooperation Instrument (NDICI) and other initiatives, the EIB Group will look to refine innovative financing tools to address the specific needs throughout the global bio-economy value chains.
- 2.43 This will be complemented by expanding support to corporates and cooperatives investing in research, development and innovation (RDI) as well as bioeconomy projects in rural areas, rural infrastructure, the development of national level advisory programs to support changes to lower carbon, more adaptive practices, or to develop smaller-scale projects to tackle specific issues. With such integrated initiatives, the EIB Group will contribute to the global transition to sustainable agri-food systems.

FOCUS 9: SUSTAINABLE CITIES AND REGIONS

- 2.44 Globally, cities are home to half the world's population, consume 2/3 of the world's energy and 70% of the natural resources, and account for over 70% of global CO₂ emissions. Cities and regions are also heavily exposed to climate risks as well as environmental pollution. Climate risk and environmental pollution also fall greatest on low-income citizens, exacerbating inequality. Over the next thirty years, it is estimated that urban development may increase by 60%. There is an urgent need to **“green the wave”** of urbanisation through smarter and greener buildings and infrastructure.
- 2.45 The EIB Group is able to help through its existing approach to supporting investment programmes of cities and regions. Such programmes – such as social housing or strategic urban public transport projects – are increasingly delivered in partnership with the EU, city networks and partner MDBs. In addition to supporting cities directly, the EIB Group can also provide financing to municipal or regional service providers - water, waste or social housing companies. This is often on a non-recourse or corporate basis, or increasingly through urban regeneration funds. The EIB Group has developed strategic partnerships with national promotional institutions to collectively develop and deliver effective financing solutions for European SMEs, smaller towns and cities.
- 2.46 The EIB Group can support sustainable city investment through advisory services. [URBIS](#) is a new dedicated urban investment advisory platform, assisting urban authorities to facilitate, accelerate and unlock urban investment. The [City Gap Fund](#), implemented by the EIB and the World Bank, supports cities and local governments in preparing and prioritizing climate-smart plans and investments. It is targeting at least €100 million in overall funding, to leverage more than €4 billion in investment for urban climate action. Within the context of sustainable cities, there is particular potential for circular economy projects. The EIB is developing a number of initiatives in this area, building on its [Circular City Funding Guide](#).

FOCUS 10: GREENING THE FINANCIAL SYSTEM¹³

- 2.47 In the wider context of the capital market union, in 2018 the European Commission adopted an [action plan on financing sustainable growth](#). This aims to re-orientate capital flows towards a more sustainable economy, mainstream sustainability into risk management, and foster transparency and long-termism. In the context of the European Green Deal, and concerned that the financial system as a whole is not transitioning fast enough, the European Commission has announced a Renewed Sustainable Finance Strategy. It has recently published a [consultation document](#).
- 2.48 The EIB Group has contributed to this agenda. The EIB participated in the development of this action plan, continued into the development of the [EU Taxonomy](#) for green, sustainable activities and the [EU Green Bond Standard](#). In addition, the EIB fully supports three important initiatives, which have an important role to facilitate the emergence of an international sustainable finance sector: (1) **the Central Banks and Supervisors Network for Greening the Financial System (NGFS)**; (2) **the Coalition of Finance Ministers for Climate Action**; and (3) **the European Commission’s International Platform on Sustainable Finance**.
- 2.49 EIB plans to gradually align its CABs and SABs with the proposed EU Green Bond Standard. It has been the first issuer to reflect this in the use of proceeds section of CABs and SABs, which allows for the required gradual alignment of the underlying projects to the EU Taxonomy. Consistent with this approach, the EIB is now developing its initial environmental sustainability eligibility criteria and refining its climate action eligibility criteria to align the classification of its lending activities with EU Taxonomy. In turn, the EIB will reflect such alignment to the capital markets via progressive extension of CAB and SAB eligibilities, and – as set out in Chapter 5 – the development of the required due diligence procedures to ensure compliance against the EU Taxonomy requirements of SC, DNSH to environmental objectives, and MSS (as far as necessary). These are two key deliverables under the Climate Bank Roadmap and have been reflected in formal initial plans for CAB/SAB product development, which will continue to be defined in more detail.
- 2.50 The EIB will also actively seek to transfer its knowledge to other potential green issuers, to help them develop and market products that meet the EU Taxonomy and so contribute to broadening and deepening the market for green finance. Under the [European Investment Advisory Hub](#), work is ongoing to scope the needs and delivery options for a **European Green Debt Advisory Platform**, a comprehensive advisory programme to raise awareness, build capacity, and provide support to improve the quantity and quality of the issuance of green debt (bonds and loans) to finance climate action and environmental sustainability investments.

FOCUS 11: LEADING THE GREEN CHANGE GLOBALLY

- 2.51 The EU continues to take a leading role internationally to ensure an ambitious and effective implementation of the Paris Agreement and the UN SDGs. This is in part through sharing its own experiences on designing and implementing climate and energy policies and projects, as well as providing substantially scaled up funding to developing countries across the globe for green activities and sustainable investment targeting SDGs. Many developing countries are, for the first time, committing to reducing or limiting emissions and increasing adaptation. By providing effective and

¹³ The European Green Deal uses the term “Financing Green Projects”. From an EIB perspective, this is the subject of this entire chapter. To better reflect the (non-financial) role of the EIB Group in supporting the EU sustainable finance market more generally, we adopt the title “Greening the financial system”.

catalytic support in key sectors and activities, EIB will foster the implementation and strengthening of their NDCs under the Paris Agreement. That could entail a stronger engagement at country level in select regions based on specific strengths and areas of EIB expertise (e.g., bankability of renewable energy support schemes, energy efficiency programmes, innovation finance, etc.).

- 2.52 In the context of the “Copenhagen commitment¹⁴”, the EIB has been an important source of EU financial support. Already in 2015, the EIB committed to increase its share of lending to climate action in developing countries to 35% by 2020. This target was successfully met already in 2017 and again in subsequent years. Through its new global ambition, the EIB will further reinforce its support to green investment outside the EU as set out in the other focus areas. In line with the European Green Deal, the EIB will support the EU’s role as a global leader driving both domestic and international action on climate and environmental sustainability. The EIB will provide financing and related support to current and future large GHG emitting countries, where the greatest efforts to reduce or prevent GHG emissions will need to be made, as well as countries and regions – in particular least developed countries (LDCs) and Small Island Developing States (SIDSs) – where there is a high degree of climate vulnerability.
- 2.53 In addition to raising its own volume of lending, the EIB, in close cooperation with the European Commission, the European External Action Service and the EU Delegations, will explore ways to reinforce its support to partner countries. It will do so by fomenting upstream engagement and stakeholder dialogue, mobilising additional financing – including concessional financing – from external sources, providing advisory services, including technical assistance, knowledge, and capacity development, and providing de-risking support. The mobilisation of financing from a variety of sources, in particular from the private sector in partner countries, will be crucial in order to fill investment gaps. The EIB will structure its assistance in order to make the most effective use of limited resources, particularly concessional finance. Any such initiatives will be closely coordinated with partner MDBs and international organisations. The EIB will continue to strengthen external coordination mechanisms and promote transparency so that the EIB’s contributions and value-added can be clearly linked to climate and development impacts on the ground.

ACHIEVING THE TARGET: EIB GROUP BUSINESS DEVELOPMENT

- 2.54 The previous section has stressed the scale of the investment needed in order to deliver upon the EU’s climate targets – and the common thread of innovation. The EIB Group has a range of tools that it can deploy in order to address these challenges, whether through the **deployment of large volumes of capital, innovative products or advisory support**.
- 2.55 The EIB Group will continue to build on areas of comparative advantage. For example, it has a strong track record in supporting large investments in low-carbon transport and in decarbonisation of power generation. The EIB Group will intensify its continuing efforts to support accelerated investment in areas that require large volumes of long term and low-cost capital – including public transport, renewable power generation, deployment of low carbon technologies by industry and power transmission.

¹⁴ At COP 15 in Copenhagen, developed countries committed to mobilise US\$100 billion per year from public and private sources for developing countries. This is carried into the Paris Agreement for the period 2020 to 2025 with an upward review clause thereafter.

- 2.56 The EIB Group will also further develop its existing capability to address specific identified investment gaps. In that regard, it will seek to increase the impact of its funding activity by developing innovative instruments to support emerging low carbon technologies conducive to sectoral decarbonisation pathways (for example, by supporting investment in the battery ecosystem and further development of new technologies in the renewable sector or in carbon capture and storage). Deployment of innovative new products by the EIB Group or increasing its volumes of higher-risk, capital-intensive funding (for example, to support the development of early-stage technologies) will deliver significant additionality by addressing clear investment gaps and policy priorities and by catalysing funding from the private sector and other sources.
- 2.57 It will also require the EIB Group to consider its risk appetite and capacity, including how to absorb risk such merchant, technology and demand risks (the last of which is a factor in the development of green hydrogen, for instance). Other potential initiatives that the EIB could implement to address specific investment needs could include blended financing structures in combination with public grants that leverage off third party resources (under the Renovation Wave or InvestEU) to support energy efficiency investments or new green debt products to support the development and deployment of low carbon technologies in support of industrial decarbonisation. The EIB Group’s funding offering will be complemented by the reinforcement of its advisory services, which can further support green investment through the provision of technical and financial expertise to strengthen the economic and technical foundations of projects and by catalysing funding from other sources. Some of the initiatives that EIB Group will develop in this regard are outlined later in this section.
- 2.58 In order to support business origination and project pipeline-building, the EIB Group will engage broadly with stakeholders inside and outside the EU, including dialogue with the European Commission, national and regional authorities (in the context of National Energy and Climate Plans, NDCs or other national climate and development plans), private sector investors, existing and potential counterparts and other MDBs. Thus, the EIB Group’s business development will take account of the identified investment needs for each focus area but also of local legal and regulatory frameworks, economic conditions and specific barriers to investment.

INNOVATION ACROSS EIB GROUP PRODUCTS AND SERVICES

- 2.59 This section examines how the EIB Group can further develop its products and services in order to support the business development activities described above, to incentivise investment to address key investment needs and policy objectives, to create value added for promoters and to ultimately support delivery against the EU Climate Bank objectives. It will also consider how EIB Group can deliver additionality – for example, through catalysing further private or public sector investment or supporting market development. It examines two types of support: advisory services and financial products.

Strengthening the Advisory Offer

- 2.60 Advisory activities can add value across the project cycle and across the spectrum of economic sector. Prior to receipt of formal funding proposals, advisory support can help counterparts identify or define technically and economically viable investment projects. Similarly, advisory services can support the development of new or enhanced green products and financial instruments (see below). During the project cycle advisory support may be deployed to help the identification of projects (for example,

ELENA) or their preparation and optimisation (for example, [JASPERS](#)¹⁵), and to support investments through financial intermediaries (for example, the Climate Action Support Facility). There is also scope for post-project implementation support. Thus, advisory services are integrated with the funding activities of the EIB Group in support of EU Climate Bank objectives. The following box further illustrates this point.

The EIB Group will provide advisory services to EU Member States, non-EU states, public bodies, regional authorities, financial institutions and corporates to help them set the policy framework identify emerging climate action and environmental sustainability opportunities and address financing gaps that restrict market development. For example, [EPEC](#) supports transfer of knowledge and skills to strengthen the institutional capabilities of national and regional development institutions by providing advice on public-private partnership (PPP) laws and by sharing experience and best practices.

Advisory services can provide support to counterparts at **project preparation** stage to help improve the climate and environmental impact of their projects being prepared for EIB Group financing. Also, early stage venture or equity-type financing, often with linked business development advice, can support innovation and the further development of the technologies required to transition to a low-carbon economy.

A key objective is to strengthen **market development** advisory related to climate action and environmental sustainability by targeting sectors with specific investment needs and gaps. The EIB Group will provide advisory support to identify new and emerging innovations relevant to climate action and environmental sustainability, trends and technologies to help foster their transition into mainstream economic activities. A core tool for market development will be to leverage scarce public resources by combining EIB Group finance and advisory services and private sector and public sector investment into single blended packages that can include financial instruments and investment platforms.

Strengthening the Financial Product Offer

- 2.61 The EIB Group already has a broad range of products that it can deploy to support the EU Climate Bank objectives, as illustrated in the section above on focus areas. While the product mix has been successfully utilised to catalyse green projects in a large variety of sectors, as evidenced by the EIB Group's strengthening climate action performance in recent years (see chapter 1), it will also support the delivery of significant volumes of investment in climate action and environmental sustainability projects in the future. For example, we can expect that EIB's existing investment loan offering will continue to finance investments in large-scale green infrastructural projects in the public sector and provide complementary financial resources in support of private sector industrial green RDI. However, given the breadth and scale of the EIB Group's EU Climate Bank ambition, the EIB Group will need to further enhance its product offering in order to generate increasing volumes of green funding in support of key policy objectives and to deliver additionality by addressing specific investment needs and market gaps or by further catalysing green investment. The box below outlines the activities

¹⁵ JASPERS has been instrumental in providing such early-stage project advice to promoters, helping them increase their efforts in developing their low-carbon projects and ensuring they are resilient to climate change-induced impacts. In the period 2014-2019 more than 180 major investments were approved for funding with JASPERS' support, amounting to a total investment cost of €58 billion and EU grants of €31 billion. Half of these investments contributed to climate action. In 2019 alone, this amounted to €3.15 billion, demonstrating the powerful, positive influence advisory for early-stage project development can have in boosting the project pipeline aligned to climate action and environmental sustainability.

currently underway to strengthen EIB's financial product-mix with specific reference to climate action and environmental sustainability. The EIB Group will continue to review its products in order to further develop those that will address priority investment gaps and needs in the future. Advisory services can complement these initiatives in a variety of ways - for example, through awareness raising and diffusing best practice, helping counterparts to develop and improve issuance of green debt and by ensuring the replicability/scalability of Bank products developed within the EIB.

Current activity includes the development of **Green Bond and Green Loan products**. To respond to market demand for standardised and transparent green debt instruments (which will address the problem of "greenwashing") and to increasing financing needs to fund green investment, the EIB green debt offer (which is currently limited to a green energy loan product) is being further developed to include a green loan product. This product allows for a wider eligibility in line with the new climate action and environmental sustainability criteria and will thus allow the EIB to issue green debt to support a significantly broader range of sectors and projects (not only those in the energy sector). The EIB is also developing a green bond product (including green hybrid bonds) as a financing instrument (i.e. as a loan substitute). This will allow the EIB to participate in the green bond market not only as an issuer but also as a buyer, which is a natural evolution after the EIB Group successfully pioneered a green bond instrument in the capital markets since 2007. It extends upon the EIB Group's existing bond purchase initiatives, but now within the context of a green bond framework. For example, the new green debt products will promote the use of the EU Green Bond Principles and the Green Loan Principles and will also support the broader adaptation of EU taxonomy in the market as a framework to track and trace green investment. The products will target a wide range of potential issuers in terms of size and capacity undertaking eligible green investments including those linked to decarbonisation and green RDI. This will be complemented by a Technical Assistance/Advisory proposition¹⁶ allowing the EIB Group to further contribute to sustainable finance market development and capacity building among potential first-time green debt issuers.

Further development of **EIB's intermediated lending products** is ongoing. The objective of this development is to ease the access to green finance for (mainly) SMEs and midcaps. Intermediated product development work focuses on dedicated climate action and environmental sustainability loans and tranches. The eligibility criteria will be aligned with the EIB's new climate action and environmental sustainability definitions to simplify the sub-loan allocation processes and to improve the effectiveness of the respective products. Other thematic financing offers such as financing for energy efficiency investment in both the housing and the industrial sectors are being considered and piloted. A related Technical Assistance solution (the Climate Action Support Facility¹⁷) is being rolled out under the aegis of the EIAH to support the capability of financial intermediaries.

¹⁶ This Technical Assistance refers to a comprehensive advisory programme to raise awareness, build capacity, and provide support to improve the quantity and quality of the issuance of green debt (bonds and loans) to finance climate and environmental investment. This preparatory assignment will complement the rollout of green loan and green bond products. This assignment is supported by the European Commission (DG FISMA and DG ECFIN) as a market development activity.

¹⁷ This facility will provide further support to financial intermediaries to engage in green lending and to build capacities enabling sustainable lending going forward. The technical assistance comprises (i) the development and roll out of dedicated online support tools to assist the financial intermediaries in originating and identifying eligible sub-projects for allocation (e.g. online eligibility check tools, e-learning modules and project library related to climate action and environmental sustainability matters) and (ii) a bespoke technical assistance scheme to directly support interested intermediaries in enhancing their internal systems in relation to climate action and environmental sustainability lending, risk analysis, monitoring, reporting, etc. Depending on the success of the pilot, this element of the technical assistance may be further developed going forward to support the climate action and environmental sustainability funding activities of a wider range of financial intermediaries.

The EIF **intermediated debt financing products**. The development or further enhancement of products supporting green transformation will be among the key business development priorities of the EIF. It is expected that these will be provided in the form of guarantees, counter-guarantees or credit enhancement, as the case may be. The main purpose will be to accelerate the transition to green energy production, low carbon emission transport and to reduce greenhouse gas emissions and energy consumption in residential and industrial sectors, among others. In the same vein, through its activities with EU Member States and/or regional Managing Authorities, the EIF will design financial instruments promoting similar climate and environmental objectives, in line with national/regional policies (including cohesion and agricultural policies in the context of ESIF programmes). In doing so, the EIF will focus on deploying flexible and scalable solutions that can improve market access and facilitate productive investments while considering the use of blended financial instruments (including blending of Advisory services or grant components with financial instruments) to proactively promote these goals and significantly improve financing conditions for final beneficiaries.

Equity, Funds and other innovative financial products can support increased levels of finance related to climate action and environmental sustainability. A greater use of investment in equity funds or subordinated debt/quasi-equity (as well as first-loss provisions) can leverage greater private sector capital and improve the bankability of higher-risk projects. Some of these products can address niche or region-specific market gaps and investment needs or can act as a catalyst to enable and accelerate strategic investment, and can be combined with tailored advisory support. How some of these products might be deployed in order to deliver support for green investments is further described below:

In relation to **equity funds**, the EIF, through its intermediated equity activities, will continue to support innovative technologies from technology transfer to pre-initial public offering stage, to infrastructure funds. New verticals already under development include blue economy and agritech-foodtech. Further more targeted themes under equity funds will be similarly to debt financing i) clean energy transition, ii) bio-economy, iii) environment and resources, iv) sustainable information and communication technologies and v) future mobility and transport. In relation to the EIB, this includes thematic transactions, co-investment and blended finance.

Thematic transactions, for example, will include higher-risk and demonstration projects in areas of strategic importance but which have limited access to funding from traditional sources, such as support for operations under the Innovfin Energy Demonstration Projects instrument. This provides loans, loan guarantees or equity-type financing to innovative demonstration projects (that have limited access to funding from traditional sources) in the fields of energy system transformation, including renewable energy technologies, smart energy systems, energy storage, carbon capture and storage or carbon capture and use, helping them to bridge the gap from demonstration to commercialisation.

Innovation finance tools similar to InnovFin EDP or [CEF Future Mobility](#) for clean mobility solutions (or their successors under InvestEU) will likely remain key to support projects in earlier stages of maturity and presenting higher risk profiles. Such tools address innovative, first-of-a-kind green technologies which face a "valley of death" on the way from demonstration to commercialisation.

Venture debt (i.e. quasi-equity) could also help fund development of smaller innovative green technology developers. The venture debt product is a unique financing instrument of the EIB Group that could support early-stage, highly innovative companies in developing cutting-edge green technology.

Use of **decentralised financial instruments** in support of climate and environment-related projects can make efficient use of (scarce) public sector resources and, thus, have strong leverage potential to catalyse investment by the private sector. Such financial instruments could provide liquidity, guarantees and/ equity financing and can be managed and/or co-financed by the EIB Group. Such

financial support can be combined with advisory support and/or grants to overcome market barriers.

- 2.62 The EIB Group will seek to utilise **mandates** in order to support increasing levels of climate action and environmental sustainability investments. A mandate is a partnership entered by the EIB Group with third parties which pledge financial support for the purpose of achieving common objectives. The EIF is almost fully dependent on mandate contributions and has limited own resources. Mandates can support the additionality of EIB Group's climate-related activity because they (i) enhance the EIB Group's risk taking capacity and ability to pilot innovative instruments and (ii), through provision of advisory services, allow the EIB to help improve the quality of projects it finances and accelerate investments. Some of the current developments with regard to mandates which EIB Group will deliver in the future and which could support the EU Climate Bank objectives are outlined below.

Optimal usage of risk capital and mandates more generally will be critical in supporting the delivery of climate-related objectives in the coming years. Increasingly, the EIB Group's activities are guided by third party mandates that in general, determine the counterpart, sectoral and geographical eligibilities as well as timeline, operating modalities and product toolbox.

All EIB institutional mandates and a large share of other smaller mandates already strongly support climate action and environmental activities. Institutional mandates are often in line with the EIB's previous climate action targets. This is the case of the External Lending Mandate (ELM) or European Fund for Strategic Investments (EFSI). In some other cases, such as the Green Climate Fund or FELICITY, mandates are fully dedicated to climate action and environmental sustainability. Mandate activities have sought to diversify and maximise the supply of third party resources in support of the EIB's lending, blending and advising activities.

The main future institutional mandates, InvestEU and NDICI, are currently under negotiation and are expected to provide further risk absorption capacity in climate action and environmental sustainability financing. In relation to these upcoming mandates, the features are still subject to change as the legislative processes for draft Regulations are still ongoing and implementation agreements are still to be developed, negotiated and signed. InvestEU and NDICI Regulations are subject to the agreement on the next Multiannual Financing Framework (MFF) for the programming period 2021-27, and the InvestEU Investment Guidelines (i.e. the Delegated Act for the implementation of the InvestEU Regulation) are still under discussion.

With regards to the InvestEU Regulation, as a matter of principle, the European Commission's proposal endorses Paris Alignment and recognizes that action supporting the European Commission's climate and environment-related objectives needs to be stepped up significantly. It is envisaged that there will be a target of 30% of the overall envelope under InvestEU to support climate objectives. With regards to the Sustainable Infrastructure Window, there is a target of at least 60% to be channeled into climate and environment-related investment operations.

The EIB Group, as reflected in this Climate Bank Roadmap, will strive to meet these ambitious climate and environmental sustainability targets under the forthcoming mandates. However, it needs to be noted that delivery on the mandates will be contingent to (i) market demand for climate and environmental sustainability financing, as the EIB will only be able to support these activities as long as new policies and regulations set the enabling environment and market actors embrace the low carbon transition; and (ii) alignment of principles and standards across the financial sector, as well as other multilateral development partners and implementing partners.

Most EIB advisory services are provided under mandates, and the next MFF and the European Recovery Plan offer opportunities for climate action and environmental sustainability advisory, particularly through the emphasis on a green transition. It is expected that the majority of climate action and environmental sustainability advisory activity within the EU will be resourced from the

InvestEU Advisory Hub budget, and more detailed sources of funds will become increasingly clear as the MFF negotiations are concluded. The JASPERS initiative is expected to continue to help Member States to prepare investment projects eligible for Cohesion funding. Member States will also have the opportunity to contribute national/shared management funds to the so called 'Member State compartment' of the InvestEU Advisory Hub.

- 2.63 To conclude, based on current overall plans for the EIB Group activity, by 2025 it will sign approximately €30 billion of support per year to climate action and environmental sustainability. This chapter sets out potential ways to develop EIB Group business to contribute to these goals. It uses the framework of the European Green Deal to identify eleven focus areas for green investment – with an additional one considered separately in the next chapter.
- 2.64 The EIB will review its approach towards supporting these focus areas over time, often in relation to developing EU policy (e.g., a review of the EIB Transport Lending Policy, or approach to Adaptation or forestry in line with revised EU strategy). The timing of these workstreams will be driven by the development of EU policy as well as the commitment under the Climate Strategy to develop sector lending policy in line with low carbon pathways, latest scientific knowledge and available best practice. As outlined in Chapter 5, an integrated approach towards sustainable finance requires focus area or sector lending policies to include consideration of climate resilience building and the mainstreaming of environmental and social aspects.
- 2.65 The work on focus areas highlights the requirement for focused business development and niche or new products and instruments to address specific policy goals and funding gaps or to catalyse green investment. Four key business development activities to be undertaken during the initial phase of the Climate Bank Roadmap are summarised in turn:
- Ongoing **engagement with key stakeholders** (including the European Commission, public authorities and existing and potential counterparts) in order to identify opportunities for deployment or further development of the EIB Group's products and advisory services offering that can best address policy priorities and investment needs.
 - Ongoing structured origination activity (which will be subject to regular review and revision) in order to guide granular, operational-level project **pipeline-building** in support of increasing volumes of impactful climate action and environmental sustainability funding.
 - **Development of green loan and green debt products**, together with related advisory support to build issuer/counterparty capability which will meet growing market demand for such products and help further market development (e.g. through mainstreaming of the EU Taxonomy-aligned climate action and environmental sustainability definitions).
- 2.66 **Further development of EIB Group's existing suite of financial products**, including enhancement of EIB Group's multi-beneficiary investment loan (MBIL) offering. Equity, funds and other innovative financial products will be utilised to support development of higher-risk technologies and to catalyse funding from other sources. Moreover, consideration will be given to the development of concepts such as Performance-Based Lending (i.e. financing linked to performance- and impact-related indicators) that could allow the EIB Group to support promoters' decarbonisation and climate adaption efforts. The potential extension of the EIF's Impact Performance Methodology to cover climate action and environmental sustainability activities in equity investment will also be reviewed.

Chapter 3. ENSURING A JUST TRANSITION FOR ALL

- 3.1 As the EU Climate Bank, the EIB Group recognises the importance of leaving no people or places behind along the transition pathway. This is of particular concern to regions that currently rely on carbon-intensive industries as a major source of local employment and income, and to those people, businesses, sectors and regions being hit hardest by climate change impacts. This chapter considers the role of the EIB Group in supporting a just transition for all.
- 3.2 Cohesion policy was one of the original *raison d'être* of the EIB upon creation in 1958. It continues to be a core priority, reflected in an **annual target for cohesion lending of 30%** across the EU and pre-accession countries. The new green ambition does not detract from this commitment: rather, support for a just transition and a socially inclusive approach is a means through which the EIB Group can reinforce this commitment to balanced territorial development.
- 3.3 Looking also outside the EU, a just and inclusive transition touches the wider issue of **social development and climate change**. Even under a 1.5°C pathway, some regions of the world are exposed to major risks from climate change, exacerbating existing fragility and vulnerabilities. Well-targeted investment can both assist the green transition and contribute to social development. This chapter therefore also considers possible ways in which the EIB Group can help to support an inclusive approach to the low-carbon transition globally and to increase resilience for communities and businesses most affected by climate change – and ensure that no one is left behind.

SUPPORTING A JUST TRANSITION IN THE EU

- 3.4 The transition to a net zero GHG emissions economy by 2050, with major emissions reduction by 2030, will entail a profound social and economic challenge for regions depending on carbon-intensive activities. There is a risk of significant job losses in the short term, lower regional GDP and tax revenues. Many of these locations are already “places left behind” that deal with stranded assets, shrinking towns and communities, and growing inequalities. Without due attention to the economic and social needs of these territories, the political consensus on decarbonisation could dwindle and the trajectory to low GHG emissions could be delayed.
- 3.5 A just transition is not a singular transition. Rather it entails multiple transitions to ensure balanced, integrated territorial development and an economic future for the most affected areas. This transition has several dimensions, typically involving: an energy dimension (switching to new sources of heat and possibly power), an environmental dimension (e.g. decontaminating mines); a socio-economic transition (attracting new companies, entrepreneurship and sources of employment, providing training and re-skilling) and an infrastructure transition (e.g. boosting physical and digital connectivity).
- 3.6 For the most affected communities, the transition ahead implies entering uncharted territories. While they will have to make radical changes to their energy mix and huge investments into the energy efficiency of buildings and production modes, the most affected regions will only meet their labour reallocation challenge if they also manage to retrain and upskill their work force and manage to attract new economic activities.
- 3.7 To smoothen the transition and leave no one behind, the **Just Transition Mechanism (JTM)**, an integral part of the [Sustainable Europe Investment Plan](#), is expected to mobilise €100 billion of investments during the 2021-27 MFF with financing from the EU budget, the Member States as well as contributions from InvestEU and the EIB (European Commission, 2020) (Box 3.1).

Box 3.1. The Just Transition Mechanism

The Just Transition Mechanism will consist of three pillars:

- The Just Transition Fund (JTF);
- The dedicated just transition scheme under InvestEU; and
- The new public sector loan facility for additional investments co-financed by the EIB.

Taken together, the Just Transition Mechanism offers a full range of support options for the most vulnerable regions. The first pillar – the Just Transition Fund - will be used to provide primarily grants. The second pillar establishes a dedicated transition scheme under InvestEU, designed to leverage private investment. Finally, under the third pillar, a new public sector loan facility is established to leverage public financing. These measures will be accompanied by dedicated advisory and technical assistance for the regions and projects concerned. The Just Transition Mechanism will include a strong governance framework centred on **territorial just transition plans**.

The main objective of the **JTF (Pillar 1)** is to alleviate the social and economic costs of the transition to climate neutrality in some regions. Specifically, the JTF will benefit territories with high employment in coal, lignite, oil shale and peat production, as well as territories with greenhouse gas-intensive industries, which will either close down or severely restructure. The level of support will reflect the magnitude of the challenges in these territories, in terms of the need for both economic diversification and transition towards zero and low-carbon activities with growth potential, and the reskilling of workers in view of equipping them with the necessary skills to take on new jobs. Accordingly, the range of eligible investments is broad, covering investments in SMEs, RDI, energy efficiency, renewable energy, clean energy, emission reduction, digitalisation, decontamination, land restoration, up-/reskilling, training and job-search.

Pillar 2 of the JTM is a dedicated Just Transition scheme under **InvestEU**, to unlock private investment to achieve the objectives of the just transition. Projects in the regions having an approved Territorial Just Transition Plan or projects that benefit those regions (even if they are not located in the regions themselves), can benefit from the scheme. This is relevant in particular for projects under the Sustainable Infrastructure window of InvestEU (e.g. in transport or energy infrastructure) that improve the connectivity of the JT territories. But also investments under the other three InvestEU policy windows – Research, Innovation, Digitisation; SMEs; and Social infrastructure and skills – qualify for the scheme as long as they are in line with the transition plans approved by the European Commission.

Pillar 3 of the JTM is a **public sector loan facility with the EIB**. It will support increased public sector investment in those Union territories facing serious social, environmental and economic challenges deriving from the transition process towards the Union's climate targets. This support will offer loans to public sector entities for the implementation of measures to facilitate the transition to climate neutrality. Supported investments will range from energy and transport infrastructure, district heating networks, energy efficiency measures including renovation of buildings, as well as social infrastructure, and can include other sectors as well. EU support will take the form of an investment grant, financed from the EU budget, which will be blended together with loans extended by the EIB to municipal, regional and other public authorities or entities. The geographical coverage will be the same as under Pillar 2.

REINFORCING THE CONTRIBUTION OF THE EIB GROUP

- 3.8 The EIB Group will build on its solid track record in supporting the transition and economic restructuring of former coal and carbon intensive regions through financing stand-alone environmental remediation projects, as well as multi-sector investment programmes for modernisation and integrated urban and regional development. Recent examples include projects to **rehabilitate former opencast lignite mines**, extensive **restructuring of regional waste water systems**

through industrial regions in order to restore environmental quality, or **urban renewal** in towns dependent on the mining industry.

- 3.9 To help address the socio-economic challenges implied by the transition to a climate-neutral EU economy by 2050 in some regions, the EIB Group will deploy its financing and advisory support for investment projects under the JTM based on the principles of vulnerability, intent and relevance. Projects will be located in eligible regions. They will be based on a credible commitment towards decarbonisation, embedded in regional or country-wide **Territorial Just Transition Plans**.
- 3.10 Under the JTM, the Just Transition Fund (Pillar 1) will make €17.5 billion in EU grants available to the most affected territories, implying national co-financing needs in the order of around €10 billion. The EIB Group will be able to support this through **Structural Programme Loans**, where feasible, in combination with ESIF co-financing operations.
- 3.11 The EIB Group will also actively support the JTM under InvestEU (Pillar 2). Within its mandate to implement 75% of total investment under InvestEU, the EIB Group will provide support to projects benefitting the territories most affected by the transition to climate neutrality under all four policy windows of InvestEU: Sustainable infrastructure, Research, Innovation and Digitisation, SMEs, and Social infrastructure and skills.
- 3.12 The EIB will be the financing partner for the public-sector loan facility of the Just Transition Mechanism (“pillar 3”). The public-sector loan facility is expected to unlock total investment of at least €25 billion benefitting the eligible territories (see Box 3.1 above) during 2021-27. The EIB, as the EU’s financing partner for the facility, is expected to provide €10 billion in loans to be matched with an investment grant to the tune of 15% of the EIB loan (to 20% in less-developed regions), thereby increasing the affordability of transition projects, ensuring they have the right scale and speeding up their implementation.
- 3.13 One important element in the EIB Group offering is **microfinancial instruments** targeting vulnerable groups and people willing to set up a social enterprise. The EaSI Guarantee Instrument, managed by the EIF, has provided more than €280 million in guarantees across Europe since 2015 and is expecting to provide more than €3 billion in financing to microenterprises and social enterprises. The EIF aims at continuing delivering support to these type of final beneficiaries in areas highly impacted by the transition to a low carbon economy over the next years.
- 3.14 The EIB Advisory Services will support the implementation of all pillars of the JTM, drawing on their extensive experience in supporting cohesion policy. The transition path for each city or region is unique. Each region has to find its own tailor-made, place-based transition plan, and the EIB Group can help turn that into concrete investment plans and projects, as illustrated by JASPERS support to coal regions in transition (Box 3.2). The Member States have started working on their Territorial Just Transition Plans, in many cases benefitting from technical assistance by the Structural Reform Support Service (SRSS) of the European Commission. The EIB, in turn, stands ready to support project promoters, governments and city administrations in devising and refining concrete investment programmes resulting from the transition plans.

Box 3.2. JASPERS and PASSA support in Just Transition

In addition to its activities in project preparation support and technical assistance to EU member states, **JASPERS** has engaged in supporting the preparation of projects in the context of the Coal Regions in Transition platform (CRiT). The European Commission launched the "Platform on Coal

Regions in Transition" in December 2017 to ensure that no region is left behind in the move towards a carbon-neutral economy.

