E3G

REPORT SEPTEMBER 2020

A VISION FOR SUSTAINABLE FINANCE IN EUROPE

FINANCING EUROPE'S FUTURE SUSTAINABILITY

SARA DETHIER AND KATE LEVICK

E3G

About E3G

E3G is an independent climate change think tank accelerating the transition to a climate safe world. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere. In 2018 E3G was ranked the fifth most globally influential environmental think tank for the third year running.

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FOREWORD

By Octavian Bivol
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The COVID-19 pandemic has demonstrated the consequences of systematically underinvesting in resilience. The cascading nature of disaster risk, where one disaster can rapidly lead to another, coupled with insufficient investment in disaster risk reduction, makes the critical systems that trade, food, energy, transportation and health rely on increasingly vulnerable to hazards such as COVID-19.

This crisis is a wake-up call and an unprecedented opportunity to build back better with a renewed focus on resilience. We know that alongside the COVID-19 crisis, there is another crisis – the climate emergency. Climate change is occurring more quickly and intensely than previously thought possible. It poses a grave threat to financial stability and it has the potential to supersede the immense damage and loss caused by the COVID-19 pandemic. In the future, losses and disasters from climate impacts will increase dramatically if mitigation goals are not met and if we fail to ramp up resilience efforts. This recovery and transformation towards a climate resilient Europe are therefore interlinked, and must be pursued in a joined-up approach.

A crucial recommendation in E3G's report on a Vision for Sustainable Finance in Europe is the 'Think Resilience' principle. This test, to think resilience, means to make disaster risk reduction, climate change adaptation and resilience a baseline requirement for all European finance instruments. If incorporated into public finance investment decision-making across a range of instruments and actors, complementing the 'Do No Harm' oath, this could fundamentally re-orientate the financial system towards greater resilience.

As European Union member states emerge from the COVID-19 crisis, there is now a clear opportunity to build resilience into recovery activities. There is a wide range of actions that can drive this change. In 2020, the policy direction that will set through new institutional financial frameworks – including the

European Green Deal Investment Plan, the Recovery Plan for Europe, the Renewed Sustainable Finance Strategy, taxonomy and investment decision making – will set the pace of reforms to deliver a disaster-resilient future.

We have just 10 years left to deliver on what we all agreed in the Sendai Framework for Disaster Risk Reduction, the Sustainable Development Goals, and the Paris Agreement: to move towards a world more free of risk, where resilient, equitable and sustainable development can be made real; where no one is left behind. Finance stability sits at the heart of this. The EU's next sustainable finance strategy will provide an essential contribution to truly building back better and ensuring a resilient future.

Octavian Bivol

EXECUTIVE SUMMARY

The financial policy choices made in Europe in 2020-21 will shape its prosperity for decades to come.

The road to recovery from the economic impacts of COVID-19 will not be quick or easy. But the current crisis is also an opportunity to direct large-scale investment towards creating a sustainable European economy.

Short-term economic relief measures must not mean financing longer-term risk and inequality. For ambitious financial reforms to be achievable and sustainable they must be fair and inclusive; their long-term success will be dependent on Europe's ability to guide international standards. Reforms must address public as well as private finance norms, including institutional architecture and governance.

This report aims to set out a vision for the future of sustainable finance in Europe and makes specific recommendations for action by European institutions within the next two years. It is published in the context of the upcoming Renewed Strategy for Sustainable Finance but is also relevant to other European policy frameworks.

Figure 1: EU policy agendas promoting sustainable economic recovery

We hope that this paper will provide a helpful framework for a wide range of actors working on sustainable finance in Europe to think about the impacts of their work and the common goals that they are all trying to achieve, in the context of the European Green Deal and sustainable economic recovery from the pandemic. This includes the European Commission and other European institutions, but also civil society actors and philanthropic funders.

Given the breadth and multi-faceted nature of sustainable finance we have organised our research and recommendations under nine different themes which were identified through extensive consultation with subject experts: *Public Finance, Private Finance, Fairness, Inclusion, Resilience, Systemic Risk, Infrastructure, Innovation,* and *International Leadership*.

In selecting these themes, we have attempted to represent the variety and depth of different aspects of sustainable finance in Europe while also making connections and avoiding siloed thinking.

Figure 2: Policy themes for sustainable finance in Europe

Each chapter of the report contains several detailed suggestions. These have been summarised into three overarching recommendations for each theme, which are listed in the table on the following pages.

