EIB Group Climate Bank Roadmap 2021-2025

Position paper

15 June 2020

European Investment Bank Group

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Acronyms and Abbreviations

COP	Conference of the Parties to the UNFCCC
CO_2e	Carbon Dioxide equivalent
CRA	EIB Climate Risk Assessment system
DNSH	Do no significant harm (in connection to EU Taxonomy)
EIB	European Investment Bank
EII	Energy Intensive Industry
ELP	EIB Energy Lending Policy
ETS	Emissions Trading System
EU	European Union
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
LULUCF	Land Use, Land Use Change, Forestry
MDB	Multilateral Development Bank
NDC	Nationally Determined Contribution
OECD	Organisation for Economic Cooperation and Development
SME	Small and medium-sized enterprise
UNFCCC	United Nations Framework Convention on Climate Change

Executive Summary

In November 2019, the European Investment Bank (EIB) Board of Directors agreed on a **new level of commitment** towards climate action and environmental sustainability. The share of EIB finance dedicated to climate action and environmental sustainability will rise to 50% by 2025 and beyond. This increase in the share of EIB Group finance aims to support over €1 trillion of environmentally sustainable investments in these sectors over the critical decade ahead (2021-2030), in support of the European Union's Green Deal. Although agreed prior to the outbreak of the COVID-19 crisis, this increase in support will help reinforce wider EU plans to stimulate a green recovery, including, if duly adopted, those proposed within the Next Generation EU.

The EIB Group will nevertheless continue to support investments under a wide range of public policy goals during this period, including cohesion, innovation, infrastructure and small and medium-sized enterprise (SME) financing. The new commitment will therefore also ensure that all EIB Group financing activity, regardless of the policy goal, is **aligned with the Paris Agreement by the end of 2020**. The final element of the new commitment is a strong willingness to support a **just transition** for those regions or countries more affected by the transition to a low-carbon economy.

The EIB Group is working hard to put this commitment into practice. A Climate Bank Roadmap is being developed to provide a detailed operational framework for its activities on climate action and environmental sustainability over the first five years of its commitment, from 2021 to 2025.

In line with the EIB's Transparency Policy, the EIB Group engaged with stakeholders in mid-March 2020 on a wide range of topics of relevance to the Roadmap. The EIB Group would like to thank the numerous stakeholders who took the time to contribute. Having reviewed the contributions received, the EIB Group wishes to engage in a **second round,** in particular on two specific topics:

- the **alignment of new projects**[1] with the low greenhouse gas (GHG) emissions and climate-resilient development goals of the Paris Agreement; and
- the **definitions** to be used to track the climate action and environmental sustainability target.

These issues raised particular interest in the first round of stakeholder engagement. They are also critical to ensuring that the EIB Group delivers on its commitment from January 2021 onwards.

Chapter 1 introduces the Roadmap, placing it in the wider context of recent economic developments, including the response to COVID-19; and climate policy developments, including with particular regard to sustainable finance flows. The chapter also takes the opportunity to present a longer time series (2012-2019) of EIB support for climate action and environmental sustainability, highlighting the volume of finance provided by the EIB Group in different regions of the world.

Chapter 2 explains the **scope of this second round** of engagement. It highlights the need for further engagement on two key topics: the alignment of new projects with the Paris Agreement and the definitions of climate action and environmental sustainability activities. It stresses that, important as these topics are, they represent only a portion of the full scope of the Roadmap. The Roadmap will, indeed, cover other topics that support the EIB Group's approach to Paris alignment and to climate action and environmental sustainability finance tracking, including climate risk management, strategic business development and the expansion of the scope of the EIB Group's green bonds.

[1] In this context, "new projects" is understood in a broad sense and refers to lending, blending and advising activities approved from 1 January 2021 onwards.

Having established the scope of the exercise, the subsequent chapters address each key issue in turn: consistency of projects with a low-carbon pathway in Chapter 3, building greater resilience to climate change in Chapter 4, and definitions to track the EIB Group's climate action and environmental sustainability target in Chapter 5.

Consistency with a low-carbon pathway

The Paris Agreement calls for financial flows to be consistent with a pathway towards low GHG and climate-resilient development. Chapter 3 examines consistency with low-carbon pathways in the context of appraising new projects. It starts by presenting the European Union (EU) **pathway to net zero emissions**, stressing the deep cuts required in emissions from power generation, industry, mobility and buildings by 2050, as well as the enhancement of carbon sinks. It also touches upon the pathways for low-carbon development in the same sectors in developing countries. This requires sustained increased investment, which the EIB Group will continue to support.

Given its wide range of public policy goals, however, the EIB Group also needs clear criteria to ensure that all its projects are consistent with low-carbon pathways. In addition to a question of public policy, this is increasingly also a question of sound banking practice: there is a risk that, as countries decarbonise, non-aligned projects may become **stranded** more rapidly than expected. This chapter therefore outlines **possible options** to help reduce this risk for the key high-emission sectors of the economy, other than power generation. This last sector is excluded from this paper as it was covered by the recent revision of the EIB Energy Lending Policy (ELP), approved in November 2019.

Four highly emitting sectors are presented in turn:

- industry, responsible for approximately 21% of EU GHG emissions, notably from energy-intensive industries;
- transport, responsible for 24%, notably from road and aviation sectors;
- buildings, responsible for 15%; and
- agriculture, with non-CO_2 emissions responsible for 17% of GHG emissions, and land use.

In each case, the EIB Group's intention of supporting innovation and transition within these sectors is emphasised, alongside possible options to ensure consistency with low-carbon pathways. The EIB Group is **keen to receive further stakeholder reaction** on these points.

In the case of **energy-intensive industries**, technological pathways to deep decarbonisation exist, largely based on low-carbon power – either directly or indirectly through alternative energy carriers, including hydrogen, together with energy efficiency measures. The EIB Group will continue to support demonstration projects. However, in many cases, low-carbon solutions are not commercially viable today. Chapter 3 discusses alternatives to ensure that the EIB Group supports projects with the potential to transform, which are thus consistent with a low-carbon pathway.

In the **transport sector,** road transport is responsible for around 70% of the sector's GHG emissions in the European Union. The prospects for the electrification of cars and light vans are increasingly promising – and the EIB Group will continue to support this trend by focusing on zero emission vehicles, as well as on electrified public transport more widely. Chapter 3 describes possible options to ensure that all road infrastructure supported by the EIB is consistent with a low-carbon pathway. The aviation industry has grown significantly within the European Union since the 1990s. Given the lack of a visible pathway to decarbonisation, this chapter also sets out some possible approaches for new EIB projects.

As discussed in the Energy Lending Policy, renovating existing **buildings** is key to reducing final energy demand and reaching long-term climate goals at a low cost. The EIB Group will continue to support buildings specifically in the context of energy efficiency. However, it also supports buildings in the context of wider public policy goals (health, development, etc.). It therefore needs to have simple criteria to ensure that all projects are consistent with a low-carbon pathway. The chapter discusses reliance on nationally mandated standards as a means to ensure consistency.

Finally, this chapter also considers the **agriculture** sector (as a source of non-CO_2 emissions), as well as **land use,** including **forests** as a carbon sink (and source of important co-benefits in terms of wider ecosystem services). It stresses a number of ways in which the EIB Group can potentially help support transition within the agriculture sector, whilst helping to ensure food security. It presents options to ensure alignment for EIB projects targeting agribusiness. On the land use side, it sets out possible requirements to ensure that EIB projects prevent the expansion of cropping into areas of high carbon stock or high biodiversity.

Building greater resilience to future climate change

As mentioned above, the Paris Agreement requires financial flows to be consistent with a pathway along two dimensions. Chapter 4 focuses on the second dimension: climate-resilient development.

The chapter starts by explaining how a changing climate gives rise to new risks for people, communities, natural and physical capital. Under the current emissions profile, physical climate risks are set to increase significantly towards 2050. The climate has already warmed by over 1˚C since pre-industrial times, with significant change in the extreme "tails" of the distribution.

To help ensure this alignment at the level of individual projects, in 2019 the EIB introduced a climate-risk tool – the EIB Climate Risk Assessment system (CRA). This provides a systematic assessment of the physical climate risk in investment loans. Building on this system, the EIB is looking at ways to strengthen its efforts to ensure that all the projects it supports are adapted to current weather variability and future climate changes. This can be achieved through adequate project-level management of physical climate risk – as assessed by the 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.

This chapter also stresses some of the ways the EIB Group can help drive greater investment in resilience in regions and communities. This will be further developed under the Roadmap.

Tracking progress on the climate and environment target

In light of the EIB's commitment to devote 50% of its financing to climate action and environmental sustainability by 2025, it is necessary to have a transparent, credible set of definitions against which progress can be tracked. Chapter 5 reviews the current climate action definitions used by the EIB. Under the new target, this needs to be complemented with definitions to track environmental sustainability. As stressed by several respondents in the first round, it is important to adopt a holistic approach towards these objectives.

The chapter presents preliminary ideas as to how the EIB Group can achieve this holistic approach with a tracking system covering its integrated climate and environmental ambitions from January 2021. The system will build on past experience and the existing guidance provided in the context of recent work done in preparation for an EU-wide classification system – or "EU Taxonomy" – for activities making a substantial contribution to EU environmental objectives, including climate change.

This approach may entail updating the EIB's current climate action definitions in late 2020, in light of the expected EU agreement on the climate change mitigation and adaptation objectives under the EU Taxonomy. In addition, this updating may need to take into account a revision to the Multilateral Development Bank (MDB) harmonised principles for tracking climate mitigation. Given the timeline for agreement of the four other environmental objectives under the EU Taxonomy, the EIB Group intends to use interim definitions based on the principles established under the EU Taxonomy Regulation.

The EIB is highly appreciative of the responses from numerous stakeholders to the first round of engagement. Through this second round, the EIB hopes to be able to deliver an ambitious roadmap, fitting for the EU climate bank and the post-COVID-19 green recovery.

Chapter 1: Introduction

A new level of ambition towards climate action and environmental sustainability

1.1. In November 2019, the EIB Board of Directors demonstrated the EIB's commitment to supporting the energy transition by adopting a new Energy Lending Policy, which phases out EIB support for energy projects reliant on unabated fossil fuels by the end of 2021.

1.2. At the same meeting, the EIB Board of Directors approved a new level of ambition towards climate action and environmental sustainability. It encompasses three elements:

- *The EIB Group will set itself the target of supporting investment in climate action and environmental sustainability of €1 trillion in the critical decade from 2021 to 2030;*
- *The EIB will gradually increase the share of its financing dedicated to climate action and environmental sustainability to reach 50% by 2025 and beyond;*
- *The EIB Group commits to aligning all its financing activities with the principles and goals of the Paris Agreement from the beginning of 2021. This will be complemented by measures to ensure EIB financing contributes to a just transition for those regions or countries more affected so that no-one is left behind.*

1.3. The rationale for this decision was based on the recognition that:

- significant investment – in the magnitude of trillions – is required to address climate change and environmental sustainability, in order to limit global warming to 1.5°C above pre-industrial levels by the end of this century, combat environmental degradation and halt biodiversity loss;
- the European Union is at the forefront of global efforts to reduce greenhouse gas emissions and to adapt to a changing climate, playing a leading role in the implementation of the Paris Agreement;
- as requested by the European Council and the EU Member States, the EIB Group has a key role to play in putting sustainability at the heart of the EU project, by supporting the design and implementation of the EU Green Deal and by accelerating the transition to a net zero emissions and climate-resilient EU economy by 2050;
- for many years, the EIB Group has been an integral part of the European Union's global response to climate and environmental challenges and is already recognised as the EU climate bank, with credibility in this field built up over the last decade across many dimensions of climate finance.

The Climate Bank Roadmap

1.4. The EIB Group now needs to turn its new ambition on climate action and environmental sustainability into reality. To guide this transition, the EIB Group is developing a **Climate Bank Roadmap**. This document will provide a detailed operational framework for its activities on climate action and environmental sustainability over the first five years of its commitment, from 2021 to 2025. This will include support for the implementation of the EU Green Deal and post-COVID 19 green recovery efforts within and outside the European Union.

1.5. The involvement of stakeholders in the development of the Climate Bank Roadmap is central. The EIB Group launched the stakeholder engagement on the Climate Bank Roadmap on 6 March 2020, following the announcement made during the annual Board seminar with

civil society of 4 February 2020. A first series of webinars was conducted in March 2020, complemented by a public questionnaire and responses via email. This questionnaire will remain open until 9 July for any interested stakeholder.

1.6. The involvement of stakeholders in the development of the Climate Bank Roadmap should be seen within a wider context of regular dialogue. In additional to the 2020 annual Board seminar, this includes the consultation conducted in 2019 on the EIB's Energy Lending Policy[2], a technical exchange on climate action at the EIB organised in October 2019, and the original public consultation in 2015 on the EIB Climate Strategy[3].

Aim and structure of this document

1.7. This document has been prepared to help elicit a second round of contributions from external stakeholders. It provides further details on the EIB's thinking around two core areas that, based on the contributions received so far, are of particular interest to the stakeholder community: (a) the alignment of new projects[4] with the goals and principles of the Paris Agreement, and (b) definitions for climate action and environmental sustainability. The Roadmap itself has a wider scope and will cover other topics that support the EIB Group's Paris alignment approach, including climate risk management, strategic business development and the expansion of the scope of the EIB Group's green bonds.

1.8. As described in the Executive Summary, this document is organised as follows. This chapter provides background information on the wider Climate Bank Roadmap exercise and the policy context. Chapter 2 explains the scope of the second round of the stakeholder engagement. The next two chapters focus on the two key components of alignment: Chapter 3 on pathways to low-carbon development, and Chapter 4 on climate-resilient development. Chapter 5 provides further information as to how the EIB intends to track the new commitment that 50% of its finance will support climate action and environmental sustainability by 2025. Chapter 6 concludes and provides details on the next steps.

1.9. In reading this document, it is important to recognise that the EIB adheres to sound banking principles and supports projects that are technically and economically viable. The EIB's risk-taking capacity is set out in the EIB Operational Plan, based on EIB credit risk principles and approval procedures. The EIB Group is working hard to further mainstream climate considerations into its risk management processes. Operational guidance is being developed in the context of integrating climate risk management more broadly into the core risk, credit and portfolio management processes. This will be laid out in the Climate Bank Roadmap.

1.10. This document has been produced to help better inform the EIB Group Climate Bank Roadmap, which will need in due course to be approved by the EIB Group governing bodies. As such, statements made within this document should not be construed to bind the EIB Group in any manner.