In order to illustrate one activity, JASPERS completed an assignment in February 2020 in support of screening potential transition projects in the coal regions of Poland i.e. Slaskie (Silesia), Dolnoslaskie (Lower Silesia) and Wielkopolskie. Out of a total of 90 projects put forward, 24 were selected to undergo a further JASPERS screening. The presented projects come from a broad range of sectors (traditional and renewable energy, research and development, education, information technology, territorial development, transport, commerce, industry, tourism/heritage and strategy making). JASPERS' procedure looked at alignment of the projects with just-transition objectives (e.g. impact on the local economy, environment and employment) and with soundness criteria (feasibility, institutional capacity, risk management). For the reviewed projects, JASPERS provided individual, hands-on advice on their further development as well as a general pipeline gap analysis for individual regions.

The **Project Advisory Support Service Agreement (PASSA)** at the EIB helps implement EU-funded projects. The initiative combines the knowledge of EIB experts and third party consultants to shepherd projects and build local skills. To date, the EIB has Project Advisory Support Service Agreements with Bulgaria and Romania. PASSA can also support the specific objectives of a just transition. For example, the western Romanian city of Oradea has been assisted by the EIB to help with its transition to cleaner energy, notably in the context of its district heating system.

- 3.15 The EIB Group continues to prepare its support towards the Just Transition Mechanism. A number of key wider aspects (e.g. legal base, formal selection of territories, etc.), however, remain to be approved by the EU. The EIB will therefore revert to the Board with a comprehensive proposal shortly after these aspects are agreed. This is expected by the middle of 2021.

SOCIAL DEVELOPMENT AND CLIMATE CHANGE ACROSS THE GLOBE

KEY INVESTMENT THEMES

- 3.16 The previous section focuses on one example of how climate change and people's livelihoods are interwoven in Europe. In that case, rapid transition to mitigate climate change impacts certain communities. This is equally relevant in many parts of the world beyond Europe, wherever industries and livelihoods depend on high emitting fuels and activities that will become less viable as decarbonisation accelerates and lower carbon solutions are preferred. EIB will continue to work with MDBs and other entities on developing approaches to support a just transition in developing countries and to provide coherent support for regions and cities with urgent needs for job creation and business development in lower carbon industries and sectors.
- 3.17 In other cases, climate change – even under a rapid emissions reduction pathway – will continue to impact people, businesses and nature. In general, climate change and environmental degradation is already having significant impacts on people across the world. It is affecting incomes, livelihoods, health, food security, peace and stability as well as migration patterns. The **effects of climate change continue to disproportionately affect least developed countries, and disadvantaged and vulnerable populations**, with gender inequalities further compounding such vulnerabilities¹⁸. Keeping the increase in global mean temperature to below 1.5°C would reduce the number of people exposed to

¹⁸ the UNFCCC has adopted a gender action plan that aim to advance gender-responsive climate action as well as women's full, equal and meaningful participation. It specifically invites public and private entities to increase the gender responsiveness of climate finance.

climate risk and vulnerable to poverty by 460 million. Further, in Europe, welfare losses are estimated at 1.9% of EU GDP at the end of the century if the current warming trajectory is not changed.

- 3.18 Well-targeted investment can both assist the green transition and contribute to social development. Socially responsive climate actions can strengthen climate and environmental outcomes and, often, are also a business and market opportunity. They help expand the customer base, increase sales, enhance customer satisfaction, improve financial and business performance, and attract more investments from impact investors. They can proactively address the impacts on people most vulnerable to climate change. Conversely, empowered individuals, equal and peaceful societies are key to advance more sustainable and inclusive economies.
- 3.19 On the mitigation side, for example, there is a need for energy efficiency investments to **reduce energy poverty** in Europe, or support for low-carbon **public transport** designed with the travel needs of different socio-economic groups, women and men in mind. Targeted investments in renewable energy – both on and off-grid - can support the 1.1 billion people that today **lack access to electricity** while tackling related gender inequalities. There are further opportunities to increase support to SMEs led by specific population segments (e.g. women, youth, refugees and indigenous people) that lead on climate action and environmental sustainability solutions.
- 3.20 On the adaptation side, investments may support small-scale or subsistence farmers, and especially female or young farmers, to have better access to climate-resilient agriculture and water practices, crop and climate risk insurance and information. Further, investments in support of disaster risk resilience, climate-resilient urban and rural infrastructure for deprived municipalities as well as innovative flood protection and early warning systems considering the needs of the most vulnerable will be important to tackle the climate-fragility and migration nexus.
- 3.21 On the environmental side, there is a need to focus on synergies between environmental action and social development, with substantial opportunities for instance in the area of nature-based solutions and sustainable forestry targeting and involving local communities - including women or indigenous groups.

REINFORCING THE EIB GROUP CONTRIBUTION

- 3.22 Building on its strong track-record in promoting gender equality¹⁹, social inclusion, economic resilience and conflict sensitivity, the EIB Group seeks to invest in projects that simultaneously support the transition and improve social development and gender equality, in line with the Paris Agreement and the European Green Deal. This applies to operations inside and outside the EU. It will entail ensuring that a wide variety of people get access to and benefit from the goods, services or employment opportunities generated by the low-carbon and climate resilient finance that the EIB Group provides, regardless of their gender or socio-economic characteristics. It will also entail focusing on building resilience of the people most vulnerable to climate change, including identifying and addressing where systems and livelihoods cannot be adapted to climate change and may need to be replaced by activities more suited to a changing climate. Experience has also shown that well targeted advisory services can help support promoters to enhance the social impact of climate/environment eligible projects.

¹⁹ Since January 2018, EIB has supported over €418 million of investments outside and inside of the European Union in support of women's economic empowerment through financial intermediaries alone.

3.23 While it continues to address broader aspects of social development, the EIB is reinforcing its efforts around two key themes that lie at the heart of social development, environmental sustainability and climate action: (i) gender equality and (ii) conflict, fragility and migration. These two key themes are highlighted in the two following boxes.

Box 3.4: Gender Equality & Climate Action:

Women and men both play important roles in promoting climate action and building resilience, but are also differently impacted by climate change and environmental degradation due to different gender roles and access to and control over productive, natural and financial resources. Gender responsive climate investments can strengthen climate and environmental outcomes, open up business opportunities and are financially more effective. In particular, in many developing countries, adopting a proactive approach to gender-inclusive climate action may result in improved development outcomes and higher project impact.

Building on its existing [Gender Equality Strategy](#), the EIB will scale-up its support for gender responsive climate actions in the years to come. It will primarily focus on:

- i. Lending to women entrepreneurs and fund managers active in the climate and environment space to scale-up their businesses and funds;
- ii. Projects that can tackle deep-rooted gender inequalities as well as strengthen the resilience and adaptive capacity of women and girls worldwide;
- iii. Ensuring that women and girls have access to and benefit from the low-carbon and climate resilient infrastructure/services generated by EIB's investments, through specific project design features and inclusive project development approaches;
- iv. Supporting promoters to set targets for women's employment and leadership opportunities, through advisory and technical assistance.

Client incentives, including through technical assistance, blended finance and guarantee instruments, will be further explored and a gender perspective will be included in climate business development plans.

Gender equality is also important in ensuring a **just transition**. Industrial transitions come with both opportunities and challenges for gender equality. The EIB Group will apply a gender lens to its support for a Just Transition in line with its Strategy for Gender Equality and Women's Economic Empowerment. It will promote equal opportunities to take up jobs in the green economy while paying attention to, and mitigating any negative impacts of, the transition on the social fabric of society.

Box 3.5: Climate Change, Conflict, Fragility and Migration

Climate related disasters and worsening extreme weather events as well as the slower on-sets of climate change and environmental degradation are contributing to social tensions and migration and can aggravate fragilities and existing conflicts. In 2019, 24.9 million people were internally displaced by disasters related to extreme weather events (IDMC, 2019) and 150 million internal rural to urban climate migrants are estimated by 2050 ([IOM, 2020](#)). The great majority of these displaced peoples are living in developing countries, and are relocating to regions that are also suffering climate stress. Communities facing a heightened influx of refugees, migrants and returnees experience significantly increased pressure on their social and economic infrastructure.

There are clear opportunities to through targeted climate and environmental sustainability investments promote more cohesive and peaceful societies. At the same time, reducing fragility can also contribute to the success of environmental and climate interventions. Understanding the linkages between fragility, conflict and migration, and addressing these in the context of ongoing climate change, is of critical importance for sustainable development in many highly vulnerable

regions in developing countries. Building on experience on implementing the [Economic Resilience Initiative](#) and its approach to conflict sensitivity, the EIB will focus on:

- Climate adaptation and resilience projects in fragile contexts and in support of populations at particular risk of displacement
- Climate-resilient urban infrastructure to build resilience to future shocks and influx of climate refugees and migrants and rebuilding settlements after sudden disasters (including infrastructure destroyed by conflict)
- Supporting disaster preparedness, early warning systems and post-disaster recovery as well as projects that in a broader sense contribute to peace building, social cohesion, stability and reducing inequality.

Chapter 4. SUPPORTING PARIS ALIGNED OPERATIONS

- 4.1 The EIB Board committed in 2019 to: “align all its financing activities with the principles and goals of the Paris Agreement by the end of 2020”. Put differently, this is a commitment to “greening” EIB Group finance. This chapter explains how the EIB Group will deliver on this commitment.
- 4.2 The notion of alignment is addressed directly in the Paris Agreement itself. As explained in Annex 1, the agreement commits signatories to “make finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development”. It is important to stress both dimensions: **low greenhouse gas and climate resilience**. The first dimension implies, for instance, that assets created today are consistent with a pathway to a climate-neutral economy, and that new investment should not undermine efforts to achieve the 1.5°C goal. The second dimension requires, for instance, that assets created today are resilient to the risks posed over the course of its operating life by a rapidly changing climate.
- 4.3 The commitment is to cover all its financing activities. This chapter therefore presents a comprehensive **alignment framework** for EIB Group financing²⁰, advisory and treasury operations²¹. It begins by addressing this in the context of new projects, reviewing key sectors in turn. As a project-driven lender, this is a natural starting point for the EIB. To put this into practice, however, it is necessary to apply these findings across a diverse range of EIB Group operations, whether on a direct or an intermediated basis. Moreover, although EIB direct lending is tied to the creation of a defined set of assets, the concept of alignment extends beyond the project to touch potentially the wider activities of a particular counterparty.
- 4.4 The alignment framework is primarily shaped by the public-policy driven nature of the EIB Group. However, the EIB Group is also a **prudent financial institution** adhering to best banking and market practices. The EIB Group needs to understand, and mitigate, risks across its balance sheet, including those associated with a rapid structural transition towards a climate-neutral economy (or “transition risks”), as well as the physical climate risks. Drawing on the alignment framework, this chapter sets out the EIB Group approach towards **climate-change related risk management**.
- 4.5 The focus of this chapter is on climate. It explains the interpretation given to the EIB Board commitment to align. However, it should be seen in the wider context of the [EU Taxonomy Regulation](#). The Paris Agreement, for instance, places climate in the wider context of the [UN Sustainable Development Goals](#), including environmental and social dimensions. The EIB already has well-established **environmental and social standards and risk management system**, which seek to ensure that no project results in significant harm to environmental and human health and well-being. As set out in chapter 5, the EIB Group is currently working to review the integration of environment, climate and social dimensions into a single integrated environmental and social policy. This will take place in 2021.
- 4.6 The EIB Group commitment is to align by the end of 2020. In order to ensure a smooth implementation, the alignment framework set out below will apply to **all projects seeking approval to start appraisal**

²⁰ The EIB Group financial products include loans – which, in some cases, can be “blended” with grants from private and public sector partner institutions, and philanthropic organisations –, equity and guarantees.

²¹ Note that the EIB Group internal carbon footprint is addressed in *Chapter 5*.

from 1st January 2021 onwards. Due to the lag between initial appraisal and the final presentation, non-aligned projects may continue to be presented to the Board for approval for a period of time. A longstop date for Board approval of any non-aligned operation is set at the end of 2022.

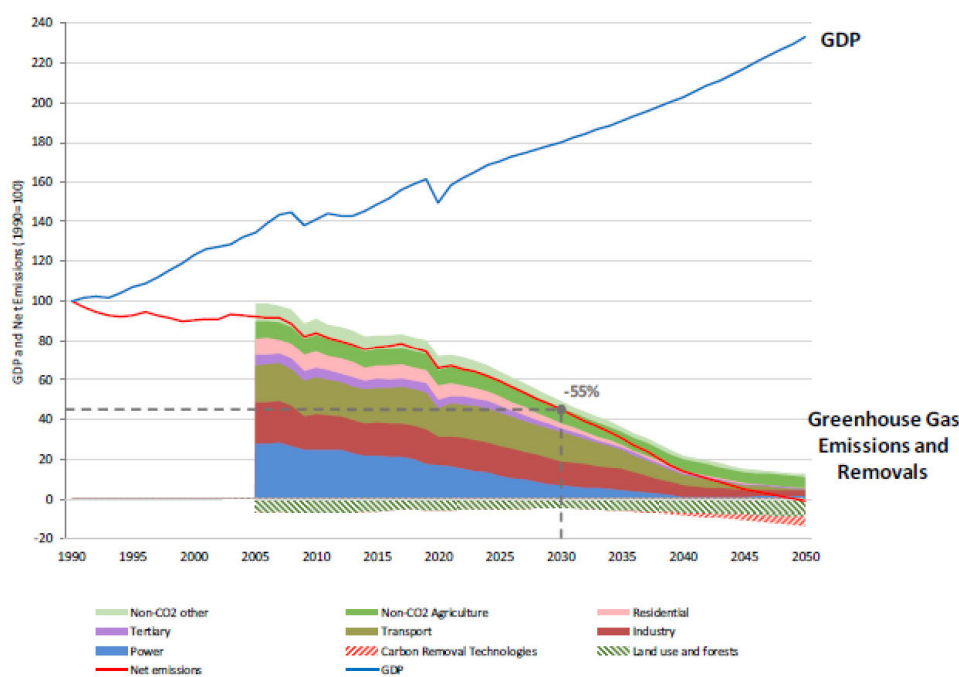
4.7 The structure of **this chapter** is as follows: the first two sections deal with the alignment of new projects – firstly in the context of pathways towards low GHG emissions, secondly for climate resilience. The third section extends the framework to include new lending operations, including counterparts, and treasury operations. The final section explains the EIB’s climate change related risk management.

ALIGNING NEW PROJECTS WITH PATHWAYS TOWARDS LOW GHG EMISSIONS

GENERAL APPROACH

4.8 As described in Annex 1, the Paris Agreement aims to keep the rise in global average temperatures to “well below 2°C above pre-industrial levels, and pursue efforts to limit the increase to 1.5°C”. As shown in Figure A1.2 in Annex 1, limiting temperature increases to this level requires balancing sources and sinks of GHG emissions by the middle of the 21st century. In the case of the EU, leaders have agreed to reach net zero GHG emissions by 2050, with – as shown in **Figure 4.1** below - the European Commission recently proposing to increase the emissions reduction target to 55% by 2030.

Figure 4.1 – A pathway to climate neutrality in the EU



4.9 In deciding whether to support an investment today, the EIB Group needs to decide whether it is consistent with such a pathway. The natural starting point in making this decision is to examine relevant global or regional modelling results, such as, in the case of the EU, those depicted in **Figure 4.1**. In particular, these results can be used to construct **sector-relevant decarbonisation pathways**, typically expressed in terms of emissions intensity over time (GHG emissions per kilowatt-hour of electricity, per passenger kilometre, per tonne of steel, etc.). In addition, modelling exercises provide an indication of the **carbon price** required to drive the economy to meet the temperature goal. This provides an important link between the global or regional models and project level economic

assessment of an EIB operation. As discussed further in Annex 5, it is proposed to revise the **EIB shadow cost of carbon**, used in the economic analysis of projects, in order to be consistent with the temperature goals of the Paris Agreement. This is an important component in ensuring that all projects that the EIB Group supports are aligned. It is discussed in more detail in the context of the proposed approach towards the road sector below.

- 4.10 Examining global or regional modelling results, however, does not replace the need for judgement in deciding whether to support an investment today. Model results aid, rather than replace, the need for **interpretation**. Firstly, for legitimate reasons, model scenarios vary strongly with respect to key assumptions, such as the development of large-scale sequestration techniques (notably bio-energy with carbon capture and storage), or the relative balance between electricity and other energy carriers (e-fuels). As a result, there is no single consistent pathway, but rather a **range**.
- 4.11 Secondly, the modelling results typically focus on an efficiency question – reducing emissions at least cost. They do not address **social equity issues** between countries or regions. As such, it does not resolve issues around the principle of **common but differentiated responsibilities and respective capabilities** discussed in Annex 1.
- 4.12 These variations in modelling results can make it challenging to determine whether an individual project in a particular geography is aligned. The question can perhaps be more usefully framed as a question of **risk assessment**: in supporting an investment today associated with GHG emissions, what is the risk that these emissions continue to be emitted over the critical decades ahead? The next section proposes an **alignment framework that is appropriate for the EIB Group**, as the EU Climate Bank, and with its own particular public policy goals and business model.
- 4.13 It is important to bear the following aspects in mind. Firstly, the EIB Group is often required to make a discrete decision – to support a project or not – in a limited period of time. As such, the alignment framework needs to be relatively **simple to implement and communicate**. This proved to be the case, for instance, when the EIB introduced an emissions performance standard for power generation in 2013. A different approach may be taken, for instance, by public authorities with longer timelines and a greater capacity for technical studies to refine uncertainties.
- 4.14 Secondly, EIB resources – both financial and human – are limited. The EIB Group does not support the entire economy. In defining an approach towards ensuring alignment in a particular sector, the question becomes one of how to make **best use of the limited resource available**. This was a key element in the EIB Energy Lending Policy, for instance, in deciding to prioritise support to the longer-term goal of decarbonising the gas sector. As such, the decision to withdraw support from a particular area may reflect EIB prioritisation rather than a strict question of alignment.
- 4.15 Finally, the approach set out below has been developed taking into account other **important reference points**. One particularly important one has been the recommendation made by the Technical Expert Group for the **EU Taxonomy** (see *Chapter 5*). The technical criteria proposed to ensure that projects **do no significant harm (DNSH)** to climate change mitigation and adaptation objectives are particularly relevant. In general, the **EIB framework adopts the proposed DNSH criteria as a “floor”**: i.e. level below which the EU Climate Bank would not support a project. On occasion, where justified, it may set a stricter standard.
- 4.16 A second important reference point concerns the **joint MDB approach**. The work from BB1 on the *MDB Characterization Framework for Alignment with the Paris Agreement’s Mitigation Goal* has been central in the EIB’s thinking on the low-carbon alignment. Common to both EIB and the MDB methodology is the identification of a set of projects that are considered *always aligned* and *never*

aligned (e.g. renewable energy and coal extraction, respectively). For other projects, the context and location of the project are taken into account. This includes national and global low-carbon and climate-resilient scenarios and policies, preventing low-carbon opportunities and risks of lock-in and stranded assets. The MDB approach is further explained in Annex 1.

- 4.17 To conclude, the alignment framework presented next is appropriate for the EIB Group, as the EU Climate Bank. Other institutions and organisations, with different goals and business models, may for good reason come to different conclusions. It is for this reason that the results are presented in terms of projects that the **EIB will support or not support**, rather than deeming sectors to be aligned or not in any absolute sense.

APPROACH TOWARDS SECTORS

- 4.18 This section begins by considering the implications of a pathway towards the 2030 emissions targets and net zero GHG emissions by 2050 for major emitting sectors within the EU. Mindful of the principle of common but differentiated responsibilities and respective capacities, as described in Annex 1, it then turns separately to consider implications for sectors outside of the EU.
- 4.19 This section presents the **key principles and results** of the alignment framework. A **comprehensive set of sectoral criteria** is presented in a **series of tables in Annex 2**. Whilst every effort has been made to be as complete as possible, the EIB Group will inevitably encounter project types not covered by these tables. In this case, the alignment of the project will be addressed explicitly to the EIB decision-making bodies, with Annex 2 tables being duly updated. Whilst technical adjustments may be made periodically, it is intended to apply the principles of this alignment framework throughout the Climate Bank Roadmap implementation period – i.e. until end 2025.

APPROACH INSIDE THE EU

- 4.20 Within the EU, all projects need to be aligned to a pathway towards net zero GHG emissions by 2050. This section describes the proposed approach by EIB to ensure alignment to this goal, broken down across various sectors.

ENERGY

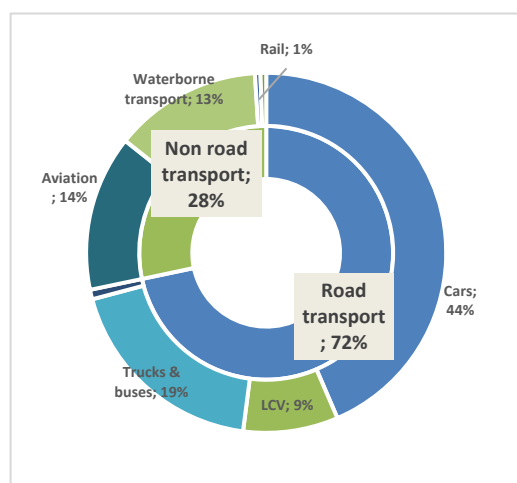
- 4.21 Meeting 'net-zero' GHG emissions by 2050 requires increasing energy efficiency, the rapid deployment of renewable energy sources and associated storage, the phase out of unabated fossil fuels, and the expansion of energy infrastructure. These themes, especially those relating to the phase-out of fossil fuels, have repeatedly been highlighted in responses received via the Climate Bank Roadmap stakeholder engagement process. Through its 2019 Energy Lending Policy, the EIB support to the energy sector is aligned to this 'net-zero' GHG emissions pathway. It does this by focussing support on power generation technologies under an emissions threshold of 250 g CO₂ per kilowatt-hour, and phasing out support to large-scale heat production based on unabated oil, natural gas, coal or peat, upstream oil and gas production, and traditional gas infrastructure. As such, the **Energy Lending Policy is the first element of the EIB Group's alignment framework**.
- 4.22 Before turning to other sectors, it is useful to stress one point on the **alignment of activities that consume** electricity. Within the EU, given investment patterns over the last five years, the electricity sector can be deemed to be on track with a low-carbon pathway. It follows that all sectors of the economy that rely predominantly on electricity are therefore also aligned, at least where applied in an

energy-efficient context (e.g., large parts of the public transport market, manufacturing, small and medium enterprises, ICT technology and digital economy more broadly). The implications outside the EU are discussed in *paragraph 4.55* below.

TRANSPORT

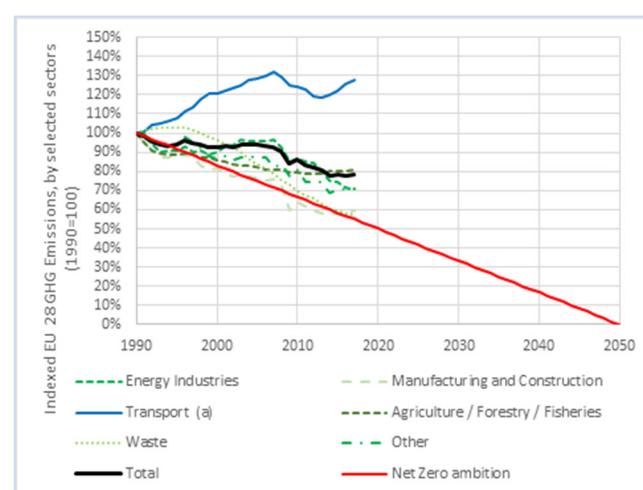
- 4.23 Alongside power generation, **transport is the largest source of GHG emissions in the EU**. In contrast to power generation and nearly all other sectors, GHG emissions from the transport sector continue to rise. As shown in *Figure 4.3*, **transport emissions have risen by 30%** since 1990. As shown in *Figure 4.2*, approximately 70% of these emissions come from the road sector. Passenger cars and vans are responsible for the bulk of these emissions. Road transport is followed by shipping and aviation as the second and third largest sources of GHG emissions from transport.
- 4.24 As discussed in chapter 2, decarbonising the transport sector requires a combination of efficiency improvements in vehicles, shifting passengers and freight from high emitting to low emitting transport modes and using alternative low-carbon fuel sources, including electricity and biofuels. The decarbonisation pathways for each of the different transport sectors is presented below.

Figure 4.2 – EU27 & UK, incl. international bunkers, GHG transport 2017



Source: <https://ec.europa.eu/transport/sites/transport/files/pocketbook-2019.pdf>, Par. 3.2.12, page 151 and Par. 3.2.14, page 155, EIB graphics

Figure 4.3 – Indexed EU 27 & UK GHG Emissions, by selected sectors (1990=100)



Source: <https://ec.europa.eu/transport/sites/transport/files/pocketbook-2019.pdf> Par. 3.2.3 (from Excel download): https://ec.europa.eu/transport/facts-fundings/statistics/pocketbook-2019_en, EIB Graphics

- 4.25 **Public transport.** Much of this system is electrified (e.g., metros, most rail, rising share of buses). Following the logic of *paragraph 4.22*, this is therefore deemed as aligned. In the case of public transport bus fleets and trains, it is proposed to adopt the recommended criteria for making a substantial contribution under the EU Taxonomy, notably vehicles emitting less than 50 g CO₂ per passenger kilometre until 2025. This threshold would still potentially permit support for diesel buses and train sets where there are conditions of high ridership, likely for some **cohesion regions**. Note that this implies that all EIB Group support for public transport would count towards the EIB green target.
- 4.26 **Aviation.** The **decarbonisation pathway for the aviation sector remains less clear**, a fact that has been underlined by multiple voices in response to the Climate Bank Roadmap stakeholder engagement process. The sector has three broad options to reduce emissions: demand management, efficiency improvements and the use of sustainable fuels such as battery electric, hydrogen fuel cells, sustainable biofuels or synthetic fuels. The use of sustainable fuels offers the most potential. However, the

deployment of biofuels remains currently marginal. Other alternative sustainable fuels are unlikely to be available at scale until after 2040 or perhaps beyond. In the short run, flying will remain a carbon-intensive activity.

- 4.27 Demand management is likely to play an increasing role over time. The higher carbon prices (or EUA prices in Europe) required to meet targets are likely to feed into increased ticket prices, impacting in particular demand in the short-haul market, as passengers shift at the margin towards lower-carbon modes. It remains to be seen if the short-term impact of the COVID-19 crisis result in discernible changes in travel behaviour over the longer term – e.g. business conferences, tourism.
- 4.28 In light of this uncertainty, it is proposed to **focus EIB Group support on improving existing airport capacity** through safety and security projects, rationalisation and explicit decarbonisation measures such as the greening of ground service fleets and innovation for decarbonising aircraft. Support would therefore be withdrawn from **airport capacity expansions and conventionally-fuelled aircraft**.
- 4.29 **Road infrastructure.** The decarbonisation pathway for the road sector involves modal shift, efficiency improvements, increased electrification, as well as the increased use of alternative fuels (bio-fuels, low-carbon hydrogen). This is driven in part through tightening emissions standards for new vehicles. As discussed in chapter 2, market development is encouraging, with battery costs having fallen by an order of magnitude over the last decade. As a result, electric vehicles are verging on becoming cost competitive with conventional technologies in some segments of the market.
- 4.30 Road infrastructure plays a key role in the efficient movement of goods and people due to the flexibility that road transport provides. As such, a high quality road network helps drive regional economic growth and employment. However, the stock of road infrastructure is unequally distributed across Europe. A legacy of low levels of investment over several decades, particularly prior to EU membership, translates into a need for investment into further development of today's TEN-T network. Elsewhere, although the TEN-T network may be well-developed, poor maintenance and low investment is deteriorating the quality of the infrastructure.
- 4.31 Dealing with this problem requires a broad set of policies including promoting the shift to lower carbon transport modes. Effective road management and charging systems can help allocate road capacity efficiently and reduce damage to the environment. In addition, even within a broad set of environmentally sound policies, specific investment in the roads network can have a zero or even positive impact on carbon emissions due to improved traffic flow. The challenge is to identify the investments that support economic growth whilst not increasing road traffic generating significant GHG emissions. Moreover, because of their potential impact on the natural environment and local communities, any such investments must be subject to public consultation and proper environmental and social assessments.
- 4.32 In light of these considerations, the EIB needs to find an efficient tool to screen projects. This needs to account for the fact, in the short term, adding capacity²² to the road sector can generate additional emissions, potentially for several decades until the vehicle stock has fully decarbonised. Given the relatively clear sectoral pathway, an adapted **economic test provides a solid framework** to confirm the alignment of such projects, particularly when the road corridor is being developed with due attention to the provision of alternative fuel infrastructure charging.

²² As opposed to rehabilitating a road network.

- 4.33 The EIB already employs a robust cost-benefit framework to appraise large²³ road projects. This is explained, for instance, in the EIB Guide to Economic Appraisal. However, in order to ensure alignment, this framework will be adapted. **Demand forecasts will be adapted** in line with recognised long-term modelling studies²⁴, with due attention to penetration rates of electric vehicles. Net emissions from the project will be valued at a **shadow cost of carbon** which in turn is consistent with the path towards the 2050 climate neutrality target. The shadow cost of carbon values proposed for the EIB are presented in the following section – *paragraphs 4.62 to 4.66*.
- 4.34 Through this approach, the EIB Group will continue to support the **development of the core and comprehensive TEN-T road network** in the EU, and strategic road corridors outside, where there is a strong justification for doing so. At the level of an individual project, the net effect of this approach is to weaken the overall economic case of projects dependent on high short-term traffic growth (with resulting emissions). It will result in the EIB continuing to support robust TEN-T projects that meet the adapted economic test, including in regions where the network remains relatively underdeveloped.
- 4.35 The EIB Group will **continue support for projects designed to improve existing traffic flows, rehabilitation projects**, or projects with **strong safety elements**. In the case of small roads, it is proposed to continue supporting investments within the context of a sustainable urban mobility and regional development plans.
- 4.36 **Cars, vans and trucks.** In developing a coherent approach towards alignment of the road sector, it is necessary to consider both infrastructure and vehicles. The EIB Group finances vehicles largely as part of its support towards SMEs and mid-cap corporates. A natural case can be made for the EIB Group to focus support on vehicles meeting the recommendations set out for making a **substantial contribution under the EU Taxonomy**. In the current context of the economic downturn, and notably the difficulties of many smaller companies, it is proposed to adopt the recommended values for “Do No Significant Harm” criteria for cars, vans and trucks across MBIL-type products. This amounts to limiting support to below fleet average: under 95 gCO₂ per km for passenger vehicles; 147 gCO₂ per km for light commercial vehicles; and below reference CO₂ emissions for trucks per subgroup (in gCO₂ per tonne-km). Applied on a vehicle-by-vehicle basis, this ensures that the EIB Group supports the more efficient (and smaller) half of the new fleet.
- 4.37 **Maritime and inland waterways.** Waterborne transport remains on average the least carbon-intensive mode of transport and an essential link in sustainable multimodal freight supply chains. In order to support multimodality and an optimal use of low-carbon modes, investments remain required in both marine and inland waterway infrastructure as well as in intermodal facilities. The EIB Group will therefore continue to **support port and inland waterway infrastructure** and related facilities, with the exception of facilities dedicated to the transport and storage of fossil fuels.
- 4.38 The EIB Group will also continue to support the transition of the marine and inland waterway fleet towards a low- and zero-carbon trajectory with the financing of both new builds and the retrofitting of existing vessels. As the maritime sector is not yet covered under the EU Taxonomy, the **EIB will continue to support LNG fuelled vessels** (recognising that there is currently no viable zero or lower carbon alternative for most shipping segments and the positive impact of LNG on environmental

²³ The term large and small is used to refer to projects with an investment cost of more than, or less than, EUR 25m respectively.

²⁴ This includes, but is not limited to, European Commission’s 2018 “Clean Planet for All” report.

pollution compared to conventional fuels) but will withdraw support for vessels powered by conventional heavy fuel oil.

INDUSTRY, INCLUDING RDI

- 4.39 The manufacturing sector is responsible for approximately one-fifth of GHG emissions in the EU, notably from energy intensive industries such as the manufacturing of iron and steel, cement and chemicals. Whilst responsible for emissions, the sector also produces products and technologies that can contribute to reducing emissions in other sectors of the economy.
- 4.40 The EIB Group does not support industry per se. Rather, support rests on addressing **market failures** associated with **innovation, environmental and carbon externalities**. Nearly 90% of EIB lending to industry supports an RDI objective, with the remaining 10% supporting wider environmental objectives. As set out in Chapter 2, the EIB Group will focus on innovative low-carbon technologies, as well as transitional projects.
- 4.41 As a result of the focus on addressing market failures, the EIB Group will not support new capacity in energy-intensive industry based on **traditional high-carbon processes without abatement technologies** (e.g. coke-based blast furnace primary steel production, fully fossil-based production of chemicals, plastics or nitrogen fertilizer facilities). In the case of **existing conventional EII plants**, by contrast, the EIB Group support is motivated by **energy efficiency** considerations, **circular economy** or **pollution reduction**. By modernising the plant, such an investment may extend considerably the life of the asset, inadvertently slowing transition to lower-carbon alternatives. To help mitigate this risk, it is therefore proposed to support investments that have an **economic life running out before 2035** – i.e. well in advance of the 2050 date by which the sector should be operating on a net zero basis. That said, this “window” for renovating conventional plants is expected to close relatively quickly over the coming years, with the longer-term policy being to focus exclusively on low carbon alternatives.
- 4.42 In the case of **industrial heat production**, facilities reliant on natural gas boilers (or oil, if gas is not available) will be supported if they are energy efficient. Industrial processes reliant on coal, peat or oil (where natural gas is available) will not be supported, except through the strict conditions for modernising energy intensive industries set out in the paragraph above.
- 4.43 In the case of **research and development**, the EIB Group will continue to provide support, except in areas that are linked to non-eligible activities. For example, the EIB Group will no longer support RDI motivated exclusively to support conventional high-emission technologies (e.g., the internal combustion engine or fossil-fuel based propulsion systems in the maritime and aviation sectors).