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Theme	Overarching recommendations
1 **Public Finance**	> Europe's wide array of public finance tools should be sustainability-proofed through use of the taxonomy and an exclusion list for significantly harmful investments, including the Multiannual Financial Framework, Next Generation EU and InvestEU. > The European institutions should apply sustainability-related and taxonomy-linked conditionality to state aid decisions and should support Member States to green national budgets and fiscal policy. > European institutions and Member States should adjust the mandates and capitalisation of public banks in order to achieve sustainability goals.
2 **Private Finance**	> European regulation of private finance should continue to set new standards for best practice, including a new requirement for financial firms to publish plans for their financed activities to be climate neutral by 2050 and to disclose progress against these plans annually. > The ongoing process to develop the taxonomy of sustainable economic activities must continue to be governed independently and based on science-based evidence. > Expectations of institutional investors should be strengthened beyond disclosure, to include integration of material ESG factors and long-term sustainability into investment decisions.
3 **Fairness**	> The European Commission should develop an Action Plan to promote fair access to affordable capital in Europe, including support for a more diverse ecosystem of financial actors. > The European Commission and European Investment Bank should build the capacity of stakeholders at regional and local level to develop bankable projects which support climate transition and social inclusion. > A broad approach to a transition that is both fast and just should be integrated into financial decision-making by a wide range of actors, starting at Member State level with the creation of plans to identify national financing needs and plans.

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4 **Inclusion**	> The European Commission should ensure that retail investors are asked about their sustainability preferences and that sustainable investments are labelled for impact. > New policies should be put in place to ensure that European citizens' can exercise their right to sustainability-related data that is relevant to their lives and communities. > The European Commission should develop an Action Plan to address financial exclusion that is linked to sustainability issues.
5 **Resilience**	> A 'Think Resilience' principle should be incorporated into public finance investment decision-making to encourage risk assessment and resilience stress tests for investments, complementing the 'Do No Harm' oath. > The European Commission should propose a European public-private disaster risk finance pool to increase access to affordable and comprehensive insurance. > The European Commission should support Member States to adopt national and regional investment plans for climate adaptation and resilience.
6 **Systemic Risk**	> The European Commission should renew and link the mandates of the European Supervisory Agencies to enable a co-ordinated approach to climate-related financial risk. > The European Commission should create a taxonomy of unsustainable economic activities and the European Central Bank should conduct climate stress testing at European level. > The European Central Bank should green European monetary policy, and with the European Supervisory Authorities should ensure that banks and insurance firms are incentivised to manage climate risk, including through a risk-based differentiated capital requirement framework.

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7 **Infrastructure**	> The European Commission should support national capital raising plans for infrastructure by creating a European Panel on Climate Change responsible for advising Member States on infrastructure investments that are based on the least cost pathway to a net-zero economy. > The European Commission and European Investment Bank should strategically engage with a network of public finance institutions to improve infrastructure project development capacity at regional and local level. > Public finance institutions should support the creation of green infrastructure bonds in underserved regions and sectors.
8 **Innovation**	> The European Commission should build a cross-European approach to research and innovation and should design an innovation ecosystem that prioritises sustainability. > The European Commission and Member States should expand the role of public finance institutions in crowding in private patient capital for investment. > The European Commission should support Member States to align national approaches to research and innovation with European sustainability goals.
9 **International leadership**	> The European Commission should make finance a priority for Europe's international diplomacy in 2021 and should ensure that Europe takes a leadership role to drive international reform at the G7 and G20, and ahead of the COP26 climate talks. > The European Commission and Member States should use the International Platform on Sustainable Finance to co-create new international financial norms, (for example, on taxonomy, disclosure, green bonds and financial sector transition plans) and should enrol more major economies as members of the Platform. > The European Commission and Member States should make reform of public banks and development finance institutions in support of green recovery and systemic resilience a key pillar of their international finance diplomacy.

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INTRODUCTION

Financial choices and plans made at institutional level over the next 15 months will shape Europe's future. The Renewed Sustainable Finance Strategy will be a key opportunity for change.

The path to Europe's recovery will not be quick or easy. The short-term challenge is extremely daunting – Europe's economy shrank by 25-30% during the most intense period of lockdown and its gross domestic product is forecast to reduce by more than 8% in 2020, the largest output contraction since World War Two.[1] Member states are expected to emerge from recession with a wide range of recovery paths, and the shortfall in investment induced by the crisis is set to differ substantially between countries.

The current crisis is also an opportunity to direct large-scale investment towards creating a sustainable European economy. Choices and plans made at institutional level over the next 15 months will shape Europe's future. These policy choices will have long-term structural impacts and will have the potential to increase social cohesion, support biodiversity and climate action, and rebalance regional inequalities while building prosperity and resilience.

In 2020, long-term policy direction is being set through new institutional financial frameworks including the European Green Deal Investment Plan, the Recovery Plan for Europe, the Renewed Sustainable Finance Strategy, the European Investment Bank's Climate Bank Roadmap and the European Central Bank's Monetary Policy Strategy Review. Of these frameworks only the Renewed Sustainable Finance Strategy has a broad enough mandate to propose reforms to both public finance and private finance, making this a key Green Deal policy file.

Short-term economic relief measures must not mean financing longer-term risk and inequality. The IPCC's fifth assessment report of the same year showed that global greenhouse gas emissions must fall 45% by 2030 in order to keep the world below 1.5 degrees of warming. Action is urgently needed now, in relation to long-term investments in infrastructure which must be sustainable if Europe is to achieve climate neutrality by mid-century.