[2] For more details on the 2019 ELP consultation, please see the associated stakeholder Issues Matrix.
[3] For more details on the 2015 Climate Strategy consultation, please see the associated stakeholder Issues Matrix.
[4] In this context, "new projects" is understood in a broad sense and refers to lending, blending and advising activities initiating appraisal on or after 1 January 2021.

The Climate Bank Roadmap in the wider climate policy context

1.11. Since the EIB Board decision in November 2019, European climate and environmental policy has gained momentum. On the 12 December 2019, the European Council, taking note of a Communication by the European Commission on the Green Deal, endorsed[5] the objective of achieving a climate-neutral European Union by 2050. This ambition has been formally submitted to the United Nations Framework Convention on Climate Change (UNFCCC). Member States are finalising national energy and climate plans for the period 2021-2030 and long-term strategies out to 2050. The European Union is also relaunching its Adaptation Strategy from 2013.

1.12. In January 2020, the European Commission proposed a Sustainable Europe Investment Plan, including a Just Transition Mechanism, followed on 4 March by a proposal for a Climate Law. The European Union agreed a regulation on sustainable finance, which sets out a framework for the development of a new classification system – or taxonomy – of sustainable economic activities that also meet a range of social safeguards. On 9 March, the Commission's Technical Expert Group on sustainable finance issued a set of final recommendations on the climate objectives for the EU Taxonomy.

The Climate Bank Roadmap in the wider economic context

1.13. A revival of economic activity after the COVID-19 lockdown requires exceptional measures. It essentially depends on re-starting the investment engine. On top of short-term relief, public-sector support for investments is going to be key for the long-term economic recovery. This support needs to be well-designed and targeted, to avoid reinforcing unsustainable economic activities, and to be able to meet our target of decarbonisation by 2050 and of safeguarding our ecosystems and people's lives and livelihoods. The policy priorities set out in the European Green Deal provide important pointers as to where more investment is needed.

1.14. On 27 May, the European Commission put forward its proposal for a major recovery plan – Next Generation EU – of €750 billion, embedded within a revamped EU budget. The EIB will support the European Union in promoting a green, digital and resilient recovery, including through existing and planned joint financial instruments.

1.15. In doing whatever it takes to confront the great socio-economic challenge posed by the COVID-19 pandemic, the EIB Group will remain focused on the long-term challenges related to climate change and environmental degradation and its impacts on people. Through the implementation of the Climate Bank Roadmap, the EIB Group will also remain committed to meeting its new ambition towards climate action and environmental sustainability. The EIB Group considers that the need to rebuild after the COVID-19 crisis offers an opportunity to put world economies on a firm path towards inclusive low-carbon and climate-resilient growth.

1.16. Within the European Union, the joint Nationally Determined Contribution (NDC) and the Member States' final National Energy and Climate Plans offer a promising structure to help

[5] European Council meeting (12 December 2019) – Conclusions (EUCO 29/19): https://www.consilium.europa.eu/media/41768/12-euco-final-conclusions-en.pdf.

focus investment over the medium term. The dialogue with Member States, as highlighted in the Energy Lending Policy, will continue. Outside the European Union, the NDCs offer the same promising structure to help focus investment in line with each country's priorities and to trace the way to further action. However, it is widely recognised that, collectively, the commitments laid out in the NDCs are not yet enough to reach the temperature and climate resilience goals of the Paris Agreement. The EIB Group will support the implementation of NDCs in countries of EIB operation, including Member States' national energy and climate plans.

1.17. Question 1: How can the EIB Group help turn the current health and economic crisis, related to the COVID-19 pandemic, into an opportunity to promote and accelerate the green transition?

The Climate Bank Roadmap in the wider context of sustainable finance

1.18. The Climate Bank Roadmap builds on the EIB 2015 Climate Strategy, approved by the EIB Board in 2015, and its subsequent implementation. 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 ambition has increased the speed and scale of EIB action, as well as widening out the focus to address the environmental and biodiversity emergency; synergies with social development and a "just transition"; and now involving the European Investment Fund (EIF).

1.19. Whilst still fit for purpose, some adjustments to the EIB 2015 Climate Strategy are needed to best reflect the new ambition and the objectives of the EU Green Deal. This includes the need to reflect the paradigm shift from "mainstreaming" to "Paris alignment", to align with the new scientific evidence and the objectives of the European Union 2050 decarbonisation strategy, and to integrate dimensions related to the "just transition" and other aspects of social development. In addition, in line with the new EIB Energy Lending Policy, this work will also entail a review of EIB's internal carbon pricing approach, to make it consistent with the latest scientific evidence (i.e. the need to aim for 1.5°C). The Climate Bank Roadmap will address these issues.

1.20. In addition, the Climate Bank Roadmap builds on the EIB's strong support for environmental and social objectives. It can be seen as part of the EIB's wider environmental and social principles. The EIB is currently preparing to revise this policy, linking it more broadly to a model of sustainable finance. The revision of this policy will therefore influence the wider context within which the Climate Bank Roadmap operates.

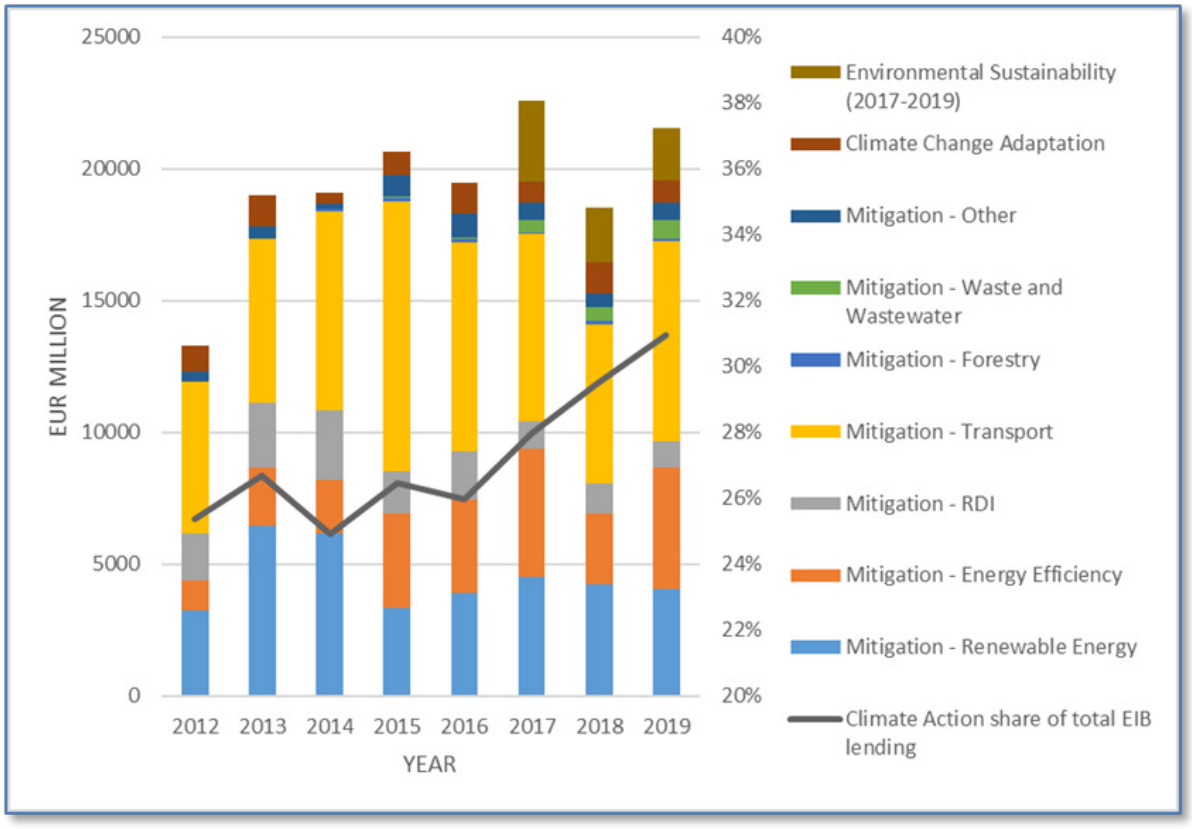
Building on a decade of EIB Group support for green investment

1.21. The Climate Bank Roadmap builds on over a decade of focused EIB Group support for green investment. Currently, the EIB finances projects to support four public policy goals – (i) innovation and skills; (ii) infrastructure; (iii) small and medium-sized enterprises (SMEs); and (iv) the environment – and two transversal objectives – (i) climate action and (ii) regional cohesion.

1.22. The EIB has supported more than €150 billion in climate action since 2012 (see Figure 1), including over €20 billion in developing countries[6,7] (see Figure 2). It is one of the largest multilateral providers of climate finance globally. The EIB tracks its progress against climate action targets by applying a robust, credible methodology that was jointly established with the other MDBs. Figure 1 provides a breakdown of EIB climate action lending over the 2012-2019 period. These volume figures have been third party audited every year since 2016 and project-level data are published on the EIB public register.

1.23. In 2019 alone, EIB climate action financing stood at €19.3 billion or 31% of total financing. This supported more than 400 projects across Europe, Asia, Africa, the Middle East and Latin America. The EIB has steadily increased the proportion of financing in climate action projects against total financing, from its lowest 25% in 2014 to 31% in 2019 (see Figure 1). It has therefore met the current target of devoting more than 25% of its financing each year to climate action. Over the period 2016-2019, the EIB supported $84 billion of climate action investment, and is thus on track to meet its target of $100 billion climate action finance between 2016 and 2020.

Figure 1 – EIB total climate action finance (2012-2019) and environmental sustainability (2017-2019)

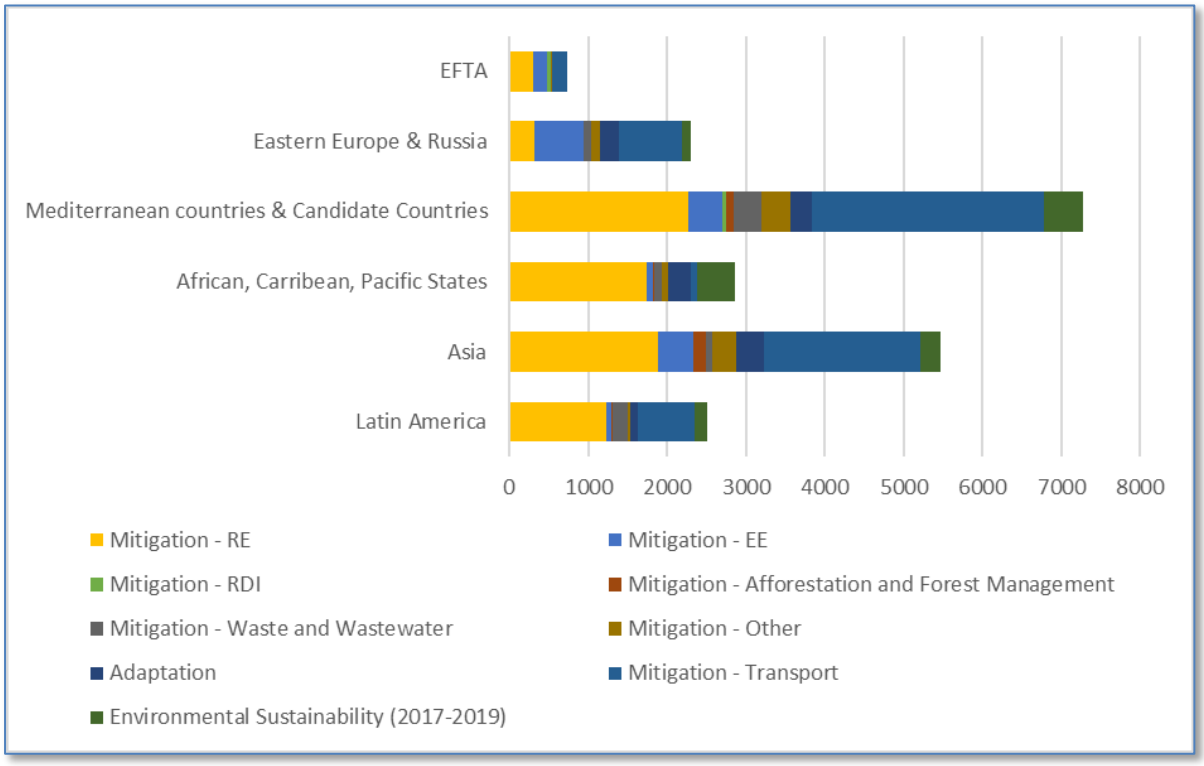


[6] For the EIB, this corresponds to the countries targeted by the current External Lending Mandate (ELM) – i.e. Pre-Accession countries and Neighbourhood and Partnership countries – and those included in the ACP (Africa, Caribbean and Pacific) and OCT (Overseas Countries and Territories) regions.

[7] Total EIB Climate Action finance in 2012-2019: Latin America (€2.5 billion), Asia (€5.5 billion), Sub-Saharan Africa, the Caribbean and the Pacific (€2.9 billion), Mediterranean and EU Candidate Countries (€7.3 billion), and Eastern Europe and Russia (€2.3 billion).

1.24. Outside the European Union and the European Free Trade Area, climate action financing reached €3 billion in 2019, representing 43% of total EIB finance. The EIB is on track to meet its COP21 commitment to increase its share of climate action financing in developing countries to 35% by 2020.

Figure 2 - EIB climate action finance (2012-2019) and environmental sustainability finance outside the European Union



1.25. Environmental sector lending has long been a priority 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).

1.26. In 2019, environmental sustainability financing stood at approximately €2 billion or 3% of total financing. The largest contributors to environmental sustainability finance include projects in drinking water and wastewater treatment (accounting for approximately 60% of the total) and disaster risk management, recovery and reconstruction (accounting for approximately 25%). Overall, approximately 70% of the total environmental sustainability financing is related to investments in EU Member States.

1.27. The EIB also invests in a range of social impact sectors, such as health and education. In addition, the EIB contributes to gender equality and women's economic empowerment, economic resilience, social cohesion, peace and stability and poverty reduction through various investments across sectors. In the context of a changing climate, these investments remains crucial as reducing social inequality is, in itself, an effective way to build adaptive capacity and climate resilience.