BUILDINGS

- 4.44 Similar to industry, buildings are directly responsible for around one-fifth of GHG emissions, largely from space heating and hot water use. Taken together with electricity consumed within buildings, this share rises to over one-third. The EIB Group support to buildings is motivated across a range of public policy goals: environment (energy efficiency or urban regeneration programmes), infrastructure (hospitals, social housing), innovation (e.g. university buildings) as well as SMEs.
- 4.45 Within the EU, all building projects – renovation or new build - are required to comply with the EU Energy Performance of Buildings Directive, which has been transposed by Member States into national building codes. In the case of renovations, this requires meeting cost-optimum refurbishment levels. In the case of constructing new buildings, this relates to nearly zero-energy buildings (NZEBs). Noting a very similar recommendation under the EU Taxonomy, the EIB Group will rely on compliance with

the Energy Performance of Buildings Directive to ensure alignment. Buildings directly associated with fossil fuels will no longer be supported.

BIO-ECONOMY (AGRICULTURE AND LAND USE)

- 4.46 It is projected that by 2050 the global population will increase to 10 billion, with a rise in demand for food by up to 50%. Agriculture will play a central role in ensuring sustainable development and food security. Within the EU, the agricultural sector currently accounts for approximately 10% of total GHG emissions, of which just over one-half relates to **methane associated with livestock**. More generally, the bio-economy can act both as a source and a sink of GHG emissions. Natural carbon sinks include forests, wetlands and peatbogs. Changing land use can degrade or improve these natural sinks.
- 4.47 The agricultural and forestry sectors are considered under the EU Taxonomy. It proposes a range of criteria to ensure that activities do not significantly harm the ability of agricultural and forestry land to store carbon and avoid emissions through land conversion or unsustainable practices that release carbon stored over long periods in the soil. The EIB will incorporate this approach, ensuring activities **do not expand into areas of high carbon stocks or high biodiversity value**. As the EU Climate Bank, two additional safeguards are proposed – one to address more directly the bulk of the agricultural emissions stemming from the meat and dairy industry; the other to provide coherence with the approach towards the aviation sector.
- 4.48 Given the importance of livestock as a source of emissions, it is proposed to focus support on meat and dairy industries **adopting sustainable animal rearing methods** that **contribute to improved GHG efficiency** as compared to best industry standards/benchmarks. For example, this would include investments supporting farm to fork strategies and animals raised organically or cattle under grazing systems. In this context, sustainability refers to a range of impacts: socio-economic, environmental, resource efficiency and animal welfare.
- 4.49 A second safeguard follows from the concerns discussed earlier about the decarbonisation pathway for the aviation sector. It is therefore proposed to no longer support **export-orientated agro-business models** that **focus on long-distance air transport** for commercialisation. This measure would exclude investments dependent on the international shipping of fresh, perishable agricultural goods through long-haul air cargo.

OTHER

- 4.50 **Water.** The EIB Group will continue to support all water projects that meet its wider eligibility criteria. In the case of desalination plants, which can be energy intensive, the EIB will only support projects that are demonstrably the last resort to address water security issues.
- 4.51 **Solid waste management.** As set out in the Energy Lending Policy, waste incineration plants must meet the EIB's emissions threshold (i.e. 250g CO_{2e} per kilowatt-hour of electricity) and apply the principles of the waste hierarchy. For other activities, the EIB will continue to support all solid waste management projects that meet its wider eligibility criteria. As set out in Annex 2, particular requirements are set out for mechanical biological treatment facilities.
- 4.52 **Digitalisation and ICT infrastructure.** In light of the position discussed in *paragraph 4.22* on services reliant on electricity, the EIB will support the development and deployment of latest technology ICT infrastructures and services.

APPROACH OUTSIDE THE EU

- 4.53 This section turns to operations outside the EU, in recognition of the principle of common but differentiated responsibilities and respective capacities set out in Annex 1. This is of particular relevance in the case of least developed countries²⁵ (LDCs) and small island developing states²⁶ (SIDs). Moreover, the objectives of external mandates, and the impact of the Paris alignment on these mandates, are particularly relevant for the EIB activity outside the EU.
- 4.54 In broad terms, the EIB will apply the same principles established under the alignment framework to **all its operations globally**. It is not proposed to introduce specific carve-outs. However, where the EIB principles are defined in reference to EU legislation, it is clearly necessary to **interpret this principle within a non-EU context**. This interpretation is set out in the subsequent paragraphs.
- 4.55 The Energy Lending Policy applies to EIB operations globally. In the case of power generation, this reflects the recognition that sources of renewable electricity are cost competitive globally, including in LDCs. In the section above, it is argued that, given the alignment of the electricity sector within the EU, it follows that activities reliant on electricity are also aligned. Outside the EU, investment in new power generation may or may not be aligned to low carbon goals. If not, this raises the question as to how to view alignment of **activities reliant on electricity**. Deeming all such activities as non-aligned would amount to withdrawing EIB support to large parts of the national economy e.g. metro systems, railways, SMEs etc. This approach would run counter to the spirit of the Paris Agreement. Rather, in such circumstances, it is proposed to continue to support downstream activities reliant on electricity, and instead focus the EIB support on assisting public and private sector operators to decarbonise the power sector.
- 4.56 This reasoning is difficult to maintain, however, for new projects which imply a significant increase in national power demand – imagine a new **large-scale data centre** in a country with a coal-dominated power system. If so, it is proposed to require sourcing of power in line with the EIB Energy Performance Standard. This is a credible option: green power purchase agreements are available in almost all countries. In the case of projects motivated primarily by water or food security, however, this could be subject to a derogation.

Interpretation within the local context

- 4.57 More generally, there are several aspects to the alignment framework set out for the EU which pertain to EU regulation and standards. Outside the EU, these need to be interpreted in the local context. For instance, in the **road sector**, the approach set out in *paragraph 4.29* towards the integration of alternative fuelling infrastructure, and approach towards decarbonising road transport more broadly, will be calibrated to the local context. In the case of **vehicles**, it is noted that any possible future revision above the proposed emission threshold aligned with DNSH criteria is likely to take place for EU operations earlier (foreseen in 3 years) than outside the EU.
- 4.58 In the case of **buildings**, the principles set out in *paragraph 4.44* will be interpreted by requiring new buildings to achieve international or best local construction standards, and building rehabilitations to

²⁵ The current UN list comprises 47 countries and is available here:

<https://unctad.org/en/pages/aldc/Least%20Developed%20Countries/UN-list-of-Least-Developed-Countries.aspx>

²⁶ The current UN list comprises 58 states and is available here: <https://sustainabledevelopment.un.org/topics/sids/list>

achieve high-energy performance standards. For major renovations, this can be implemented by requesting energy efficiency audits or appropriate certification schemes.

- 4.59 In the case of support in the industrial sector set out in *paragraphs 4.40 to 4.42*, due attention will be given to regional industrial decarbonisation prospects.
- 4.60 In the case of the **meat and dairy industry**, the interpretation of the *paragraph 4.47* would be regionally dependent. In particular, for projects in countries with vulnerable food supply systems, benchmarking of GHG emissions on local best practice, rather than international best standards. This would apply in particular to smallholder and agriculture microfinance schemes or agro-food industries that target local demand.
- 4.61 Finally, it is important to emphasize that a derogation to this general alignment framework can always be made on a case-by-case basis. A strong case can be made to prioritise carbon-intensive projects to more vulnerable communities and regions of the world, particularly when being traded off against immediate need for secure food or water supply.

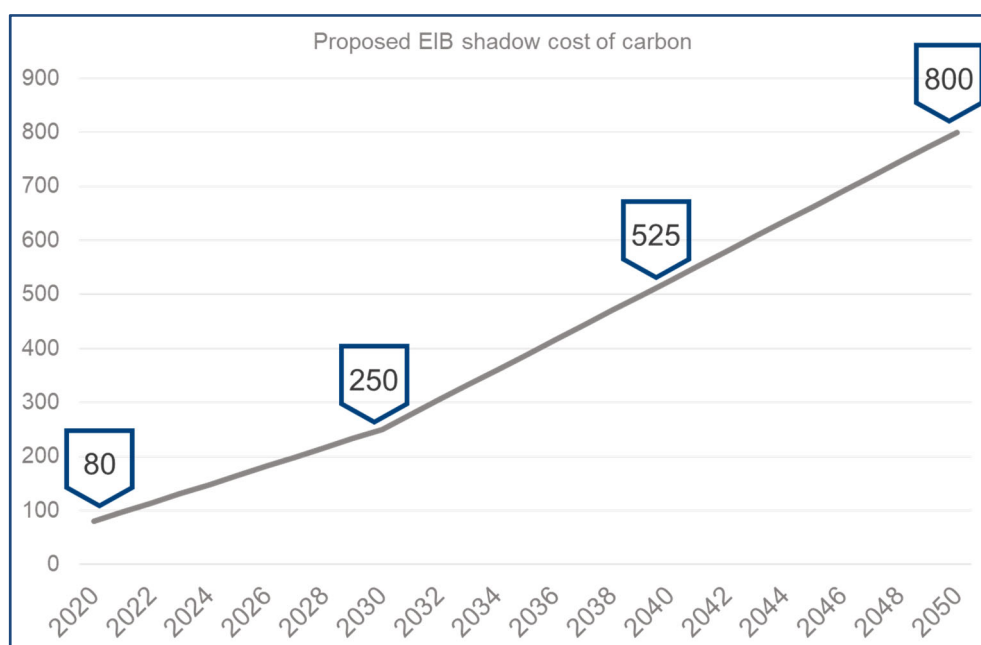
THE SHADOW COST OF CARBON WITHIN THE LOW CARBON FRAMEWORK

- 4.62 The text above has made reference to the use of the economic test, and the shadow cost of carbon in particular, as part of the overall approach to ensuring alignment. This is particularly at the fore in the case of new road capacity. This section updates the EIB shadow cost of carbon, in line with the modelling results consistent with a 1.5°C target. Further details can be found in Annex 5.
- 4.63 As published in the EIB Climate Strategy, and as noted in the [Energy Lending Policy](#), the current EIB carbon values are based on studies that pre-date the Paris Agreement. As part of the Energy Lending Policy, the EIB therefore committed to “*continue to monitor the evidence around carbon pricing consistent with the Paris temperature targets and adjust as necessary...*”. The EIB has conducted a review of the evidence on carbon prices needed to meet a 1.5°C target, and, relatedly, a net-zero GHG emissions target by 2050. This overlaps in large part with the evidence reviewed as part of the [IPCC Special Report on Global Warming of 1.5°C](#).
- 4.64 On the basis of these modelling results, it is proposed to increase the EIB shadow cost of carbon to the timepath shown in *Figure 4.4*. This shows the value – measured in 2016 euros – of an emission of GHG through to 2050. These values are close to the recommendation of a recent study by [France Stratégie](#), which has subsequently been adopted to assess public sector projects in France.
- 4.65 These values refer to the “shadow cost of carbon”, i.e. the full cost to the economy of saving or emitting a tonne of carbon. This is helpful for cost benefit analysis. However it remains a benchmark result, reflecting a model in which a single instrument (carbon tax) is used to meet a given emission reduction target over time. In practice, carbon taxes (or cap-and-trade schemes) are usually only one of a much wider range of supportive climate policy instruments adopted by governments (e.g. technical standards, renewable energy support schemes, etc.). Where the “heavy lifting” of emissions reduction is done through these other instruments, the residual role for a carbon tax or cap-and-trade scheme is likely to be duly limited. This explains why the “shadow cost of carbon” is higher than the results from studies modelling the full range of policy instruments (as in, for example, the study that

supported the European Commission’s Communication “A Clean Planet for all”²⁷). The different headline results are complementary, simply reflecting different modelling approaches.

- 4.66 Adopting these unit values will strengthen the economic case for the EIB Group projects that save carbon (at a cost below this shadow rate) and penalise those that increase emissions (and thus require abatement elsewhere at the shadow cost). Moreover, this change in one parameter value – the shadow cost of carbon – can be seen in the wider context of improving the economic and financial analysis of projects in the context of a pathway to net-zero GHG target. As illustrated in the case of road appraisal, a consistent approach is required between demand forecasts, baseline or reference scenarios, as well as the valuation of changes in emissions.
- 4.67 The EIB will continue to monitor closely best practice in this area, using the economic and financial assessment of projects as a key tool to support the EIB’s alignment and climate-related risk frameworks set out in the previous chapter. The latest analysis on what is an appropriate shadow cost of carbon will be reviewed on an annual basis and the cost adjusted accordingly (both up and down). Details of the monitoring will be reported to the Board annually, and any changes presented to the Board for approval.

Figure 4.4 – Proposed EIB shadow cost of carbon 2020 to 2050 (in €_2016 per tonne of CO2e)



ALIGNING NEW PROJECTS WITH CLIMATE RESILIENT DEVELOPMENT

- 4.68 The second dimension of alignment concerns climate resilience. Climate change is already having profound consequences on all regions and across all sectors of the world. The EU is not a “safe haven”. Climate-related losses in the EU amounted to €300 billion over the last two decades. By the end of the century, climate-related disasters could affect about two thirds of the EU population annually, with losses alone from flooding in excess of €1 trillion per year in a high emission scenario. Even in a more

²⁷ See In-Depth Analysis in Support of the Communication from the European Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank – A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy – COM/2018/773 final. Available at: https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_analysis_in_support_en_0.pdf

moderate scenario, damage to Europe's critical infrastructure could increase ten-fold, to €34 billion per year.

- 4.69 The world is already locked into largely irreversible climate change for the next decades, even in optimistic scenarios. This means that adaptation is required, while further mitigation buys more time. To be aligned to a climate resilient future, EIB investments need to be fit to operate in world with a changing climate.
- 4.70 In order to ensure this, the EIB has mainstreamed a climate-risk management tool into its project appraisal. The **Climate Risk Assessment (CRA) system** was introduced in 2019 to provide a systematic assessment of the physical climate risk in direct lending. The CRA system is a business process that helps the EIB and its clients understand how climate change may affect their projects and identify adaptation measures.
- 4.71 The CRA system includes two levels of screening and a more detailed assessment for projects ranked at risk. An initial screening is performed automatically when an operation is created, based on the sub-sector and country of operation. In the case of high or medium risk, a second more detailed screening takes place before appraisal to identify project vulnerabilities. During the appraisal process, a more comprehensive climate risk and vulnerability assessment is carried out to determine to what extent physical climate risks have been taken into account by the project promoter and what adaptation measures have been integrated in the project. At the end of the process, an estimate is made of the residual physical climate risk of the operation.
- 4.72 Climate services, data and advanced projections of future climatic changes are crucial for climate resilient development. Through the CRA, the EIB cooperates with public and private climate service providers and leverages the latest findings in climate science (for example through the Coupled Model Intercomparison Project, new earth system models, and hazard databases) for the benefit of clients and its own decision-making.
- 4.73 The **CRA is the cornerstone of the EIB's alignment framework in what concerns climate resilient development**. It draws on robust climate data and is based on high emission scenarios to allow for future socio-economic development and account for inherent uncertainties of climate models. However, it concerns the project alone and it is important to situate the project within the **wider strategic context** of climate resilience of the system it is a part of, as set out in regional or national climate resilience plans. For instance, within the EU, such plans are now required at the national level and are reflected within the National Energy and Climate Plans and the national adaptation strategies. In developing countries, Nationally Determined Contributions (NDCs) and national adaptation plans identify investment priorities in support of long-term climate resilience. In practice, urban and water projects are typically already routinely relating projects to wider resilient plans. Over time, this wider aspect will need to be systematically tackled across all projects to ensure that EIB investments support broader resilience goals in line with clients' priorities.
- 4.74 Moving forward, the EIB will strengthen its effort to ensure that all the operations it supports are adapted to current weather variability and future climatic changes to ensure consistency with the DNSH criteria to the adaptation objectives of the EU Taxonomy for sustainable finance, as recommended by numerous stakeholders in response to the Climate Bank Roadmap consultation process. This will be done through **adequate project-level management of physical climate risk** – as assessed by the EIB's CRA system, and consistent with a broader strategic context of climate resilience. This approach will cover all sectors vulnerable to the negative effects of climate change, including

agriculture, buildings, energy, forestry, transport, urban development, water and wastewater management, and industry.

- 4.75 This development will be done within the wider context of the general MDB approach towards alignment to climate resilient goals of the Paris agreement.

IMPLEMENTATION ACROSS NEW OPERATIONS

- 4.76 The alignment framework presented thus far refers exclusively to projects. This is natural – the proceeds of an EIB investment loan are directed towards a defined project. However, even in the case of an investment loan, the EIB enters into a contractual relation with a counterparty that may be engaged in a range of wider activities. Some of these wider activities may not be consistent with the EIB’s project alignment framework. This raises the issue as to how the EIB treats alignment of the counterparty rather than the project per se. This is treated in the first section below.
- 4.77 Secondly, the EIB Group has a wide range of intermediated products, including loans, securitisation, guarantees and equity funds. Several are targeted to support SMEs and midcaps. It also engages in advisory assignments with a wide range of public and private counterparts. It is necessary to apply the framework set out in the context of projects into standard EIB Group intermediated products. This is treated in the second section below. The final section considers treasury operations.

COUNTERPARTIES

- 4.78 As set out above, the EIB may have the opportunity to support an aligned project (e.g. a low-carbon investment) with a counterparty that, in its wider corporate activities, is engaged in activities that might not be supported under the EIB alignment framework. This situation has already arisen in the context of the Energy Lending Policy²⁸. In such cases, the decarbonisation plans of the borrower (or parent company) are included as part of the overall Board report on the project.
- 4.79 The EIB Group is currently working to develop **counterparty alignment guidelines**. In the meantime, the EIB Group will continue with its existing approach anchored in an assessment of the relevant corporate decarbonisation plans of high emitting counterparties to be presented in the Board report. The guidelines will be presented to the EIB and EIF Board in 2021.

APPLICATION OF THE PARIS ALIGNMENT FRAMEWORK ACROSS EIB GROUP PRODUCTS

- 4.80 **Direct lending operations.** In the case of **direct loans or guarantees**, the EIB will implement the alignment framework set out above with regard to the project itself, overlaid in due course by the counterparty dimension. In contrast to an investment loan, **framework loans** typically cover a wide range of assets or programmes. In general, these loans will need to comply with the EIB Group project-based alignment framework. However, given the wide-ranging nature of many programmes, verification of compliance could be delegated to the intermediary, at least where the promoter’s capacity has been established to a sufficient degree at appraisal stage. Verification for some sectors may need to be performed by EIB services at allocation stage.

²⁸ As part of the Energy Lending Policy [Issues Matrix](#) (see section 2.14), it was confirmed that the EIB engages with clients about their overall investment plan and “alignment with the EU decarbonisation objectives and the EC Action Plan on Financing Sustainable Growth, including with regard to the quantification and disclosure of climate-related risks.”

- 4.81 **Advisory assignments.** The EIB Group will only undertake advisory assignments consistent with the alignment framework set out above with respect to the underlying project.
- 4.82 **Intermediated operations.** The EIB Group supports projects through a wide range of partner financial institutions: commercial banks, public financial institutions (such as national promotional banks and institutions), equity and debt-funds. The next paragraphs describe the approach of the EIB Group with respect to different intermediated products, distinguishing between low-carbon and climate-resilient alignment. In general, it is the partner financial institution which is responsible for ensuring compliance with EIB Group principles and standards. The assessment of underlying sub-projects and/or sub-loans is conducted by the financial intermediary based on agreed contractual documentation.

Low carbon alignment

- 4.83 In terms of alignment to low-carbon goals for **MBILs and other intermediated products of a similar nature**, much of the alignment framework set out above (e.g. large-scale steel manufacturing) is of limited direct relevance. In line with the principles of proportionality, therefore, the alignment for such products will focus on three sectors: (i) energy, through implementation of the EIB's energy lending policy; (ii) mobile assets for transport services in line with *paragraphs 4.25* on public transport, *4.36* on cars, vans and trucks and *4.38* on ships above²⁹, with exception towards airports and air transport, which will be excluded based on NACE codes; and (iii) energy-intensive industries, by excluding support towards industries included in the TEG report (basic iron and steel, plus associated downstream activities, aluminium, basic chemicals, cement and plastics). Exclusions based on NACE codes under point (ii) and (iii) would not apply to clearly defined investments in climate action or environmental sustainability activities, e.g. under dedicated MBIL climate action and environmental sustainability windows.
- 4.84 **Funds.** For Infrastructure Funds, the EIB Group will only support funds whose strategy is fully aligned with the EIB Group framework. For other funds and similar investments, depending on the targeted investments, the EIB Group will consider product alignment as described above for MBILs and other intermediated products of a similar nature. The capacity of the Fund to ensure this will be assessed by the EIB Group at the appraisal stage.

Climate resilience

- 4.85 In terms of resilience, the EIB Group is developing an approach to integrate systematically climate resilience considerations into the due diligence process for financial intermediaries. This approach aims to include a screening of the financial intermediaries' internal processes and systems and cover aspects such as the existence of climate strategies or plans and adequate coverage of physical climate risk and adaptation as well as clear procedures, responsibilities and management and reporting systems. Where appropriate, the EIB will seek to support intermediaries to develop such systems, in line with the spirit of the EU Taxonomy.

TREASURY OPERATIONS

- 4.86 The EIB Group commitment concerns all financing activities, including treasury operations. The EIB has therefore developed a methodology to integrate environmental factors, including climate, into its investment process for long-term treasury investments. This methodology relies on two layers:

²⁹ Mobile assets will be deemed 'supported' if, for these assets, no criterion has yet been established under the EU Taxonomy.

exclusion criteria for conventional bonds³⁰ for sectors with high environmental risks including but not limited to mining, oil and gas, steel, cement, aviation and favouring best-in-class issuers.

- 4.87 This second layer of the methodology is based on a best-in-class approach. All issuers are evaluated in comparison with their peers against environmental criteria. This evaluation is based on third-party environmental scores. According to the best-in-class approach, bonds are purchased only from issuers whose sustainability rating is among the top 75%, with the highest scores being allowed the highest potential allocation in the investments.

CLIMATE CHANGE-RELATED RISK MANAGEMENT

- 4.88 Managing climate, environmental and social risks are a matter of good banking practice. For climate, there is a risk that, as economic activities decarbonize, non-aligned assets will become stranded or that they are impacted by natural disasters worsened by climate change. This is a financial risk for EIB operations and can negatively impact on the financial position of counterparties. Climate change risks include both physical risks and transition risks.³¹ Similar environmental and social risks exist for the EIB's activities. The EIB Group is integrating climate, environmental and social risks in its risk management processes and activities. As set out in the introduction to the chapter, this text focuses on climate only. However, as stressed in Chapter 5, the forthcoming revision of the EIB Environmental and Social Policy Framework will embed the climate dimension within a more holistic approach to sustainable finance, in line with the [EU Taxonomy Regulation](#).

Project level

- 4.89 The alignment framework ensures that the EIB only supports projects which are aligned to a pathway to low carbon and climate resilient development. This is the core safeguard to manage climate-related risks. This overall framework is underpinned by detailed climate-related due diligence of the proposed projects to support the financing decision, identifying risks, key mechanisms to mitigate the risk and assessing the overall residual risk.
- 4.90 As set out in *paragraph 4.70* above, the EIB uses a Climate Risk Assessment (CRA) system to screen, assess and report on the climate related physical risks in its direct lending operations. Moreover, it provides a basis to improve the project's resilience to future climate change. Transition risks for new projects are managed first and foremost by the alignment framework, de facto excluding support to project with a high transition risk. This is further supported by the economic appraisal of all eligible projects. For further details, see Annex 3 on climate and environmental risk management at project level.

Counterparty level

- 4.91 In line with developing regulations and supervisory recommendations, the EIB Group has started to strengthen its capabilities to manage the financial risks from climate change (in stock and flow) by developing counterpart-level climate risk assessment models. This links closely with the work set out

³⁰ Conventional bonds in this context refers to bonds where the use of proceeds are set to "general corporate purposes".

³¹ Physical risks originate from the physical impacts of climate change, such as extreme weather events, land degradation desertification or sea level rise as well as disruption in the balance of ecosystems leading to an adverse ecological change in soil quality or the marine environment. Transition risks stem from the rapid global shift of the economy and society to a resilient and low-carbon scenario, or from efforts to address environmental changes leading to policy changes, reputational impacts, and shifts in market preferences, norms and technology.

in *paragraph 4.78* above with regard to assessing alignment of counterparties. Climate risk screening tools have been developed for each of the EIB's main credit segments³² to assess the climate risk for its counterparties (rather than projects), and for the EIF's equity portfolio.

4.92 Initially, the climate risk screening tools will be used for portfolio monitoring as well as internal reporting and disclosures (see Chapter 5). They will provide transparency on the EIB Group's exposure to climate risk and allow informed risk management decisions. The EIB is also developing country- and sector-specific climate change risk scores, modelling both physical and transition risk for all countries where the EIB Group operates.

Portfolio level

4.93 As of end-2019, the EIB manages a portfolio of approximately 7,500 operations, with more than 4,000 counterparties with a total signed exposure of approximately €560 billion³³, including €65 billion loans granted in 106 different countries outside the EU. Climate change risks in the portfolio have been assessed by approaching the portfolio as an aggregation of projects and as an aggregation of counterparties. The climate change risks for the credit portfolio will be assessed through the aggregation of the results of the climate risk-screening tools for counterparties.

³² (i) Corporates, (ii) Financial Institutions, (iii) Public Sector Entities, (iv) Sub-sovereign Public Authorities, (v) Project Finance, and (vi) Equity.

³³ Borrower exposure, excluding State exposures.

Chapter 5. BUILDING STRATEGIC COHERENCE AND ACCOUNTABILITY

INTRODUCTION

- 5.1 In order to deliver on the actions laid out in the previous chapters – to accelerate the transition through green finance (Chapter 2), to support a ‘just transition’ and socially inclusive approach (Chapter 3), and to ensure that EIB Group financing activities are aligned with the goals and principles of the Paris Agreement (Chapter 4) – it is important to have a coherent EIB Group approach. This approach must also address all remaining implementation activities under the EIB Climate Strategy, ensure robust and timely delivery of all EIB Group Paris alignment activities, and allow for learning and improving. The EIB Group approach will be based on **three underpinning and essential cross-cutting aspects: (i) policy**: setting out how the EIB Group climate-related activities fit within the wider context of sustainable finance and overall environmental and social sustainability; **(ii) transparency, accountability and quality assurance**; and **(iii) institutional support**. The latter includes (a) the Paris alignment of internal operations, (b) outreach, partnerships and knowledge sharing, (c) external and internal communication, and (d) human resources management.

A COHERENT APPROACH TO POLICY

SUSTAINABLE FINANCE FRAMEWORK

- 5.2 The EIB Group will be working within a sustainable finance framework. This requires a full integration of environmental, climate and social considerations across the EIB Group’s activities and processes, as well as a focus both on the management of environmental, climate and social risks and impacts, and on the pursuit of opportunities to generate benefits and/or positive environmental and social outcomes. This framework is structured in such a way as to mirror important parts of the EU and international efforts on sustainable finance, including the European Commission’s action plan for financing sustainable growth. The sustainable finance agenda is also a key part of the European Green Deal. In this section, two key aspects of the sustainable finance approach are dealt with, the EIB Group’s use of the EU Taxonomy and its planned approach for climate- and nature-related disclosures.

ALIGNMENT WITH THE EU TAXONOMY

- 5.3 In line with its Board decision of November 2019, the EIB Group will start tracking its progress towards its new green finance commitments on 1 January 2021, for reporting annually on signatures starting with 2021. **The EIB Group, as the EU Climate Bank, will align its tracking methodology for climate action and environmental sustainability (“green”) finance with the framework defined by the EU Taxonomy Regulation³⁴, as this develops over time.** Whilst aligning with the EU Taxonomy, both in its approach and technical criteria, the EIB will also remain within its externally audited tracking system for climate finance, which is harmonised with other IFIs and necessary for reporting on international climate finance to OECD and UNFCCC.
- 5.4 Migrating to the EU Taxonomy will include, the application of its logic and structure related to determining a substantial contribution (SC) to the six environmental objectives, doing no significant harm (DNSH) to any of the six objectives and meeting minimum social safeguards (MSS). These three

³⁴ The EU Taxonomy Regulation covers six environmental objectives: (i) climate change mitigation, (ii) climate change adaptation, (iii) sustainable use and protection of water and marine resources, (iv) transition to circular economy, (v) pollution prevention and control, and (vi) protection and restoration of biodiversity and ecosystems.

important elements of the EU Taxonomy are laid out in more detail in the next sections and the phased approach to their adoption, taking account of the development of the EU Taxonomy itself over time and of transition processes that the EIB Group will need to follow.

Substantial Contribution

- 5.5 The EIB has a well-established, robust tracking system for climate action, based on clear definitions of substantial contributions to both climate change mitigation and adaptation³⁵. These definitions follow the MDB-IDFC³⁶ Common Principles³⁷, to which the EIB contributed from the very early stages and form a key part of the EIB Climate Strategy.
- 5.6 Based on these publicly available definitions, the EIB discloses its climate action lending figures publicly every year, in particular in the [EIB Group Activity Report](#) and the [EIB Group Sustainability Report](#). Additional climate finance data is provided each year for [the joint MDB Climate Finance report](#) as well as for climate finance reports published by the European Commission and the OECD. The EIB climate action project-level data is subject to external audit through the annual EIB Group Sustainability Report and is published at project level. It is expected that the external auditors will cover all EIB Group data from 2022, i.e. in the audit of 2021 data.
- 5.7 In migrating to the EU Taxonomy, adjustments will be needed to the current climate finance tracking system to ensure that the EU Taxonomy technical screening criteria are reflected in the EIB definitions and related internal guidance. However, the proposed EU Taxonomy for climate change mitigation and adaptation does not yet cover all sectors and activities. Therefore, in this case, the EIB’s definitions and approach will continue to apply the joint MDB climate finance methodology, whilst staying within the logic and structure of the Taxonomy (see Annex 4).
- 5.8 The expected revisions to EIB’s climate action definitions, based on TEG March 2020 proposals, have been compared to the current tracking. They are based on past volumes and would suggest a small overall positive impact on the lending volumes counted as climate action in the future. The table below provides an overview of the main differences between the old and new (from 2021 - EU Taxonomy aligned) definitions and an indication how this may impact climate finance volumes by sector and activity type.

Table 5.1 – Overview of expected impact of new Taxonomy-aligned climate action definitions: comparison with EIB climate finance definitions (harmonised with MDB joint methodologies) in recent years

Sector	Activity (including upstream RDI)	Revision to align with Taxonomy	Impact compared to current EIB definitions
Energy	Electricity transmission and distribution (T&D)	Wider eligibility making the majority of investments eligible	↑
	Combined Heat & Power plants	Tighter restriction at 100g/kWh	↓

³⁵ The list of climate action eligible activities for mitigation plus the 3-step, process-based approach for adaptation are available on the [EIB website](#).

³⁶ The International Development Finance Group (IDFC) is a group of 26 development finance institutions, which includes KfW, the German state-owned development bank, and AFD, the French Development Agency.

³⁷ Common Principles for Climate Mitigation Finance Tracking: <https://www.eib.org/en/registers/all/72425144>
Common Principles for Climate Adaptation Finance Tracking: <https://www.eib.org/en/registers/all/72422921>

Transport	Land transport (buses, trains) and inland waterway	Tighter definitions with GHG emissions threshold introduced.	↓
Industry	Energy Intensive Industry	Need to support ETS benchmarks	...
Buildings	New buildings	Threshold to exceed NZEB (aligns with EIB Energy Lending Policy)	---
Water	Wastewater	Wider eligibility included	↑
	New supply	Eligibility for highly-efficient systems	↑
Waste	Solid waste management	Mechanical biological treatment (MBT), incineration and gas capture in new landfills to be excluded	↓

- 5.9 The EIB Group climate action tracking for intermediated financing, including but not limited to that for SMEs, will continue to be supported through simplified approaches, based robustly on climate action definitions. It will be widened to include environmental sustainability, to support tracking by the EIB Group and also allow for ease of reporting by intermediaries. In line with feedback received as part of the Climate Bank Roadmap stakeholder engagement process, the EIB Group plans to work with bank networks to support financial intermediaries in their adoption of the EU Taxonomy. When working with new mandates for which criteria may differ from the EU Taxonomy, the EIB Group will work to establish reporting approaches that minimise differences from EIB standard reporting, and will remain within EIB Group’s own definitions, whilst providing necessary information needed for the mandates.
- 5.10 Since the technical screening criteria for substantial contribution to the four, other environmental objectives defined in the EU Taxonomy will not be established in a delegated act before the end of 2021, the EIB Group will develop **interim definitions**, to enable the comprehensive tracking of **Environmental Sustainability** finance from the start of 2021. The EIB has a strong track record of financing projects in the environmental sector or with specific environmental focus as recorded under its Environment Public Policy Goal (PPG). The new tracking system and associated interim definitions are expected to facilitate origination and prioritization of environmental sustainability investments, accelerating financing in the areas contributing to the new EIB’s climate action and environmental sustainability target. The application of a preliminary set of interim definitions to past projects indicate the potential impact of this new tracking in different sectors (see Table 5.2).

Table 5.2 - Expected scope of new environmental sustainability definitions identified in different sectors

Sectors	Comment
Agriculture, fisheries, forestry	Potential for increasing investment volumes in circular economy and biodiversity elements of “agri-food” projects through their early identification in the appraisal process.
Industry & Services	Significant potential for increase of investments on circular economy and pollution prevention and control components (both in manufacturing and research and development).
Solid waste	Some potential but limitations due to the restrictions in the traceability of some categories of waste projects in contributing towards circular economy.
Transport	Potential for investments contributing to the pollution prevention objective (other than carbon emissions) and for investments in specific components contributing to water and biodiversity objectives, through their early identification in the appraisal process.
Urban development	Large and previously untapped potential for buildings to contribute to water, circular economy and possibly biodiversity objectives.

Water, sewerage	Investments in the water sector already represent EIB's biggest contribution to environmental objectives. The dedicated water objective under the EU Taxonomy will offer increased potential for prioritisation inside and outside of the EU.
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5.11 The interim definitions will be based on the principles and framework defined in the EU Taxonomy Regulation and on the experience gathered by the EIB in contributing to the TEG work on the EU Taxonomy for climate change mitigation and adaptation. In addition, the EIB has already engaged in a dialogue with the European Commission and other key players in the context of the Sustainable Finance Platform mandated to define the technical screening criteria for substantial contribution to all environmental objectives. This will provide useful guidance to the EIB Group to ensure a conservative approach is adopted in its final choice of interim definitions to be adopted for 2021³⁸. An adjusted set of environmental sustainability definitions will then be needed for these four objectives when the relevant delegated act is published at end of 2021.

Do No Significant Harm (DNSH) and Minimum Social Safeguards (MSS) aspects of Green Finance

5.12 The EIB has in place a comprehensive Environmental and Social (E&S) Policy Framework, which is in line with the DNSH and MSS logic of the EU Taxonomy. It comprises the following components:

- (i) an overarching Policy Statement articulating the key E&S principles to which the EIB holds itself accountable, the content of which is a combination of mandatory and aspirational elements;
- (ii) a set of E&S Standards, which are mandatory in their application to promoters and clients and are aimed at ensuring that any EIB financed operation does not cause significant environmental and/or social impacts nor have any significant E&S risks. The EIB E&S Standards³⁹ have been developed in line with international practice and in regular coordination with the other MDBs.

5.13 The EIF's responsible investment approach is summarised in the EIF Environmental, Social and Corporate Governance (ESG) Principles. Competence, compliance, diligence and responsible conduct are key to the success of EIF's business. ESG principles also form part of the general due diligence process via standard undertakings requested in contractual documentation on internal controls and in particular, on EIF's Policy on Restricted Sectors. In particular in the equity space, the EIF regularly acts as cornerstone investor and takes a hands-on approach, through the regular participation in investor committees. In this role, the EIF actively promotes a dialogue with its counterparts on its general policy framework and mission requirements. Further, as part of an enhanced ESG framework, the EIF is implementing as of 2020 ESG questionnaires across all of its product lines to assess current ESG practices of financial intermediaries.

5.14 In summary, the EIB Group operations already undergo a due diligence process with quality assurance and public reporting, to verify that the equivalent of SC, DNSH and MSS criteria are met throughout the project cycle or operation. The EIB Group will further work on the revision of its E&S principles to ensure the new technical criteria defined through the delegated acts are properly integrated into the existing due diligence process. Alignment of the EIB Group definitions and technical criteria with the EU Taxonomy will therefore require a phased transition, which will follow the planned timeframe

³⁸ The proposed approach for climate action and environmental sustainability tracking definitions is attached in Annex 4.

³⁹ The EIB E&S Standards also include specific Climate-related Standards.

provided below. New definitions for substantial contribution will apply to all new signatures from January 2021.

- 5.15 Importantly, it should also be noted that the Paris alignment framework for new operations laid out in the previous chapter will help ensure that the DNSH criteria of the EU Taxonomy is met for all climate change mitigation and adaptation activities supported by the EIB Group.

Table 5.3 – Climate Action and Environmental Sustainability definitions - EU Taxonomy alignment transition plan

By January 2021	<ul style="list-style-type: none"> • EIB Group <u>climate action</u> definitions to align with the EU Taxonomy Substantial Contribution criteria as per the related Delegated Act • Interim <u>environmental sustainability</u> definitions in line with the EU Taxonomy logic and principles
By January 2022	<ul style="list-style-type: none"> • Refine interim <u>environmental sustainability</u> definitions to align with the EU Taxonomy Substantial Contribution criteria as per the related Delegated Act • Refine internal documentation to ensure alignment with Do No Significant Harm criteria for activities substantially contributing to <u>climate objectives</u>
By June 2022	<ul style="list-style-type: none"> • Refine internal documentation to ensure alignment with Do No Significant Harm criteria for activities substantially contributing to the remaining four <u>environmental objectives</u> <u>and</u> all other EIB Group investments • Refine internal documentation to ensure alignment with Minimum Social Safeguards requirements for climate action and environmental sustainability <u>and</u> all other EIB Group investments
Beyond January 2022	<ul style="list-style-type: none"> • Continue updating the definitions on regular basis taking account of the on-going work of the EU Sustainable Finance Platform

The EU Sustainable Finance Platform and the International Platform on Sustainable Finance

- 5.16 The EIB Group will be a permanent Member of the **EU Sustainable Finance Platform**, which will take over the work of the European Commission’s TEG to continue work on the climate-specific criteria of the EU Taxonomy and to develop criteria for the remaining four environmental objectives, and later for social objectives.
- 5.17 The EIB is also actively involved as an Observer in the **International Platform on Sustainable Finance** created in 2019. The International Platform on Sustainable Finance is a forum to strengthen international cooperation and, where appropriate, coordination on approaches and initiatives for the capital markets (such as green taxonomies, disclosures, standards and labels).

CLIMATE- AND NATURE-RELATED FINANCIAL DISCLOSURES

- 5.18 The EIB is a formal supporter of the Task force on Climate-related Financial Disclosures (TCFD). The EIB is now working on implementing the first set of disclosures. The EIF will further assess the applicability of TCFD disclosure principles on its intermediated business model in the course of 2021 and how to appropriately integrate this in the EIB Group’s reporting.
- 5.19 Going forward, the EIB Group will further review its disclosure practices in order to address the key principles on sustainability-related disclosures as set out in the EU Regulation 2020/852 on the

establishment of a framework to facilitate sustainable investment (Taxonomy Regulation) that entered into force in July 2020.

- 5.20 Furthermore, the European Commission is currently reviewing the Non-Financial Disclosures Directive (Directive 2014/95/EU) that requires companies with more than 500 employees to report on environmental, social and governance related matters. In this context, the EIB has been nominated as a member of the Project Task Force on preparatory work for the elaboration of possible EU non-financial reporting standards.
- 5.21 In May 2019, the World Wildlife Fund (WWF), together with AXA, submitted a report to the G7 Environment Ministers, laying out the financial risks from biodiversity loss and calling for the establishment of a taskforce on how to measure them. Natural capital disclosure is still in its nascence, despite the fact that businesses and their investors have already been exposed to its financial impacts. The launch of a Taskforce on Nature-related Financial Disclosure (TNFD) is planned for early 2021 and will be tasked with delivering a framework to guide nature-related financial disclosure by the end of 2022. As with the climate-related disclosures, the recommendations related to nature-disclosure will feed into the review of the EU Non-Financial Reporting Directive (Directive 2014/95/EU). Through its involvement with the EU Sustainable Finance Platform, the EIB Group will provide its support to the initiative and will review in 2022 how to implement the relevant disclosure requirements in alignment with the new TNFD.
- 5.22 In the light of the above and guided by best banking practice (BBP), the EIB Group remains highly committed to transparency and openness on climate- and nature-related financial disclosures (see more details on this in the section below on transparent reporting and accounting tools).

DEVELOPING AN INTEGRATED SUSTAINABILITY POLICY FRAMEWORK

- 5.23 The EIB has several important policy elements in place to support climate action and environmental sustainability. More specifically, it has an Environmental and Social (E&S) Policy Framework, with specific E&S Standards, adopted in 2013, and a Climate Strategy, adopted in 2015. Going forward, the ambition of the EIB Group is to move towards a more integrated sustainability policy framework. As part of that process, both the E&S Standards and the Climate Strategy need to be updated. This will lead to a stronger and systematic integration of climate, environmental and social actions into the EIB Group's policies and standards.

EIB GROUP ENVIRONMENTAL, CLIMATE AND SOCIAL POLICY AND EIB STANDARDS

- 5.24 The EIB Group is in the process of further developing its E&S Policy Framework to address the new policy developments, emerging environmental and social issues, incorporating lessons learned and meeting the changing needs of its clients and promoters. The new E&S Policy and the revision of the EIB E&S Standards, including updating the climate-specific standard, will be publicly consulted on during 2021. Assessing alignment and consistency between EIB standards and the EU Taxonomy requirements will be an integral part of this revision.
- 5.25 In developing this framework, the EIB Group looks to support and contribute to the evolving EU framework on sustainable finance and takes this as the operating framework through which it contributes to environmental and social sustainability. This framework requires a focus both on the management of environmental and social risks and impacts, and on the pursuit of opportunities to generate positive environmental and social outcomes, as outlined in Chapter 2. More generally, this

requires the mainstreaming of environmental, climate and social considerations into its decision-making process.

- 5.26 The EIB Group will continue to maintain an active role in the EU and international policy dialogue and adjust the EIB's policies, standards, procedures and guidelines when required.

CLIMATE STRATEGY

- 5.27 As an important first step in the policy framework and to make sure that the 2015 Climate Strategy remains fit for purpose at the start of 2021, it will be updated to bring its language in line with the Paris Agreement wording, and to incorporate the new EIB Group climate action and environmental sustainability targets.
- 5.28 The Climate Bank Roadmap builds on the implementation of the EIB 2015 [Climate Strategy](#), during the period 2016-2020. The Climate Strategy remains the cornerstone of EIB's approach. It is structured around three strategic action areas for the EIB's climate action: (i) reinforcing the impact of EIB climate financing; (ii) increasing resilience to climate change; and (iii) further integrating climate change issues across all EIB standards, methods and processes. The new EIB Group commitments are in large part driven by the reflections made during 2019 as part of internal review of progress to the end of 2018 on implementing the Climate Strategy.
- 5.29 The worsening climate situation, as corroborated by scientific evidence,⁴⁰ as well as increasing external expectations have enhanced the need for speed and scale in EIB Group action on climate change. Such developments have also widened out the focus to address the environmental and biodiversity emergencies, synergies with social development and a "just transition and socially inclusive approach" across the whole EIB Group. The updated Climate Strategy will provide a key input to the holistic review of the EIB Group's Environmental, Climate and Social Policy, which will consider options such as an overarching Social Development Policy and a combined Climate and Environment Policy.

A COHERENT APPROACH TO TRANSPARENCY, ACCOUNTABILITY AND QUALITY ASSURANCE

TRANSPARENT REPORTING AND ACCOUNTABILITY ON CLIMATE, ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

- 5.30 The integration of climate, environmental and social issues throughout the EIB Group's activities relies on the progressive introduction and regular revision of good practices, to ensure the EIB Group's standards, processes and methodologies remain at the forefront.
- 5.31 The EIB will make continuous improvements to and develop additional climate, environment and social risk management tools to assess physical, transition and systemic risks at project, portfolio and counterparty levels, where relevant. In addition to measures already outlined in this Roadmap, future work will include:
- (i) the establishment of an integrated climate, environment and social risk management tool (at project level);
 - (ii) the development of Climate and Environmental, Social and Governance (ESG) risk scores (portfolio and counterparty level);
 - (iii) the development of social impact indicators;

⁴⁰ In particular the recent IPCC reports.

- (iv) the integration of relevant externalities and appropriate baselines into the economic appraisal;
- (v) the adoption of life cycle assessment methodologies in the design, production and use of products and assets, where applicable; as well as
- (vi) the refinement and enhancement of tools, indicators, criteria and methodologies for the calculation, estimation and reporting of both GHG emissions of investments, projects, sectors, and where needed also Short-Lived Climate Pollutants (SLCPs), and of climate-resilience metrics.

5.32 The EIB will continue to work with other International Financial Institutions (IFIs) and the EU to develop harmonised approaches for the relevant methodologies. As the Climate Strategy requires a focus on high impact investments, these tools will also contribute to a development of indicators and prioritisation efforts to ensure the EIB Group resources are used to achieve high positive climate impact for both mitigation and adaptation, and high environmental and social impact.

5.33 The EIB Group will also seek to generate the data necessary to track progress in meeting its commitments through further development of climate and environment impact measurement, performance standards and reporting systems. In the area of alignment with the goals and principles of the Paris Agreement in particular, the EIB Group will carry out further work to allow for reporting on climate impact of intermediated financing. Identification of high impact investments and action areas for both climate change adaptation and climate change mitigation, using improved methodologies and tools, will contribute to the quality of the portfolio, the integrity of its policy alignment, and transparent and robust reporting in line with the EU Sustainable Finance Regulation, the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the relevant directive and regulations such as the Non-Financial Reporting Directive.

5.34 As a public institution, the EIB Group is committed towards working as transparently as possible. The EIB Group Transparency Policy sets the underlying principles and procedures for access to information and stakeholder engagement. This includes disclosure obligations fully in line with the principle of openness, presumption of disclosure, non-discrimination and equal treatment. Environmental and climate-related information are an integral part of the information routinely disclosed by the EIB Group, through, inter alia, the [EIB Group Sustainability Report and Sustainability Reporting Disclosures](#)⁴¹, the [EIB Activity Report](#) and the [EIF Annual Report](#), the [EIB Group Carbon Footprint Report](#), the [EIB Statistical Report](#), the [EIB Group Risk Management Disclosure Report](#), the [EIB Group Environmental Statement](#)⁴², or the [CAB](#) and [SAB Frameworks](#).

CLIMATE BANK ROADMAP MONITORING AND ASSESSMENT

Overview

5.35 A coherent EIB Group approach must include a results framework that will allow the EIB Group to assess, manage and monitor progress, and to evaluate and transparently report on the impacts and outcomes of its activities related to the Climate Bank Roadmap, both to its shareholders and other stakeholders. This results frameworks must allow the EIB Group to continuously improve its practices

⁴¹ The EIB Group Sustainability Reporting Disclosures are prepared in accordance with both the Global Reporting Initiative (GRI) standards and the Sustainability Accounting Standards Board (SASB) framework.

⁴² This EIB Group Environmental Statement is prepared in accordance with the EU Eco-Management Audit Scheme (EMAS).

and policies over time; adapting the actions to take account of the lessons learned, the changing political and legal requirements, best banking and market practices, and scientific knowledge.

Process

- 5.36 The EIB Group will establish a results framework to (a) be able to monitor and report on the progress in the implementation of the Climate Bank Roadmap, and (b) to assess its overall impact.
- 5.37 The outputs and activities proposed under the Climate Bank Roadmap will be monitored and reported through **regular progress reports** to the EIB and EIF Boards of Directors. This will build on the existing reporting framework for the EIB Group activities⁴³ and on the project assessment framework. Reporting will also build on the EIF's mandate and product development procedures and the policy objective's framework.
- 5.38 Key outputs will include (a) **yearly progress reports** on the Climate Bank Roadmap; (b) a **mid-term review**, to be carried out in 2023, to take stock and to consider necessary adjustments for the remainder of the implementation period, and (c) an **assessment report**, to be carried out in 2024, to go beyond output monitoring and allow the EIB Group to assess the adequacy of the Climate Bank Roadmap. The latter will include recommendations to inform the next iteration of the Climate Bank Roadmap, for the subsequent 5-year period, and to adjust the underlying environment, climate and social policy framework, as appropriate. This approach to reporting and assessing the progress under the Climate Bank Roadmap will enable the EIB Group to provide increased accountability to the EIB and EIF Boards of Directors and stakeholders.

Learning from experience

- 5.39 The EIB Group's independent evaluation function is mandated to evaluate initiatives in all areas of activity of the EIB Group and may, therefore, include an evaluation of the Climate Bank Roadmap implementation as part of its future work programme. Such an evaluation would contribute to improving the EIB Group's performance by identifying what worked well, and what did not; thus holding the institutions accountable, whilst at the same time promoting learning from experience. This, in essence, would help establish a robust 'feedback loop' for the implementation of the Climate Bank Roadmap.

A COHERENT APPROACH TO INSTITUTIONAL SUPPORT

- 5.40 Several additional, "institutional" elements are designed to complete the EIB Group efforts of Paris alignment of financing activities and to support the Climate Bank Roadmap from an institutional perspective.

PARIS ALIGNMENT OF INTERNAL OPERATIONS

- 5.41 The EIB Group has worked successfully over many years to reduce its internal carbon footprint, to develop robust reporting on its progress and, where and when necessary, to compensate residual emissions related to its internal operations⁴⁴. However, this is only part of the story. As the EU Climate

⁴³ For more details on this, please refer to previous section on Transparent Reporting and Accountability on Climate, Environmental and Social Risks and Impacts.

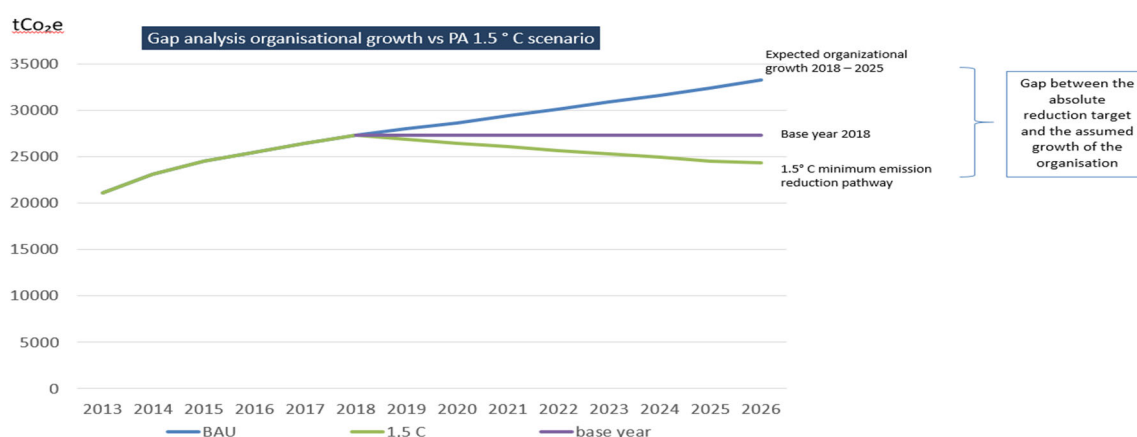
⁴⁴ For the carbon footprint of its internal, corporate activities in Luxembourg, the EIB Group uses the GHG Protocol methodology to ensure year-on-year consistency in its direct and indirect emissions, which include business travel and

Bank, the EIB Group will continue to reduce the impact from its internal activities and set ambitious objectives and targets to improve its environmental performance going forward.

5.42 In accordance with the goals and principles of the Paris Agreement, the EIB Group has defined the necessary emission reduction pathway to guarantee the long-term alignment of its internal operations with a 1.5°C global warming scenario. This pathway is defined using a common methodology based on independently verifiable scientific calculations.

5.43 The resulting absolute emissions abatement pathway (see Figure 5.1 below) shows that, compared to base year 2018, a reduction of approximately 12% is needed until 2025. Compared to a “business-as-usual (BAU) scenario”, which assumes that the organisation will grow and that its emissions will increase between 2019 and 2025, the required reduction effort increases to approximately 30% for the same year. This means that some structural changes will be needed in the next five years, to engage on an emission abatement pathway that is commensurate with new scientific evidence and with the EU 2050 decarbonisation strategy.

Figure 5.1 – EIB Group GHG emissions abatement pathway



5.44 With support from staff, over 100 measures ensuring this structural change have been collected in a dedicated roadmap. These range from the use of awareness tools⁴⁵ and the implementation of increasingly energy efficient equipment and buildings, to the introduction of alternative workplace strategies. Other initiatives concern the inclusion of circular and low carbon requirements in purchases of supplies and services, the implementation and promotion of smart tools to increase the efficiency of video conferencing and teleworking, as well as alternatives to support and encourage the shift from carbon intensive business travel and commuting to low carbon mobility options, to name a few.

5.45 Detailed carbon and financial calculations show it is technically and financially feasible to bridge the gap between the absolute emission reduction pathway 2025 and the assumed growth of the organisation related emissions in a business-as-usual scenario. COVID-19 has forced a new way of working - seizing this moment of change by putting climate awareness at the heart of the “new Normal”, facilitates an accelerated implementation of the initiatives.

employee commuting. The EIB Group continues to reduce its CO₂ emissions and compensate for any remaining and unavoidable emissions through the purchase of high-quality carbon credits.

⁴⁵ Primarily, tools designed to make EIB Group management and staff aware of their carbon emissions and resource usage profile.

5.46 In 2018, the EIB Group successfully implemented an Environmental Management System (including Green Public Procurement) in accordance with the [EU Eco-Management Audit Scheme \(EMAS\)](#). The [EMAS framework](#) enables the EIB Group to monitor, evaluate, report and continually improve its internal environmental performance in a holistic manner. This includes a broad range of areas, including not only the reduction of CO₂ emissions, but also the use of energy, water waste, among other objectives⁴⁶. The actions undertaken as part of the Climate Bank Roadmap will ensure that data and information flows are embedded across the EIB Group's environmental programmes.

OUTREACH, PARTNERSHIPS AND KNOWLEDGE SHARING

Outreach

5.47 The EIB Group engages daily with a large number of stakeholders, among which the EU institutions, EU Member States and other shareholders, Partner Countries, institutional partners, public and private sector, civil society, universities, think-tanks and the public at large. This engagement is critical to raise awareness and support for the EIB Group activities in general and a pre-requisite for the institution to deliver on its ambitious climate action and environmental sustainability objectives.

5.48 The extensive network of EIB Group offices, both in and outside the EU, plays a key role in the institution's outreach efforts, serving to reinforce the dialogue with the EU Member States and Partner Countries, including with representatives from the public and private sectors, as well as ensuring coordination and alignment with the European Commission Representations and Delegations locally.

5.49 In addition, by engaging with Civil Society, the EIB Group improves public knowledge and trust. In turn, this dialogue helps to inform the institution's policies and strategies, as evidenced by the particularly important role played by Civil Society Organisations in the EIB Group regular public consultations.

Partnerships

5.50 The EIB Group fosters cooperation initiatives with its partners, aiming to implement a coordinated approach to the climate action and environmental sustainability challenges. These take the form of both technical and institutional collaborations. In particular, partnerships with other MDBs, DFIs, NPBs, United Nations bodies, the OECD or the European Central Bank, to name only a few, actively contribute to inter-institutional relations that support the advancement of the climate action and environmental sustainability agendas, including in what concerns the objective to support the mobilization of private capital.

5.51 The [EIB Institute](#) has created the EIB Climate Change Policy and International Carbon Markets Chair at the European University Institute and, with other sponsors, the Chair on Sustainable Development and Climate Transition at Sciences Po. It supports related academic research in 14 universities through its EIBURS, STAREBEI and CAPSTONE programmes and its annual EIB Summer School (70 postgrads from 10 EU universities) will be dedicated to EIB Group climate action.

Knowledge sharing with the international community

5.52 The EIB Group will continue to generate and share knowledge relevant to the climate action and environmental sustainability agenda with its partners and the public at large. This includes the knowledge derived from the institution's track record on these sectors; its pioneering role in the development of the green capital markets; and its economic research capabilities, including

⁴⁶ For more details on this, please refer to the [EIB Group EMAS Environmental Policy](#) and annual [Environmental Statements](#).

macroeconomic issues related to climate change. Many of the knowledge sharing opportunities derive from the EIB Group active participation in technical partnerships, some of which have been described previously in the Climate Bank Roadmap.

- 5.53 In what concerns macroeconomic issues related to climate change, the EIB Group objective is to build on and share the knowledge gained from operational experiences and economic research to, among others, improve the performance and scale-up clean energy and energy efficiency investments necessary for the energy transition to a carbon-neutral economy. Its recommendations will be grounded on the insights gained from the past years of economic research into climate issues and the collaboration with the EIB Group's clients, research institutes and MDBs around the world that are working to strengthen their operations through robust knowledge sharing. It will build on prior analytical work, progressively developing new databases at the macroeconomic level, on investment in climate change, exposure of sovereigns to climate risks, as well as the development of new survey based data sources.

EXTERNAL AND INTERNAL COMMUNICATION

- 5.54 From 2021 to 2025, the EIB Group will showcase its Climate Bank Roadmap in action to its internal and external audiences. The EIB Group will communicate on new climate and environmental projects signed and implemented during the period 2021-2025. It will participate in international meetings and climate- and environment-related events, ensuring visibility for the Roadmap and promoting its key messages.
- 5.55 The EIB Group's communication activity will develop in line with the milestones of the Climate Bank Roadmap and highlight the EIB Group's progress in reaching its goals, as well as answering questions from civil society and media about challenges along the way. It will also illustrate the EIB Group's support for the transition to a greener world and its contribution to global awareness and action on climate and environment.
- 5.56 To achieve these goals, the EIB Group will engage in innovative and creative communication activities that will rely on networks, partnerships and third-party ambassadors, as well as on in-house expertise. The EIB Group will produce compelling content to highlight the relevance and impact of the EIB Group Climate Bank Roadmap and will deliver it through various channels. Content will range from briefing material and key messages available to EIB Group representatives to media engagement and placement of opinion pieces in newspapers. Publications, blog stories, essays, podcasts and videos will be a key part of the communication plan to ensure outreach to EIB Group stakeholders and various audience segments. Social media will be an important channel to engage with these audiences, and some channels – such as the EIB Instagram account – may become exclusively dedicated to climate.
- 5.57 Upcoming public consultations on the revised E&S Policy Framework as well as key lending policies linked to climate action and environmental sustainability (such as transport) present excellent opportunities to engage with EIB Group stakeholders. In addition, the EIB Group will plan for the design and release of new editions of the EIB Climate Survey to highlight its role as the EU Climate Bank.
- 5.58 In parallel, the EIB Group will undertake a communication campaign targeting internal audiences. This will include products such as articles, multimedia materials, challenges and events exclusively for internal purposes, as well as awareness-raising activities and initiatives geared toward turning EIB staff into "green advocates". The internal communication campaign will revolve around three pillars: EIB Group climate and environmental action; EIB Group progress in improving its own climate and

environmental management internally; and the promotion of climate- and environment-friendly personal lifestyle choices.

HUMAN RESOURCES MANAGEMENT: BUILDING CAPACITY, ENHANCING SKILLS AND DEVELOPING LEADERSHIP

- 5.59 The EIB Group staff is its most valuable asset and will remain a fundamental element to achieve the institution's ambitious climate and environmental sustainability objectives for the next decade. Through dedicated communications, training and management support, the EIB Group intends to make sure its entire staff, from top to bottom, are committed to these same objectives and understand the part they have to play, both within the institution and in the communities they live in, to meet the challenges at hand.
- 5.60 Through the Climate Bank Roadmap, the EIB Group will put in place several initiatives to enhance its human resources management, considered necessary to fulfil the new climate action and environmental sustainability ambition. These initiatives are organised around three work streams: 1) ensuring that EIB Group staff have the necessary tools and skills to deliver on the strategy; 2) utilising existing resource and capacity planning processes to ensure the appropriate resources are in place; and 3) reviewing key human resources policies and processes with an impact on the institution's own climate and environmental performance.
- 5.61 Concrete examples of these initiatives include:
- Reviewing and improving existing leadership culture and management models (e.g. talent management and performance management), to ensure enhanced leadership and organizational effectiveness in building and sustaining bank wide commitment at all levels to align with and mainstream its climate action and environmental sustainability strategic goals;
 - Further developing its current staff skills and competences on climate action and environmental sustainability by making available tailored and comprehensive training and capacity building offerings on these topics;
 - Skills development for front line staff to build confidence and competence to deal effectively with their clients and customers on climate and environment related topics;
 - Attracting and retaining the necessary new and additional staff, in order to ensure adequate staff resources for the implementation of the Climate Bank Roadmap; and
 - Analysis of the impact of key human resources policies and processes (e.g. teleworking and travel policy) on the EIB Group's own climate and environmental performance.

Chapter 6. IMPLEMENTATION

- 6.1 This chapter provides an **overview of the next steps** for implementing the Climate Bank Roadmap. The first section summarises the key elements to ensure that the EIB Group can fulfil its commitments starting in January 2021, and describes the proposed arrangements for the transition period. The second section recaps on the activities that the EIB Group proposes to implement from 2021 to 2025 to achieve its new commitments. The last section looks at next steps, in particular for monitoring and assessing progress.
- 6.2 As indicated in Chapter 1, the Climate Bank Roadmap is **an iterative planning tool** over the long-term to help the EIB Group fulfil its new commitments. It may be strengthened and expanded, based on the experience gained during its implementation.

IMMEDIATE STEPS

- 6.3 As explained in previous chapters, three key elements need to be in place to start implementing the Roadmap and track progress. They are:
1. a new framework to ensure the alignment of EIB Group operations with the goals of the Paris Agreement, underpinned by an updated carbon pricing policy to ensure that the institution appropriately supports the EU's effort to limit global warming to 1.5°C and to become carbon-neutral by 2050;
 2. a strengthened and widened system to track EIB Group climate action and environmental sustainability finance, in line with the EU Taxonomy; and
 3. an updated Climate Strategy, to ensure policy coherence, bring its language in line with the Paris Agreement's wording and incorporate the EIB Group's new commitments.
- 6.4 Since the Board's decision in November 2019, the EIB Group has established the key elements in time to start implementing the Roadmap and monitor progress from January 2021. These key elements constitute the "bedrock" for all the other activities under the Roadmap.
- 6.5 Ensuring the alignment of all operations with the goals and principles of the Paris Agreement represents a significant change for the EIB Group. In order to manage that change, the EIB Group will continue to approve projects already under appraisal – and possibly deemed non-aligned as per the new framework – until the end of 2022. For the purposes of tracking, accounting and reporting climate action and environmental sustainability finance, the enhanced system will be applicable to all operations signed as of 1 January 2021.

IMPLEMENTATION PHASE

- 6.6 To support the fulfilment of its new commitments, the EIB Group is in the process of revising its previous action plans⁴⁷. This section provides an overview of the structure of the new **Action Plans**. Logically, this structure revolves around the four main workstreams of the Roadmap – (1) accelerating the transition through green finance; (2) ensuring a just transition for all; (3) supporting Paris-aligned operations; and (4) building strategic coherence and accountability.

⁴⁷ In 2017, 10 Action Plans were approved by the EIB Management Committee to support the implementation of the Climate Strategy. The Board has been regularly informed about progress.

- 6.7 The Action Plans are conceived as **an internal planning tool to ensure progress in all areas**, as they articulate the interpretation of the new climate action and environmental sustainability commitments across the different EIB Group services involved and the activities needed to achieve those commitments. They are an internal document as they spell out specific actions and deliverables by each relevant team.
- 6.8 The two first Action Plans will support the **first workstream** of the Roadmap **on accelerating the transition through green finance** inside and outside the EU.
- **Action Plan 1: Investing and supporting policy development in specific focus areas. Eleven focus areas** will underpin the projects supported by the new level of ambition of EIB green finance. The EIB Group will develop its approach to each particular area and review it over time.
 - **Action Plan 2: Developing business, financial and advisory products, and mobilising additional finance.** During the initial phase of the Roadmap, the EIB Group will seek to:
 - a) Further engage with EU Member States, national authorities and key stakeholders across the world to review how the EIB Group can best address national policy priorities and investment needs;
 - b) Develop origination activity in order to guide project pipeline building;
 - c) Strengthen and expand the EIB Group’s offering in terms of advisory services, technical assistance for project development and financial products, including intermediated lending, green loan and green debt products, equity, funds and other innovative financial products designed to help develop higher-risk technologies and catalyse funding from other sources. Particular focus will be given to instruments applicable for regions facing the largest challenges in the energy transition; and
 - d) Extend the scope of the EIB Group’s CABs and SABs.
- 6.9 Two Action Plans will sustain the second workstream of the Roadmap on ensuring a just transition for all.
- **Action Plan 3: Supporting the Just Transition Mechanism.** The EIB will revert to the Board with a comprehensive proposal when the EU has agreed key aspects. These are expected in 2021. As part of this comprehensive package, the EIB Group will examine ways to reinforce delivery including through dedicated internal structures.
 - **Action Plan 4: Social development and climate change across the globe.** Social development aspects will be considered within wider internal measures to develop business, with particular emphasis on the aspects of gender, conflict and migration.
- 6.10 The next three Action Plans will sustain the **third workstream** of the Roadmap **on supporting Paris-aligned operations**.
- **Action plan 5: Aligning all new operations with the goals and principles of the Paris Agreement.** In 2021 the EIB Group will present a counterpart alignment framework for approval to the Board. As part of the mid-term review of the Climate Bank Roadmap (see below), the EIB Group will review its support to vehicles in light of the global pandemic. In line with the Paris Agreement 5-year ‘ratcheting mechanism’ cycle, the full Paris alignment framework will be comprehensively reviewed in 5 years’ time. This does not preclude the need for minor technical adjustments in the intervening period, or adjustment as part of revisions to EIB sector lending policies.

- **Action Plan 6: Integrating climate risks into the EIB Group risk management framework.** As described in Chapter 4, the EIB Group will enhance its climate-related risk management approach, at project-, portfolio- and counterparty-level, again with a view to supporting the projects and counterparties that are vulnerable to the negative effects of transition and physical climate change risks. The EIB Group will develop operational guidance to integrate climate risks into its core risk, credit and portfolio management processes.

6.11 The last five Action Plans will support the fourth workstream of the Roadmap on building strategic coherence and accountability.

- **Action Plan 7: Aligning climate action and environmental sustainability definitions with the EU Taxonomy and enhancing climate- and nature-related disclosures.** As detailed in Chapter 5, the EIB Group will follow the series of actions outlined to ensure compliance with the emerging EU Taxonomy regulation.
- **Action Plan 8: Developing and integrated sustainability policy framework.** The EIB Group will continue working on developing its environmental and social policy framework, including integrating the Climate Bank Roadmap. The new policy will be consulted on during 2021. This workstream will also include improvements to climate, environment and social risk management tools.
- **Action Plan 9: Establishing a results framework.** As described in Chapter 5, the EIB Group will establish a solid results framework to report on and assess the implementation of the Climate Bank Roadmap. This framework will be presented by the end of 2021.
- **Action Plan 10: Ensuring a coherent approach to institutional support.** The EIB Group will continue enhancing the institutional elements that are key to delivering on its climate action and environmental sustainability targets, as laid out in Chapter 5.

NEXT STEPS

6.12 Based on a results framework to be established by the end of 2021, the EIB Group will prepare **progress reports** every year to update its governing bodies on the implementation of the Climate Bank Roadmap. This will include a review of the shadow cost of carbon, as described in *paragraph 4.67*.

6.13 The EIB Group will also carry out a **mid-term review** of the Climate Bank Roadmap in 2023, to take stock of the progress made and to consider necessary adjustments for the remainder of its implementation period.

6.14 Building on the mid-term review, the EIB Group will then conduct an **assessment** of the Climate Bank Roadmap in 2024. Recommendations resulting from this exercise will inform revisions or modifications for the subsequent implementation period (i.e., 2026-2030). This is based on the assumption that there will be another iteration of the Climate Bank Roadmap, for a subsequent 5-year implementation period, in accordance with the next iteration of the Paris Agreement's 5-year 'ratchet mechanism' cycle.

EIB Group Climate Bank Roadmap 2021-2025

Annexes

November 2020

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Annex 1. CONTEXT

OVERVIEW

- 1.1 This annex places the Climate Bank Roadmap into context. It starts with a brief review of the global environmental challenges, before summarising the central global policy response through the landmark Paris Agreement, and, within the European Union, through the European Green Deal.
- 1.2 It then turns to the role that the EIB Group, as the EU Climate Bank, can play in principle in supporting policy efforts to tackle climate change – including in cooperation with partner Multilateral Development Banks (MDBs) in the context of the Paris Agreement – and foster environmental sustainability, emphasizing its long-term perspective and ability to support core investment through a range of instruments.
- 1.3 Finally, it places the Climate Bank Roadmap into the context of sustainable finance. The chapters of the Climate Bank Roadmap on accelerating the transition through increasing EIB Group support towards climate action and environmental sustainability (Chapter 3), or ensuring that all new financing activities are aligned to the principles and goals of the Paris agreement (Chapter 4), can be seen as part of sustainable finance more broadly.