Next steps for the Climate Bank Roadmap

1.28. The Roadmap will determine how the EIB Group will implement the new ambition until 2025 and beyond. The scope of this ambition is broad – touching upon the climate, environmental and social aspects underpinning sustainable development. Engagement on the Roadmap will complement future public consultations, including on the EIB Transport Lending Policy and the EIB Environmental and Social Statement and the related standards, which is due to start later this year. The Roadmap will therefore contribute to the overall sustainability framework of the EIB Group. The development of the Roadmap is an iterative process. Contributions received from stakeholders prior to 24 April 2020 (see summary in Annex 2) have informed the EIB Group's internal discussions and the preparation of this document. A second round of contributions from interested stakeholders – elicited by this document and the discussion that will take place during the second stakeholder engagement event due to take place on 25 June 2020 – will inform the final stages of the internal discussions, before the Roadmap is submitted to the EIB Group's governing bodies. Contributions will be received until 9 July 2020 and can be completed either via the online public questionnaire or by email.

1.29. An engagement report summarising the process and the main elements of the feedback received from stakeholders will be prepared and published in the fourth quarter of 2020. All contributions will be considered as public and posted on the Climate Bank Roadmap stakeholder engagement website, unless specified otherwise. The Roadmap will also be available on the website once it is approved by the EIB Group's governing bodies.

1.30. The EIB Group aims to present the Roadmap to its Board of Directors in the autumn of 2020, in a timely manner before the formal start of the new commitments in January 2021.

Chapter 2: Scope of this engagement

2.1. The scope of this second round of engagement is limited to two key areas of the Climate Bank Roadmap. Firstly, to ensure the alignment of all new projects supported by the EIB Group with the principles and goals of the Paris Agreement from 2021 onwards. In turn, this covers alignment across two dimensions: low GHG emissions and climate-resilient development. Secondly, it covers the approach by the EIB Group to track the new climate action and environmental sustainability target.

2.2. On alignment, there is one important caveat to this exercise. It does not cover the types of projects already considered recently under the revised EIB Energy Lending Policy. The ELP was agreed by the EIB Board in November 2019 and will be reconsidered as part of a mid-term review in early 2022.

2.3. As presented in Annex 2, a considerable number of questions and concerns on these two issues were expressed by stakeholders during the first round of engagement. Given that the EIB's approach to these two topics will take effect from the beginning of 2021, it is particularly useful for the EIB to open a second, more detailed round of discussions on these issues. This is partly an opportunity to set out possible approaches for the EIB on key issues, but also a means to seek further guidance and input from all relevant stakeholders. Such guidance and input will also be useful to inform the green recovery efforts of the EIB Group.

2.4. The next section helps put the limited scope of this exercise into the wider context of the overall approach of the EIB Group towards supporting the Paris Agreement.

Paris alignment

2.5. Article 2.1 (c) of the Paris Agreement commits Parties to the Agreement to make *'finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development'.* This article is significant as it is the first time that the UNFCCC process has acknowledged the full social effort needed to finance the world's response to climate change.[8]

2.6. The period from 2021 to 2030 represents the 'critical decade' in which to make progress on this goal. The Intergovernmental Panel on Climate Change (IPCC) special report on global warming of 1.5°C[9] shows that financing decisions made in this decade provide the last chance to meet the Paris Agreement temperature goals. The report points out that limiting warming to 1.5°C could reduce the number of people exposed to climate risks and vulnerable to poverty by 62 million to 457 million people worldwide compared to a 2°C global warming scenario. The recent IPCC reports on Climate Change and Land[10] and Climate Change and the Ocean and Cryosphere[11] have further emphasised the risk of inaction on livelihoods, biodiversity, ecosystems and ecosystem services, human health, infrastructure and food systems.

[8] 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

[9] IPCC (2018) Global warming of 1.5°C. Available at: https://www.ipcc.ch/sr15/

[10] IPCC (2019) Climate change and land. Available at: https://www.ipcc.ch/srccl/

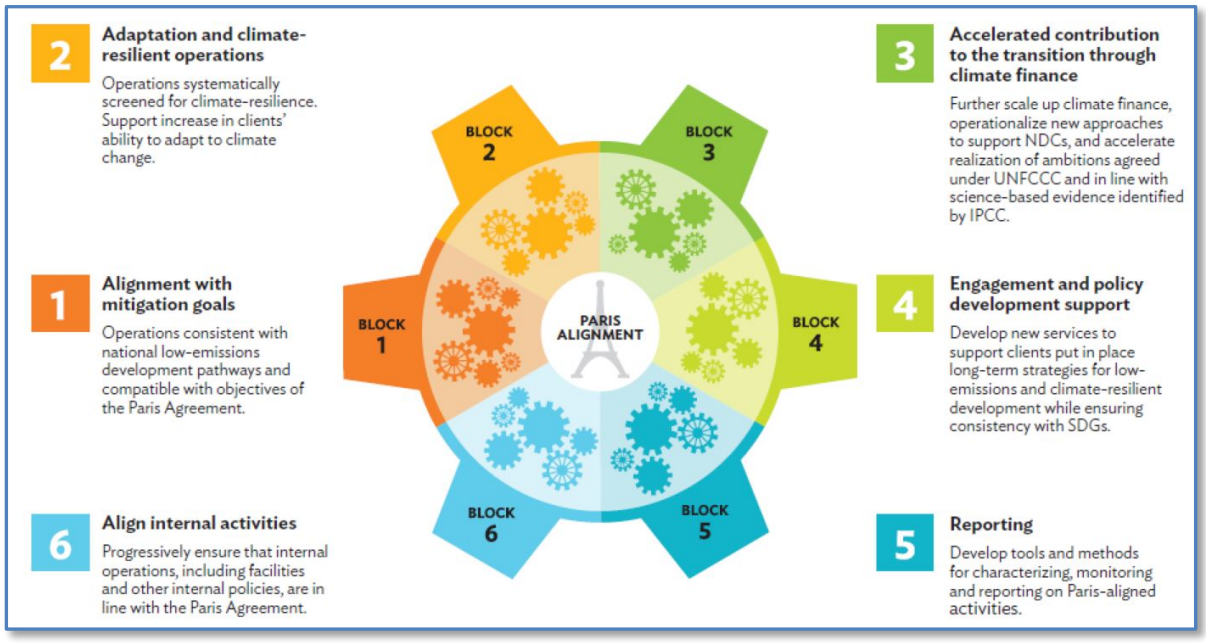
[11] IPCC (2019) Special report on the Ocean and Cryosphere in a Changing Climate. Available at: https://www.ipcc.ch/srocc/

2.7. In this context, the EIB Group has committed to aligning its financing activities, including advisory services, with the principles and goals of the Paris Agreement from the beginning of 2021. The EIB needs to develop a framework to ensure that it screens out new projects that are not consistent with the temperature targets of the Paris Agreement, or which do not adequately manage physical climate risks. This is the subject of Chapters 3 and 4.

2.8. Supporting the Paris Agreement, especially for the EIB in its leadership role as the climate bank of the European Union, goes far beyond such a project screening approach. Numerous studies demonstrate that meeting the goals of the Paris Agreement, and hence having financial flows aligned with these goals, will require a substantial *increase* in investments that purposefully aim to reduce GHG emissions, as well as investments that deliberately enhance the resilience of communities and assets to climate impacts. Moreover, to move all financial flows in this direction will require, among other things, significant changes in the policy environment, further integration of climate considerations into risk management processes, the development of new financial products, and changes in the information that is disclosed to investors and regulators. These changes will need to be achieved in a way that retains social and political consent from those that might otherwise be threatened by this transition. The Climate Bank Roadmap will need to address all these dimensions of the challenge.

2.9. The MDBs' building block approach provides a useful framework for thinking about alignment with the Paris Agreement. This approach identifies six building blocks (see Figure 3) around which strategies for Paris alignment can be developed[12]. This framework goes beyond new financing commitments to look at all aspects of the operations of the MDBs; it also recognises the crucial role that MDBs, as public banks, play 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.

Figure 3 – The MDBs' six building blocks for Paris alignment



[12] For more details, please see the MDB announcement on joint framework for aligning their activities with the goals of the Paris Agreement made at COP24 in Katowice, in December 2018.

2.10. In this framework, Chapter 3 considers one dimension of building block 1; Chapter 4 considers one dimension of building block 2. In defining what constitutes support for climate action, Chapter 5 considers one dimension of building block 3. The Roadmap will consider all six building blocks.

Leaving no one behind

2.11. The preamble to the Paris Agreement takes into account the need for a "just transition" with the creation of "decent work" and "quality jobs". This may be a challenge given the deep structural change – and the speed of change – required to meet the temperature and climate resilience goals of the Paris Agreement.

2.12. A just and socially fair transition involves securing the livelihoods of those disproportionately affected by the transition to a low-emission economy, addressing any injustices that could result from – or be aggravated through – that transition. The Paris Agreement also emphasises the point that climate action needs to respect, promote and consider a range of human rights, including but not limited to the rights of indigenous peoples, local communities, migrants and children, as well as gender equality.

2.13. Depending on how the EIB's climate and environment actions are designed, they may promote synergies or incur trade-offs on social development. In the context of the Climate Bank Roadmap, an operational approach to invest more systematically in climate and environment actions that entail high social benefits and contribute to social development will be pursued. The approach will look at the EIB's investment choices, project design, project development approaches as well as access to and benefit from employment opportunities, goods or services generated by the investments for various parts of the population. Due attention will be paid to the need to leave no-one behind and to the application of a human rights based approach, stakeholder engagement and meeting the minimum social safeguards of the EU Taxonomy for sustainable activities through the revision of EIB's Environment and Social Statement and standards.

2.14. The topic of just transition and synergies with social development was addressed during the first round of stakeholder engagement.

Chapter 3: Consistency with a low-carbon pathway

3.1. To meet a 1.5˚C temperature target, global carbon emissions need to fall quickly. As stressed by the IPCC, the next decade is crucial. If the world does not manage to ''bend the curve'' on global GHG emissions, the prospects for remaining within the 1.5˚C target are bleak.

3.2. EU leaders have agreed to a target of net zero emissions by 2050. As part of its Green Deal, the European Union has made a proposal to enshrine this goal into a Climate Law. In addition, the European Commission will come forward with a proposal in September 2020 to strengthen the existing 2030 target to reduce emissions by 40% compared to 1990 levels.

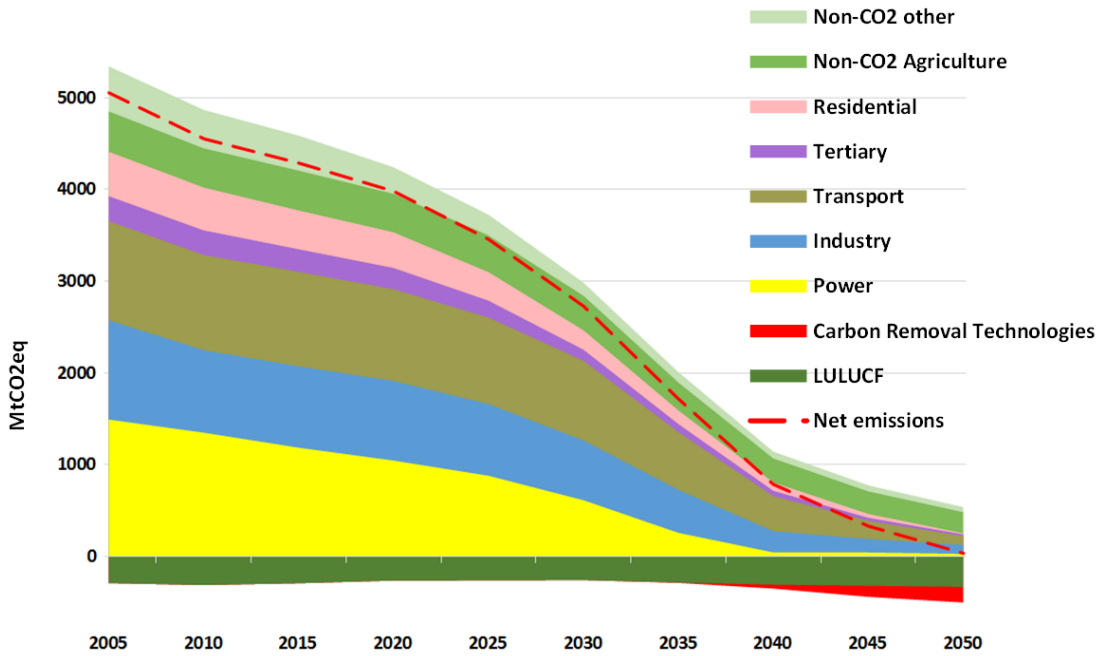
3.3. This chapter begins by presenting the EU pathway to a net zero economy, highlighting the fall in emissions from key emitting sectors. This serves two purposes. Firstly, it helps focus the finance community, including the EIB Group, on the very significant investment challenge required to decarbonise the economy within 30 years. As part of its new commitment, the EIB Group will reinforce its support for this long-term transition. Secondly, the clear target and time frame – net zero by 2050 – is helpful to assess whether new assets being created today are consistent with this pathway. This is important. The EIB will continue to support investments supporting a wide range of public policy goals – not just GHG mitigation. It needs relatively simple criteria to ensure that all projects – regardless of the policy goal – are consistent with the low-carbon pathway.

3.4. The pathway presented below is largely focused on the European Union, and, by extension, the developed world. In line with the Paris Agreement, the EIB recognises the specific needs and circumstances of the developing world and vulnerable communities, balancing the response to the threat of climate change with sustainable development and poverty reduction priorities. As part of its wider support for the UN Sustainable Development Goals, the EIB will seek to reinforce its support for countries to enable them to develop and deliver on more ambitious NDCs.

Technology pathways

3.5. Figure 4 presents the well-known EU decarbonisation pathway from the 2018 Clean Planet for all communication, with emissions falling to around 95% of 2005 levels by 2050. Emissions of GHG in 2020 are forecast to be around 4 200 million tonnes of CO_2 equivalent, equal to around 10% of global emissions.

Figure 4 – EU pathways to net zero emissions by 2050



Source: European Commission (2018) Clean Planet for all. Note this assumes a 40% reduction in GHG emissions by 2030; under its new Climate Law, the European Commission will propose by September a revised 2030 target of 50-55%. If adopted, this will sharply increase the rate of decarbonisation required over the decade ahead.

3.6. Carbon dioxide emissions are relatively evenly split in the European Union between **power generation, transport, industry and buildings**. More precisely, in 2020, around 28% of CO_2 emissions are forecast to be associated with burning coal and natural gas to generate electricity (shown in yellow in Figure 4), with another 29% from burning oil distillates in the transport sector (shown in brown). A further 25% stems from the industrial sector (in blue), either from burning fossil fuels for process heat or steam, or emitting CO_2 as a by-product from chemical reactions. The final 18% is associated with buildings (heating, hot water) – either in the residential sector (pink) or tertiary (purple).