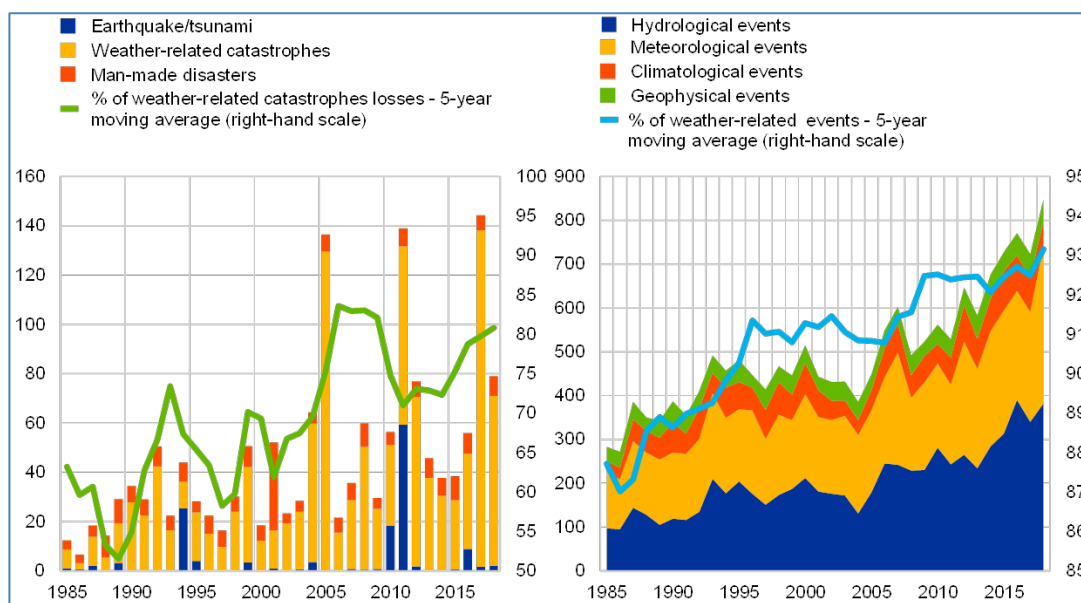
THE CRITICAL DECADE AHEAD

- 1.4 **Global temperatures continue to rise.** The latest [Global Climate Report](#) shows that 2019 was the second warmest year in the last 140 years, with a global land and ocean surface temperature 0.95°C above average. This is just shy of the +0.99 °C record set in 2016. The five warmest years in the 1880-2019 record have all occurred since 2015, while nine of the ten warmest years have occurred since 2005. The year 2019 marks the 43rd consecutive year (since 1977) with global land and ocean temperatures above the 20th century average.
- 1.5 **Developing economies are likely to be hit hardest.** According to the World Bank, climate change could result in an additional 100 million people living in extreme poverty by 2030.¹ While climate change concerns all countries, developing economies and particularly poor population groups are among the most vulnerable. Climate change multiplies threats, creating new obstacles for development and poverty reduction. Some of the world's least developed regions are facing the combination of socio-economic vulnerability and geographical exposure to climate change, for example in areas that are low-lying or prone to floods or droughts. Climate impacts will increase food and water shortages, and have cascading effects, aggravating conflict, forced migration, fragility and increase mortalities. Developing countries with more diversified economies are at risk, too, because access to financial services, technology and innovation are important barriers to adaptation.

¹ World Bank 2016: Shock Waves. Managing the Impacts of Climate Change on Poverty. Available online [here](#).

Figure 1 – Global insured catastrophe losses (left panel) and number of relevant natural loss events worldwide (right panel)

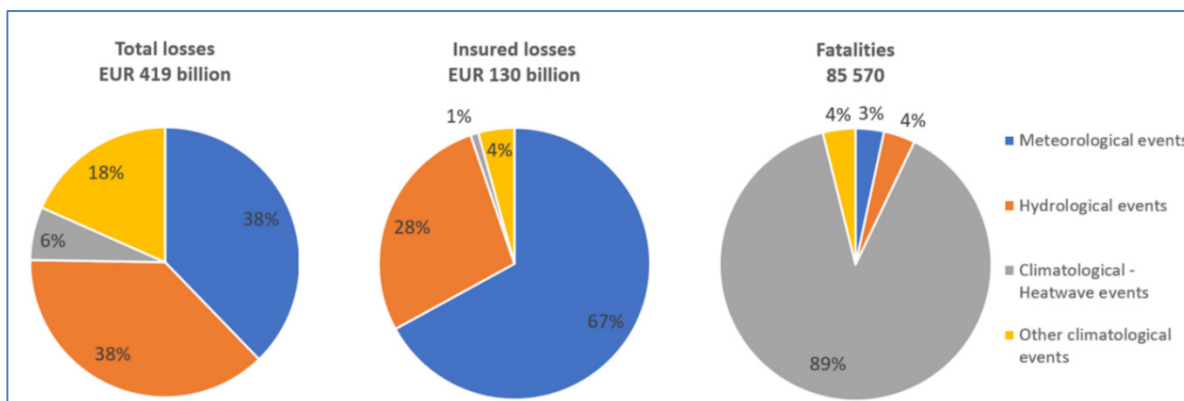
For left panel, left-hand scale in USD billions, right-hand scale is percentages. For right panel, left-hand scale is number of events, right-hand scale is percentages.



Source: ECB (2019), drawing in turn on Swiss Re Institute, Munich Re NatCatService.

1.6 **As climate change advances, the risk of damage increases:** to people, communities, infrastructure, and economic development. Insurance liability is a bellwether of this risk. Figure 1, taken from a report by the European Central Bank (ECB), depicts how the percentage of weather-related catastrophes insurance payments has increased globally since 1985. Damage tends to disproportionately impact the relatively vulnerable in society. It follows that there is a strong progressive element in reducing this risk – through reducing GHG emissions, as well as investing in adaptation measures.

Figure 2 – Climate- and weather-related losses (EU-27, 1980-2019)



Source: EEA (2019), drawing in turn on Munich Re NatCatService.

1.7 **The EU is vulnerable:** Climate change already cost Europe 85 000 lives and over EUR 400 billion EUR. About two thirds are uninsured losses. On average, economic losses amounted to over EUR 13 billion annually in recent years, up from 7.5 billion in the 1980s. **Fatalities and economic losses** are expected to increase further in Europe over the next decades, even if mitigation action prove effective, with southern and south-eastern European countries likely to be most affected.

1.8 Major threats include **heatwaves** and **droughts** in summer, which are projected to increase in severity and frequency in southern, central and western Europe. In autumn and winter, **heavy rain** and the risk of **flash floods** will increase in most parts of Europe – by up to 35 % over the next 50 years in central and eastern Europe.

- 1.9 **Forest fires** are threatening the whole continent. In 2018, many European countries experienced severe forest fires, including the worst in Sweden’s reporting history. More severe fire weather and longer fire seasons are projected in most regions of Europe.
- 1.10 Europe is exposed to **sea level rise**: Around a third of the EU population lives within 50km of the coast and these areas generate over 30% of the Union’s total GDP. The economic value of assets within 500m of Europe’s seas is between €500-1,000 billion².
- 1.11 **The combination of climate change and the depletion of biodiversity and ecosystems risks environmental collapse.** The science-based analysis provided in recent reports from the Intergovernmental Panel on Climate Change (IPCC)³ and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)⁴ calls for a profound transformation of our economic model as the only way to avoid the worst possible scenarios. According to the European Environment Agency⁵, the EU is not on track to meeting the vast majority of its environmental targets for 2020 – and the outlook for 2030 and 2040 is even bleaker if inaction continues. Biodiversity is declining at an unprecedented rate all over the world, and the pressures driving this decline are intensifying. As stated in the [Convention on Biological Diversity’s \(CBD\) Global Biodiversity Outlook 2020](#), none of the previous decade’s biodiversity targets – the Aichi Biodiversity Targets – will be fully met, in turn threatening the achievement of the Sustainable Development Goals and undermining efforts to address climate change.
- 1.12 This long-term structural challenge needs to be confronted in the context of the **economic, social and regional fallout from a global coronavirus (COVID-19) pandemic**. This has placed an unprecedented burden on countries’ economies and government finances, with the EU economy currently 5 percent below capacity. The euro area budget deficit is expected to increase to 8.5% of GDP in 2020 from 0.6% last year. The EU has responded decisively to ensure recovery through the [Next Generation EU](#) – a €750 billion package, split between grants and loans. Nevertheless, the recovery from COVID-19 is likely to dominate global public finances into the medium term years, heeding calls from many stakeholders to ensure that short-term investment undertaken in support of recovery is aligned with long-term green goals (“build back better”).
- 1.13 The COVID-19 pandemic has further highlighted the importance of the relationship between people and nature, and it is a reminder of all the profound consequences to human well-being and survival that can result from continued biodiversity loss and the degradation of ecosystems. Options are available to the global community that could simultaneously halt and ultimately reverse biodiversity loss, limit climate change and improve the capacity to adapt to it and meet other goals such as improved food security. These pathways to a sustainable future rely on recognising that bold, interdependent actions are needed across a number of fronts, each of which is necessary and none of which is sufficient on its own. This mix of actions includes greatly stepping up efforts to reverse environmental damage, restore biodiversity, addressing climate change in ways that limit global temperature rise without imposing unintended additional pressures on biodiversity, and transforming the way in which economies produce, consume and trade goods and services, most particularly food, that rely on and have an impact on biodiversity.

² https://ec.europa.eu/clima/policies/adaptation/how_en

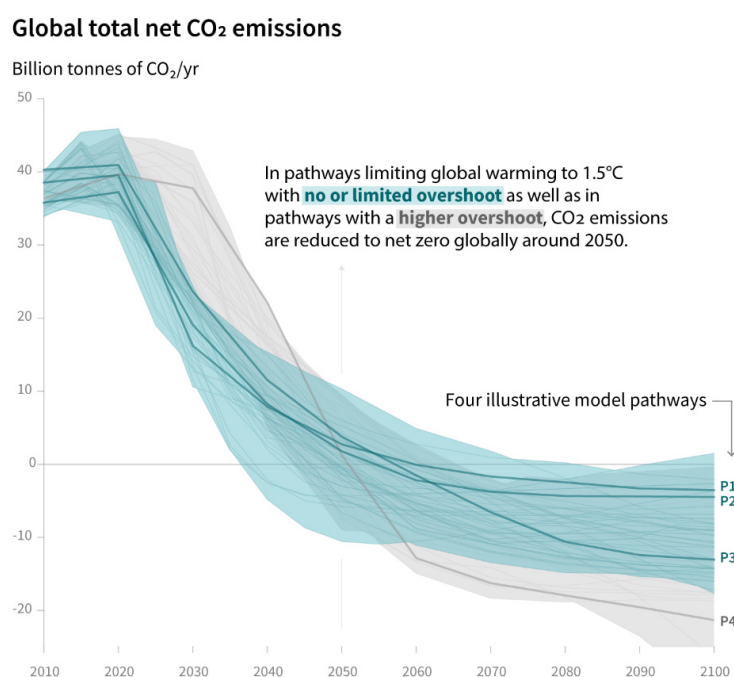
³ In particular, IPCC (2018) Special Report on Global Warming of 1.5°C (available at: <https://www.ipcc.ch/sr15/>), IPCC (2019) Special Report on Climate Change and Land (available at: <https://www.ipcc.ch/srcc/>), and IPCC (2019) Special Report on the Ocean and Cryosphere in a Changing Climate (available at: <https://www.ipcc.ch/srocc/>).

⁴ IPBES (2020). Global Assessment Report on Biodiversity and Ecosystem Services. Available at: <https://ipbes.net/global-assessment>.

⁵ European Environment Agency (2020). The European Environment — State and Outlook 2020. Available at: <https://www.eea.europa.eu/soer/2020>.

- 1.14 **Climate change and environmental degradation are exacerbating inequalities.** The [IPCC Special Report on Global Warming of 1.5°C](#) highlights that climate change and environmental degradation is disproportionately affecting disadvantaged and vulnerable populations across regions, including Europe, with gender inequalities further compounding such vulnerabilities. Conversely, impacts avoided with the lower temperature limit could reduce the number of people exposed to climate risks and vulnerable to poverty by up to 457 million worldwide. At the same time, socially inclusive and gender responsive climate investments can strengthen climate and environmental outcomes, open up business opportunities and be financially more effective. Those particularly impacted by climate change are further often instrumental in coming up with the most effective solutions to halt environmental degradation and build resilience.
- 1.15 **The next decade is critical.** The same IPCC Special Report on Global Warming of 1.5°C shows that financing decisions made in this decade provide the last chance to meet the Paris Agreement temperature goals. As illustrated in Figure 2.2, to limit global warming to 1.5°C with no or limited overshoot, global CO₂ emissions **need to fall by 50% by 2030 and reach net zero levels during the period 2045 to 2055**. The IPCC reports on [Climate Change and Land](#) and [Climate Change and the Ocean and Cryosphere](#) have further emphasised the risk of inaction on livelihoods, biodiversity, ecosystems and ecosystem services, human health, infrastructure and food systems. In addition, the European Environment Agency’s latest report on the [State and Outlook of the European Environment](#) clearly indicates that, despite the successes of European environmental governance, persistent problems remain and not enough progress is made in addressing environmental challenges such as biodiversity loss, resource use, climate change impacts and environmental risks to health.

Figure 2 – Global CO₂ pathways consistent with 1.5 degree target



Source: Reproduction of Figure SPM.3a from [IPCC \(2018\)](#).

Notes: The blue-green shaded range depicts global net anthropogenic CO₂ emissions in pathways limiting global warming to 1.5°C with **no or limited overshoot** (less than 0.1°C). The grey shaded range depicts pathways achieving the target with higher overshoot. Note the Bank’s carbon prices, presented in *Chapter 5*, are aligned with pathways with no or limited overshoot. The Figure also depicts **four illustrative model pathways**: P1 to P4 i.e. different mitigation strategies to achieve the target. All pathways use carbon dioxide removal (CDR) but by varying amounts, as do the relative contributions of Bioenergy with Carbon Capture and Storage (BECCS) and removals in the Agriculture, Forestry and Other Land Uses (AFOLU). For instance, under P1, afforestation is the only CDR considered, whilst P4 makes strong use of BECCS. These are presented in detail in Figure SPM.3b from the same IPCC report.

THE PARIS AGREEMENT⁶ AND THE SUSTAINABLE DEVELOPMENT GOALS

- 1.16 In 2015, Parties to the United Nations Framework Convention on Climate Change (UNFCCC) adopted the historic **Paris Agreement**. It sets an ambitious collective goal: the rise in global average temperatures, as compared to pre-industrial levels, must stay “well below 2°C” while “pursuing efforts to limit the increase to 1.5°C”. Unlike previous agreements, it is applicable to all Parties. Each Party sets its own targets and timetables. The agreement requires transparency and accountability from its Parties – as adopted in 2018 at COP 24 in Katowice, Poland.
- 1.17 In the same year the Paris Agreement was adopted, 2015, the ambitious and transformative **2030 UN Agenda for Sustainable Development** was launched. Built on 17 interconnected Sustainable Development Goals (SDGs), it is a universal call to end poverty, enhance peace and prosperity and protect the planet through an integrated approach to economic, social and environmentally sustainable development. Climate change, caused by GHG emissions, acts as a threat multiplier, threatening or reversing the progress made towards the achievement of the SDG targets. Or, to put it another way, combating climate change and achieving sustainable development are intrinsically linked: the attainment of one depends on the other.
- 1.18 Under the Paris Agreement, each Party commits to “prepare, communicate and maintain successive **Nationally Determined Contributions (NDCs)** that it intends to achieve” every five years. Each successive contribution will represent a progression over the previous one and shall be informed by a global stocktake of Parties’ collective progress towards the Agreement’s long-term goals. Formally, the first of these **five-year ambition cycles** will begin with a global stocktake in 2023, with an expectation that each Party will communicate their post-2030 targets by 2025.
- 1.19 The Paris Agreement establishes, for the first time, a **global goal on adaptation** with the aim to enhance capacity, climate resilience and reduce climate vulnerability. It encourages greater cooperation amongst Parties to share scientific knowledge on adaptation as well information on practices and policies. All Parties’ efforts to promote adaptation must “represent a progression over time” and the five-year global stocktake applies equally to adaptation goals.
- 1.20 The Paris Agreement recognises that implementing the emissions targets will require very substantial policy action and investment. It therefore includes the aim of “making financial flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development.” This is the first time that the UNFCCC process has acknowledged the full social effort needed to finance the world’s response to climate change.⁷ Developed country Parties (including the EU) committed to continuing to mobilise US\$100 billion annually from public and private sources for developing countries, including to support efforts to adapt to climate change. Before 2025, the Parties will set a new collective quantified goal from a floor of the current US\$100 billion.
- 1.21 The Paris Agreement is the third generation⁸ of international treaties designed to respond to the challenge of climate change. The first, adopted in 1992, is the UNFCCC. This Convention set out the key principles intended to guide international cooperation on climate policy. One important principle concerns equity. The Convention calls on all Parties to address climate change “on the basis of equity

⁶ This section draws in particular from The Paris Agreement (2019), by Jos Delbeke, Artur Runge-Metzger, Yvon Slingenberg and Jake Werksman, included as *Chapter 2 of Towards a Climate Neutral Europe* (2019), Routledge.

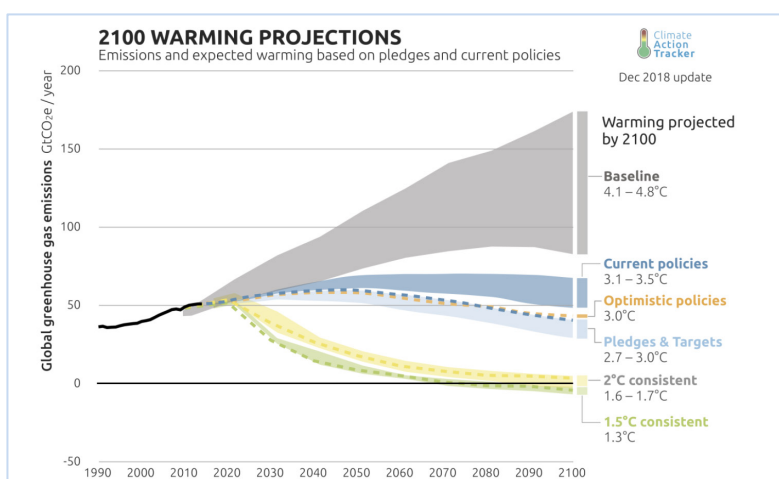
⁷ ODI (2018) Making finance consistent with climate goals: insights for operationalising Article 2.1c of the UNFCCC Paris Agreement. Available at: <https://www.odi.org/publications/11253-making-finance-consistent-climate-goals-insights-operationalising-article-21c-unfccc-paris-agreement>

⁸ See Delbeke et al (2019) for a full discussion. The first is the UNFCCC described briefly in the text. The Convention remains a framework without enforceable targets. The second agreement, the 1997 Kyoto Protocol, responded to this weakness, with legally binding commitments for developed countries.

and in accordance with their **common but differentiated responsibilities and respective capabilities**". This remains firmly embedded in the Paris Agreement. Developed country Parties are expected to have and maintain the most robust form of target, such as economy-wide absolute emissions target. Developing countries are expected to move towards economy-wide emission reduction or limitation targets over time.

- 1.22 The Paris Agreement emphasizes the need to respect, promote and consider a range of human rights including the rights of vulnerable groups, local communities, indigenous peoples, migrants and children while ensuring gender responsive and participatory approaches to climate action. It also highlights the need to take into account **'the imperatives of a just transition'** in the development of climate and environment actions⁹. The structural shift towards low-carbon, environmentally sustainable and climate-resilient economies comes also with social challenges, as its effects will not be evenly distributed. Individuals and societies within certain geographies, sectors, industries and socio-economic groups will either lack the adequate resources and mechanisms to deal with the transition or to adapt to a changing climate.
- 1.23 **Current NDCs fall short.** The Paris Agreement calls on Parties to reach global emissions "as soon as possible" and to "undertake rapid reductions thereafter." Before coming to Paris, Parties were asked to submit their plans for their NDCs to confirm their good faith. Several analyses have been made since then to aggregate the pledges and policy intentions. Figure 2.3 summarises one well recognised study. If fully implemented, existing policy declarations, including those of the NDCs would bring **global warming to the range of 2.7 to 3.0°C**. In short, the temperature goal of the Paris Agreement is not yet within reach. More ambition is required.
- 1.24 Although the sum of current NDCs are not sufficient to keep the world on track to meet the Paris temperature goals, there are reasons for optimism. Other countries are responding to the challenge, in line with the ratcheting principles of the agreement. According to a recent statement by President Xi, China will aim to reach climate neutrality by 2060. This reinforces the sense of a global structural change, underlining the importance of climate and environmental issues to trade policy, long-term competitiveness and growth.

Figure 3 – Expected global temperature increase by the end of the century compared to pre-industrial levels implied by global emissions pathways under various scenarios



Source: Climate Action Tracker Warming Projections Global Update, December 2018. This independent work is produced by three research organisations: Climate Analytics, Ecofys and New Climate Institute.

⁹ The Paris Agreement also recognises the need to respect, promote and consider a range of human rights, and to consider the rights of vulnerable groups, local communities, indigenous peoples, migrants and children while ensuring gender responsive and participatory approaches to climate action (preamble, article 7 and 11).

THE EUROPEAN GREEN DEAL

- 1.25 The [European Green Deal](#) responds to these climate and environmental-related challenges. It aims to transform the EU into a climate-neutral, resource efficient and competitive economy, characterized by ‘net-zero’ GHG emissions in 2050, a full decoupling of economic growth from resource use and where no person or place is left behind. It also aims to protect, conserve and enhance the EU’s natural capital and to protect the health and well-being of its citizens from environment-related risks and impacts. At the same time, this transition must be just and inclusive. This has translated into an ambitious action plan based around the themes shown in Figure 4.
- 1.26 European leaders have endorsed the aim of climate neutrality by 2050. The EC has proposed a European climate law, as well as increasing the emissions target by 2030 from 40% to 55%¹⁰. These proposals build on existing EU climate policy¹¹ based around putting an explicit price on carbon (through the EU Emissions Trading Scheme (ETS)), embedded within a comprehensive policy approach (covering non-ETS sectors and land use, land-use change and forestry (LULUCF)), addressing distributive questions (e.g. the ETS Modernisation Fund), and ensuring the competitiveness of the EU manufacturing industry.
- 1.27 The European Green Deal proposes a series of measures across core policy areas including promoting clean energy, protecting nature, including adapting to climate change, supporting sustainable food systems (from “farm to fork”), making homes energy efficient, financing green projects, eliminating pollution, striving for greener industry, and investing in smarter, more sustainable transport. In addition, the European Green Deal proposes other, cross-sectoral policy measures to ensure a just transition for all and to lead the green change globally.
- 1.28 As discussed below, achieving the policy goals of the European Green Deal requires stimulating additional investment. It therefore includes an investment pillar through the [Sustainable Europe Investment Plan](#). This aims to mobilise an additional trillion euros of public and private investment through use of the next multiannual financial framework (MFF). The EIB plays a central role in this plan, as expanded below.
- 1.29 Moreover, the European Green Deal seeks to put [sustainable finance](#) at the heart of the financial system. As discussed below, in 2018 the Commission proposed an action plan on financing sustainable growth. At its core, this aims to support the development of the Capital Market Union. In June 2020, the EU adopted a framework to facilitate sustainable investment, i.e. the [EU Taxonomy Regulation](#). As part of the European Green Deal, the EC is in the process of proposing a [renewed sustainable finance strategy](#) to tackle mainstreaming sustainability into risk management, as well as fostering transparency.

¹⁰ See the EC’s revised 2030 Climate Target Plan. Available at: https://ec.europa.eu/clima/policies/eu-climate-action/2030_ctp_en.

¹¹ For a recent review of EU climate policy see Delbeke, J. (2019) *Have 25 years of EU climate policy delivered?*, published as *Chapter 1* of *Towards a Climate Neutral Europe*, Eds. J.Delbeke and P.Vis.

Figure 4 – Key themes of the European Green Deal



INVESTMENT NEEDS

- 1.30 Meeting the global goals for sustainable development, including the Paris Agreement and the European Green Deal, requires **sustained, increased investment in capital assets**: physical capital, human capital and natural capital. In some sectors, this implies largely replacing the existing physical capital stock within a generation (e.g. conventional energy and industrial processes).
- 1.31 Within the EU, annual investment in the energy system under current targets will need to be around EUR 335 billion higher in the coming decade (2021-2030) than in the previous decade (2011-2020)¹². This will increase if new targets for 2030 are adopted¹³. These estimates reflect needs in energy-related investments, buildings and part of the transport sectors. It is a minimum as it does not include additional investment required to tackle broader environmental challenges, including biodiversity loss and pollution, protection of natural capital, as well as for human capital and social investments related to the transition.
- 1.32 Globally, the investment gap is very significantly higher. For instance, for the global power sector alone¹⁴, it is estimated that the current level of investment needs to **increase by around 70%** by 2025-2030. A key reference for SDG financing needs over the last years has been (2014). UNCTAD’s 2014 World Investment Report¹⁵, a key reference for SDG financing, estimated that the annual financing gap

¹² See Section 6.4.1.3 of EC’s Staff Working Document “Stepping up Europe’s 2030 climate ambition - Investing in a climate-neutral future for the benefit of our people” SWD(2020) 177 final, available at:

https://ec.europa.eu/clima/sites/clima/files/eu-climate-action/docs/impact_exec_en.pdf.

¹³ Table 12 of the Staff Working Paper referenced in the footnote above suggests an additional 50 – 100 billion per year may be required to meet a 55% target, depending on the scenario.

¹⁴ See IEA (2020), *World Energy Investment 2020*. It estimates global power sector investment at just under USD 700 billion per year in 2020, needing to rise to almost USD 1200 billion by 2025 – 2030 under the IEA sustainable development scenario. The power sector includes power generation and electricity grids (including battery storage).

¹⁵ United Nations Conference on Trade and Development (UNCTAD) (2014) “World Investment Report: Investing in the SDGs: An Action Plan.” UNCTAD (2014) estimated financing needs for developing countries. UNCTAD figures on financing needs came out before launch of SDGs and the formal adoption of the 2030 Agenda for Sustainable Development by the 193-Member United Nations General Assembly in September 2015.

to meet the SDGs by 2030 in developing countries amounted to US\$2.5 trillion¹⁶. Since then, according to UNCTAD's SDG Investment Trends Monitor, signs of progress are evident across several sectors, including in climate change mitigation, food and agriculture, and health. However, growth falls short of the requirements projected in 2014. Even in areas where new investment initiatives and innovative financing mechanisms appear to be taking off, the order of magnitude is not yet in the range that would make a significant dent in estimated investment gaps.

THE ROLE OF THE EIB GROUP IN SUPPORTING THE EUROPEAN GREEN DEAL

- 1.33 As stressed in paragraph 1.23 above, the EIB Group is a core partner in the [Sustainable Europe Investment Plan](#). The decisions taken by the EIB Board in November 2019 to increase its ambition towards climate action and environmental sustainability, together with the Climate Bank Roadmap, constitute the core elements of EIB Group support for this Investment Plan, and the European Green Deal more broadly. This section sets out the broad context in which a public financial institution, like the EIB Group, can support investment required for the green transition. It identifies several themes that help to shape different elements of the Climate Bank Roadmap.
- 1.34 Mobilising the required capital for the green transition globally requires unlocking a number of finance pools simultaneously, such as national, regional, European public resources, and international public finance (from MDBs, Development Finance Institutions (DFIs), climate funds, *etc.*). Most importantly, however, much of the green transition investment will be driven by the private sector, both domestic and international.
- 1.35 The public sector, including public financial institutions such as the EIB Group, can play three important roles in helping to mobilise private capital to the green transition. Firstly, it needs to create a **predictable regulatory framework**. The European Green Deal, and associated national policies, is designed to provide this certainty within the EU. Secondly, it provides sources of **direct and indirect financial support**. For instance, at the EU level, climate represents 25% of the overall EU budget, and at least 30% of InvestEU. Finally, increasing green investment requires a significant reorientation of pools of global savings and international capital markets. As part of the wider development of the capital market union, the EU is establishing common standards and approach towards **sustainable finance**.
- 1.36 As a public institution, the EIB Group can take a **long-term view** on investment needs. To illustrate, the EIB has sought to support the development of the offshore wind industry since its very inception in Denmark in the early 2000s, including through the 2008 financial crisis and subsequent sovereign crisis. More recently, the 2019 EIB [Energy Lending Policy](#) took a deliberately long-term view in setting priorities¹⁷ for future EIB support to the energy sector. Moreover, a public bank can help pursue climate mitigation and adaptation as well as environmental sustainability investments that promote synergies, and limit trade-offs with social development and a just transition.
- 1.37 The EIB Group can help to support market-based investment within the context of **evolving climate and environmental policy – and associated risks**. Ambitious, credible policy often requires significant reform to markets. In turn, this may restrict access to capital or push up financing costs. In the electricity field, for example, the increasing share of variable renewables is requiring reform to power markets in many parts of the world. In the industrial sector, several countries are looking to introduce

¹⁶ UNCTAD (2014) estimated current annual investment at around US\$1.4 trillion. Given that the mid-point estimate of total annual SDG-related investment is about US\$3.9 trillion, subtracting current annual investment gives a mid-point estimated investment gap of US\$2.5 trillion.

¹⁷ See Energy Lending Policy *Chapter 3* for more details in the context of energy markets, in particular the section on additionality. Note also that areas of high policy value are explicitly set out in the Annexes to the Energy Lending Policy.

support schemes for green hydrogen. In the field of nature conservation, relatively novel payment schemes for eco-system services are being developed¹⁸. Alongside other market actors, public financial institutions can potentially play a role in helping in sharing risks associated with this type of public policy reform. As market experience grows, and private-sector risk premia decline, this type of role may decline.

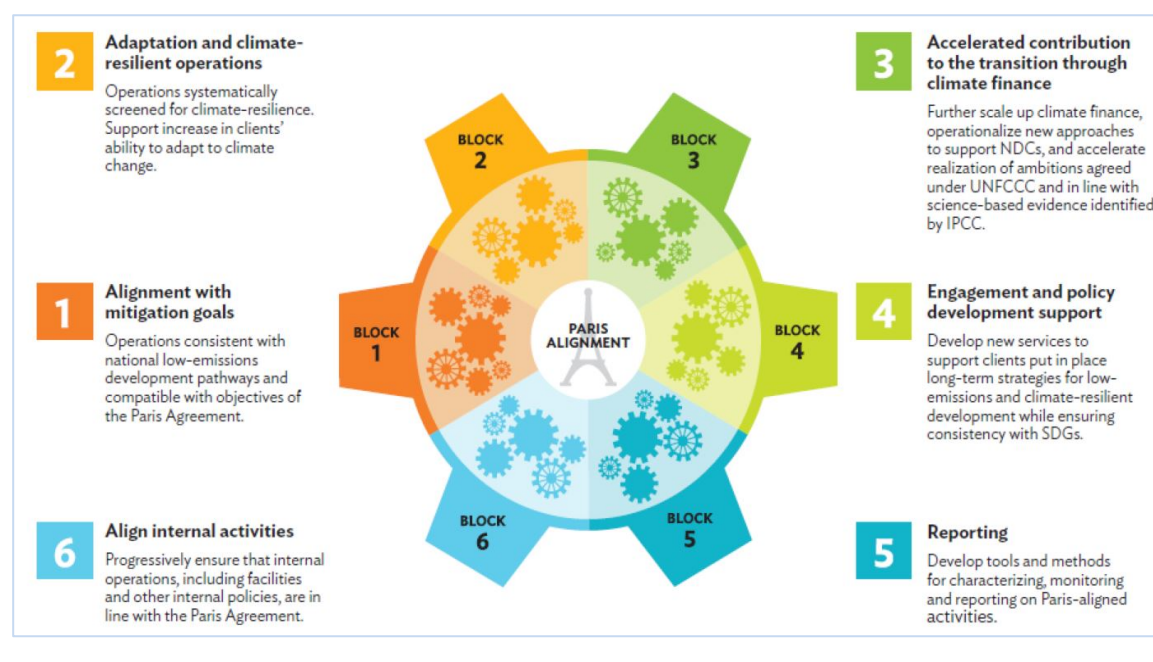
- 1.38 The EIB Group, and public financial institutions in general, can target policy objectives characterised by **persistent investment gaps**. A good example in Europe remains the slow renovation rate of buildings to improve energy performance standards. A full suite of instruments can be developed to increase incentives. Through an EU technical assistance facility, the EIB and other DFIs are able to work with cities to design scalable, replicable programmes. Direct support to cities can be provided through public-sector lending programmes, complemented by dedicated framework loans to local financial intermediaries. Finally, in the case of energy performance contracts, the EIB Group and other public banks can stimulate private sector involvement via dedicated investment funds. This capacity to offer an integrated package of advisory services, technical assistance, equity, debt and guarantees can be effective in stimulating the public policy decision.
- 1.39 This logic has helped shape the deployment of various sources of risk capital, most notably the [European Fund for Strategic Investment](#) (EFSI). Working with the clear priorities set out in the legislation, the EIB Group, in close cooperation with the EC, is able to provide effective means to leverage private sector investment in higher risk activities. Notable climate-related initiatives include, for example, [InnovFin Equity](#), the [Private Finance for Energy Efficiency Instrument](#) and the [Natural Capital Financing Facility](#). This experience is being brought to bear in the shaping the next [InvestEU programme](#) and the [Neighbourhood, Development and International Cooperation Instrument \(NDICI\)](#).
- 1.40 The impact of the EIB Group is increased through close cooperation and partnership with MDBs, DFIs and national promotional banks and institutions (NPBIs). This can be in the direct sense: EIB Group co-financing operations with partner public financial institutions. But it can also be more broadly to work with partners in setting high standards and norms. **Box 1** highlights the work by MDBs to harmonise their approach towards supporting the Paris Agreement. The Climate Bank Roadmap builds closely upon this MDB framework.
- 1.41 These various channels of support – strong alignment with climate and environmental policy, supporting sound projects and providing financial and technical value – is central to the notion of additionality. This is a core element to the Roadmap: ensuring that the limited EIB Group resources are deployed as effectively as possible in achieving the global climate and environment goals and those of the European Green Deal in particular. This builds on current sector lending policy contributing to the Environmental Public Policy Goal, the initial work identified on high impact projects in the EIB Climate Strategy, as well as the recent work in the 2019 EIB Energy Lending Policy to identify areas of high policy value. The results of these prioritisation efforts will feed in due course into the integrated EIB Additionality and Impact Measurement (AIM) framework.