3.7. Land and agriculture act both as a natural sink for carbon and as a source of GHG emissions. In Europe, the overall balance of land use, land use change and forestry (**LULUCF**) sequesters emissions (dark green). The agriculture sector is a major source of non-CO_2 emissions, notably nitrous oxide from soil management, as well as enteric fermentation of methane from animal farming (green).

3.8. Figure 4 shows emissions falling to close to zero by 2050. Although the target is given, it is important to stress that the precise pathway depicted is the result of one particular modelling exercise. Different modelling exercises show different results, depending on key assumptions made about cost and technological development. However, the following paragraphs stress some of the **key features** that tend to be common across all net zero modelling exercises in the context of the developed world.

Key themes towards decarbonisation

3.9. First, cost effective improvements in **energy efficiency** are a cornerstone of the transformation, with final energy demand falling by up to 40% by 2050 in comparison with 2005 levels. Primary energy demand falls to a lesser degree, in part reflecting the efficiency of some alternative energy carriers. Within the European Union, this requires massive investment in the renovation of buildings, with almost 75% of today's stock built prior to the adoption of energy performance standards. Today's renovation rate needs to double.

3.10. Second, all decarbonisation pathways assume the abundance of relatively cheap **renewable electricity**. As a result, in most models, the share of renewables in the primary energy mix is forecast to rise to around 75% by 2050, up from around 10% today. Tremendous progress to reduce costs has been made over the last decade, with auctions for a 2 GW solar project in Abu Dhabi clearing at a new global record of $13.50/MWh. To place this in context, the EIB financed solar projects at over €400/MWh less than a decade ago.

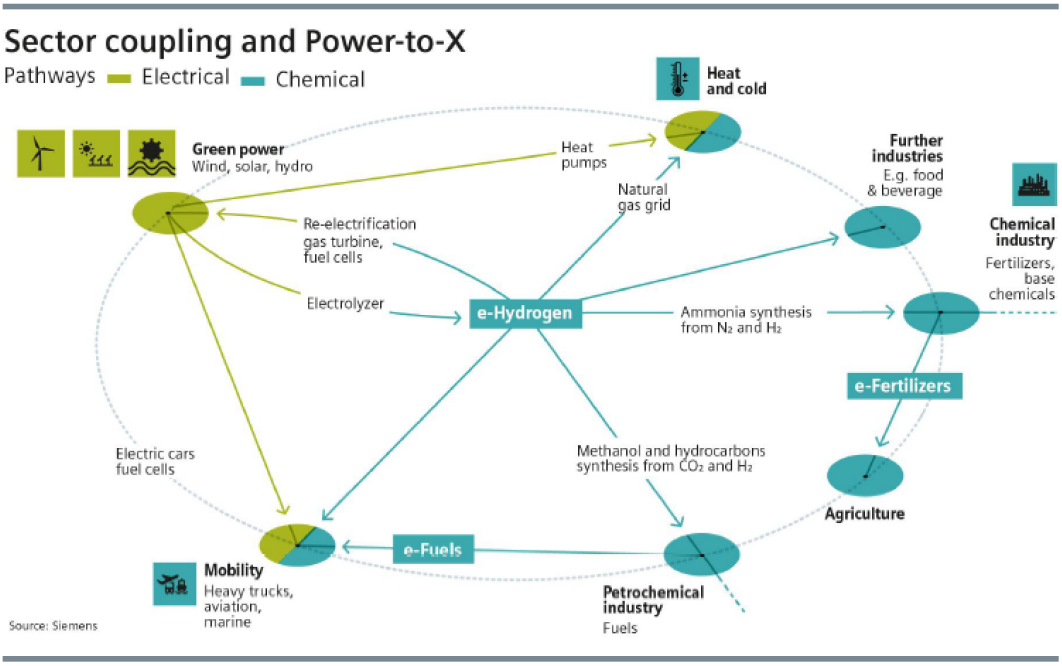
3.11. Third, the abundance of low-carbon power is used to increase the direct **electrification** of the economy. Nearly all models show increased electrification of mobility (especially private transport in urban environments), industrial processes and the heating and cooling of buildings. The cost of **electric vehicles** has fallen sharply over the last decade, and is widely expected to mature at a level competitive with conventional internal-combustion engine models.

3.12. This requires the integration of large volumes of **intermittent renewable power** into electricity grids, which remains challenging. As discussed in the EIB's new Energy Lending Policy, further investment is needed in grids, including interconnectors, to improve flexibility and storage, directed by stronger market price signals (intraday, balancing markets). A glimpse of this trend has been seen in recent weeks during midday periods, with low power demand during the COVID-19 lockdown, combined with high solar infeed, leading to electric vehicle drivers being paid in some countries to charge their batteries.

3.13. The increased role of **chemical storage** is a fourth major theme of most modelling results. Models typically project an **increasing share of electrical storage**, through mobile batteries, behind-the-meter home systems, large grid-scale batteries and pump storage solutions. Climate conditions, however, imply frequent lengthy periods – weeks, even months – with relatively low production from solar and wind parks. As the marginal cost of electrical storage becomes increasingly expensive, chemical storage options develop at scale.

3.14. In technical terms, it is possible to store green power in a variety of energy carriers – i.e. an indirect electrification of the economy. These technologies exist today, centred around the electrolysis of low-carbon power into ''green'' hydrogen and oxygen. **Green hydrogen** can then either be used directly (as a low-carbon gas) or chemically combined – typically synthesised either with nitrogen into ammonia, or with carbon dioxide into methanol and hydrocarbons (**Power-to-X**). Figure 5 illustrates this. Existing gas distribution infrastructure can be used in general to transport low-carbon gases, though additional investment may be required.

Figure 5 – Sector coupling and Power-to-X



Source: Siemens (2019).

3.15. A fifth major theme is that, as fossil fuel inputs become more expensive over time, accompanied by a tightening of environmental standards, there is a growth in the use of zero fossil carbon and recycled materials, and the **circular economy** more broadly. These types of investments are emerging. The use of recycled products, including secondary steel (an area where recycling rates are very high), the use of zero fossil carbon feedstock (either bio-feedstock or synthetic feedstock) or demand reduction (e.g. increased material efficiency or substitution) significantly reduce the carbon intensity of production. It eliminates embedded emissions from new virgin feedstock, and in some cases requires less energy for processing.

3.16. A further common theme is the preservation of the bioeconomy as a carbon sink. As shown in the dark green in Figure 5, **forestry, agriculture and land use** (LULUCF) have a key role in compensating residual emissions in other sectors. There are also strong co-benefits in terms of boosting the productivity of the natural capital stock[13], including increased **biodiversity**.

3.17. A final theme concerns **carbon removal techniques**. Under current technologies, and with current standards of living, emissions cannot be reduced to zero. This is the case, for instance, with certain agricultural based non-CO_2 emissions. Carbon removal techniques (shown in red in Figure 5) require further research and development, as well as deployment. In addition to enhancing the natural carbon sink, options include the use of biomass for energy coupled with carbon capture and underground storage technology (BECCS), direct air CO_2 capture and subsequent underground storage (DACCS), as well as other early stage techniques[14].

[13] See the Dasgupta Review Interim Report on the The Economics of Biodiversity.

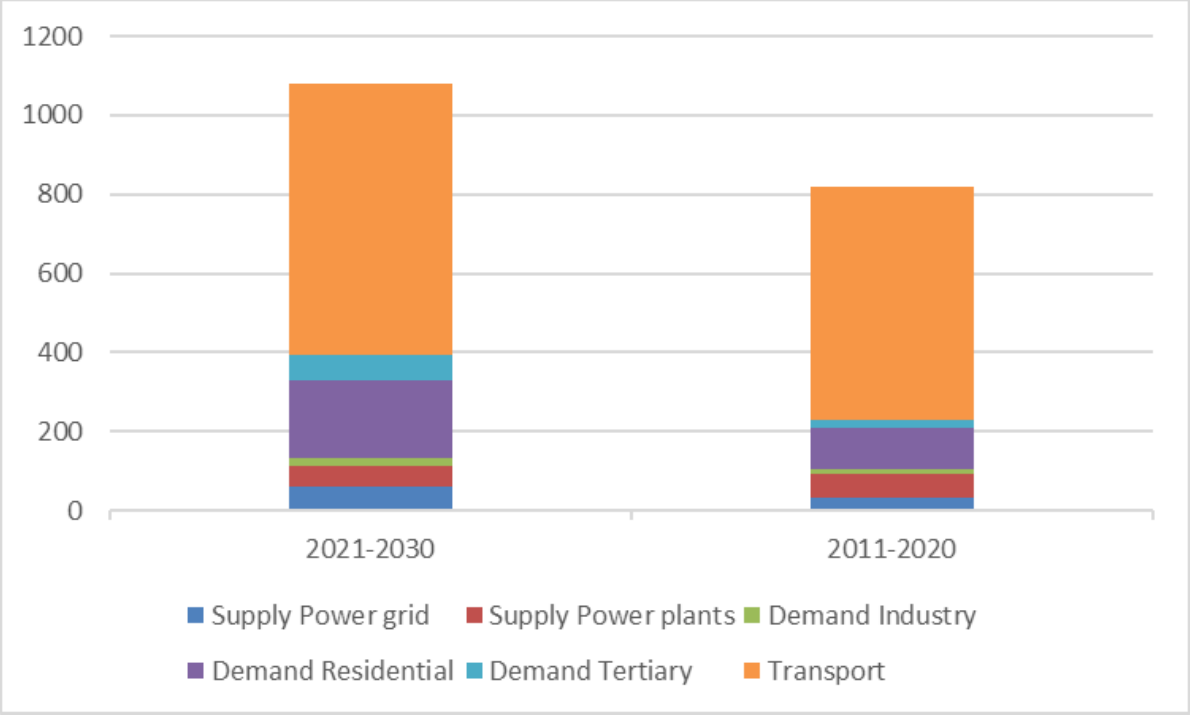
[14] For instance, the European Commission's in-depth analysis of the Clean Planet for all (2018) refers to Biochar, produced from biomass, which when added to soil can increase the amount of carbon stored; enhanced weathering and ocean alkalinisation, with aims to speed up the transfer of CO_2 from the atmosphere into carbonate minerals; and ocean fertilisation, based on increasing the production of phytoplankton in the oceans.

Increasing investment needs

3.18. This transition requires sustained **increased investment**. As presented in Figure 6, the Commission modelling suggests that current investment in power supply, electricity networks, buildings, energy efficiency in industry and transport vehicles will need to increase over the coming decade by an extra **€260 billion per year**[15]. This increase over the period 2021-2030 amounts to an additional 30% compared to the current decade (2011-2020).

3.19. These estimates should be considered as a lower bound. Firstly, the European Commission's models do not include figures for investment in the bioeconomy or innovation. Secondly, these estimates are likely to increase if the European Union adopts a more ambitious GHG target for 2030. Whilst this type of modelling exercise is very far from an investment programme, let alone a bankable operation, it does strongly indicate that **low-carbon financing needs will rise over the decade ahead**.

Figure 6 – Aggregate investment in low-carbon energy systems (including transport vehicles) in EU-28. € billion per year.



Source: The 2021-2030 figures are based on Table 10 of the In-depth Analysis in support of the Clean Planet for All Communication. These estimates are likely to be revised in the forthcoming European Commission's Impact Assessment of the new EU 2030 target expected in September. The 2011-2020 figures are based on earlier Commission publications for the Clean Energy for All package.

3.20. Moving to a global perspective, the low-carbon investment needs are clearly several times those required in the European Union. One recent study[16] estimates investment needs of around $110 trillion in the global energy system by 2050, equivalent to around 2% of average annual global gross domestic product.

3.21. Question 2: Do you agree with the key themes of the decarbonisation pathway presented? Are there additional areas of investment for mitigation that the EIB Group should be considering?

[15] See European Commission Communication on Energy Union and Climate Action COM(2019) 285 Section 2.3.3.
[16] IRENA (2019) Global Energy Transformation: a roadmap to 2050. Available here.

From pathways to projects: general approach

3.22. Sector-level decarbonisation pathways – such as those shown in Figure 4 – help focus attention on how to best direct support from a public financial institution such as the EIB Group for the long-term transition. It is therefore relevant in defining what counts towards climate change mitigation for the purposes of tracking the EIB's climate action and environmental sustainability target, as discussed in Chapter 5.

3.23. The EIB supports projects for a wide range of public policy objectives, i.e. not only for climate change mitigation. In supporting a project for a particular policy goal, it needs to ensure that it does not undermine the long-term transition. This requires translating sector or economy-wide pathways, such as those presented in the section above, into project-relevant criteria.

3.24. This section presents some of the initial thinking of the EIB Group in translating these pathways into project-relevant criteria. Before examining key sectors in detail, however, it is useful to present some general concepts that are helping to shape current internal EIB Group thinking. Three points are highlighted.

3.25. Firstly, it is important to recall that the pathways set out above are simply modelling results. Useful as they are in signalling a direction of travel, this should not distract from the pervasive **uncertainty** surrounding the future development of any one particular technology, cost function, consumer preferences or a detailed regulatory framework. As such, one way to view consistency with a low-carbon pathway is as one of **risk assessment**. In helping today to support the creation of a new asset, or rehabilitate an existing asset, which emits greenhouse gases, what is the risk that – despite forecast policy measures and expected technological progress – it continues to emit a high level of GHGs over the decades to come? The proposals made later in this chapter can be seen as implicitly assessing this **risk of non-alignment over the lifetime of the asset**, and proposing criteria to mitigate the residual risk to an acceptable level for the EIB Group, as the EU climate bank. Other institutions may take a different view on an acceptable residual risk.

3.26. Secondly, there is significant value for the EIB Group in applying **relatively simple criteria** to ensure Paris alignment. These can be communicated easily with clients, particularly early in the appraisal process.

3.27. Finally, in understanding the approach of the EIB Group, it is useful to highlight the link between Paris alignment and the standard EIB assessment of the **economic case** of an investment project. As set out in Chapter 4 of the EIB Guide to Economic Appraisal, this assessment incorporates the wider social cost of carbon emissions, as well as other environmental externalities, where possible. As set out in Annex V of the Energy Lending Policy, the current carbon values applied by the EIB reflect a global warming target of 2˚C. It is therefore necessary to revise the values to reflect the European Union's ambition to meet a 1.5˚C target, embodied through the net zero emission objective by 2050. The EIB will therefore revise its current **carbon prices** as part of the roadmap.

3.28. The EIB will continue to apply an economic test for investment projects, including in due course a revised carbon price. Where conducted in line with best practice, a positive economic case is a strong indication that a project is aligned to a low-carbon pathway. However, it may not be sufficient. Whereas the economic analysis focuses on the expected net present value of the costs and benefits over the economic lifetime of the project, an alignment test focuses more explicitly on the residual risk of GHG emissions over this next

critical decade, and beyond. The sector guidance below can therefore be seen as an additional safeguard, going beyond the requirement for a robust economic test.

3.29. Question 3A: Should the EIB use an additional safeguard, above and beyond a standard economic test with a carbon price, in assessing the alignment of projects? If so, what and why?

3.30. Question 3B: The EIB current carbon price out to 2050 is available in Annex V of the Energy Lending Policy. Are there any other set of prices that you would recommend to be consistent with a 1.5°C temperature target?

Outside the European Union

3.31. This section has illustrated a low-carbon pathway with reference to the EU 2050 decarbonisation pathway. As such, this is unique to the European Union. The European Commission's forthcoming proposal to strengthen the European Union's 2030 GHG emissions reduction target will be reflected in the Nationally Determined Contribution that the European Unionwill submit to the UNFCCC before the end of 2020, as part of the Paris Agreement "ratchet mechanism" to increase global ambition over time.

3.32. Countries outside the European Union are also revising their targets as part of the five-year Paris Agreement cycle to ratchet up ambition, in accordance with the principle of "common but differentiated responsibilities" and with their relevant decarbonisation models and development needs. These targets will be reflected in the revised NDCs that all countries must submit to the UNFCCC by the end of 2020 and in long-term strategies that are being developed by many countries. Similar to its approach to supporting EU climate policies, the EIB Group will need to ensure that all its investments outside the European Union support the countries' NDCs and development objectives, and are compatible with the overall Paris temperature goals. By helping countries to reach their targets, the EIB can help to support steeper cuts in GHG emissions in the next generation of NDCs.

3.33. From a technology perspective, however, the options to decarbonise for each relevant sector remain similar across the globe. Indeed, many options central to the EU pathway – low-carbon transport, renewable power generation, steel manufacturing – are global markets. Nevertheless, the EIB Group recognises that the speed of transformation is country-specific and that the rate of adoption of certain technologies will be slower in some countries and/or regions outside the European Union. In that context, as reflected in the next section, the EIB is considering a differentiated approach to assessing the alignment of specific projects outside the Union.

Key Emitting Sectors

3.34. Building on Figure 4, we review five key sectors in turn. Each section is structured in a similar fashion. A brief introduction highlights the decarbonisation challenge and the main technological solutions. A second section stresses the role of the EIB Group in supporting this transition. Given the wide range of public policy goals supported by the EIB Group, it also motivates the need for criteria to ensure the Paris alignment of all projects.

3.35. A third section provides some general principles that have helped shape the EIB Group's thinking to date. After a brief review of the reactions received during the first round of stakeholder submissions, a final section presents the options currently being considered within the EIB Group.

- **Question 4A: How should the EIB approach supporting ''hard to abate'' sectors – such as energy-intensive industry, airports, strategic roads, agriculture – to decarbonise? See additional, sector-specific questions – 4D to 4H – below.**
- **Question 4B: Do you think the preliminary thinking and conditions set out in Chapter 3 are appropriate? If not, what alternative conditions or criteria would you suggest?**
- **Question 4C: How should the EIB consider consistency with low-carbon development in the context of supporting small and medium enterprises through financial intermediaries?**

Power generation

3.36. Power generation is responsible for just under 30% of CO_2 emissions in the European Union. The key challenges associated with decarbonising the energy supply system are discussed in the EIB's new Energy Lending Policy.

3.37. Annex II of the ELP states that the EIB will only support power generation projects that emit less than 250 gCO_2e per kWh of electricity. This criterion applies globally and to all technologies, including power generation based on low-carbon energy sources (e.g. geothermal, large-scale hydro, biofuel or biomass), carbon capture and storage (CCS), combined heat and power and hybrid projects. As an exception to this general rule, the EIB will support gas-fired power plants that provide a credible plan to blend increasing shares of low-carbon gas over the economic lifetime of the project, such that the emissions standard is met on average.

3.38. Some stakeholders have requested that, in light of the COVID-19 crisis, the EIB re-examine this decision. This topic will be further considered in the mid-term review of the ELP in early 2022, which is precisely motivated to discuss the implications of the EU Taxonomy on Sustainable Finance and developments in the EU Green Deal more generally. This emissions standard is therefore not within the scope of this second engagement exercise with stakeholders.

Industry

3.39. Industry – and especially energy-intensive industries– provide materials and goods that are crucial to a modern economy: chemicals, iron and steel, non-ferrous metals (e.g. aluminium and copper), pulp and paper, non-metallic minerals (glass, cement, lime, ceramics) and food products. They are an important source of employment in many regions across Europe and around the world. EIIs are responsible for around 15% of CO_2 emissions in the European Union.

3.40. Technological pathways for deep decarbonisation exist. Recent important studies include ICF/Fraunhofer (2018), IES (2018) and the European Commission's long-term strategy and Masterplan for EII (2019). The decarbonisation of industry is technically possible through a combination of technical solutions that rely on the use of biomass, low-carbon electricity and hydrogen, and the availability of carbon storage, among others.

3.41. Most of these transformational technologies are, however, not yet commercially viable. In other words, low-carbon alternatives remain more expensive than conventional processes relying on fossil fuels. The challenge to investment in low-carbon solutions is exacerbated by pressure from international competition, often from geographies with lower environmental and social standards. The Commission's proposed carbon border adjustment may help to redress this issue.

Contribution of the EIB Group

3.42. The EIB Group, as a public bank, supports the development and commercialisation of transformational decarbonisation technologies. Over a number of years, and in close cooperation with the European Commission, it has sought to offer support to innovative industrial projects. Over the past three years (2017-2019), the EIB has invested €2 billion in climate mitigation related research and innovation in industry, including €0.5 billion dedicated to the decarbonisation of EII sectors.

3.43. The EIB will continue to support industrial projects and operations under public policy objectives other than climate mitigation, such as climate adaptation, environmental protection, supporting small and medium-sized businesses, innovation, cohesion or sustainable development. As a result, there is a need to define clear and simple screening criteria to assess alignment of all potential industrial projects with a low-carbon pathway.

General approach to ensure consistency with low-carbon pathway

3.44. Most industrial processes still rely on traditional fossil fuel and feedstock-consuming processes. Given the need to decarbonise within a relatively short time, the risk for non-alignment of an investment today needs to be carefully examined. As the regulatory environment tightens over time, increasing the cost of CO_2 emissions, the **risk of the asset becoming stranded is real**.

3.45. This risk can in principle be mitigated by focusing on transformational decarbonisation technologies**.** However, most of these technologies are not yet ready for full-scale commercial deployment. Their ramping up over time will likely coexist, at least during an

initial phase, with conventional solutions that need to be fitted with transitional technologies that already substantially reduce GHG emissions, for example by improving energy efficiency or shifting at least in part to the use of alternative low-carbon resources.

3.46. In considering whether to support such a transitional technology today, there are three core elements that can help to reduce the risk of future non-alignment:

- Ensure significant short-term carbon benefits through a reduction in carbon intensity;
- Avoid locking into the current fossil-based technology over the longer term. In other words, there should be a relatively short economic life of the investment, allowing for further investment to a transformative solution;
- The project is associated with an ambitious and feasible plan to decarbonise by 2050.

As a reference to assess alignment, both the EU Emissions Trading System (ETS) benchmarks and the sector decarbonisation roadmaps can be usefully applied.

3.47. In the context of developing countries, it might be argued that there is a lower risk of lock-in for some EIIs, particularly for investment with a focus on domestic consumption or specific regional markets.

Reactions from the first round of stakeholder contributions

3.48. In relation to industry, the following activities have been highlighted by stakeholders for further EIB support: all (indirect) electrification activities (Power-to-X); use of low-carbon clinker alternatives; scrap recycling projects and material efficiency projects; synthetic fuel development; and supporting the use of carbon-neutral industrial products (such as green aluminium and/or green cement), for example by putting in place ambitious procurement requirements.

3.49. There are calls to stop support for blast furnace steel production, alongside clinker-based cement and aircraft manufacturing.

3.50. Some responses specifically mention the need to support the transition of carbon-intensive, high-emission sectors, and mention assessing the company's credible, ambitious and time-bound decarbonisation action plan when appraising projects.

3.51. Some stress the importance of maintaining EIB support for industry in cohesion regions, and/or under the Just Transition Mechanism.

Possible future focus of the EIB Group

3.52. The EIB will continue its support for the deep decarbonisation of industry globally, through the development and deployment of innovation. Given its experience, it hopes to play an active role supporting the ETS Innovation Fund, as well as the new EU Innovation Strategy more broadly.

3.53. In order to ensure alignment, the EIB is considering its approach towards new EII capacity reliant on fossil fuel/feedstock-based traditional processes (in the absence of CCS/CCU or other low-carbon technology). This would be most relevant, for example, with respect to conventional coke-based blast furnace primary steel production, fully fossil fuel-based

production of chemicals and plastics, and the conventional production of ordinary Portland cement or fossil-based nitrogen synthesis.

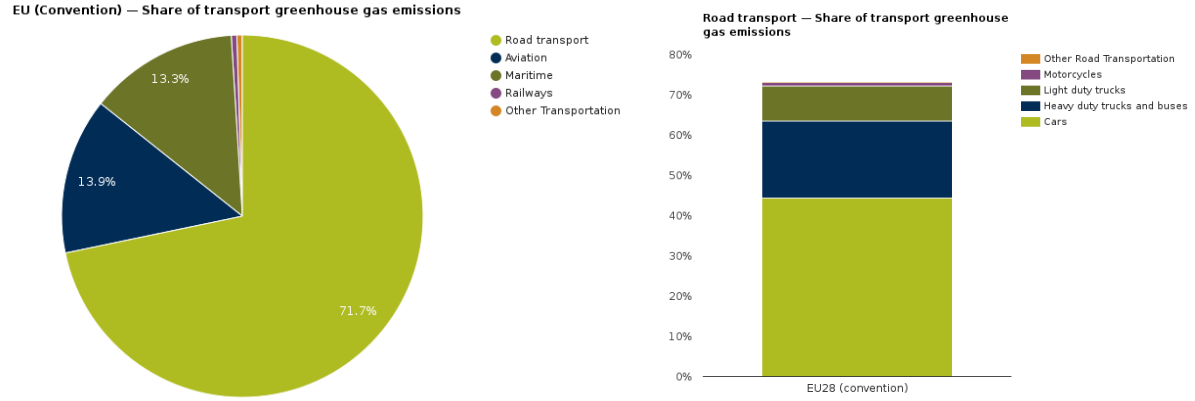
3.54. More broadly, the EIB is considering applying the principles set out in paragraph 3.46. In terms of implementing such an approach, the EIB is considering ETS benchmarks or the sector decarbonisation roadmaps as an important reference point to ensure a sufficient degree of ambition. Further consideration may be needed in the context of some industrial activities outside the European Union.

3.55. Question 4D: Under what conditions should the EIB support new industrial capacity? Would the conditions proposed ensure EIB projects are consistent with a low-carbon pathway?

Transport

3.56. In 2017, the transport sector within the European Union emitted just over 1 billion tonnes of carbon dioxide – 29% of all GHG emissions. As shown in Figure 7, just over 70% of these emissions are from the road sector, of which almost three quarters are from passenger cars and light-duty trucks, and the remainder from heavy duty trucks. The remaining emissions are evenly split between aviation and maritime. Reflecting strong growth in demand, aviation emissions have increased by 130% since 1990, in absolute terms, compared to just over 30% for maritime and 20% for road transport.

Figure 7 – GHG emissions from the transport sector – European Union, 2017.



Source: European Environment Agency.

3.57. There is no single fuel solution for the future of low-emission mobility – all main alternative fuel options are likely to be required, but to a different extent across the transport modes. Electricity offers strong potential for the passenger and light-duty van market, with hydrogen potentially competing over the longer distance market. Carbon-neutral fuels (advanced biofuels and biomethane, as well as e-fuels) have the advantage of being able to be deployed in conventional engines, and can help overcome the energy density challenge associated with batteries.

Contribution of the EIB Group

3.58. The EIB Group, as a public bank, will continue to support the transition to low-emission mobility, helping EU policy to address market failures associated with environmental externalities and innovation.

3.59. The EIB approach towards supporting the transport sector is set out in the EIB Transport Lending Policy. In addition to supporting climate mitigation, the EIB will continue to support mobility projects as part of wider public policy goals, including TEN-T policy, economic and social cohesion, safety, innovation, pollution control and climate resilience. It is therefore necessary to have clear low-carbon alignment criteria to screen all potential transport projects.

General approach to ensuring consistency with low-carbon pathway

3.60. In general, careful consideration is required to whether the proposed level of infrastructure provision properly reflects the demands of a low-carbon future, including potential changes in consumer demand. Infrastructure must be adaptable to the needs of that future, so as not to become stranded. The EIB routinely considers the economic case of transport infrastructure as part of its appraisal process.

3.61. **Public transport infrastructure** (rail, metros, tramways and bus rapid transit systems), reliant on electricity, would appear to be consistent with a low-carbon future. There is, however, a residual risk of non-alignment for public transport systems operating on diesel oil or natural gas, albeit potentially diminished in the context of developing countries.

3.62. The **road transport sector** is responsible for just over 70% of transport GHG emissions today, as shown in Figure 7. However, given the rapid developments in the cost and performance of electric passenger and light-duty vehicles in recent years, the risks of non-alignment of road vehicles are decreasing. Given a relatively short asset life, the residual risk associated with new vehicles that meet European fleet emission standards would appear to be relatively low.

3.63. The **maritime sector** is currently the lowest carbon-intensive form of transport. However, given the uncertainty around the route to decarbonisation, caution may be required in supporting ships powered by heavy fuel oil. Some commentators argue the case for liquefied natural gas on a transitional basis, also in recognition of the wider benefits for reducing environmental pollution.

3.64. The **aviation sector** is widely considered to be an important driver of economic growth. Given the current uncertainty around the route to decarbonisation, however, caution may be required. Within the European Union, the inclusion of airlines within the ETS system provides regulatory protection on the growth in emissions. Outside the European Union, the industry is working on a system of offsets (CORSIA).