¹⁸ Under these schemes, beneficiaries of environmental services (watershed protection, forest conservation, carbon sequestration, landscape beauty) reward those whose lands provide these services with subsidies or market payments.

Box 1 – Article 2.1.c of the Paris Agreement and the MDB Paris alignment framework

The MDBs have worked in close partnership to develop a common approach to supporting the Paris Agreement. It is based around six core building blocks (see Figure 5) around which specific strategies for Paris alignment can be developed. This framework is holistic: it goes beyond new financing commitments *per se* to address all aspects of the operations of the MDBs, mindful of their role in setting norms and good practice. In particular, this approach has been referred to by the G20 and the European Council in the lead-up to the recent COP25 in Madrid, and ambitious progress on the MDB joint work is being called for by EU Climate Ambassadors. For more details on this, please see Chapter 1.

Figure 5 – The MDBs’ six building blocks for Paris alignment



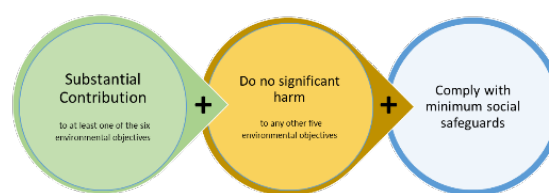
THE CLIMATE BANK ROADMAP WITHIN THE CONTEXT OF SUSTAINABLE FINANCE

- 1.42 As explained above, **sustainable finance** is at the heart of the European Green Deal – and for the Climate Bank Roadmap by extension. This market is evolving fast. Sources of global savings remain high. There is a strong investor appetite for green investment. Sustainable finance, broadly speaking, can be described as a transparent framework to drive finance in a more sustainable direction, including global capital market participation to support low-carbon, environmentally sustainable and climate resilient pathways. As a first step to develop an EU internal capital market for sustainable finance, the EU has agreed to develop a detailed classification system – or EU Taxonomy Regulation – for green activities and finance.
- 1.43 Figure 6 and Figure 7 summarise the EU Taxonomy. Six environmental objectives are defined as contributing to sustainable finance. Two of the six concern climate action: mitigating climate change, by reducing GHG emissions, or adapting to future climate change. The remaining four objectives concern the wider environmental sustainability spectrum: protection of biodiversity and eco-systems, sustainable protection of water and the marine environment; circular economy (e.g. increased recycling) and pollution control. Technical screening criteria are being agreed at the EU level to determine which activities qualify as **substantially contributing** (SC) to each of these objectives.

Figure 6 – Six environmental goals of the EU Taxonomy



Figure 7 – General approach of the EU Taxonomy



- 1.44 Under the EU Taxonomy, making a substantial contribution is a necessary – but not sufficient – condition to an activity being classified as green. As shown in Figure 2.7, two further conditions need to be met. Firstly, in addition to substantially contributing to one objective, the activity needs to avoid harming any of the other five environmental objectives. The EU Taxonomy therefore also develops technical screening criteria to **do no significant harm** (DNSH). This is important to deal with potential trade-offs between environmental objectives. For instance, a power plant switching from coal to biomass may substantially contribute to mitigating climate change, but – if the biomass is sourced in an unsustainable manner – it may risk degrading forest eco-systems and endanger biodiversity. In addition, an activity needs to comply with **minimum social safeguards** (MSS).
- 1.45 An activity which makes a substantial contribution to one goal, does no significant harm to any other goals, and respects minimum social standards would be deemed as compliant with the EU Taxonomy. This can be reported as an “EU Taxonomy aligned” economic activity by a financier, corporate or public authority – and duly verified through an audit process. Through making these criteria explicit, the EU Taxonomy helps ensure the integrity of sustainable finance, avoiding in particular concerns about **greenwashing**.
- 1.46 The EU has this year adopted the overarching legal framework for the EU Taxonomy – the **EU Taxonomy Regulation**. It is currently developing the detailed technical screening criteria – both SC and DNSH – on the basis of a recommendation from a **Technical Expert Group**, comprising 35 members from civil society, academia, business and the finance sector (including the EIB). Under the EU Taxonomy Regulation, the EU is due to adopt these criteria in the form of Delegated Acts. In the case of mitigation of climate change and adaptation to climate change, this act is expected to be adopted by the end of 2020. The four remaining environmental objectives will follow in a separate act by the end of 2021. In anticipation of these regulatory developments, the EIB has been the first issuer to update the legal documentation of its green and sustainability bonds in accordance with the upcoming EU Taxonomy in 2018.

This is an important development for sustainable finance in Europe. However, it is important to stress that the EU Taxonomy is not binding. It does not “prevent” investment in any area of the economy. Rather, it sets out criteria that need to be respected if an activity is to be reported as “EU Taxonomy compliant”. In effect, it is a labelling scheme, which helps build market confidence in sustainable finance around a **high-quality EU label**. As such, the EU Taxonomy is expected to become increasingly the recognised standard for green finance – both in Europe but also internationally.¹⁹

¹⁹ For more information on the EIB Group contribution to the development of the EU Taxonomy, and the international collaboration on taxonomies for sustainable finance, please refer to *Chapter 5*.

Annex 2. PARIS ALIGNMENT FRAMEWORK – LOW CARBON

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PART I: SECTOR ALIGNMENT

Tables A to I below cover the main sectors supported by the EIB Group. The tables distinguish between main activities that will be eligible for EIB Group support and those that will not be. Although every effort has been made to be comprehensive, given the complex of EIB Group activities, omissions will inevitably arise. In this case, EIB Group services will appraise such an omitted operation applying the underlying logic presented in the alignment framework. In presenting such an operation for approval to the Board, the EIB Group will make clear that this falls outside the agreed alignment framework and duly inform the Board of the interpretation applied.

TABLE A: ENERGY

Supported	Power generation	<ul style="list-style-type: none"> Renewable power generation and combined cooling/heat and power (CCHP, CHP) which meet the EPS (250 gCO₂/kWh_e). For biogas/biomass, sources are sustainable. Power generation using abated fossil fuels or low-carbon energy sources which meets the EPS. Gas-fired power plants that blend low-carbon gas and meet the EPS on average over the economic life. Waste-to-energy that meets EPS and applies principles of waste hierarchy. Recovery of industrial waste gas or heat for electricity and/or heat production.
	Energy networks	<ul style="list-style-type: none"> Electricity transmission and distribution infrastructure, with the exception of direct connection of power plants with emissions exceeding the EPS. Digitalisation, smart grid, batteries, demand management and flexible response investments. Rehabilitation of district heating and cooling networks, if i) the DH/DC system meets the definition of efficient DH/DC in the EU Energy Efficiency Directive (using at least 50% renewable energy or 50% waste heat or 75% cogenerated heat or 50% of a combination of such energy and heat); or, ii) there is a viable decarbonisation plan for the DH/DC system that can meet the definition of efficiency and the project does not increase GHG emissions from the system on an annual basis. New DH/DC networks or substantial extensions of existing DH/DC networks if i) they meet the criteria for efficient DH/DC defined in the EU Energy Efficiency Directive, and ii) there will be no increase in absolute GHG emissions from coal, peat, oil or non-organic waste on an annual basis. Distributed off-grid systems and micro-grids; small scale renewable-fossil fuel hybrid generation which meet the EPS Production, storage and transport of low-carbon gaseous, liquid and solid energy carriers, incl. related infrastructure. Gas network infrastructure planned for the transport low-carbon gases, including the rehabilitation and adaptation of existing gas infrastructure; smart meters intended to reduce gas consumption.
	Heating and cooling	<ul style="list-style-type: none"> Heating and cooling technologies using electricity, renewable or low-carbon fuels and/or combined cooling / heat and power (CCHP, CHP) plants (see criteria for power generation). Gas boilers and micro CHP for buildings complying with minimum energy efficiency criteria, defined as A-rated or with efficiency of 90% or better. Peak/reserve boilers operating on natural gas (or oil, if gas is not available), as a necessary part of a renewable energy plant (e.g. biomass or CSP), or a DH/DC system that is supported by the EIB (see criteria for energy networks). Any boiler operating on natural gas (or oil, if gas is not available) when it is a necessary part of a supported industrial activity (see criteria for Table B: Industry and Table E: Bioeconomy), and meets the harmonised efficiency reference value for dedicated heat production²⁰ in application of the Energy Efficiency Directive 2012/27/EU. Other non-boiler technologies to produce heat using natural gas (or oil, where gas is not available) when it is necessary part of a supported industrial or agricultural activity.
	Energy Efficiency	<ul style="list-style-type: none"> Investments to improve the energy performance of public lighting. Energy efficiency of industrial facilities and SMEs, if primarily motivated by energy savings and will not increase the capacity of the facility significantly i.e. if the overall GHG emissions of the facility will not increase as result of the project. In other words, any increase in emissions resulting from the increase in capacity needs to be fully offset by emissions savings from the energy efficiency measures within the existing capacity. Energy savings must be defined on the basis of an energy audit, compliance with a white certificate scheme, a list of measures set up by the EIB or other transparent and proportionate method acceptable to the EIB.
	Innovation	<ul style="list-style-type: none"> Research, development, demonstration, and commercialisation of innovative low-carbon energy technologies, including renewables, carbon capture and storage (CCS), nuclear fission and fusion, renewable energy conversion and storage and all related ICT solutions.
Not supported		<ul style="list-style-type: none"> Coal mining, processing, transport and storage. Oil exploration & production, refining, transmission, distribution and storage. Natural gas exploration & production, liquefaction, regasification, transmission, distribution and storage²¹. Large-scale heat production for district heating based on unabated oil, natural gas, coal or peat, with the exceptions shown in heating and cooling above. Coal/peat/oil (if natural gas is available) used for industrial heat production. In the case of the use of these energy sources within energy-intensive industries, please refer to criteria in Table B.

²⁰ Heat generation resulting in a product (heat) that could be sold/used separately, meaning that this does not apply for example to furnaces, dryers or wider industrial processes.

²¹ For the avoidance of doubt, under the EIB Energy Lending Policy, the Bank can approve gas infrastructure projects included under the 4th list of Projects of Common Interest co-financed with EU budget until the end of 2021.

TABLE B: INDUSTRY

Supported	RDI	<p>All EIB eligible projects, except those mentioned under the ‘non-supported’ section, including for example:</p> <ul style="list-style-type: none"> ▪ Low-carbon technology and products, energy and resource efficiency, circular business models and non-GHG related topics (e.g. safety, industry 4.0, light-weighting, etc.), including demonstration and first-of-a-kind projects. ▪ EV or PHEV powertrains - the latter up to 2025 and only on the electrified components. ▪ Powertrain-neutral components e.g. safety or greening aspect (active/passive safety, automation, connectivity, telematics, light-weighting of exterior/interior/structure etc.). ▪ Marine: disruptive and low-carbon technologies, other energy efficiency technologies (including lightweight, aerodynamics etc.), and non-powertrain components (including safety, functionality and advanced digital technologies). ▪ Civil aviation: disruptive technologies²² and alternative fuels; and non-powertrain components focusing on other than energy efficiency (primarily safety). ▪ Digitalisation projects.
	Manufacturing - non-ETS sectors	<ul style="list-style-type: none"> ▪ All EIB eligible projects, <u>except</u> those mentioned under the ‘non-supported’ section.
	Energy Intensive Industries (EII) / ETS sectors	<ul style="list-style-type: none"> ▪ Low-carbon technologies i.e. electrification, shift to hydrogen or biomass/biogas/bioliquid as a fuel or feedstock, CCS/CCU, other low-carbon technologies (e.g. electrochemical production, replacement of carbon-intensive virgin raw materials with low-carbon intense recycled raw materials, thermal energy storage). ▪ Transitional technologies: implementation of technology that will enable an easy shift to the use of hydrogen or biomass/biogas/bioliquid as a fuel or feedstock when available. For the avoidance of doubt, investment in traditional high-carbon processes is not supported – see bullet below. ▪ Modernisation: energy-efficiency, resource efficiency/circular economy and pollution prevention projects in line with the respective EIB eligibility criteria²³ if the economic life does not run beyond 2035. ▪ In the specific case of fully electrified processes implemented outside the EU, which imply a significant increase in national power demand (e.g. new primary aluminium capacity), it will be required to source power in line with the Bank’s EPS.
Not supported	EII / ETS sectors	<ul style="list-style-type: none"> ▪ Greenfield or substantial expansions of EII production predominantly based on traditional high-carbon processes without accompanying abatement technology such as CCS or recourse to renewable energy sources. <p>This would include investments in e.g. greenfield conventional coke-based blast furnace (BF/BOF) primary steel production, fully fossil based production of chemicals and plastics, fossil-based nitrogen fertiliser synthesis, production of ordinary Portland cement clinker unless the project includes a suitable decarbonisation technology (such as CCS or CCU).</p>
	RDI and associated manufacturing	<ul style="list-style-type: none"> ▪ Products dedicated exclusively to the coal, oil and gas sectors including transport / exploration / use / storage. ▪ Internal Combustion Engines (ICE) passengers vehicles, ICE powertrains for passenger cars and dedicated components. ▪ ships and conventional aircraft using carbon-intensive fuels (i.e. HFO, MDO, MGO, kerosene) and dedicated components. ▪ fossil based power generation, and dedicated components not compliant with the EIB ELP (e.g. gas turbines)

²² Includes hybrid and full electric architectures; technologies to enable hydrogen powered aircraft; ultra-efficient aircraft architectures and propulsion systems targeting a very significant (25%+) improvement in energy efficiency in new generation aircraft.

²³ As per Table A, the EIB eligibility criteria for EE require showing that the project is primarily motivated by energy/resource savings and will not increase the capacity of the facility significantly i.e. the overall GHG emissions of the facility may not increase as a result of the project. In terms of pollution prevention, we refer to the existing EIB E&S standards that require compliance with Best Available Techniques (BAT) as defined under the European industrial emissions directive. The BAT concept is a key policy tool to prevent and control industrial emissions, thus ensuring a high level of environmental and human health protection. For circular economy, dedicated guidance is available in the EIB CE guidance, where carbon neutrality is a key guidance screening criteria. These eligibility criteria, in addition to the 2035 lock-in limitation, ensure alignment with the DNSH criteria for climate mitigation currently proposed for the EU Taxonomy.

TABLE C: TRANSPORT

Supported	Mobile assets for transport services ²⁴	<ul style="list-style-type: none"> • Zero direct emission mobile assets (including non-motorized transport). • Mobile assets²⁵ (including all land transport vehicles) that meet the ‘Significant Contribution’ threshold under the EU Taxonomy²⁶. For MBILs and similar intermediated products (see Part II) the following exceptions are made : <ul style="list-style-type: none"> – Passenger vehicles, light commercial vehicles (LCV) and heavy duty vehicles (HDV) that meet the DNSH threshold²⁷. (This is currently proposed at equal or less than 95 g/CO₂ per km per vehicle for cars, 147g for LCV and for HDV it is specific direct CO₂ emissions per kilometre equal or below the reference CO₂ emissions of all vehicles in the same sub-group)²⁸. – Mobile assets will be deemed ‘supported’ if, for these assets, no criterion has yet been established under the EU Taxonomy. • Any mobile asset powered solely by advanced biofuels (biofuels as per RED II with low ILUC risk)²⁹, or sustainable synthetic fuels. • LNG-fuelled ships. • Measures and retrofits that bring demonstrable environmental, safety and security improvements (excluding mid-life retrofits that significantly extend the physical life of the asset), are eligible for all types of fleet. • Transport mobile assets (or components thereof) where there is an overriding public interest case (environmental, safety and security), crisis response etc.
	Infrastructure	<ul style="list-style-type: none"> • Infrastructure and equipment for active mobility (walking and cycling)³⁰ • Infrastructure that is required for zero direct emissions transport (e.g. electric charging points, hydrogen fuelling stations or electric highways)³¹ • Intelligent Transport Systems and other investments supporting efficiency improvements and transport demand management • Rail infrastructure • Other public transport infrastructure (metro, BRT, LRT, etc.) • Inland waterways • Port infrastructure • Road safety • Infrastructure investments where there is an overriding public interest case (environmental, safety and security, resilience, accessibility), unplanned security, accessibility requirements, emergency rehabilitation of existing infrastructure, crisis response etc. • Rehabilitation of road infrastructure • Large³², new road capacity infrastructure meeting EIB eligibility criteria, including passing a cost benefit test with the EIB carbon price, consistent with national and EU level infrastructure planning, as well as for alternative fuel infrastructure. Within the European Union, the alternative fuel infrastructure plans will be assessed on a country basis, in line with the relevant EU requirements³³. Outside the European Union, the assessment will likewise be undertaken

²⁴ This table covers mobile assets for transport services (trains, road vehicles, ships, etc.). These assets are mobile assets for all types of transport. Mobile assets not for the purpose of transport are not included. These are, for instance, machinery for construction works, agriculture/forestry mobile assets, etc.

²⁵ The maritime and the aviation sector and other parts of transport are not yet fully covered under the EU taxonomy. The EIB will assess alignment with any new criteria in these sectors, should they be adopted in due course by the EU.

²⁶ The proposal for the EU Taxonomy from the Technical Expert Group (TEG) will be followed until the EU Taxonomy comes into place. Under the current proposal (TEG Report), the relevant threshold for public transport is 50 g CO₂ per passenger kilometre, falling to zero after 2025. Technical guidance will be provided on how to demonstrate compliance until the EU Taxonomy comes into place. After 2025, and without prejudice to the outcome of the review in 3 years, the threshold of 50 g CO₂ per passenger kilometre may be kept for longer for certain regions outside the EU.

For passenger cars and LCVs the threshold is equal or less than 50g/CO₂ per

For freight transport the threshold CO₂e emissions per tonne kilometre (gCO₂e/tkm) are 50% lower than the average reference value defined for HDVs (Heavy Duty CO₂ Regulation).

See par. 6.1& 6.2 & 6.3 & 6.5 & 6.6 & 6.7& 6.8&6.9 p.327, 330, 332, 339, 343, 346/7, 350, 353 of the previous source.

²⁷ HDV vehicle sub-groups where no “reference CO₂ emissions” is yet available will be deemed supported.

²⁸ See par. 6.5&6.6 p.556 etc. of the previous source.

²⁹ See par. 6.6&6.7&6.8&6.9 p.343, 347, 350, 353 of the previous source.

³⁰ See par. 6.4&6.10 p.335, 356 of the previous source.

³¹ See par. 6.6&6.7&6.8&6.9 p.343, 347, 350, 353 of the previous source.

³² The terms “large” and “small” are used to denote projects with an investment cost of greater than, or less than, 25 million euro respectively.

³³ Including but not limited to Directive 2014/94/EU of 22 October 2014, as may be subsequently revised, on the deployment of alternative fuels infrastructure, for instance, complying substantially with the conditions in Art 3 (Adoption

		<p>on a country basis. Countries without widespread access to reliable electricity would not be expected to plan electric charging infrastructure at this stage. For small road infrastructure investment schemes, a cost benefit analysis is not required if these investments are for:</p> <ul style="list-style-type: none"> - <i>Urban street projects</i> under multi-scheme loans that support the implementation of Sustainable Urban Mobility Plans (or equivalent) or urban development/regeneration plans, acceptable to the EIB, and - <i>Road projects</i> under multi-scheme loans implemented in the context of an Integrated Regional Development program or other similar national plans acceptable to the EIB to ensure a balanced territorial development. <ul style="list-style-type: none"> • Improving existing airport capacity through safety and security projects, rationalisation and explicit decarbonisation measures (including related investments such as air traffic management, only if not related to capacity expansion.)
Not supported		<ul style="list-style-type: none"> • Vehicles and infrastructure dedicated to the transport and storage of fossil fuels (dedicated vessels and railcars, coal and oil terminals, LNG bulk breaking facilities, etc.). Dedicated is defined as built and acquired with the explicit intention to predominantly transport or store fossil fuels over the life of the project. • Maritime vessels³⁴ using only conventional fuels (i.e. HFO, MDO, MGO). • Conventionally fuelled aircraft. • Airport capacity expansion.

TABLE D: BUILDINGS

Supported	New buildings	<p><u>Inside the EU:</u> complies with national energy standards defined by the Energy Performance of Buildings Directive (EPBD).</p> <p><u>Outside the EU:</u> Achieving international or best local construction standard. Using a green building certification (e.g. EDGE, LEED, BREEAM or equivalent) ensures the buildings are amongst the best built in the country and are least likely to pose a risk of lock-in. This general approach to buildings includes education, research, cultural buildings and medical infrastructure. In the event of any misalignment, these particular cases will be assessed on a case-by-case basis.</p>
	Renovation	<p><u>Inside the EU:</u> complies with national energy standards defined by the Energy Performance of Buildings Directive (EPBD).</p> <p><u>Outside EU:</u> Major renovation (exceeding 25% of the surface area or 25% of the building value excl. land) requires cost optimal energy performance level identified by an energy audit or equivalent. Non-major renovation (of less than 25% of the surface area or 25% of the building value) does not pose a lock-in risk.</p>
Not supported		<ul style="list-style-type: none"> ▪ Buildings associated with the extraction, storage, transportation or production of fossil fuels.

of a National Policy Framework for the development of the market segment as regards alternative fuels in the transport sector and the deployment of the relevant infrastructure).

³⁴ This refers to maritime vessels and excludes inland waterway vessels already covered under the EU taxonomy.

TABLE E: BIOECONOMY³⁵

Supported	<ul style="list-style-type: none"> ▪ Investment in nature and biodiversity conservation and restoration. ▪ Investment in subsectors³⁶ such as sustainable forestry and sustainable, resilient agricultural land management, and erosion control (LULUCF). ▪ Development and production of sustainable biomaterials and bioenergy. ▪ Activities along the agricultural and fishery value chains that focus on (as compared to best industry, low-carbon standards/benchmarks)^{37,38}: <ul style="list-style-type: none"> – Sustainable production on existing agricultural land, focusing on reducing the GHG footprint and increasing carbon sequestration. – Reducing wastage and maximising resource efficiency along the whole value chain from farm to fork. – Upgrade of agricultural and food by-products or residues into higher value food, feed, biomaterials or bioenergy. – Production of proteins from more sustainable and/or innovative sources or production systems with a lower carbon footprint (e.g. fish, algae, insects) with a focus on animal welfare. ▪ Rural infrastructure (e.g. modernisation of irrigation schemes) and machinery promoting resource efficiency, waste minimisation and/or low/neutral carbon intensity.
Not supported	<ul style="list-style-type: none"> ▪ AFOLU/LULUCF investments and/or other projects that aim to produce or make use of agricultural or forestry products associated with unsustainable expansion of agricultural activity into land that had the status of high carbon stock and high biodiversity areas (i.e. primary and secondary forest, peatlands, wetlands, and natural grasslands) on January 1st 2008 or thereafter³⁹. ▪ Biomaterials and biofuel production that make use of feedstocks that can serve as food or compromise food-security. ▪ Export oriented agro-business models that focus on long-haul⁴⁰ air cargo for commercialization (i.e. investments dependant on the long-haul, intercontinental air-cargo shipment of fresh, perishable agricultural goods over long distances). ▪ Meat and dairy industries based on production systems that imply unsustainable animal rearing and/or lead to increased GHG emissions as compared to best industry, low-carbon standards/benchmarks.⁴¹

TABLE F: WATER AND WASTE

Supported	<p><u>Water, wastewater, and flood management</u></p> <ul style="list-style-type: none"> ▪ New or rehabilitation of water treatment, water distribution, wastewater treatment, wastewater collection, non-revenue water reduction; flood management and protection, coastal protection, sludge digestion. ▪ Desalination projects that are demonstrably the last resort option to address water security issues (due to overriding public interest). The EIB will further investigate with the promoter during the appraisal process, means to limit as much as possible the GHG emissions impact. <p><u>Solid waste management</u></p> <ul style="list-style-type: none"> ▪ Infrastructure and equipment for collection and transport of waste, including vehicles with priority given to low and zero carbon technology (where both technically feasible and economically viable). Vehicles with fossil fuel technology shall meet EU Taxonomy criteria for DNSH. ▪ Material recovery facilities for separately-collected recyclable waste. ▪ Facilities processing pre-sorted materials for recycling with demonstration of net GHG emission reduction for energy-intensive processes (e.g. certain types of chemical recycling). ▪ Biological treatment and valorisation facilities for separately collected bio-waste.
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³⁵ EIB aligns with the EC bioeconomy strategy 2018 in its sector definition for Agriculture / Bioeconomy by including the primary sector and its value chains.

³⁶ Agro-forestry projects typically rely on production factors such as heavy farm/forest machinery that have to operate in potentially remote locations. Projects should incorporate lowest possible carbon technology (including renewable fuel fleet options), to the extent that such technologies are commercially available and it is technically/economically feasible.

³⁷ Please note that criteria established for heat generation (Energy: Table A) and in industrial processes (Industry: Table B), as well as energy efficiency would be equally applicable to agro-industry from farm to fork, except for specific derogation foreseen for developing countries.

³⁸ For agro-food value chain projects in countries with vulnerable food supply systems, benchmarking of GHG emissions of agro-industry projects on local, instead of international best standards is possible on a case by case. This would apply in particular to smallholder and agriculture microfinance schemes or agro-food industries that target local demand and may imply derogation of general carbon footprint thresholds related to power and heat generation established in this bioeconomy section and under the industry and, energy tables above.

³⁹ The cutoff date is set to be consistent with the one recommended under the EU taxonomy DNSH criteria for agriculture and forestry.

⁴⁰ Following Eurocontrol, long haul is taken to be longer than 4000 kilometres.

⁴¹ Investments in the meat and dairy industries considered by the Bank for finance should demonstrate improved GHG efficiency, through for example, alignment with the EU taxonomy criteria in agriculture, the promotion of eco-efficient animal management systems or the promotion of grass and other lignocellulose centred feeding regimes for ruminants.

	<ul style="list-style-type: none"> ▪ Mechanical biological treatment (MBT) plants are generally aligned, with exception of plants specifically configured to produce refuse derived fuel (RDF) or solid recovered fuel (SRF) where the following criteria apply for the associated energy recovery facilities: <ul style="list-style-type: none"> - waste incineration plants or power plants must meet the EPS (250gCO₂/kWh) - industrial facilities must demonstrate a net GHG emission reduction compared to displaced fuel ▪ Waste incineration plants meeting EPS and applying principles of waste hierarchy. ▪ Permanent closure and remediation of landfills or dumpsites, including landfill gas abatement and control system (methane utilization where economically viable, otherwise flaring). ▪ New sanitary landfills or landfill cells under the following conditions (in the EU only until 2023): <ul style="list-style-type: none"> - implementation of landfill gas abatement and control system - landfill included as part of an integrated waste management project achieving an overall net GHG emission reduction compared to relevant scenario ▪ Remediation of contaminated sites for subsequent renaturation or in preparation for further economic use.
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TABLE G: URBAN AND REGIONAL

Supported	<ul style="list-style-type: none"> ▪ Urban and regional investment programmes, urban development/regeneration projects following sectors' criteria (when relevant: buildings, energy, mobility, etc.) in line with carbon neutral strategies (when existing). ▪ Disaster prevention and preparedness, and recovery.
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TABLE H: INFORMATION AND COMMUNICATION

Supported	<ul style="list-style-type: none"> ▪ Development and deployment of latest technology ICT infrastructures, including satellites. ▪ ICT technology that enable the deployment of low-carbon scenarios, (such as Smart Grids), are leading to proven improvement of energy efficiency, or are used for climate specific applications. ▪ Implementation of datacentres; for hyperscale data centres in countries with non-aligned power system, electricity needs to be sourced in line with the with the Bank's EPS. ▪ RDI of ICT Equipment and components ▪ Manufacturing of low-carbon related ICT Equipment and components ▪ Earlier generation ICT infrastructure deployment, including satellites, to increase the availability of digitalization services in underserved areas.
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TABLE I: HUMAN CAPITAL

Supported	<ul style="list-style-type: none"> • All EIB eligible projects, except those not supported (see below).
Not supported	<ul style="list-style-type: none"> • Public research activities or supporting equipment and infrastructure that are directly and exclusively related to unabated fossil fuels. • Investments not complying with the criteria for buildings set out in Table D.

PART II: PRODUCT ALIGNMENT

EIB Product	Application of alignment framework
Direct investment loan or guarantee	Full alignment (Tables A to I).
MBILs and similar intermediated products ⁴²	<p>Standard product⁴³ to align with:</p> <ul style="list-style-type: none"> • Energy: Energy Lending Policy (equivalent to Table A and D). • Transport: <ul style="list-style-type: none"> ○ See Table C for mobile assets with exception towards airports and air transport, which will be excluded based on NACE codes. ○ Note that this exception will not apply if financing is Climate Action & Environmental Sustainability (CA&ES) eligible, e.g. under dedicated MBIL CA&ES windows. • Energy Intensive Industries: exclude based on NACE codes of industries included in TEG proposal (basic iron and steel plus associated downstream activities, aluminium, basic chemicals, cement and plastics). Note that this exception will not apply if financing is CA&ES eligible, e.g. under dedicated MBIL CA&ES windows, or similar. • Capacity, systems and procedures of the Intermediary to ensure compliance with the PA framework will be assessed at due diligence stage.
Microfinance loans and similar operations ⁴⁴	Standard product adjusted to align with Energy Lending Policy (equivalent to Table A). Other sectors are deemed to be of limited relevance under this product.
Framework loans (Structural Programme Loans, Regional Development Programmes, and sector Framework Loans)	<p>Full alignment (Tables A to I)</p> <p>In line with FL procedures, verification of PA criteria could be delegated to the promoter/intermediary, subject to the conclusions of the assessment of the promoter's/intermediary's capacity and its systems and procedures conducted at the appraisal stage. The set of PA criteria that could be delegated to the Promoter may also vary depending on the capacity assessment. Given uncertainty over the investment programme at appraisal stage, PA may need to be verified at allocation stage.</p>
Infrastructure Funds	The Group will only consider funds whose strategy is fully aligned with the EIBG sector alignment criteria set out above.
Other Fund or similar investments ⁴⁵	Depending on the targeted investments, the Group will consider product alignment as described for MBIL and similar products or for microfinance operation (see above). Capacity, systems and procedures of the Fund manager (as applicable) will be assessed at due diligence stage to ensure compliance with the PA framework.

⁴² Intermediated loan or similar multi-beneficiary product (e.g. risk sharing, ABS credit enhancement) targeting multiple beneficiaries such as SMEs, Mid-Caps or other eligible entities (e.g. local authorities promoting eligible projects).

⁴³ The standard product supports mainly SMEs and MidCaps. When final beneficiaries are public sector entities and/or very large private sector entities, in order to be eligible, sub-projects have to contribute to at least one of the EIB's priority objectives (other than access to finance for SMEs/Mid-caps). These eligibilities are already defined in the contractual documentation (i.e. the Side Letter). In these cases sub-project costs are limited to EUR 25m and the risk of inadvertently financing sub-projects that might not be compliant with the Full Alignment Framework (e.g. for car fleets) is limited.

⁴⁴ This includes direct EIB loans to microfinance institutions and EIF debt operations dedicated to inclusive finance programmes or under EU microfinance programs.

⁴⁵ Including co-investment platforms, EIBG debt and/or equity funds (other than infrastructure funds)

Annex 3. CLIMATE AND ENVIRONMENTAL RISK MANAGEMENT

INTRODUCTION

Climate change and environmental risks include both physical risks and transition risks. Physical risks originate from the physical impacts of climate change, such as extreme weather events, land degradation, desertification or sea level rise as well as disruption in the balance of ecosystems leading to an adverse ecological change in soil quality or the marine environment. Transition risks stem from the rapid global shift of the economy and society to a resilient and low-carbon scenario, or from efforts to address environmental changes leading to policy changes, reputational impacts, and shifts in market preferences, norms and technology.

As the EU Climate Bank, the EIB Group has been at the forefront of assessing and managing climate change and environmental risks. To address the environmental, climate and social challenges at project level, the EIB has taken a holistic risk and impact-based approach to managing its operations (both direct and intermediate lending) in order to avoid, minimise, reduce and mitigate risks and impacts, and, where significant residual impacts remain, to compensate/remedy such impact. In the course of the implementation of the Climate Bank Roadmap, the existing methodologies for climate and environmental risk assessment will be further enhanced: the EIB will approach climate change and environmental risks at project, counterpart and portfolio levels. On the other hand, as the EIF supports SMEs through a range of selected, financial intermediaries, the EIF's approach will not focus on projects, but rather on counterpart, portfolio and final beneficiary company level.

PROJECT LEVEL ASSESSMENT

The EIB services systematically undertake environmental, climate and social due diligence of the proposed projects to support the decision of financing. The due diligence focuses on the risks and impacts that should be addressed throughout the project cycle and the potential for enhancing the positive outcomes of the investment. In particular, the EIB services consider the nature of the project, analyse the contextual risks, review the information provided by the promoter relating to the environmental, climate and/or social risks and impacts (as spelled out in the EIB's Environmental and Social Standards) and, finally, assess the promoters capacity to manage these risks and impacts.

The EIB is currently undertaking a comprehensive review of its Environmental, Climate and Social Framework which includes a revision of the Environmental and Social Policy (see Chapter 2, Pillar 1 of the Climate Bank Roadmap) and its Environmental and Social Standards (that describe the requirements that the promoter must meet in the development and implementation of EIB-financed projects). Alignment with the Do No Significant Harm and Minimum Social Safeguards principles of the EU Taxonomy regulation will be an integral part of this revision (see Annex 1 – Sustainable Financing Framework). In addition, the existing Environmental, Climate and Social Practices and Procedures (describing EIB's Environment, Social and Climate due diligence process) will be revised to strengthen Quality Assurance aspects in particular.

The EIB has also been developing more structured methodologies and tools to support the appraisal of projects to facilitate the early identification of potential risks and impacts and determine the level of due diligence required.