Reactions from the first round of stakeholder contributions

3.65. Many respondents urged the EIB to maintain or increase support for sustainable and inclusive mobility and transport. This includes supporting modal shift through urban public transport; soft transport and non-motorised transport infrastructure (e.g. cycling and pedestrian infrastructure); accelerating clean energy supply for transport sector; extending and electrifying railway networks; renewal and extension of rolling stock; smart grid technologies and support of electrified road transport.

3.66. Furthermore, there were calls to increase support for alternative fuels (green hydrogen, biomethane), as well as sustainable business models for public transport operators and logistics companies (i.e. smart, low-carbon mobility as a service).

3.67. While some respondents urged the EIB to continue to support transport infrastructure under cohesion or development objectives, others urged the EIB not to support capacity increases for airports, motorways, international seaports, new urban express routes or ring road construction. Several respondents request that the EIB stop financing conventional aircraft or ships.

Possible future focus of the EIB Group

3.68. The EIB will support the transport sector in transitioning towards a decarbonised, digital and automated future by prioritising electrification and the use of other sustainable fuels, whilst continuing to recognise the crucial role played by transport in all sectors of the economy.

3.69. Investment in mobility projects that considers aspects of accessibility, benefits and safety for various segments of the population also has the opportunity to generate high social benefits and contribute to social development. This section considers the possible approach for the EIB Group towards the transport sector, distinguishing between vehicles and infrastructure.

Vehicles

3.70. The EIB is considering prioritising the finance of zero tailpipe transport vehicles, i.e. light rail, metro, tram, electrified rail rolling stock, as well as electric, hydrogen or fuel cell passenger vehicles.

3.71. For buses and trains, in recognition of the transition pathway, the EIB is considering applying a technical screening criterion that would limit support for diesel technology or CNG to cases of high ridership, often associated with operating conditions typical outside the European Union.

3.72. For cars, vans and trucks, the EIB is considering support for all vehicles that meet the fleet emissions standards defined in EU regulations. Further consideration will be given to an appropriate approach outside the European Union.

3.73. In the case of the maritime and aviation sectors, the EIB will continue its support for the research and development of alternate low-carbon fuels for these sectors. It is considering, however, its position with regard to supporting aircraft and ships powered by kerosene and conventional heavy fuel oils, respectively. In addition, it is considering whether, on a

transitional basis, to continue supporting ships fuelled by liquified natural gas, in recognition of the positive impact of the fuel in reducing environmental pollution.

3.74. The EIB is considering withdrawing support for all transport vehicles (goods vehicles, railcars, vessels) dedicated to the carriage or storage of fossil fuels.

3.75. The EIB is considering continued support for all conventional fuel transport vehicles where there is an overriding public interest case (environmental, safety and security), such as search and rescue vehicles, fire-fighting aircraft and research vessels).

Infrastructure

3.76. The EIB is considering deeming all electrified **public transport** infrastructure (rail, metros, trams and bus rapid transit systems) as consistent with a low-carbon pathway, alongside investment in **waterborne transport** infrastructure.

3.77. In the case of **strategic road infrastructure**, the EIB is considering its position in light of recent developments in electrification. In addition to standard EIB requirements (for example, a robust cost-benefit analysis including all relevant external costs), it is considering whether consistency with a low-carbon pathway can be sufficiently ensured by requiring projects to be in line with national and EU regional level strategic infrastructure planning, including for alternative fuel provision. Such plans would be assessed in a national context: for instance, countries without widespread access to reliable electricity would not be expected to plan electric charging infrastructure at this stage.

3.78. Similar consideration is being given to secondary roads, with due consideration for the need for an appropriate multimodal mobility plan. Due consideration needs to be given to rural roads, which are crucial for the mobility of rural populations with, in many cases, no viable alternative to road-based transport.

3.79. In light of the issues raised above, the EIB is considering whether to adjust its approach towards **airport infrastructure**. It recognises the importance of access to high quality, reliable aviation – both freight and passenger services – to the economic development of many regions of the world. It remains committed to supporting investment in airport safety, security and resilience to future climate change, and decarbonisation projects (e.g. greening of airport ground operations). Regarding the long path to decarbonisation, it is considering its approach towards supporting new airport capacity. Different approaches could be adopted to ensure consistency with long-term climate targets. One approach could be to continue to rely on an economic test that incorporates all the external costs associated with air travel. A second approach could be to focus only on improving existing capacity, with the possible exception of Least Developed Countries or Small Island Developing States. A third approach could be to introduce a requirement based on the expected GHG emissions of the investment.

3.80. Question 4E: What kinds of investments in transport systems should the EIB prioritise to simultaneously serve the goals of decarbonisation; accessibility in all regions and by all groups in society?

Buildings

3.81. As shown in Figure 4, buildings are responsible for approximately 18% of CO_2 emissions in the European Union. These direct emissions result predominantly from the combustion of fossil fuels for heating and hot water production.

3.82. Decarbonisation requires investment to improve the energy performance of the building shell. Almost 75% of the EU building stock was built before energy performance standards existed. In addition, given their long lifetime, existing buildings today will still represent between 75% and 90% of buildings in 2050. It is estimated that, to meet long-term climate targets, the renovation rate of buildings needs to double, from today's observed annual renovation rate of between 0.4% and 1.2% to at least 3%.

3.83. In addition, there is a need to increase the uptake of energy efficiency equipment in buildings and to switch fuels for heating and cooling towards low-carbon electricity via electric heat pumps, renewable heat (geothermal, solar thermal, biomass), as well as potentially through low-carbon gas (hydrogen, synthetic methane, etc.).

Contribution of the EIB Group

3.84. The EIB, as a public bank, has long supported energy efficiency programmes in buildings, as well as the provision of renewable heat. This was most recently presented in the EIB's 2019 Energy Lending Policy. As described in Chapter 4 of the ELP on unlocking energy efficiency, the EIB will raise its maximum share of finance to 75% of the eligible capital expenditure, as well as introduce a new **European Initiative for Building Renovation**. This will reinforce EIB support for the aggregation into portfolios of building renovation projects, the provision of tailored financing and new sources of finance, linked with dedicated technical assistance (i.e. European Local Energy Assistance, ELENA).

3.85. Annex 2 of the ELP set out the principles applied by the EIB to determine whether a new construction project or a renovation project is classified as an energy efficiency project, and thus whether it contributes to the EIB climate action objective. In the case of new construction within the European Union, the building needs to exceed national mandated standards. In the case of renovations, it needs to comply with national energy performance standards (which in turn comply with the EU Energy Performance of Buildings Directive (EPBD)). A similar principle is proposed outside the European Union, where better energy standards are required compared to a baseline, potentially assessed using internationally recognised certification schemes.

3.86. The EIB Group supports a wide range of public policy goals, beyond energy efficiency. As such, it will continue to support the construction and renovation of buildings for wider public purposes – such as healthcare provision, education, public research or urban regeneration. Also in these cases, it is necessary to adopt clear criteria to ensure that buildings are aligned with the low-carbon goals of the Paris Agreement. To avoid doubt, where the building does not meet or achieve the standards set out in the ELP, it will not be counted as an energy efficiency project.

General issues to ensure consistency with a low-carbon pathway

3.87. On average, buildings undergo a deep renovation every 20 years. Whether constructing a new building or renovating an existing one within the European Union, this implies that the energy performance of the building after EIB support needs to be one renovation away from full decarbonisation.

3.88. New buildings achieving high performance standards are defined as compliant with the Energy Performance of Buildings Directive inside the European Union, or best local construction standards outside of the European Union, compliant with international recognised certification schemes (i.e. EDGE, LEED, BREEAM or equivalent). This ensures that the buildings are amongst the best built in the country and are least likely to pose a risk of lock-in.

3.89. Building rehabilitations achieving sufficiently ambitious energy performance standards are consistent with a low-carbon pathway. This can be implemented by requiring that major renovations be subject to cost optimal principles (as required by law in the EU) or energy efficiency audits and internationally recognised certifications (outside of the European Union).

Reactions from the first round of stakeholder contributions

3.90. Many stakeholders provided comments applicable to buildings. From those responses received, most urged the EIB to support net zero carbon, green buildings and retrofits that improve the energy efficiency of existing residential, commercial and historic (public) buildings. In addition, reducing the carbon-impact of embedded emissions should be one of the objectives of supported building projects.

3.91. Respondents also made the point about the importance of targeting energy poverty, or social benefits, within energy efficiency programmes.

3.92. Further suggestions focused on supporting energy management solutions such as sustainable heating, cooling, and air purification (e.g. geothermal, heat pumps). A comment was made that the EIB should explore putting in place energy performance-based contractual benefits for the promoter to maximise GHG reductions, for example by offering high financial incentives if projects achieve higher-than-most emission reductions.

Possible future focus of the EIB Group

3.93. As set out in the ELP, the EIB will continue its support for scaling up investment in the energy efficiency of buildings, as part of its wider commitment to the energy efficiency first principle. As mentioned during the first round of responses, energy efficiency investments in social housing and social infrastructure are also an opportunity to contribute to both climate and social goals in the context of significant energy poverty.

3.94. For buildings in the European Union, the EIB is considering deeming all projects that comply with national mandated standards as consistent with low-carbon pathways. This would cover both new buildings and the renovation of existing buildings.

3.95. Outside the European Union, the EIB is considering deeming all buildings that adopt best practice, as recognised through international recognised certification schemes (e.g. EDGE), as consistent with low-carbon pathways. Where such recognition is not met, the EIB is considering examining the energy performance of the building on a case-by-case basis, in light of national building regulations and current practice.

3.96. The EIB is considering withdrawal of support from all buildings – new or existing buildings – designed for the purpose of extraction, storage, transport or manufacture of fossil fuels.

3.97. Question 4F: In the case of new buildings outside the European Union, how should the EIB ensure consistency of its projects with a low-carbon pathway?

Bioeconomy and land use

3.98. The agricultural sector faces a significant challenge in a world with an expected 30% increase in population by 2050, with a shifting age pattern, and with a changing climate that affects ecosystems, livelihoods and global land use. Within the European Union, the agricultural sector accounts for approximately 10% of total GHG emissions, of which 55% is methane (from enteric fermentation and manure management) and 43% is nitrous oxide (from fertiliser application on soils). This is shown as the non-CO_2 agriculture contribution to Figure 4.

3.99. Reducing non-CO_2 emissions in agriculture is recognised as particularly challenging. In a scenario of increasing climate change pressures, agriculture needs to meet a growing demand for healthy and balanced food, feed and fibres. The Paris Agreement acknowledges the fundamental priority of food security, stating that the pursuit of climate goals should not threaten food production. At the same time, the complex inter-linkages of agriculture with rural economies, employment, poverty reduction and welfare, as stated in EU policies, are also to be taken into consideration.

3.100. A number of options for reducing GHG emissions in the bioeconomy sector are nevertheless identified today, including increasing productivity, reducing food waste, and adopting innovative technology and practices. These supply-side solutions may also be impacted by changes in consumer preferences towards, for example, food quality, changing diet/nutrition and environmental sustainability. These in turn may be influenced through consumer policy measures, such as regulation requiring more informative food product labelling, as promoted by the EU Green Deal through its Farm to Fork strategy.

3.101. From a GHG perspective, land use (including agriculture), land use change and forestry include both emissions and removals of GHG through land use activities related to forest, cropland, grassland, settlements, wetland and other forms of land management. The LULUCF sector in the European Union today is a net carbon sink, i.e. it removes (or sequesters) more carbon equivalents than it emits as GHG annually. This is shown in the LULUCF contribution to Figure 4. In other words, the bioeconomy and land use sector in the EU offsets a significant part of its direct emissions through sequestration into biomass and soils mediated through sustainable land and forest management practices.

3.102. Carbon tends to be lost when converting grasslands, forest or other native or high carbon stock ecosystems to croplands, or by applying agricultural practices that lead to oxidation of organic matter accumulated in agricultural and non-agricultural soil by draining, cultivating

or liming soils. By contrast, soil organic content can be increased when changing the cropping pattern or farming practices, restoring degraded grasslands, or reinstating forests or native vegetation on former croplands. This tends to be associated with initiatives targeting wider ecosystem services – including biodiversity – but can also be furthered significantly by changing certain farming/cropping and animal rearing practices on agricultural land.

Contribution of the EIB Group

3.103. The EIB, as a public bank, supports activities with a positive impact on decarbonisation and the environment, such as forestry, nature and biodiversity conservation, sustainable land management, sustainable agriculture/food production and sustainable biomass production. In doing so, it helps address market failures associated with environmental externalities, including carbon emissions.

3.104. The bioeconomy's contribution to EIB climate finance has increased over the last three years, reaching the milestone of 50% climate action across all direct bioeconomy lending in 2019. This largely reflects the financing of carbon sequestration investment (forestry, resource protection), as well as bioenergy, and decarbonisation of the agri-food-forest industry, mostly through energy and resource efficiency measures.

3.105. The EIB will continue to support bioeconomy projects, or sustainable agricultural and forest land management projects more broadly, as part of its wider public policy goals, including food security, rural development, poverty reduction or climate resilience. As a result there is a need to have clear criteria to ensure the consistency of all potential bioeconomy projects with a low-carbon pathway.

General issues to ensure consistency with a low-carbon pathway

3.106. Under the modelling exercise depicted in Figure 4, significant amounts of non-CO_2 emissions from agriculture remain in 2050. While these emissions will be offset within the sector itself through its steady LULUCF contribution to sequestration within the European Union, it remains important to make efforts to minimise emissions from agricultural activity as much as possible to reach that goal.

3.107. In considering consistency with low-carbon pathways, it is important to recognise potential future changes in consumer preferences and foreseeable shifts towards healthier but still balanced diet choices with lower environmental footprints. This trend will be enabled both by demographic change – as an older population consumes less meat, milk and eggs – and through improved food labelling regulations, for example under the EU Farm to Fork strategy. With these ongoing trends, beef consumption per capita in the European Union has declined by 30% since 1990, offset by an increase in demand for pork, poultry and fish as alternative protein source options.

3.108. In the modelling exercise presented in Figure 4, five different diets are examined. They are all based on animal produce, with variations in levels of consumption in meat, milk and egg products. The effect in 2050 ranges from 34 to 110 million tonnes of emissions, equivalent to 8% to 25% of 2015 emissions from agriculture. It shows the potential for managing overall emissions by promoting climate conscious diets.

3.109. Furthermore, it needs to be taken into consideration that the environmental and climate footprint of food, and in particular beef and sheep, varies significantly depending on the production process and the location. For example, a significant proportion of beef production comes as a by-product of the dairy sector. A significant portion – around 70% – of the ruminant (e.g. cows or sheep) diet is complementary, consisting of fodder that is indigestible by humans or non-ruminant farm animals. This is of particular importance in developing countries, where cattle and other ruminant rearing contributes to the resilience of local populations because they can graze on non-productive land and therefore compensate for bad harvests or crop failures.