In relation to climate change, the EIB's approach to managing **physical climate risk** in projects is rooted in the understanding that risk resulting from a changing climate is highly local in nature – varying between countries and within countries. As a result, reducing physical climate risk requires an

assessment of the vulnerability to physical climate risk at the project level to secure good performance and protect investments from the threats brought about by a changing climate.

The EIB has mainstreamed a climate-risk tool into project appraisal to systematically assess physical climate risk in direct lending. The climate risk assessment (CRA) system is a business process that helps the EIB and its clients understand how climate change may affect their projects and identify adaptation measures.

The CRA system is the cornerstone of the EIB's alignment framework in what concerns climate-resilient development. It ensures increased climate-resilience of EIB operations and is in line with EIB reporting requirements for financing in developing countries. It supports the EIB's climate target by ensuring some level of adaptation financing in a large number of EIB projects, particularly infrastructure lending. This approach also enhances opportunities for dialogue with public and private sector clients on the need to address physical climate risks based on evidence and reported risks, thus making a strong case for building climate-resilience in investments as a sound financial practice.

The CRA system was introduced in February 2019 in a pilot version and will be regularly enhanced and improved to support EIB commitments as the EU Climate Bank. The EIB will enhance the CRA system in support of the EU Climate Bank's efforts to ensure that all its operations are adapted to current weather variability and future climate changes. The EIB has already put in place measures to carry a first set of short-term system enhancements through consulting services over the period up to 2021. As this is a highly technical area, the EIB has also put in place measures to provide tailored training and technical support for managing physical climate risk in different sectors, regions and types of financing. Additional measures will be required to ensure 1) continued improvement and maintenance of the system, its underlying data and related IT, 2) technical support for projects; and 2) capacity building of the EIB specialists. Annex 4.a provides an overview of the proposed activities.

This development will be done within the wider context of the general MDB approach towards alignment to climate-resilient goals of the Paris Agreement and will ensure that the EIB Group is on track to align with the Do No Significant Harm criteria to the adaptation objectives of the EU taxonomy for sustainable finance.

In addition to that, similar risk assessment systems to the CRA for physical risks are under development for specific environmental aspects of the new EIB commitments towards climate action and environmental sustainability (relevant for both direct and intermediated lending). To strengthen the application of the mitigation hierarchy, the EIB has developed and tested a Biodiversity Risk Assessment (BRA) system that will be implemented as of H2 2021. In the near term, the BRA and the CRA systems will become part of an integrated Environment, Climate and Social Risk Assessment System.

Transition climate change risks for new operations are currently captured through a number of separate processes, of which the core is the EIB's economic appraisal of a project. As a starting point, the EIB calculates and reports all significant absolute and relative emissions of investment projects.⁴⁶ For carbon intensive new operations at the EIB, a carbon price is used to price in the climate impact of a project in the Cost Benefit Analysis (CBA). The carbon price used is in line with values required to achieve temperature goals in the Paris Agreement, according to the High Level Commission on Carbon

⁴⁶ The EIB Project Carbon Footprint Methodologies can be found here: https://www.eib.org/attachments/strategies/eib_project_carbon_footprint_methodologies_en.pdf

Prices (HLCCP). More information can be found in Annex V of the EIB's Energy Lending Policy.⁴⁷ In addition, for some sectors considered at higher risk from transition climate change risks, the EIB makes use of higher Internal Rate of Return (IRR) in its economic appraisal.

With the adoption of the new EIB's Energy Lending Policy in 2019, the EIB has started to phase out support to energy projects reliant on unabated fossil fuels. By phasing out support to e.g. the production of oil and natural gas, traditional gas infrastructure (networks, storage, refining facilities) and power generation technologies with emissions per electricity generated higher than 250 gCO₂ per kWh, the EIB has reduced its exposure to projects with high transition risks. With all new operations being Paris-aligned as of 2020, the transition risks of new operations will be further reduced. Nevertheless, the EIB will explore whether the demand modelling used in the economic appraisal can be more explicitly performed using assumptions in line with Paris-aligned, low-carbon scenarios.

Currently, the economic appraisal of projects at EIB includes externalities such as pollutants (CO₂, SO_x, NO_x, and noise) or others where a shadow price for an environment externality has been established. The Sustainability Proofing requirements (still under definition at EC level) that accompany the InvestEU mandate are likely to require the inclusion of additional environment externalities such as emissions related to air, water, land and biodiversity into the economic appraisal, or CBA where relevant. This additional analysis and the associated reporting requirements require the EIB to review its approach to economic appraisal by having a more coherent and robust approach to economic appraisal between the different sectors. The EIB is already in the process of defining benchmarks for biodiversity and ecosystems externalities that provide a pragmatic consolidation of current economic valuation evidence.

COUNTERPART LEVEL ASSESSMENT

Climate change and environment risks are recognised by a growing number of supervisors and regulators as a threat to the financial sector, which could cause a long-term deterioration in profitability or even trigger a systemic crisis.

In order to address these risks, financial institutions are being encouraged to incorporate climate change and environment into their risk management frameworks and to make climate-change and environment-related risk disclosures. While recognizing the challenges of quantifying the risk (bearing in mind that traditional backward looking perspectives are not relevant), regulators are moving from recommendations to binding regulations, requiring financial institutions to start developing methodologies and tools for assessing climate and environment-related risks.

Today's risk environment is increasingly seeing impacts that were previously considered by financial institutions to be externalities, becoming, or threatening to become more material.

In line with developing regulations and supervisory recommendations, the EIB Group has started to strengthen its capabilities to manage the financial risks from climate change and environment (in stock and flow) by developing counterparty-level climate-risk and environment assessment models.

Climate risk screening tools have been developed for each of the EIB's main credit segments⁴⁸ to assess the climate risk for its counterparties (rather than projects), and for the EIF's equity portfolio. The methodology captures physical risk, transition risk and a mitigation/adaptation capability for each

⁴⁷ https://www.eib.org/attachments/strategies/eib_energy_lending_policy_en.pdf

⁴⁸ (i) Corporates, (ii) Financial Institutions, (iii) Public Sector Entities, (iv) Sub-sovereign Public Authorities, (v) Project Finance, and (vi) Equity.

counterparty and provides a climate score from 1 (low risk) to 5 (high risk). The output from the Screening Tool will enable the EIB Group to map (for example by sector and geography) and benchmark all its counterparties according to their climate risk exposure.

Initially, the Screening Tool will be used for portfolio monitoring as well as internal reporting and disclosures. It will provide transparency on the Group's exposure to climate risk and allow informed risk management decisions.

In a future target state, the scores could be used as a basis for strategic decisions (e.g. risk appetite, credit policies, credit approval) and be used as input for internal rating models and downstream processes (e.g. capital allocation) in line with European Central Bank's supervisory expectations outlined in May 2020. The same process will be followed for environment risk screening tools (as explained below).

In relation to this project, the EIB is developing **country specific climate change risk scores**, modelling both physical and transition risk for all countries where the Group operates. Country scores are based on publicly-available data and capture expected climate change risks, taking into account individual countries' exposure to these risks and their capacity to mitigate them. The scores range from 1 (low risk) to 5 (high risk) and they will serve as input for the screening tools.

Similarly, **industry scores** are being developed and will also be incorporated into the screening tools.

Environmental risk screening tool: similarly to the climate risk screening tools and to ensure that the intrinsic links between environmental and climate risks are integrated, the environmental risk screening tool will also be developed for each of the EIB's main credit segment to assess the environmental risk for the its counterparties. The output from the screening tools will enable the EIB to map and benchmark all its counterparties according to their exposure to the environmental risk based on the new levels of scale, likelihood and interconnectedness of such risks.

As there are more than one environmental risk and they are quite diverse in nature, the EIB will in the first part of the project map the relevant risks for the EIB counterparts and then categorise such risks factors by type, relevance and urgency before identifying the key metrics by sector for the development of a credible score.

The EIB will also develop **country specific environment risk scores**, modelling both physical, transition and systemic risk for all countries where the EIB operates. Country scores are based on publicly-available data and will capture specific environment risk such as biodiversity and water taking into account individual countries' exposure to these risks and their expected capacity to mitigate them. The scores will serve as an input into the screening tool.

DISCLOSURES

Reporting in line with the Task Force on Climate-Related Financial Disclosures recommendations and EU Framework on Non-Financial Information Disclosure⁴⁹

Context and background

⁴⁹ Directive on Non-financial Disclosure 2014/95/EC, Regulation 2019/2088 and Taxonomy Regulation 2020/852

The EIB Group has been at the forefront of sustainability-related disclosures for over a decade. In the context of the Climate Bank Roadmap, the EIB is enhancing specifically its climate-related reporting by supporting the Task Force on Climate Related Financial Disclosures (TCFD).

TCFD is a forward-looking voluntary reporting framework based on scenario analysis to support organisations to integrate climate considerations (in terms of both risks and opportunities) in their activities and reporting. The Task Force was established at the end of 2015 by the Financial Stability Board and as of February 2020 counted more than 1,020 supporters⁵⁰.

The EIB is adding the TCFD framework to its existing “family” of sustainability-related reporting that covers: the annual Group’s sustainability report, the carbon footprint report, the Global Reporting Initiative (GRI) disclosures and the Sustainability Accounting Standard Board (SASB) report, all of which are published on an annual basis. Adding TCFD as a new set of disclosures is testament to the EIB’s commitment towards transparency, accountability and to the ambition to remain at the forefront of sustainability reporting.

In addition, supporting the TCFD well reflects the EU’s commitment to improve sustainability-related disclosures in the financial sector. The EU has developed its legal framework to provide for an harmonised approach that helps investors, consumers, policy makers and stakeholders to evaluate financial products in different Member States with respect to sustainable investment objectives and environmental, social and governance risks. Therefore, it requires large public-interest companies to disclose certain information on integration of environmental and social considerations in investment decision making and advisory processes.

Implementing TCFD and Non-financial information disclosure at the EIB

The EIB intends to produce the first set of disclosures in line with the TCFD guidelines in the coming months and to include it in the annual EIB Group’s Sustainability Report (and possibly in other reports if deemed appropriate) that will be published in the first half of 2021. The production of the Sustainability Report is coordinated by the Corporate Responsibility Department and benefits from contributions and inputs from all departments across the EIB Group. The report receives an external limited assurance from external auditors and it is validated by the Management Committee before publication.

In the following years, the EIB will continue to review and improve its TCFD disclosures with the intention to reach more complete, mainstream and consistent disclosures by 2025. This will help the EIB take better-informed decisions and to understand the financial impact of climate-related risks and opportunities. It will also reinforce the EIB’s commitment to lead in sustainability-related reporting.

In this context and guided by best banking practice (BBP), the EIB Group remains highly committed to transparency and openness and therefore will closely follow relevant legislative developments related to disclosure and reporting in order to align its current practices.

⁵⁰ <https://www.fsb-tcf.org/supporters-landing/>

Annex 4. ALIGNMENT WITH THE EU TAXONOMY

In November 2019, the EIB Board of Directors approved a new commitment for the EIB Group towards climate action and environmental sustainability financing. The EIB has an overriding ambition to reach 50% of climate action and environmental sustainability financing by 2025 and beyond, and the EIB Group has a target of supporting €1 trillion of investments in the same areas in the critical decade from 2021 to 2030. Delivering on this new commitment requires a set of transparent, credible definitions against which progress can be tracked.

CURRENT APPROACH

The EIB has a well-established tracking system for climate action. The [list of climate action-eligible activities](#) is available on the EIB website. In 2015, the multilateral development banks (MDBs) together with the International Development Finance Club (IDFC) – a group of 26 development finance institutions including KfW and AFD – published the Common Principles for tracking climate change mitigation and adaptation finance to which the EIB contributed from the very early stages. This joint MDB-IDFC approach and related definitions are internationally recognised as robust and credible, including by the Organisation for Economic Cooperation and Development (OECD) and by the European Court of Auditors, and form the framework for the current EIB climate action definitions.

Based on these definitions, EIB climate action lending figures are publicly disclosed annually in the EIB Activity Report⁵¹, Sustainability Report⁵² and various other internal reports. Detailed project-level data are published on the EIB public register⁵³. The EIB also provides climate finance data each year that is published within a joint MDB report⁵⁴, as well as providing data for reports published by the European Commission (EC) and OECD. EIB climate action data are externally audited each year.

THE EU TAXONOMY

Given the growing investment needs in the green economy, there is a strong case for EU standards on sustainability – partly to develop the internal market, partly to reduce the risk of misuse (e.g. greenwashing). The establishment of a unified classification system for sustainable activities (the so-called ‘EU Taxonomy’) is a key part of the EC’s Action Plan on Financing Sustainable Growth. The EIB has strongly supported this initiative, initially as a member of the High Level Expert Group on Sustainable Finance (HLEG) and more recently as a member of the Technical Expert Group on Sustainable Finance (TEG). The EIB Group intends to continue this support as a member of the future Platform on Sustainable Finance, defined in the Taxonomy Regulation.

Once this is more comprehensively agreed at an EU level, there is a natural case for the EU climate bank to fully align its tracking methodology for climate action and environmental sustainability objectives with the framework defined by the EU Taxonomy. This would include the underlying principles, classification and scope of the environmental objectives and technical criteria related to determining a substantial contribution and doing no significant harm (DNSH).

Moreover, once DNSH is established, it is also necessary to show that activities meet minimum social safeguards. A taxonomy-aligned activity should be carried out *“in alignment with the OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights, including the*

⁵¹ EIB Group Activity Report 2019: <https://www.eib.org/en/publications/activity-report-2019>

⁵² EIB Group Sustainability Report 2019: <https://www.eib.org/en/publications/sustainability-report-2019.htm>

⁵³ Climate Action Figures for 2018: <https://www.eib.org/en/registers/all/92782519>

⁵⁴ Joint Report on Multilateral Development Banks’ Climate Finance 2018: <https://www.eib.org/en/registers/all/123254855>

International Labour Organisation's (ILO) declaration on Fundamental Rights and Principles at Work, the eight ILO core conventions and the International Bill of Human Rights."

Given the EIB's established commercial relationship with a multitude of financial intermediaries (public, commercial banks, fund managers and others), the early adoption of the EU Taxonomy requirements by the EIB Group may help encourage some financial intermediaries to accelerate adoption the EU Taxonomy framework.

The Delegated Acts defining the details of the application of the EU Taxonomy will be adopted over a period of two to three years. The Delegated Acts for the first two objectives (climate mitigation and climate adaptation) will be published by the end of 2020, while the EU Taxonomy work for the remaining four environmental sustainability objectives has not yet started and the related Delegated Acts are expected in late 2021. This will require a phased approach to alignment by the EIB Group over the next two years as a minimum.

FUTURE FOCUS OF THE EIB GROUP

The EIB Group intends to start tracking its new climate action and environmental sustainability ambitions starting in January 2021, building on past experience and the existing guidance provided in the context of the EU Taxonomy to date.

The EIB definitions for climate mitigation and adaptation used in recent years remain relevant, whilst in some cases adjustments will be needed to ensure that the EU Taxonomy criteria to be adopted in the Delegated Act in late 2020 are reflected in the EIB definitions. Given that the scope of the proposed EU Taxonomy for climate mitigation and adaptation is not yet comprehensive in coverage, nor does it address properly the needs of SME financing, other international reference points remain valid, particularly the joint MDB methodology, which is applied in the annual joint MDB climate finance report. In addition, some criteria in the EU Taxonomy have been developed specifically for the EU context (e.g. reference to EU regulations).

An alternative approach, therefore, based on the principles of the EU Taxonomy and the MDB methodology, will be required in some instances for projects financed by the EIB Group. The MDBs are currently completing a two-year programme of reviewing the harmonised methodology for climate change mitigation finance tracking, due to be finalised by the end of 2020. Because of the importance of developing frameworks that are compatible at the international level (as envisaged in the context of the International Platform on Sustainable Finance), the EIB has a key role to play in maximising synergies between the two parallel work streams at the MDB and the EU Taxonomy levels.

Since the EU Taxonomy for the remaining four environmental sustainability objectives will not be adopted before the end of 2021, the EIB Group will develop interim definitions to enable the comprehensive tracking of finance in these areas in 2021. The EIB is therefore currently working on a new set of environmental sustainability definitions for substantial contribution to the four non-climate objectives, based on the framework defined in the EU Taxonomy Regulation. The EIB Group will be in a position to feed the experiences gained from the development and thinking on these definitions into the EU Taxonomy work of the EU Platform on Sustainable Finance to be established by the Commission during 2020.

STATUS OF CLIMATE ACTION AND ENVIRONMENTALLY SUSTAINABLE DEFINITIONS

The 2015 EIB Climate Strategy identified a number of general principles that the list of eligible activities must adhere to, and these will remain relevant in the revised set of definitions: 1. Credibility: the recording system must maintain the credibility of the EIB Group's reporting on climate action and

environmental sustainability, and thus, in the case of doubt or uncertainty around impacts, the presumption will be to exclude; 2. Clarity in driving operations: to have maximum impact on Bank lending operations, it should be possible to identify whether a project will be recorded as a contribution to climate action and environmental sustainability as early as possible in the project cycle, preferably at the pre-appraisal stage; 3. Granularity: where possible and relevant, the EIB Group will seek to record only the components of climate action and environmental sustainability embedded within larger overall projects or programmes. This approach allows greater granularity and is in line with the EU Taxonomy and the harmonised MDB methodology. 4. No double counting: the cost of projects or components and/or operations which lead to multiple climate action and environmental sustainability objectives should not result in double-counting.

In addition, climate action and environmental sustainability in intermediated financing must be contractually earmarked for climate action or environmental sustainability eligible activities⁵⁵.

Climate Action (Adaptation)

Climate action criteria for substantial contribution to climate change adaptation will be aligned with those defined in the EU taxonomy. Criteria apply to all sectors. The current EU taxonomy proposal from the TEG report of March 2020⁵⁶ is presented below **Table 1** and **Table 2**.

Table 1 - Substantial contribution technical screening criteria for adapted activities

Criterion	Description
A1: Reducing material physical climate risks	The economic activity must reduce all material physical climate risks to that activity to the extent possible and on a best effort basis.
A1.1	The economic activity integrates physical and non-physical measures aimed at reducing - to the extent possible and on a best effort basis - all material physical climate risks to that activity, which have been identified through a risk assessment.
A1.2	The above-mentioned assessment has the following characteristics: <ul style="list-style-type: none"> • considers both current weather variability and future climate change, including uncertainty; • is based on robust analysis of available climate data and projections across a range of future scenarios; • is consistent with the expected lifetime of the activity.
A2: Supporting system adaptation	The economic activity and its adaptation measures do not adversely affect the adaptation efforts of other people, nature and assets.
A2.1	The economic activity and its adaptation measures do not increase the risks of an adverse climate impact on other people, nature and assets, or hamper adaptation elsewhere. Consideration should be given to the viability of 'green' or 'nature-based-solutions' over 'grey' measures to address adaptation.

⁵⁵ Such contractual earmark could either be in form of a contractual commitment at signature level or in the form of clearly identifiable climate action and environmental sustainability allocations post-signature during the respective tracking year. In addition, where appropriate for certain products, analysis of ex-post data on actual investments from intermediated lending in previous reporting periods may be used to estimate a standard climate action and environmental sustainability indicator for reporting on new signatures.

⁵⁶ https://ec.europa.eu/knowledge4policy/publication/sustainable-finance-teg-final-report-eu-taxonomy_en

A2.3	The economic activity and its adaptation measures are consistent with sectoral, regional, and/or national adaptation efforts.
A3: Monitoring adaptation results	The reduction of physical climate risks can be measured.
A3.1	Adaptation results can be monitored and measured against defined indicators. Recognising that risk evolves over time, updated assessments of physical climate risks should be undertaken at the appropriate frequency where possible.

Table 2 - Substantial contribution technical screening criteria for an activity enabling adaptation

B1. Supporting adaptation of other economic activities	The economic activity reduces material physical climate risk in other economic activities and/or addresses systemic barriers to adaptation. Activities enabling adaptation include, but are not limited to, activities that: <ul style="list-style-type: none"> • Promote a technology, product, practice, governance process or innovative uses of existing technologies, products or practices (including those related to natural infrastructure); or, • Remove information, financial, technological and capacity barriers to adaptation by others.
B1.1	The economic activity reduces or facilitates adaptation to physical climate risks beyond the boundaries of the activity itself. The activity will need to demonstrate how it supports adaptation of others through: <ul style="list-style-type: none"> • an assessment of the risks resulting from both current weather variability and future climate change, including uncertainty, that the economic activity will contribute to address based on robust climate data; • an assessment of the effectiveness of the contribution of the economic activity to reducing those risks, taking into account the scale of exposure and the vulnerability to them.
B1.2	In the case of infrastructure linked to an activity enabling adaptation, that infrastructure must also meet the screening criteria A1, A2 and A3.

Climate Action (Mitigation)

Table 3 below presents the current proposal for technical screening criteria for substantial contribution to climate mitigation in those sectors and activities covered so far in the work on the EU taxonomy. The categories and criteria are those presented in the TEG report of March 2020.

For sectors not covered by the TEG report, EIB will continue to use criteria based on the Joint MDB methodology for climate mitigation finance tracking. These include the following sectors:

- Manufacturing
 - Brownfield industrial energy-efficiency, resource efficiency and GHG reductions (for sectors not covered by the Taxonomy)
 - Highly efficient greenfield manufacturing facilities (for sectors not covered by Taxonomy)
- RDI
- Transport
 - Maritime shipping fleets
 - Water transport infrastructure supporting modal shift
 - Aviation

- Transport demand management and intelligent transport systems
- Energy efficiency in infrastructure and equipment
- Agriculture, forestry and fisheries
 - Individual measures for energy efficiency, other GHG reductions and increased carbon sequestration
- Solid Waste Management
 - Valorisation/recovery of food, feed, nutrients and chemicals from bio-waste
 - Repair and reconditioning of products and product components for reuse
- ICT
 - Telecommunications networks
 - Digitalisation

In general, for activities and sectors located outside the EU, the EIB will apply Taxonomy criteria. In a limited number of cases, however, the criteria will need to be adapted locally, in line with the joint MDB approach. This is the case, for example, with new buildings.

In addition to technical screening criteria for climate action, all projects must meet overall eligibility criteria for the EIB Group.

Table 3 – Proposed EU Taxonomy Criteria for Substantial Contribution to Climate Mitigation.

ACTIVITY	EU TAXONOMY CRITERIA FOR SUBSTANTIAL CONTRIBUTION TO CLIMATE MITIGATION
Electricity Production	Facilities operating at life cycle emissions lower than 100gCO ₂ e/kWh are eligible ⁵⁷ (threshold will be reduced every 5 years). Solar, CSP, Wind, Ocean - no need for carbon footprint - considered to always meet threshold
	Facilities operating at life cycle emissions lower than 100gCO ₂ e/kWh are eligible (threshold will be reduced every 5 years). Hydro, geothermal, gas (e.g. co-firing natural/biogas) require lifecycle carbon footprint analysis Gas: Unabated natural-gas fired power generation is not expected to meet the required threshold. Any form of abatement (e.g. CCS, Co-firing, other...) must demonstrate compliance with emission threshold.
	Bioenergy: - must above 80% of GHG emissions reduction against fossil fuel comparator are eligible. - feedstocks must meet criteria under manufacture of biomass, biogas, biofuels
Electricity T&D	All electricity transmission and distribution infrastructure or equipment in Systems which are on a trajectory to full decarbonisation* are eligible, except for infrastructure that: <ul style="list-style-type: none"> ● Is dedicated to creating a direct connection, or expanding an existing direct connection between a power production plant that is more CO₂ intensive than 100 gCO₂e/kWh, measured on a LCE basis, and a substation or network. <p><i>* criteria for trajectory to full decarbonisation are presented in the TEG report.</i></p>
Electricity Storage	All electricity storage activities are eligible under the Taxonomy

⁵⁷ For the avoidance of doubt, the use of the term eligibility in this table refers solely to the proposed EU Taxonomy.

ACTIVITY	EU TAXONOMY CRITERIA FOR SUBSTANTIAL CONTRIBUTION TO CLIMATE MITIGATION
Thermal energy storage	All thermal energy storage is eligible under the Taxonomy
Hydrogen storage	<p>Operation of hydrogen storage assets is eligible under the Taxonomy if:</p> <ul style="list-style-type: none"> • The Infrastructure is used to store taxonomy-eligible hydrogen (see Manufacture of hydrogen). <p>Infrastructure that is required for zero direct emissions transport (e.g. hydrogen fuelling stations) is eligible under the transport section.</p>
Manufacture of Biogas or Biofuels	<p>Manufacture of Biomass, Biogas and Biofuels is eligible if:</p> <p>Produced from the biomass feedstock listed in Part A of Annex IX of Directive (EU) 2018/2001.</p> <p>Any other anaerobic digestion of organic material (excl. organic waste) is eligible provided that (i) methane leakage from relevant facilities (e.g. for biogas production and storage, (ii) energy generation, digestate storage) is controlled by a monitoring plan, (iii) the digestate produced is used as fertiliser/soil improver – directly or after composting or any other treatment.</p>
Retrofit of Gas Transmission and Distribution Networks	Retrofit of gas transmission and distribution networks whose main purpose is the integration of hydrogen and other low-carbon gases is eligible. This includes any gas transmission or distribution network activities which enable the network to increase the blend of hydrogen and/or other low carbon gasses in the gas system.
District Heating/Cooling Distribution	<p>Construction and operation of pipelines and associated infrastructure for distributing heating and cooling is currently eligible, if the system meets the definition of efficient district heat/cool systems in the EU Energy Efficiency Directive.</p> <p>The EU EED defines “efficient district heating and cooling” as a district heating or cooling system using at least 50% renewable energy or 50% waste heat or 75% cogenerated heat or 50% of a combination of such energy and heat.</p> <p>The following activities are always eligible:</p> <ul style="list-style-type: none"> • Modifications to lower temperature regimes • Advanced pilot systems (control and energy management systems, Internet of Things)
Installation and operation of Electric Heat Pumps	<p>Installation and operation of electric heat pumps is eligible, if:</p> <ul style="list-style-type: none"> • Refrigerant threshold: GWP ≤ 675; and • Must meet energy efficiency requirements stipulated in the implementing regulations under the Ecodesign Framework Directive
Cogeneration of Heat/cool and Power	<p>For CSP, Geothermal and gas, the Cogeneration Threshold is the combined heat/cool and power threshold of 100 gCO_{2e}/kWh (on lifecycle basis).</p> <p>CSP - no requirement to undertake footprint analysis</p> <p>Gas & geothermal - footprint analysis is required.</p> <p>For bioenergy, facilities operating above 80% of GHG emissions-reduction in relation to the relative fossil fuel comparator set out in RED II increasing to 100% by 2050, are eligible, and facilities must use feedstocks which meet the criteria on the Manufacture of Biomass, Biogas and Biofuels.</p> <p>Gas:</p> <p>Unabated natural gas fired cogeneration is not expected to meet the required</p>

ACTIVITY	EU TAXONOMY CRITERIA FOR SUBSTANTIAL CONTRIBUTION TO CLIMATE MITIGATION
	threshold. Any form of abatement (e.g. CCS, Co-firing, other...) must demonstrate compliance with emission threshold.
Heat Production	<p>For CSP, Geothermal and gas, the threshold is 100 gCO₂e/kWh (on lifecycle basis) CSP - no requirement to undertake footprint analysis For geothermal and gas the threshold is 100gCO₂/kWh (on a lifecycle basis) All CSP heat is eligible. For bioenergy, facilities operating above 80% of GHG emissions-reduction in relation to the relative fossil fuel comparator set out in RED II increasing to 100% by 2050, are eligible, and facilities must use feedstocks which meet the criteria on the Manufacture of Biomass, Biogas and Biofuels. All recovery waste heat is eligible.</p>
Carbon, Capture and Storage (applies to manufacturing and energy projects)	<p>Capture: Carbon Capture is currently eligible provided that:</p> <ul style="list-style-type: none"> • it enables the economic activity to operate under its respective threshold; and • It shows that the captured CO₂ will be offloaded to a Taxonomy eligible CO₂ transportation operation and permanent sequestration facility <p>Transport: Transport modalities that contribute to the transport of CO₂ to eligible permanent sequestration sites are eligible, only if the asset operates below the leakage/tonne of CO₂ threshold <0.5%.</p> <p>Storage: Operation of a permanent CO₂ storage facility is eligible if the facility complies with ISO 27914:2017 for geological storage of CO₂.</p>
Manufacture of low carbon technologies	<p>Manufacture of components and machinery for renewable energy. Detailed criteria included in TEG report.</p>
	<p>Manufacture of vehicles and components for low carbon transport. Detailed criteria included in TEG report.</p>
	<p>Manufacture of EE equipment for buildings. Detailed criteria included in TEG report.</p>
	<p>Manufacture of other low carbon technologies and components where substantial GHG reductions. Detailed criteria included in TEG report.</p>
<p>Manufacture of: - cement - aluminium - iron and steel - hydrogen - inorganic basic chemicals - carbon black, soda ash, chlorine, other inorganic basic chemicals - fertilizers and nitrogen compounds</p>	<p>Overall criteria are that emissions must be lower than the EU-ETS benchmark for those sectors. Mitigation measures that are part of an investment plan to meet the EU-ETS benchmark are eligible. Some sectors have additional criteria as specified in the TEG Report</p>

ACTIVITY	EU TAXONOMY CRITERIA FOR SUBSTANTIAL CONTRIBUTION TO CLIMATE MITIGATION
- plastics in primary form	
Passenger cars and commercial vehicles	<ul style="list-style-type: none"> • Zero tailpipe emission vehicles (incl. hydrogen, fuel cell, electric). These are automatically eligible. • Vehicles with tailpipe emission intensity of max 50 g CO₂/km (WLTP) are eligible until 2025.
Road Vehicles - Trucks	<ul style="list-style-type: none"> • Zero direct emission heavy-duty vehicles that emits less than 1g CO₂ /kWh (or 1g CO₂ /km for certain N₂ vehicles) are automatically eligible; • Low-emission heavy-duty vehicles with specific direct CO₂ emissions of less than 50% of the reference CO₂ emissions of all vehicles in the same sub-group are eligible. • Dedicated vehicles solely using advanced biofuels or renewable liquid and gaseous transport fuels of non-biological origin as defined in Art. 2 (34) and Art. 2 (36) in line with Directive (EU) 2018/2001, guaranteed either by technological design or ongoing monitoring and third-party verification. In addition, for an investment in new vehicles, only vehicles with efficiency corresponding to direct CO₂ emissions (gCO₂/ km) (biogenic CO₂) below the reference CO₂ emissions of all vehicles in the same sub-group are eligible. Eligibility should be reviewed latest by 2025 or when Directive (EU) 2018/2001 is reviewed. • Fleets of vehicles dedicated to transport fossil fuels or fossil fuels blended with alternative fuels are not eligible
Urban public transport fleets (not buses)	<ul style="list-style-type: none"> • Zero direct emissions land transport activities (e.g. light rail transit, metro, tram, trolleybus, bus and rail) are eligible. • Other fleets are eligible if direct emissions are below 50 gCO₂e/pkm until 2025 (non-eligible thereafter)
Interurban Buses Fleets	<ul style="list-style-type: none"> • Zero tailpipe emission vehicles (incl. hydrogen, fuel cell, electric) are automatically eligible. • Dedicated vehicles solely using advanced biofuels or renewable liquid and gaseous transport fuels of non-biological origin as defined in Art. 2 (34) and Art. 2 (36) in line with Directive (EU) 2018/2001, guaranteed either by technological design or ongoing monitoring and third-party verification. In addition, for an investment in new vehicles, only vehicles with efficiency corresponding to direct emissions below 95g CO₂ e /pkm (including biogenic CO₂) are eligible.. Eligibility should be reviewed latest by 2025, or when Directive (EU) 2018/2001 is reviewed. • Other vehicles are eligible if direct emissions are below 50 gCO₂e/pkm

ACTIVITY	EU TAXONOMY CRITERIA FOR SUBSTANTIAL CONTRIBUTION TO CLIMATE MITIGATION
Passenger Rail Fleets	<ul style="list-style-type: none"> • Zero direct emissions trains are eligible. • Other trains are eligible if direct emissions (TTW) are below 50g CO₂e emissions per passenger kilometre (gCO₂e/pkm) until 2025 (non-eligible thereafter)
Freight Rail Fleets	<ul style="list-style-type: none"> • Zero direct emissions trains (e.g. electric, hydrogen) are eligible. • Other trains are eligible if direct emissions per tonne-km (gCO₂e/tkm) are 50% lower than average reference CO₂ emissions of HDVs as defined for the Heavy Duty CO₂ Regulation, to be reviewed in 2025. • Rail that is dedicated to the transport of fossil fuels or fossil fuels blended with alternative fuels is not eligible even if meeting the criteria above.
Inland Passenger Waterway Transport	<ul style="list-style-type: none"> • Zero direct emissions inland waterway vessels are eligible. • Dedicated vessels solely using advanced biofuels or renewable liquid and gaseous transport fuels of non-biological origin as defined in Art. 2 (34) and Art. 2 (36) in line with Directive (EU) 2018/2001, guaranteed either by technological design or ongoing monitoring and third-party verification. In addition, for an investment in new vessels, only vessels with efficiency corresponding to direct emissions below 95g CO₂ e /pkm (including biogenic CO₂) are eligible. . Eligibility should be reviewed latest by 2025, or when Directive (EU) 2018/2001 is reviewed. • Other Inland waterways vessels are eligible if direct emissions are below 50 gCO₂e emissions per passenger kilometre (gCO₂e/pkm) (or 92.6 g per passenger nautical mile (gCO₂e/pnm)). Eligibility should be reviewed in 2025.
Inland Freight Water Transport	<ul style="list-style-type: none"> • Zero direct emissions inland waterways vessels are eligible. • Dedicated vessels solely using advanced biofuels or renewable liquid and gaseous transport fuels of non-biological origin as defined in Art. 2 (34) and Art. 2 (36) in line with Directive (EU) 2018/2001, guaranteed either by technological design or ongoing third-party monitoring and verification. In addition, for an investment in new vessels, only vessels with efficiency corresponding to direct CO₂ emissions (gCO₂/ tkm) (including biogenic CO₂) below the average reference value defined for HDVs (Heavy Duty CO₂ Regulation) are eligible. Eligibility should be reviewed in 2025, or when Directive (EU) 2018/2001 is reviewed. • Other inland waterway vessels are eligible if direct emissions per tkm CO₂e emissions per tonne kilometre (gCO₂e/tkm) or per tonne nautical mile (gCO₂e/tnm) are 50% lower than the average reference value defined for HDVs (Heavy Duty CO₂ Regulation). Eligibility should be reviewed in 2025. • Vessels that are dedicated to the transport of fossil fuels or any blended fossil fuels are not eligible even if meeting the criteria above
Land transport infrastructure	<p>The construction and operation of transport infrastructure is eligible in the following cases:</p> <ol style="list-style-type: none"> 1. Infrastructure that is required for zero direct emissions transport (e.g. electric charging points, electricity grid connection upgrades, hydrogen fuelling stations or electric highways).