3.110. With regard to export-oriented agribusiness, there is a risk that emissions from transport of food and biomass – particularly if based on long-distance airfreight – could become unsustainable. This may impact competitiveness over time, compounded by possible changes in consumer patterns.

3.111. With regard to LULUCF, there is a residual risk in supporting activities related to the conversion of organic-rich soil or practices that favour the mineralisation of organic matter and lower microbiological activity in agricultural soils. As noted, these risks tend to be mitigated by supporting wider ecosystem services, including biodiversity preservation – as recognised under the EU Biodiversity Strategy – and/or support for agricultural practices that favour the capture of GHG within soils and biomass.

Reactions from the first round of stakeholder contributions

3.112. Responses highlighted the benefits of supporting nature-based solutions in the bioeconomy and LULUCF sectors, including climate-smart agriculture, sustainable forestry and land management, such as green urban infrastructure and activities with biodiversity co-benefits and those promoting ecosystem services (including incentives to reduce natural habitat destruction), reforestation, and natural carbon sequestration.

3.113. Respondents also recommended supporting local food supply chains, as well as innovation and substitution research to favour bioeconomy alternatives, for example in the chemicals industry (carbon-free ammonia production, biofuels, green hydrogen as feedstock).

3.114. Words of caution were received in relation to the burning of biomass, i.e. that it should not automatically be considered carbon neutral, as loss of carbon in the forests from biomass harvesting is difficult to fully account for.

Possible future focus of the EIB Group

3.115. The EIB will continue supporting the agricultural value chain to meet the twin long-term challenges of producing an increasing volume of healthier food more efficiently on existing agricultural land and reducing food wastage along agro-food value chains. More broadly, it will also seek to reinforce its support for forestry, nature and biodiversity conservation, sustainable land management and sustainable biomass production. A focus on smallholder farmers and women farmers in particular will promote synergies between climate action and social development in the bioeconomy sector.

3.116. The EIB is considering focusing its support for the meat and dairy industries on investments that are based on sustainable animal rearing contributing to improved GHG efficiency. In this context, sustainability refers to a range of impacts: socio-economic, environmental, resource efficiency and animal welfare.

3.117. Along the whole value chain (from Farm to Fork), priority will be given to agro and bio-based industrial projects with high efficiencies and low-carbon emission profiles. The EIB is considering withdrawal of support for projects that increase demand for certain unsustainable agricultural products, where expansion of cropping areas into high carbon stock or high biodiversity is very likely. In addition, it is considering its position with regard to export-oriented agro-business models that depend on long-distance air transport for commercialisation.

3.118. In the case of projects in non-EU countries with vulnerable food supply systems that lead to food insecurity, the benchmarking of GHG emissions on local (instead of international) best standards may be justified on a case-by-case basis. This would apply in particular to smallholder and agriculture microfinance schemes or agro-food industries that aim to meet local demand.

3.119. Question 4G: Taking into account the range of intensive/extensive animal production systems across the world, how can the EIB best support the meat and dairy industry to be consistent with a low-carbon pathway? Would the conditions proposed suffice? If not, what additional/alternative criteria should be considered?

3.120. Question 4H: How can EIB support for LULUCF be increased? Can agriculture – besides forestry – make a significant contribution to LULUCF through differentiated cropland management options?

Chapter 4: Consistency with climate-resilient development

4.1. Adaptation to future climate change is a fundamental element of the Paris Agreement, which requires signatories to "make financial flows consistent with a pathway towards low greenhouse gas emissions and **climate-resilient development**."

4.2. Article 7 of the Paris Agreement recognises that adaptation is a global challenge faced by all and is crucial to protect people, livelihoods and ecosystems from the adverse effects of climate change. The same article also emphasises the point that developing countries will require targeted support to increase adaptive capacity and identify adaptation actions that are gender-responsive and participatory, taking into consideration vulnerable groups, communities and ecosystems and the knowledge of indigenous peoples and local systems.

4.3. Achieving this goal requires supporting processes, efforts and finance to help increase clients' abilities to adapt to the adverse impacts of climate change and foster greater climate resilience across society.

4.4. A changing climate gives rise to new risks for people, communities, and natural and physical capital. Under the current emissions profile, physical climate risks are set to increase significantly towards 2050. The climate has already warmed by over 1˚C since pre-industrial times, with significant change in the extreme "tails" of the distribution. Sea level rise continues to accelerate, endangering marine life and ecosystems, undermining fisheries and livelihoods in coastal areas and small island states. Sea ice, ice sheets and snow cover continue to decline. Precipitation has increased in some regions and decreased in others. Heatwaves were the deadliest meteorological hazard in the last few years resulting in new temperature records and unprecedented wildfires. Tropical cyclones, floods and landslides were associated with the largest economic losses and social damage. Droughts have exacerbated food insecurity in many regions, increasing political instability, conflict and migration both within and between countries.

4.5. The effects of climate change will only increase over the next few decades, given the unavoidable changes that are already locked in. The impacts will affect all regions of the world and cut across all sectors of society. The effects will be disproportionate on disadvantaged and vulnerable populations, with gender inequalities further compounding such vulnerabilities. People without access to basic services such as water, energy or health services, and people living in the most climate-sensitive environments around the world, are particularly at risk. Europe is likely to be hit hard too, with weather-related disasters annually forecast to affect up to two-thirds of the EU population, and with losses from flooding alone reaching over €1 trillion per year by the end of the century.

4.6. Against this backdrop, the EIB has a key role to play in accelerating investment to reduce the negative effects of climate change and ensuring that resilience to changing climatic conditions is integral to its operations.

General approach towards climate adaptation and resilience

4.7. The EIB's approach to climate adaptation is rooted in the understanding that physical climate risk is highly local – 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.

4.8. The EIB has already made significant progress in ensuring that new operations are aligned with the goal of climate-resilient development. This is important for sectors such as water management, agriculture, forestry and fishery, which are particularly vulnerable to the negative effects of climate change. It is also critically important for infrastructure systems such as energy, transport, digital communications, water, and waste management. Many of these systems are key to economic and social development but also vulnerable to sea level rises, flooding, landslides, wildfires, permafrost melt, droughts, and other gradual and extreme weather events. It is estimated that $80 trillion of investment in new and existing infrastructure is required worldwide over the next 15 years. Decisions are being made now that will lock-in risks for decades to come. Securing the performance of infrastructure assets and protecting them in a changing climate can yield benefits in terms of avoiding damage, disruption, and reconstruction costs that greatly outweigh the investment costs.

4.9. To help ensure this alignment, the EIB has mainstreamed a climate-risk tool in its project appraisal. The CRA system was introduced during 2019. It provides a systematic assessment of the physical climate risk in investment loans. 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.

4.10. The 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 further 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, the CRA system estimates the residual physical climate risk of the operation.

4.11. The CRA concerns the project alone. However, as with all territorial plans, it is important to situate the project within a wider strategic context of climate resilience, as set out in regional or national climate resilience plans. For instance, within the European Union, such plans are now required at the national level and are reflected within the national energy and climate plans. In developing countries, national adaptation plans identify investment priorities in support of long-term climate resilience. In practice, urban and water projects typically already relate to wider resilience 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.

Reactions from the first round of stakeholder contributions

4.12. Stakeholder stressed the potential for the EIB to support adaptation more actively by protecting ecosystems, climate-smart agriculture and sustainable land management, urban planning including green infrastructure in cities as well as water management.

4.13. At the same time, several stakeholders highlighted the relatively poor performance of the EIB towards supporting climate resilience compared to other international financial institutions. In addition, some call for the EIB to enhance its ambition in this area and adopt an explicit adaptation target as part of its operational plan.

4.14. Several stakeholders called for the EIB to ensure that all projects are adaptation proof. Reference was made to the EU Taxonomy in this regard.

Possible future focus of the EIB Group

4.15. The EIB has long invested in projects that help countries and clients adapt to climate change. As recognised in the 2015 Climate Strategy, the EIB needs to reinforce its support for climate adaptation. This requires a greater focus on adaptation needs and opportunities in and outside of the European Union, as well as working closely with other international financial institutions to exchange best practice and promote a common approach to adaptation.

4.16. The EIB will continue to support projects for a wide range of public policy goals, including climate action and environmental sustainability. In order to be consistent with a pathway to climate-resilient development, the EIB will strengthen its efforts to ensure that all the operations it supports are adapted to current weather variability and future climate changes. 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.

4.17. In the context of infrastructure investments, the EIB will explore ways to work with national standards bodies, industry associations, and other key actors to ensure that engineering standards are updated to adequately integrate climate change. The EIB recognises that adaptation must be mainstreamed in engineering standards to avoid locking vulnerability in new infrastructure financing. Engineering codes are typically based on historical data and on the assumption of climate and its hazards remaining static. Established standards need to be revised to help designers, operators, and users adapt infrastructure to a changing climate.

4.18. In addition to financing adapted operations, the EIB will reinforce its support for climate-resilient opportunities to help reduce the vulnerability of communities, and physical and natural capital. Opportunities include the development and deployment of climate-resilient technologies, processes, services and products that enable adaptation. Examples include investments in crops that are resistant to droughts or floods; innovative flood protection systems that can be adjusted over time; index-based crop and climate-risk insurance; early warning systems and other products and services that can provide information on weather and climate for different sectors; water saving technologies; geo-observation of the oceans and the atmosphere; research on the impacts of climate change on health; and the development of diagnostics for water and vector-borne diseases.

4.19. To ensure the high impact of its investments, the EIB is considering how to strengthen its support for socially inclusive and gender-responsive climate investments. This could include supporting the adaptive capacity and resilience of people and communities that are particularly vulnerable to climate change regardless of their socio-economic characteristics, including smallholder farmers and indigenous people.

4.20. Adaptation to climate change is a relatively new area for many EIB clients. Some may lack the resources or expertise to assess climate risks. The EIB will seek to strengthen advisory support for its customers, including businesses, banks and public authorities, to manage physical climate risk and associated social and economic impacts, and to develop a long-term

framework for climate resilience. As with other relatively new areas of EIB activity, upstream dialogue and access to technical assistance budgets will be central to ensuring that the EIB is aligned in practice.

4.21. This approach will ensure that the EIB is also aligned with the EU Taxonomy for sustainable finance. Ensuring that the EIB invests in adapted projects is in line with the taxonomy's principle of doing no significant harm to adaptation objectives. Work would need to be directed to the development of approaches for monitoring results and ensuring consistency with broader strategic visions of climate resilience to meet the full set of technical criteria of the EU adaptation taxonomy.

4.22. Aligning activities with the goals of the Paris Agreement will require reinforcing the EIB Group ambition towards climate adaptation and resilience. The ongoing development of the Roadmap offers an opportunity to explore potential measures to support the climate resilience of people, infrastructure and natural capital. The EIB will consider options to reinforce its lending towards adaptation and to invest more strategically in projects that contribute to strengthening the adaptive capacity and resilience of people and regions most impacted by climate change.

4.23. Question 5A: Engineering codes and practices applied in many countries rely on historic climatic data. By contrast, good practice in adaptation uses forward-looking climatic data. In considering consistency with climate-resilient development, how could the EIB contribute to encouraging best practice in this area, including through the updating of engineering standards and building codes?

4.24. Question 5B: How should the EIB consider consistency with climate resilience development in the context of supporting small and medium-sized enterprises through financial intermediaries?

Chapter 5: Tracking the EIB commitment to climate action and environmental sustainability

Background

5.1. 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.

5.2. As set out below, several first round responses have raised issues around whether and how the EIB intends to track this commitment, in particularly in reference to the EU Taxonomy. This section provides further information to stakeholders on the EIB Group's current thinking.

Current approach

5.3. 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 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.

5.4. Based on these definitions, EIB climate action lending figures are publicly disclosed annually in the EIB Activity Report[17], Sustainability Report[18] and various other internal reports. Detailed project-level data are published on the EIB public register[19]. The EIB also provides climate finance data each year that is published within a joint MDB report[20], as well as providing data for reports published by the European Commission and OECD. EIB climate action data are externally audited each year.

5.5. The new ambition applies to other environmental objectives beyond climate. In contrast to climate action, however, the EIB does not have a well-established external framework upon which to base a tracking system for other environmental sustainability aspects. In this context, the ongoing development of the EU Taxonomy under the European Commission's Action Plan on Financing Sustainable Growth provides a very useful reference and precious guidance.

[17] EIB Group Activity Report 2019: https://www.eib.org/en/publications/activity-report-2019
[18] EIB Group Sustainability Report 2019: https://www.eib.org/en/publications/sustainability-report-2019.htm
[19] Climate Action Figures for 2018: https://www.eib.org/en/registers/all/92782519
[20] Joint Report on Multilateral Development Banks' Climate Finance 2018: https://www.eib.org/en/registers/all/123254855

Reactions from the first round of stakeholder contributions

5.6. The feedback received by stakeholders in the context of the first round of public consultations indicates that trade-offs and synergies between climate action and environmental sustainability and wider social objectives are evident in the majority of sectors. Although a wide range of views were expressed, the responses indicate that the distinction between climate action and environmental sustainability objectives is somewhat artificial. A holistic approach should be adopted by looking at all aspects simultaneously. Many respondents propose that the EIB adopts the EU Taxonomy Regulation framework. This is examined in the next section.

The EU Taxonomy

5.7. 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 European Commission'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 and more recently as a member of the Technical Expert Group on Sustainable Finance. The EIB Group intends to continue this support as a member of the future Platform on Sustainable Finance, defined in the Taxonomy Regulation.

5.8. 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).

5.9. 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 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."*

5.10. Given the EIB's established commercial relationship with a multitude of financial intermediaries (public, commercial banks 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.

5.11. 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.

Possible future focus of the EIB Group

5.12. 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.

5.13. 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, other international reference points remain valid, particularly the joint MDB methodology, which is applied in the annual joint MDB climate report. In addition, some criteria in the EU Taxonomy have been developed specifically for the EU context (e.g. reference to EU regulations).

5.14. 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. The MDBs are currently completing a two-year programme of reviewing the harmonised methodology for climate change mitigation finance tracking. The final version is due for publication in late 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.

5.15. 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 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.

5.16. The EU Taxonomy's "Do No Significant Harm" and "Minimum Social Safeguards" criteria will be adopted in phases. An initial analysis indicates that the vast majority of the DNSH requirements are covered by the existing set of E&S standards, which the EIB applies systematically to all its investments, or under the emerging framework set out in Chapters 3 and 4. Nevertheless, the need for adjustments to implement these criteria fully and the implications for timing of this transition are being considered.