ACTIVITY	EU TAXONOMY CRITERIA FOR SUBSTANTIAL CONTRIBUTION TO CLIMATE MITIGATION
	<p>2. Infrastructure and equipment (including fleets) for active mobility (walking, cycling, e-bikes and e-scooters)</p> <p>3. Infrastructure that is predominantly used for low-carbon transport if the fleet that uses the infrastructure meets the thresholds for direct emissions as defined in the relevant activity - measured in CO₂ emissions per kilometre (gCO₂/km), CO₂e emissions per tonne-kilometre (gCO₂e/tkm), or CO₂e emissions per passenger-kilometre (gCO₂e/pkm).</p> <p>4. Non-electrified rail infrastructure with an existing plan for electrification or use of alternatively powered trains.</p> <p>For all cases:</p> <ul style="list-style-type: none"> • Only infrastructure that is fundamental to the operation of the transport service is eligible. • Infrastructure that is dedicated to the transport of fossil fuels or blended fossil fuels is not eligible
Water transport infrastructure	<p>The construction and operation of transport infrastructure is eligible in the following cases:</p> <p>1. Infrastructure that is required for zero direct emissions water transport (e.g. batteries or hydrogen fuelling facilities) is eligible</p> <p>2. Infrastructure dedicated to supporting the renewable energy sector</p> <p>3. Infrastructure that is predominantly used for low-carbon transport is eligible if the fleet that uses the infrastructure meets the thresholds for direct emissions as defined in the relevant activity - measured in CO₂e emissions per passenger-kilometre (gCO₂e/pkm), per tonne-kilometre (gCO₂e/tkm), per passenger nautical mile (gCO₂e/pnm) or per tonne nautical mile (gCO₂e/tnm).</p> <p>For all cases:</p> <ul style="list-style-type: none"> • Only infrastructure that is fundamental to the operation of the transport service is eligible. • Infrastructure that is dedicated to the transport of fossil fuels or blended fossil fuels is not eligible
Construction of new buildings	<p>Net primary energy demand of the new construction must be at least 20% lower than the primary energy demand resulting from the relevant NZEB requirements.</p>
Major Building Renovations	<p>Major renovation: the renovation is compliant with the requirements set in the applicable building regulations for ‘major renovation’ transposing the Energy Performance of Buildings Directive (EPBD)</p> <p>or</p> <p>Relative improvement: the renovation achieves savings of at least 30% in comparison to the baseline performance of the building before the renovation.</p>
Individual building renovation measures	<p>List of individual measures - eligible if compliant with national regulations transposing the Energy Performance Building Directive (EPBD), and must meet Ecodesign requirements - There is a broader description in the Taxonomy</p>

ACTIVITY	EU TAXONOMY CRITERIA FOR SUBSTANTIAL CONTRIBUTION TO CLIMATE MITIGATION
Afforestation, Rehabilitation, Reforestation , Existing Forest Management, Conservation Forestry	<ul style="list-style-type: none"> • Compliance with the Sustainable Forest Management (SFM) requirements • Verified GHG balance baseline is calculated for above-ground carbon pools, • Above ground Carbon stocks shall be maintained or increased relative to the carbon baseline over the rotation period of the forest
Separate collection and transport of source segregated waste	<p>Source segregated waste (in single or co-mingled fractions) is separately collected with the aim of preparing for reuse and/or recycling.</p> <p>No threshold applies.</p>
Anaerobic digestion of bio-waste	<p>Anaerobic digestion of bio-waste is eligible provided that (cumulative):</p> <ul style="list-style-type: none"> • the bio-waste is source segregated and collected separately; • methane leakage from relevant facilities is controlled by a monitoring plan; • the produced biogas is used directly for electricity and/or heat generation, or upgraded to bio-methane for injection in the natural gas grid, or used as vehicle fuel, or as feedstock in chemical industry; • the digestate produced is used as fertiliser/soil improver; • in dedicated bio-waste treatment plants, bio-waste shall constitute a major share of the input feedstock (at least 70%, measured in weight, as an annual average). Co-digestion is eligible only with a minor share (up to 30% of the input feedstock) of advanced bioenergy feedstock
Composting	<p>Composting of bio-waste is eligible provided that (cumulative):</p> <ul style="list-style-type: none"> • the bio-waste is source segregated and collected separately; • anaerobic digestion is not a technically and economically viable alternative; • the compost produced is used as fertiliser/soil improver . <p>No threshold applies.</p>
Material recovery from non-hazardous waste by means of mechanical processes	<p>Material recovery from separately collected non-hazardous waste is eligible provided that:</p> <ul style="list-style-type: none"> • it produces secondary raw materials suitable for substitution of virgin materials in production processes; • at least 50%, in terms of weight, of the processed separately collected non-hazardous waste is converted into secondary raw materials."
Landfill gas capture and utilization - post landfill closure	<p>Collection and utilization of landfill gas is eligible provided that (cumulative):</p> <ul style="list-style-type: none"> • the landfill has not been opened after [date of entry into force of Taxonomy]; • the landfill is permanently closed and is not taking further waste; • the produced landfill gas is used directly for the generation of electricity and/or heat, or upgraded to bio-methane for injection in the natural gas grid, or used as vehicle fuel or as feedstock in chemical industry; • methane emissions are controlled by a monitoring plan. <p>No threshold applies.</p>
New or extension of Sewage Networks and Waste Water Treatment Plants	<p>The new system substitutes a more GHG emission intensive wastewater treatment (e.g. Septic tanks, anaerobic lagoons etc).</p> <p>No threshold applies</p>

ACTIVITY	EU TAXONOMY CRITERIA FOR SUBSTANTIAL CONTRIBUTION TO CLIMATE MITIGATION
Anaerobic Digestion in sewage sludge	<ul style="list-style-type: none"> methane leakage from relevant facilities is controlled by a monitoring plan; the produced biogas is used directly for the generation of electricity and/or heat, or upgraded to bio-methane for injection in the natural gas grid, or used as vehicle fuel or as feedstock in chemical industry
Extension or new water supply systems	Eligible if the front to end system (including abstraction, treatment and distribution) has a high degree of energy efficiency, such as an average energy consumption of 0.5 kwh per cubic meter billed/unbilled authorized water supply or less.
Rehabilitation of water supply systems	<ul style="list-style-type: none"> The front to end system (including abstraction, treatment and distribution) has a high degree of energy efficiency, such as an average energy consumption of 0.5 kwh per cubic meter billed/unbilled authorized water supply or less OR The energy efficiency of the front-to-end water supply system is increased substantially: <ul style="list-style-type: none"> by decreasing the average energy consumption of the system by at least 20% (including abstraction, treatment and distribution; measured in kwh per cubic meter billed/unbilled authorized water supply); or by closing the gap between the actual leakage of the water supply network and a given target value of low leakage by at least 20%.
Data-driven climate change monitoring solutions	Development and/or use of ICT solutions that are exclusively aimed at collecting, transmitting, storing data and at its modelling and use when these activities are aimed at the provision of data and analytics for decision making (by the public and private sector) enabling GHG emission reductions
Data Centres	The data centre implements the European Code of Conduct for Data Centre Energy Efficiency. This implies Implementation of the practices - including relevant optional ones where reasonable - described in the most recent “Best Practice Guidelines for the European Code of Conduct for Data Centre Energy Efficiency “ (JRC) or in CEN/CENELEC documents CLC TR50600-99-1 and CLC TR50600-99-2”.

Environmental Sustainability

The table below provides an extract of the EU Taxonomy Regulation in relation to the other four environmental objectives that represent the environmental sustainability elements of the new EIB ambition. At this stage technical criteria defining substantial contribution for these objectives are not yet defined and will be formally adopted with a Delegated Act only in December 2021.

Table 4 – Extract of the EU Taxonomy Regulation in relation to the other four environmental objectives

Objectives	Eligible areas of activity
3. Sustainable use and protection of water and marine resources	<ul style="list-style-type: none"> a - Protect from effects of Urban/Industrial discharge b - Safe drinking water c - Water efficiency/reuse d - Sustainable use of marine ecosystem services e - Enabling activities
4. Transition to circular economy	<ul style="list-style-type: none"> a - Efficient use of natural resources

	<ul style="list-style-type: none"> b - Increase the durability, reparability, upgradability or reusability of products c - Increase the recyclability of products d - Reduce the content of hazardous substances in materials and products e - Prolong the use of products f - Increase the use of secondary raw materials and their quality g - Prevent/Reduce waste generation h - Increase reuse/recycling i - Improve waste management infrastructure and recycling j - Minimise incineration / avoiding disposal of waste k - Avoid/reduce litter l - Enabling activities
5. Pollution prevention and control	<ul style="list-style-type: none"> a - Prevent/reduce polluting emissions (air, water, soil) b - Improving levels of air, water or soil quality c - Minimise adverse effects of production and use of chemicals d - Cleaning up pollution e - Enabling activities
6. Protection and restoration of biodiversity and ecosystems	<ul style="list-style-type: none"> a – Conservation, protection and restoration of nature/ terrestrial and marine ecosystems and their services b - Sustainable land management c - Sustainable agricultural practices d - Sustainable forest management e - Enabling activities

Annex 5. ALIGNED CARBON PRICES

INTRODUCTION

As set out in the EIB Guide to the [Economic Appraisal of Investment Projects](#), the EIB routinely applies an economic test when appraising an investment loan – i.e. typically a project associated with a significant volume of capital expenditure. The economic test is used to confirm that the expected benefits to society outweigh the costs. In line with the EIB’s statutes, this helps ensure that the EIB’s funds are employed⁵⁸ “as rationally as possible”. It is also consistent with the approach adopted by many public administrations to justify the use of public funds to support major projects.

The economic test estimates wider costs and benefits to society (“externalities”) that typically are not captured through internal financial flows. The costs and benefits to the environment are a core externality. In the case of greenhouse gas emissions, a key parameter value to measure this impact is the **cost associated with a tonne of carbon**.

The EIB began to include the cost of greenhouse gas emissions into its economic appraisal framework for some sectors in the mid-1990s. In order to ensure a consistent approach across all operations, the EIB undertook a **review of the evidence in the mid-2000s**. This study still forms the **basis for the values approved by the EIB Board in 2015** in the [Climate Strategy](#). As some EIB operations have an asset life of up to 30 years, the values were extended out to 2050.

These values are out of date, in particular pre-dating the Paris Agreement by almost a decade. This was already acknowledged in the EIB [Energy Lending Policy](#) (ELP) which commits the Bank to “*continue to monitor the evidence around carbon pricing consistent with the Paris temperature targets and adjust as necessary in the context of any future revision to its Climate Strategy.*”

In 2020, the EIB has engaged in a **review of the latest evidence on the cost of carbon**, in particular drawing from modelling results which formed the basis of the IPCC Special Report on Global Warming of 1.5°C. These values are **significantly higher than the current EIB values**. This Annex provides an overview of the basis of these results, explaining the relationship between these results and other well-known sources (e.g., IPCC, European Commission, IEA, etc.).

THE EVIDENCE

WHAT IS BEING MEASURED? THE SHADOW COST OF CARBON

In light of the Paris Agreement, the review of EIB’s carbon pricing approach focuses on the cost of carbon required to drive the economy to meet the 1.5°C global temperature target. This is referred to as the **shadow cost of carbon**. This is a distinct concept. It differs in principal from other common cost concepts such as the estimate of the damage associated with the emission of a tonne of carbon, often referred to as the social cost of carbon⁵⁹, or price signals derived from market-based instruments (e.g. carbon taxes, cap-and-trade schemes etc).

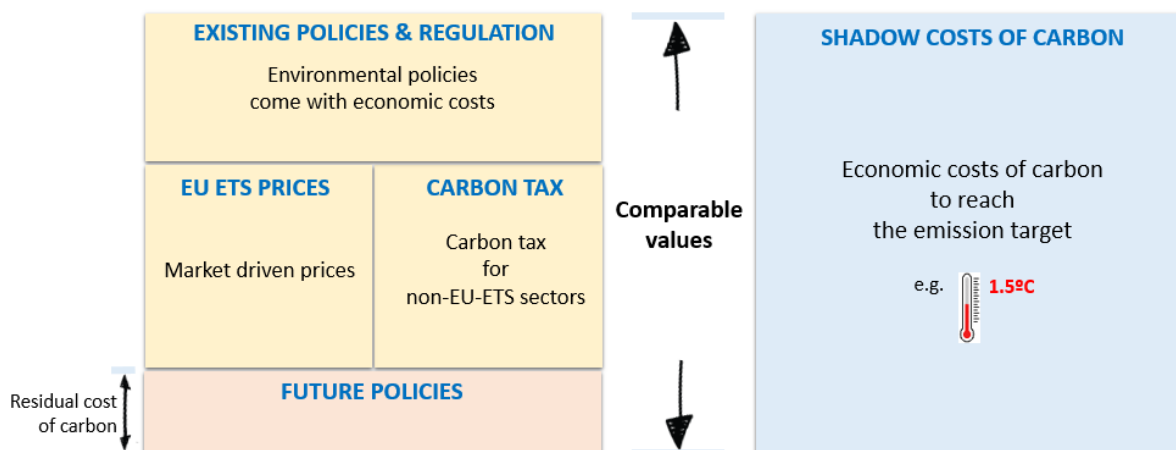
The difference between the shadow cost of carbon and the cost associated with any one instrument – such as the EU Emissions Trading System (EU ETS) – is illustrated in Figure 1. The shadow cost is a benchmark value. Consider various measures to abate carbon, ranked in cost per tonne abated. The shadow cost represents the full cost of the marginal measure required to reach the target. All

⁵⁸ Article 18, para 1, of the EIB Statutes clarifies that loans or guarantees may only be granted: “where the execution of the investment contributes to an increase in the economic productivity”.

⁵⁹ In a textbook setting, these two costs – the shadow cost and social cost – are equivalent with an optimal temperature target. Note that the existing EIB values are based on studies that estimate the social cost

investments reducing carbon for less than this value are beneficial. All investments reducing carbon at a cost above this value are not justified – there are lower cost alternative means available.

Figure 8 – Shadow cost of carbon and wider supportive policies



In practice, there are a wide range of policies used to reduce emissions. Within the EU, there are a wide range of technical standards (emissions for new vehicles), regulations to blend fuel (e.g. bio-fuels), targets for energy efficiency and the share of renewables. Each of these policies is associated with a cost. In addition, the EU Emissions Trading Scheme caps emissions from large stationary sources (power plants, industrial facilities) as well as intra-EU flights. The cost associated with this one instrument is reflected through the price of an allowance. Outside of the EU sectors, several member state have introduced measures to reduce emissions in the transport or building sectors, including through carbon taxes. In principal, the summation of the costs associated with the full set of wider policies – including additional future polices to meet the target - would equate⁶⁰ to the shadow cost of carbon.

For the purpose of cost-benefit analysis, the shadow cost of carbon provides the correct conceptual basis to **measure changes in emissions resulting from the project**. It in no way provides an indication of the required value of any one policy instrument.

REVIEW OF THE EVIDENCE

To derive an estimate for the shadow cost of carbon, it is necessary to use a model to estimate the least cost pathway to reducing emissions, not only today but long into the future. For this purpose, so-called **Integrated Assessment Models (IAMs)** are applied – essentially detailed models of the economy and climate systems. Higher carbon prices drive the economy towards low-carbon solutions, in turn reducing emissions and, over time, concentrations and temperature rises. A number of different modelling exercises are currently being run from major universities and research centres across the globe, although with a **strong focus in Europe**. To ensure comparability and transparency, major global peer-reviewed research exercises can be retrieved from a single database ([IAMC](#) or Integrated Assessment Model Consortium).

By its very nature, IAM are highly specialised exercises. In 2020, the Bank therefore commissioned an academic review of this evidence. Table 1 summarises the modelling frameworks that are included in

⁶⁰ The academic literature stresses the efficiency properties of a single instrument, at least absent other market failures (RDI, market power etc). In this sense, the total shadow cost of a range of policies may be higher than the shadow cost of a sole carbon tax instrument.

the review, highlighting the eight models included in the IAMC database. These modelling frameworks vary in terms of the modelling approach⁶¹, scope and core assumptions.

Table 5: Modelling frameworks reviewed.

Acronym	Full name	Lead research centre	IAMC
AIM/GCE	Asia-Pacific Integrated Model	National Institute for Environmental Studies (NIES), Japan, in collaboration with Kyoto University.	Y
GCAM	Global Change Assessment Model	Joint Global Change Research Institute (JGCRI), University of Maryland, USA	Y
IMAGE	Integrated Model to Assess the Global Environment	Netherlands Environmental Assessment Agency (PBL)/ Utrecht University, Netherlands.	Y
MESSAGE (and GLOBIOM)	Model for Energy Supply Strategy Alternatives and their Global Environmental Impact; including Global Biosphere Management Model.	International Institute for Applied Systems (IIASA), Austria.	Y
POLES	Prospective Outlook on Long-term Energy Systems	JRC – Joint Research Centre – European Commission, Belgium.	Y
REMIND	Regionalized Model of Investment and Development	Potsdam Institute for Climate Impact Research (PIK), Germany	Y
WITCH	World Induced Technical Change Hybrid.	European Institute on Economics and the Environment (RFF-CMCC EIEE), Italy	Y
IMACLIM		Centre International de recherche sur l'environnement et le développement (CIRED), France	
TIMES		The Energy Technology Systems Analysis Program (ETSAP) – Technology Collaboration Programme of the International Energy Agency (IEA)	
ThreeME	Multisector Macroeconomic Model for the Evaluation of Environmental and Energy Policy	Collaboration between ADEME (French Environment and Energy Management Agency), OFCE (French Economic Observatory) and NEO (Netherlands Economic Observatory)	
PRIMES		E3MLab/ICCS of National Technical University of Athens, Greece	
MERGE		Energy Economics Group, PSI, Switzerland.	

The review uses as much information as possible from a relevant set of scenarios from these models. Relevance is judged in two senses. Firstly, scenarios need to be consistent with the 1.5°C target⁶² by the end of the century low or no overshoot⁶³. Secondly, scenarios should not rely heavily on the development of one particular negative emissions technology: bioenergy with carbon capture and

⁶¹ Key technical differences include partial vs general equilibrium approach, full intertemporal optimisation or recursive dynamic and endogenous learning by doing/exogenous costs

⁶² Following the IPCC SR15, this refers to a pathway of GHG emissions that provides an approximately one-in-two to two-in-three chance, given the current knowledge of the climate response, of global warming either remaining below 1.5°C or returning to 1.5°C by around 2100 following an overshoot. An overshoot implies a peak followed by a decline achieved through anthropogenic removal of carbon dioxide exceeding remaining emissions globally.

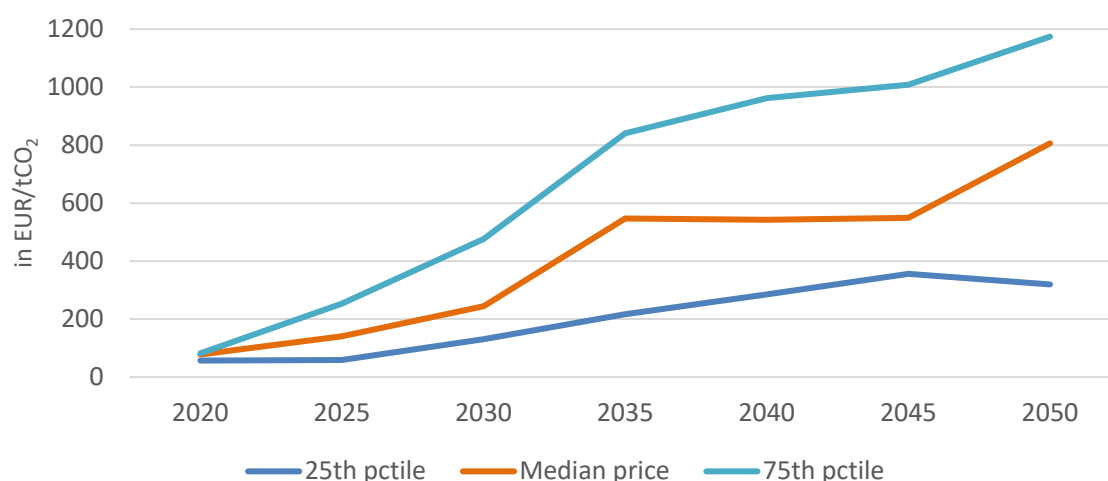
⁶³ This is consistent with the SR15 Summary for Policymakers which focusses on pathways with no or limited (low) overshoot.

storage⁶⁴ (BECCS). This has been subject to much criticism, not least given concerns about food security. This review therefore focuses on scenarios reliant with only a relatively limited reliance⁶⁵ on BECCS. Applying these conditions gives a sample of 20 scenarios.

Figure 1 presents the key statistics from this set of scenarios. The median cost is approximately €250/t CO₂ in 2030 and €800/t in 2050. Two points warrant comment. Firstly, the variance in results across different scenarios in any one year is relatively large. For instance, the 75th percentile is approximately four times higher than the 25th percentile. This reflects a large degree of uncertainty on technological development, cost functions and consumer preferences, compounded with differences in modelling approaches and assumptions about the workings of the economy.

Secondly, drawn from a relatively small sample, the results can be somewhat “lumpy”. For instance, the median value is largely flat for the decade 2035 to 2045, despite a more gradual rise in the 25th and 75th percentile. As discussed below, this suggests that there may be little loss in information by smoothing over the longer time period.

Figure 9 – Results from review of IAMC database. All values are in €₂₀₁₆/tCO_{2e}.



PLACING THE RESULT INTO A TECHNOLOGY PERSPECTIVE

The results from the IAMC database give relatively high headline figures, notable for 2050. This section considers the broader need for higher carbon prices in driving deep decarbonisation through innovative technologies.

Many IAM model results reveal that up to one half of GHG emission reductions can be achieved using relative mature technologies with abatement costs below €250/tCO_{2e} (the value for 2030). These opportunities are in the building sector, energy production, industry and agriculture. In practice, the major risk in these mature sectors is that the rate of deployment is too slow. Put differently, economic models typically do not capture well the barriers to investment stemming from a range of practical issues: poor information, asymmetries in information, policy uncertainty, behavioural elements etc.

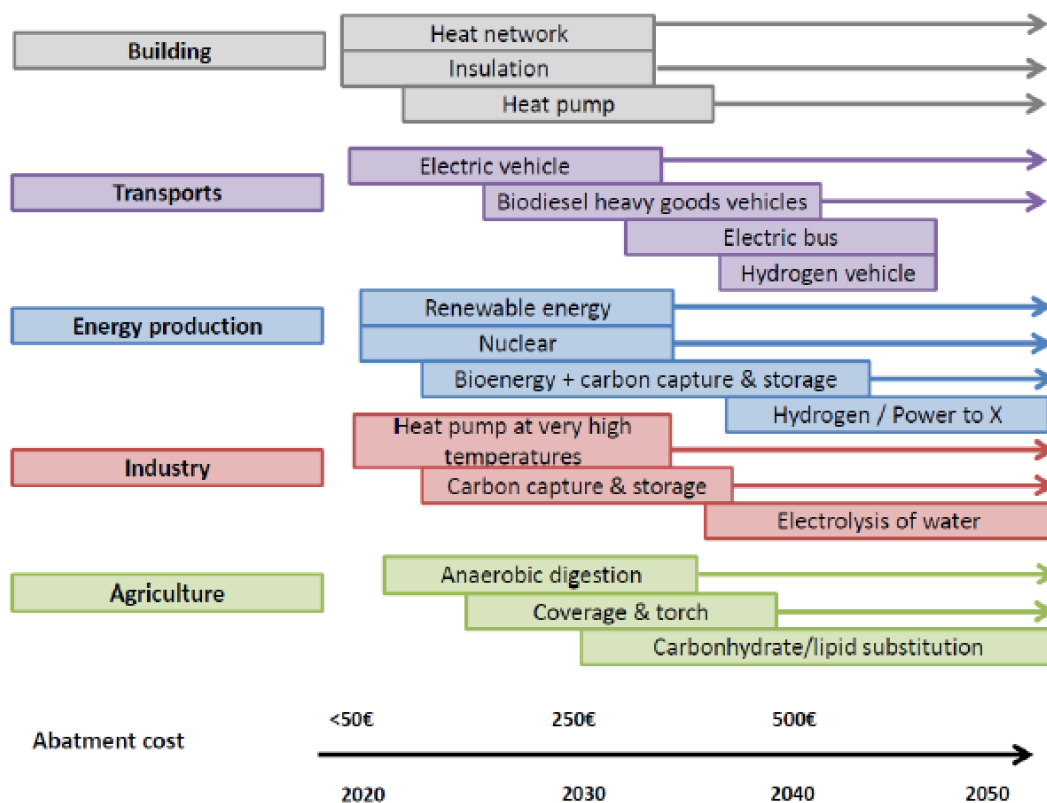
Deep decarbonisation is required to cut the “second half” of emissions. This typically depends on technologies that are not yet mature. In these sectors, abatement cost projections are typically above €500/tCO_{2e} in 2050. The cost of deploying these technologies is surrounded by major uncertainties

⁶⁴ This refers to carbon dioxide capture and storage (CCS) technology applied to a bioenergy facility. Depending on the total emissions of the supply chain, BECCS can remove carbon dioxide from the atmosphere.

⁶⁵ Following Aamaas et al (2019), after considering different approaches, a screening criteria of 500 GtCO₂ cumulative storage from BECCS by 2100 is set, together with a yearly usage of 12 GtCO₂ by 2100.

and estimates vary widely by source. Figure 2 reproduces some cost estimates for different technologies, as presented in France Stratégie (2018).

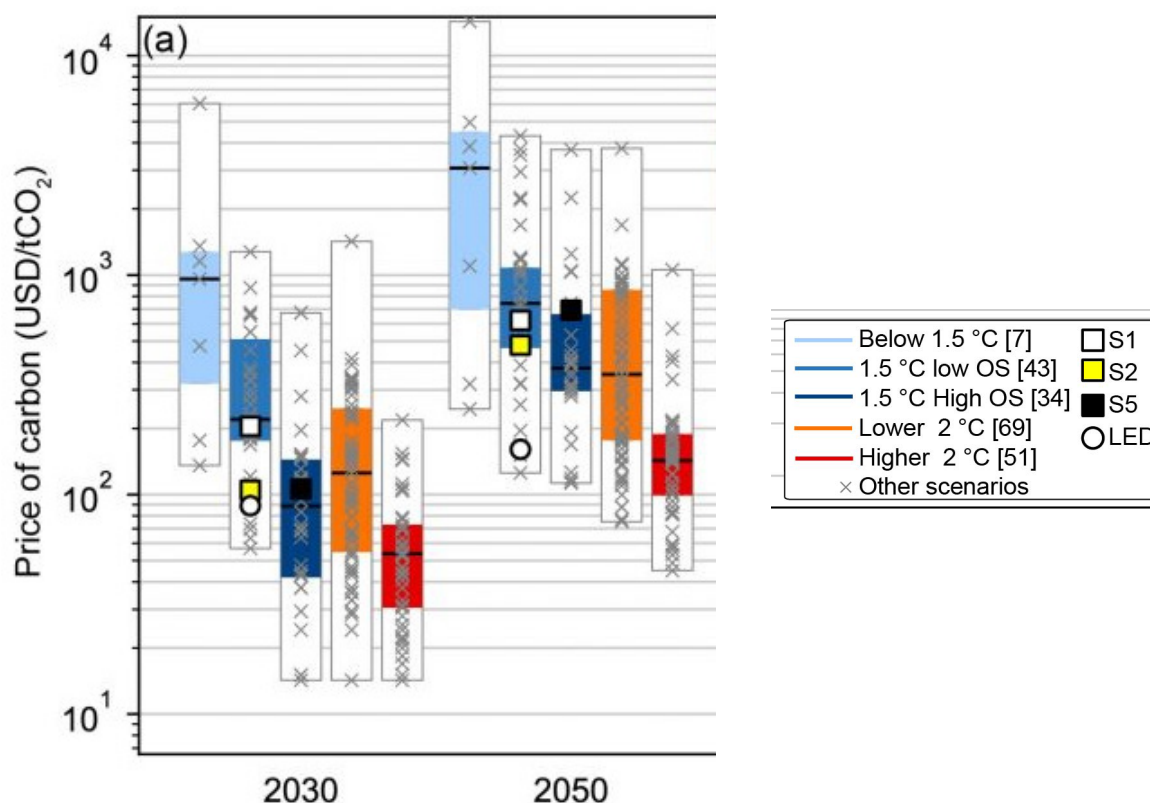
Figure 10 – Costs of deploying various technologies



COMPARISON WITH OTHER RESULTS

This section compares the results from the review above with relevant reference points. The obvious starting point is with the IPCC report on 1.5°C, reproduced in Figure 4 (note the logarithmic y-axis). Given that this report also draws on the same IAMC database, it is perhaps no surprise that the **results are similar**. Under the same temperature goal assumption, the IPCC median results are around €240 per tonne in 2030, rising to close to €800 by 2050.

Figure 11 – IPCC Results from the Special Report on Global Warming of 1.5°C



Source: Figure 2.26 IPCC 1.5. Notes: Median values in black lines. The number of scenarios included in box plots is indicated in the legend. The EIB results can be directly compared with the 1.5°C low OS (low overshoot) scenario. Points S1, S2, S5 and LED refer to specific scenarios varying with respect to the availability of carbon sinks, notably bio-energy and CCS. Further information is available in the IPCC report or CBR chapter 2.

In 2019, the **French government** commissioned a high-level review by [France Stratégie](#) of carbon pricing to help drive investment decisions. This commission made recommendations based in part of the IMACLIME, ThreeME and TIMES modelling work for a net-zero GHG emissions in France by 2050. It recommends a shadow cost of **€250 in 2030** and **€775 in 2050** for the French economy. This is clearly very close to the median results of the IAMC database⁶⁶.

The results thus far refer to the shadow cost of carbon – i.e. where a carbon price is the sole instrument used to correct the carbon market failure. As presented in Figure 1 above, an alternative approach is to model the full range of planned policy initiatives (standards, regulations, other market-based instruments) alongside a carbon instrument (tax or cap-and-trade). This is the approach adopted by the **European Commission** in the PRIMES model (with associated satellite models), and reported in the [EC \(2018\)](#) Clean Planet for All. This model includes a range of supportive EU climate policies in addition to carbon prices (e.g. under some scenarios, all new cars, vans and buses are zero tailpipe by 2040, the share of low-carbon gas in the gas network is 90% etc). Each of these supportive policies is associated with its own shadow cost. However, with the “heavy lifting” of reducing emissions performed by other policies, there is only a more limited role for carbon pricing to drive out residual emissions to net zero. As a result, the model carbon price is €65/tCO₂ in 2030⁶⁷, reaching up to

⁶⁶ Infact, the modelling results reported by France Stratégie, at least beyond 2040, are somewhat higher than the median values shown in Figure 1. This is natural given the modelling focus on net zero GHG emissions by 2050, which is stricter target than the 1.5°C target (by 2100) in the IAMC database models. However, as discussed in the report, given the uncertainties involved, it is useful to supplement the modelling results with a more explicit technological forecasting exercise. This concludes that with a shadow price ranging from €600 to €900/tCO₂e by 2050, a cost-effective portfolio of enabling technologies to achieve net zero goals should emerge.

⁶⁷ Taken from the latest EC modelling presented as part of the impact assessment of adopting a 50-55% emissions reduction target for 2030.

€350/tCO₂ in 2050 under some scenarios. **These two approaches can be seen as complementary:** indeed, one interpretation would be that the likely shadow cost of all EU supportive policies, other than carbon pricing, would be at least⁶⁸ €450 per tonne in 2050 (i.e. 800 – 350).

The use of economic assessment, and carbon pricing in particular, varies across IFIs, in part reflecting mandates and business models. The World Bank Group and EBRD refer to values presented in the 2017 [High Level Commission on Carbon Pricing](#). This was also used as the basis of the previous review of the EIB figures during the Energy Lending Policy. The Commission recommends values of “*at least US\$50-100/tCO₂ by 2030 provided a supportive policy environment is in place.*” These values can be seen as the residual carbon value, similar to the PRIMES model.

PROPOSED EIB SHADOW COST OF CARBON

In line with the commitment in the ELP, it is proposed to align the Bank’s shadow cost of carbon to reflect the best available evidence on the cost of meeting the Paris temperature targets. It is therefore proposed to anchor the EIB shadow cost in median values from the review of the IAMC database, as shown in Figure 1. Rounding the median estimates in 2020, 2030 and 2050, and linearly interpolating for years in between gives the values in Table 2.

Table 6: Recommended aligned EIB shadow cost of carbon (EUR₂₀₁₆/tCO_{2e}) for the period 2020-2050.

	2020	2025	2030	2035	2040	2045	2050
Value (€/tCO _{2e})	80	165	250	390	525	660	800

These are values measured in real terms – i.e. in 2016 euros. To illustrate the profile, consider a project being considered for financing today. It will take 4 years to construct, and then operate from 2025 for twenty years – i.e. to 2045. Emissions are forecast for each year of operation. For the first year of operation, emissions would be valued at €165 per tonne. The value of emissions estimated today to occur in 2030 would be valued at €250 per tonne. If the project is estimated today to emit in 2045, this would be valued at €660 per tonne.

For the avoidance of doubt, these figures are only used to estimate the value of net carbon savings or emissions. Demand forecasts and other related aspects of economic analysis are driven by actual market price signals, influenced by the full range of supportive policies.

⁶⁸ Under textbook conditions, with a single externality, a carbon pricing instrument reaches the emissions target at least cost. In this sense, a range of supportive policies is likely to reach the target at a cost greater than, or equal to, least cost. One caveat, however, is that there are several market failures: research and development, asymmetric information, market power etc.

EIB Group Climate Bank Roadmap 2021-2025

Version discussed by the EIB Board of Directors on 11 November 2020



European Investment Bank
98-100, boulevard Konrad Adenauer
L-2950 Luxembourg
☎ +352 4379-22000
www.eib.org – ✉ info@eib.org