5.17. Question 6A: Do you foresee the need to adopt different standards inside and outside the European Union in defining technical criteria for non-climate objectives under the EU Taxonomy (water, pollution prevention, circular economy and biodiversity)?

5.18. Question 6B: How can the EIB best promote the fast uptake of the EU Taxonomy amongst other financial institutions, both inside and outside the European Union?

Annex 1: List of questions

General questions

#	Topic	Question	Reference
1	Green recovery	• How can the EIB Group use the current health and economic crisis, related to the COVID-19 pandemic, as an opportunity to promote and accelerate the green transition?	1.17
2	Decarbonisation pathways, investment	• Do you agree with the key themes of the decarbonisation pathway presented? Are there additional areas of investment for mitigation that the EIB Group should be considering?	3.8 to 3.17; 3.18
3A	Economic appraisal; Carbon prices	• Should the EIB use an additional safeguard, above and beyond a standard economic test with a carbon price, in assessing the alignment of projects? If so, when and why?	3.27
3B		• The EIB's current carbon price out to 2050 is available in Annex V of the Energy Lending Policy. Are there any set of prices that you would recommend to be consistent with a 1.5°C temperature target?	3.28
4A	Consistency of ''hard to abate'' sectors with low-carbon pathways	• How should the EIB approach supporting ''hard to abate'' sectors – such as energy-intensive industry, airports, strategic roads, agriculture – to decarbonise? See additional, sector-specific questions – 4D to 4H – below.	3.34 to 3.118
4B		• Do you think the preliminary thinking and conditions set out in Chapter 3 are appropriate? If not, what alternative conditions or criteria would you suggest?	
4C		• How should the EIB consider consistency with low-carbon development in the context of supporting small and medium enterprises through financial intermediaries?	
5A	Consistency with climate-resilient pathway	• Engineering codes and practices applied in many countries rely on historic climatic data. By contrast, good practice in adaptation uses forward-looking climatic data. In considering consistency with climate-resilient development, how could the EIB contribute to encouraging best practice in this area, including through the updating of engineering standards and building codes?	4.17
5B		• How should the EIB consider consistency with climate resilience development in the context of supporting small and medium-sized enterprises through financial intermediaries?	Chapter 4
6A	Definitions	• Do you foresee the need to adopt different standards inside and outside the EU in defining technical criteria for non-climate objectives under the European Union Taxonomy (water, pollution prevention, circular economy and biodiversity)?	5.15
6B		• How can the EIB best promote the fast uptake of the EU Taxonomy amongst other financial institutions, both inside and outside the European Union?	Chapter 5

Hard to abate sectors

#	Sector	Question	Reference
4D	Energy Intensive Industry	• Under what conditions should the EIB support new industrial capacity? Would the conditions proposed ensure EIB projects are consistent with a low-carbon pathway?	3.46
4E	Transport	• What kinds of investments in transport systems should the EIB prioritise to simultaneously serve the goals of decarbonisation, accessibility in all regions and by all groups in society?	3.56 to 3.80
4F	Buildings	• In the case of new buildings outside the European Union, how should the EIB ensure consistency of its projects with a low-carbon pathway?	3.95
4G	Agriculture	• Taking into account the range of intensive/extensive animal production systems across the world, how can the EIB best support the meat and dairy industry to be consistent with a low-carbon pathway? Would the conditions proposed suffice? If not, what additional/alternative criteria should be considered?	3.116
4H	LULUCF	• How can the EIB support for LULUCF be increased? Can agriculture – besides forestry – make a significant contribution to LULUCF through differentiated cropland management options?	3.111

Annex 2: Summary of responses from first round

LOW-CARBON DEVELOPMENT

Question 1 of 10: Outside of the energy sector, what type of financing and advisory activities should the EIB Group prioritise to most effectively support the transition to low-carbon development?

- Responses to this question focused both on what the EIB should prioritise and deprioritise. In relation to the former, the sectors mentioned most frequently concern **low-carbon transport solutions** (including high-speed rail, intermodal freight solutions, (public) electric transport infrastructure, and support for soft transport modes), **energy-efficient buildings** (new net zero carbon buildings, energy efficiency retrofits, low-carbon alternative materials), **renewable energy** (including enabling renewable energy through energy storage and network expansions) and **nature-based solutions** (e.g. climate-smart agriculture, green cities, sustainable forestry and land management). In addition, the relevance of an **integrated circular economy** approach across sectors has been particularly highlighted. In relation to what EIB should deprioritise, respondents most frequently mentioned **airport and aircraft-related investments** (apart from promoting synthetic fuels), capacity increases for **roads and motorways**, and ending support for **fossil fuel-dependent infrastructure** throughout all of the EIB's lending activities.

CLIMATE-RESILIENT DEVELOPMENT

Question 2 of 10: What type of financing and advisory activities should the EIB Group prioritise to support climate-resilient development?

- Feedback received in relation to supporting climate-resilient development focused on promoting both sector-specific support, and technical assistance to enable clients to integrate climate resilience into their projects. In relation to the former, sectors identified most frequently include **water management**, **climate-smart agriculture** and **land use**, **sustainable forestry** and **health care**. In general, it was highlighted that the EIB should align itself with the adaptation proposals made in the draft EU Taxonomy developed by the Technical Expert Group. In addition, stakeholders emphasised the relevance of climate-resilient **urban planning**, implementation of **nature-based solutions**, activities such as the **development of disaster risk management**, **investment for environmental monitoring** and robust **climate vulnerability assessments** for projects. Responses also highlighted the point that there is an important need for support and **technical assistance** for (prospective) clients that the EIB should provide, and that an expansion of **grant-based finance** should be pursued, particularly to benefit the most vulnerable groups in least developed countries and small island developing states. At least one respondent stressed the relatively poor performance of the EIB against other international financial institutions in supporting investment in resilience, whilst also arguing for a formal adaptation lending (sub) target.

SUPPORT FOR CLIENTS

Question 3 of 10: How and to what extent should the EIB Group help its clients transition to a low-carbon and climate-resilient pathway, in particular those that are highly exposed to the transition and physical risks (both acute and chronic) associated with climate change?

- Responses to this question drew a wide range of suggestions, predominantly focused on **promoting client capacity to integrate low carbon and climate resiliency into their projects and operations,** helping them to better understand, quantify and manage physical risk and transition risk. Suggestions therefore included implementing requirements on – and engaging with – clients (authorities, companies and intermediaries) to **adopt climate science-based targets**, as well as transition plans to align with a 1.5°C pathway. Some stakeholders pointed out the specific need for helping companies to secure their workforce through a gradual and **just transition** and develop financing instruments such as concessional funding or green bond issuance for **sectors that are more difficult to decarbonise**. In addition, it was highlighted that in applying policies on Paris alignment, the EIB Group should also include requirements on **financial intermediaries' decarbonisation plans in line with EU policies**, including zero coal exposure in their portfolios by 2030, and zero fossil fuel-related energy supply exposure in their portfolios by 2050. Responses also suggested that the EIB provide grant-based advisory, financial and technical support to developing countries to promote the **development of ambitious climate change adaptation plans and long-term decarbonisation strategies**, with the primary objective to integrate climate resilience into all investments.

ADVISORY SUPPORT

Question 4 of 10: What type of advisory support is most needed to help clients and promoters become Paris aligned?

- The main points raised in response to this question focused on increasing efforts to advise on, and raise awareness of, the importance of **assessing the costs and benefits associated with low-carbon alternatives and adaptation to climate change**. As part of this effort, the EIB should put in place an executive **capacity-building programme** enabling (prospective) clients to identify the most feasible low-carbon and climate-resilient options, and how these are assessed for prioritisation. Suggestions were made that are connected to such efforts, including providing advice on **how to follow and make use of the EU Taxonomy**, how to put in place sustainable financial models (e.g. how to make adaptation projects bankable and **build an adaptation project pipeline**), and how to perform **impact measurement** activities for reporting purposes (e.g. environmental impact and effectiveness as well as governance of the project).

DIFFERENTIATION FOR DEVELOPING COUNTRIES

Question 5 of 10: Should a different approach towards Paris alignment be applied in the context of developing countries, in particular in Least Developed Countries and Small Island Developing States? If so, why and for which type of activities?

- From those respondents that replied to this question, **almost all agreed that a different approach towards Paris alignment should be applied** in the context of developing countries – particularly **in east developed countries and small island developing states**. Respondents

highlighted that these countries' priorities and needs are very different from more developed countries, and their in-country capacity for low-carbon and climate-resilient development is limited. Therefore, particular support (including **technical assistance** and **concessional finance**) should be provided to least developed countries and small island developing states to help them develop Paris-compatible infrastructure and improve their resilience to climate change, which is likely to affect them most severely. Some stakeholders called on the EIB Group to further develop their capacities to finance and **de-risk smaller projects** and **work with regional, local and community beneficiaries**. **Monitoring and reporting requirements** linked to EIB financing should therefore be set in consideration of regional technological and administrative capacities. However, respondents also highlighted the point that the EIB **should not support projects that are not compatible with Nationally Determined Contributions** in any of its countries of operation, and that a differentiated approach should not serve as a justification for the continued support of fossil fuel infrastructure in developing countries.

NATURAL SYNERGIES AND POTENTIAL TRADE-OFFS BETWEEN CLIMATE ACTION AND ENVIRONMENTAL SUSTAINABILITY

Question 6 of 10: In which types of projects are there likely to be natural synergies for environmental sustainability and climate action? In which cases might there be potential trade-offs?

- Respondents to this question identified a broad array of project types with synergies, or trade-offs, across environmental sustainability and climate action. In terms of synergies, the following activities were most frequently identified: **regenerative agriculture, sustainable forestry, nature-based solutions, renewable energy,** waste prevention and reutilisation of resources (**circular economy**); **zero emission transport**; and **integrated water management**. In contrast, **unsustainable biomass and biofuels**, **hydropower**, and sourcing **critical material for green technologies** were identified most frequently as trading off climate action with environmental sustainability. Some respondents have commented that if the EIB adopts the proposed EU Taxonomy, it should apply the "Do No Significant Harm" principles to avoid trade-offs.

AREAS WITH STRONG SOCIAL BENEFITS

Question 7 of 10: Which type of climate action and environmental sustainability projects are likely to have strong social benefits?

- Comments received in response to Question 7 identified the following climate action and environmental sustainability activities that are likely to have strong social benefits: **energy efficiency measures and retrofits of buildings** targeting social infrastructure, which benefits poorer households and companies (such as social housing); **off-grid renewable energy** solutions expanding access to energy for all; **urban climate adaptation** and circular economy projects including affordable and sustainable water services, integrated solid waste management and zero waste projects, leading to greater social resilience with potential for job creation and health benefits; and **climate-smart agriculture** as an example of a system-based approach that supports smallholder farmers and promotes local supply chains as well as **public low-carbon transport.** The responses also emphasised the need for human rights, community-based and inclusive approaches as well as the provision of more **flexible and smaller-scale financing** to support inclusive and local solutions**.**

In addition, many comments received underlined the point that projects supporting the **just transition** objective should provide economic alternatives to those whose incomes are put at risk by transitioning to low-carbon pathways (e.g. by income/transfer support, retraining, promoting regional economic plans). This should be implemented using integrated approaches and seek to contribute to local economic development and sharing values with local stakeholders, particularly for those social groups with jobs linked to the fossil fuel sector.

FINANCING INSTRUMENTS

Question 8 of 10: What new types of financing instruments should the EIB Group seek to develop to have a high catalytic effect on other sources of public and private sector finance?

- Comments received in response to Question 8 most commonly voiced their support for financial instruments that benefit intermediaries, such as **guarantee funds** that could enable them to finance innovative or even riskier projects for sustainability investments. Following the same logic, respondents also highlighted the point that a greater emphasis on **aggregating smaller investments through structured blended finance** could overcome the discrepancy between the demand side of financing for projects and the nature of the supply of financing from financial markets. Additional innovative financing instruments identified were those that are **performance-linked to achieving defined environmental or social impact** (e.g. achievement of a certain level of greenhouse gas savings). Respondents also highlighted further developing more established methods of **green and social project finance through capital market instruments**, such as expanding the green and sustainability bond offering and aligning the former with the (proposed) EU Green Bond Standard.

IMPACT MEASUREMENT FOR CLIMATE ACTION AND ENVIRONMENTAL SUSTAINABILITY PROJECTS IN GENERAL

Question 9 of 10: How can the impact of climate action and environmental sustainability activities be best measured?

- Respondents to Question 9 listed a wide variety of applicable indicators. On climate change mitigation, respondents commented that greenhouse gas accounting indicators are most valid, particularly if **annual and expected (lifetime) emissions** of a project are reported. In relation to climate resilience, impact indicators that reflect the **broad diversity of climate vulnerability contexts** should be developed and included in aggregated reporting on climate finance. On environmental sustainability, many respondents emphasised the need to develop at least proxy indicators to take into account impacts on **biodiversity and ecosystem integrity**. Indicators to measure the reduction of emissions other than GHG, e.g. for the most relevant air, water and soil pollutants, should be suitable to account for environmental quality. On a general note, it was also mentioned that a **life-cycle approach** to impact accounting must be taken to properly capture the relevant impact of a financed project. In addition to an environmental impact assessment, respondents also point to the need for **measuring wider social and economic factors** such as employment, productivity, social betterment of local communities and impacts along entire value chains.

IMPACT MEASUREMENT THROUGH FINANCIAL INTERMEDIARIES

Question 10 of 10: How should the EIB Group tackle the measurement of impact when investing indirectly through financial intermediaries?

- Responses received most frequently in relation to this question focused on promoting, as much as possible, **alignment between indicators used by the EIB and indicators used by financial intermediaries**. Therefore, the EIB should ask financial intermediaries to adhere to the EIB impact indicators, report accordingly, and pass such requirements on to their clients. Some respondents mentioned that such reporting and verification obligations should be subject to **sanctions for non-compliance**. Other respondents stressed the need for flexibility, highlighting the point that impact depends on local conditions and can be very different. Therefore, an **emphasis should be placed on most commonly used indicators**, such as carbon footprinting metrics, verified and monitored by a third party if required. For development funding, some stakeholders stressed the importance of technical assistance and **capacity building related to impact assessment,** as clients are often unable to properly measure and report impacts.

EIB Group Climate Bank Roadmap 2021-2025

Position paper

15 June 2020

European Investment Bank
The EU bank

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