[1] European Commission (2020) **European Economic Forecast: Summer 2020 (Interim)**

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For ambitious financial reforms to be achievable and sustainable they must be fair and inclusive. In order to manage trade-offs between short- and long-term economic support Europe will need to further develop its approach to financing a just climate transition. It will need to balance the transition risk and challenges faced by Central and Eastern Europe with the physical risks and impacts faced by Southern Europe, to ensure that no region is left behind during the economic transformation of the coming decades.

The shape of Europe's financial ecosystem is changing and must change further. Sustainable finance reforms designed in the context of private sector regulation are now being applied to European public funds under the Recovery Package. But to ensure that substantial investment reaches new industries and underserved regions it will also be necessary for existing institutions to act in new ways, and for new types of financial institution to emerge.

Successful implementation of financial reforms depends on Europe's ability to guide international standards. The financial system is global and European reforms in isolation cannot ensure sustainability. At the same time, Europe has a high level of global influence when setting new regulatory norms, for example the General Data Protection Regulation has been credited with inspiring 'a data privacy movement in both the corporate world and among international legislation'[2]. Europe can use this soft power to support its policy goals.

2021 will be a crucial year for employing European diplomatic firepower. With Italy leading the G20, the United Kingdom leading the G7, and both countries partnering to lead the COP26 UNFCCC climate talks, the European Union will have the opportunity to work with close partners to promote and internationalise its sustainable finance agenda. Europe has many tools at its disposal, from the International Platform on Sustainable Finance to the leading role played by Member States in international financial institutions and coalitions.

Now is the time to think long-term and create a new vision for financing Europe's future. The current crisis offers an opportunity to create a future for Europe's current and future citizens that is sustainable, resilient, inclusive and fair.

[2] Sovy (2019) **The Global Impact of the GDPR**

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1 – PUBLIC FINANCE

Overarching recommendations

- Europe's wide array of public finance tools should be sustainability-proofed through use of the taxonomy and an exclusion list for significantly harmful investments, including the Multiannual Financial Framework, Next Generation EU and InvestEU.
- The European institutions should apply sustainability-related and taxonomy-linked conditionality to state aid decisions and should support Member States to green national budgets and fiscal policy.
- European institutions and Member States should adjust the mandates and capitalisation of public banks in order to achieve sustainability goals.

Today's public finance decisions will have sustainability impacts at a scale that would have seemed unimaginable only a year ago.

Against the backdrop of the COVID-19 pandemic, the EU and Member States have deployed unprecedented financial support to workers and companies to help tackle the immediate economic crisis. EU and national leaders have also confirmed their continued commitment to the European Green Deal during the economic recovery.[3]

The European Green Deal Communication identified a goal of achieving climate neutrality by 2050. It also set out the need to redirect public spending towards sustainable priorities and away from harmful activities and proposed to mainstream sustainability across all policies.[4] To fully implement these proposals, public finance decisions will be required to change how the public sector shapes investment in the real economy and to update the tools that it has at its disposal. In parallel, reforms to long-term structural economic policies

[3] Climate Change News (2020) **European Green Deal must be central to a resilient recovery after Covid-19**
[4] European Commission (2019) **The European Green Deal**

will be needed to ensure that the restructuring of the economy is in line with sustainability goals.

Guiding financial flows towards a sustainable economy

Large pools of public and private capital will be required to make the investments that are needed for Europe's economic transformation. The European Investment Bank and other national and regional public banks have a crucial role to play in the recovery by providing counter-cyclical investment. With the support of national and local governments, they can both ensure that capital flows to the right places and support project delivery through the local network of project developers and investors.

Info: European public authorities and financial institutions have access to a wide array of economic tools to transition to a sustainable economy.

> **EU and national budgets:** budgeting can be proofed to prevent investment in harmful activities and increase sustainable investment

> **State aid:** aid provided to companies can be directed towards companies with a viable sustainability strategy and net-zero transition plan

> **Fiscal planning:** harmful subsidies can be eliminated and taxation on harmful activities increased

> **Public investment:** public finance institutions and national and local governments can invest in sustainable infrastructure and innovation

> **Macroeconomic policy:** the European Central Bank can use monetary and macroprudential policy to drive sustainable investment

The Sustainable Finance Action Plan adopted in 2018 led to the development of the EU taxonomy of sustainable activities.[5] The Taxonomy Regulation was adopted by the Council and the European Parliament in June 2020.[6] This EU taxonomy will define which activities are classed as 'sustainable' in terms of

[5] European Parliament and Council of the EU (2020) **Taxonomy Regulation**

[6] European Commission (2020) **Sustainable Finance: Commission welcomes the adoption by the European Parliament of the Taxonomy Regulation**

climate change, environmental and social impacts. The taxonomy will gradually be embedded into law and will be regularly updated and reviewed. It will also underpin classification systems for other areas such as standards, the ecolabel and sustainability benchmarks.

Info: The EU taxonomy of sustainable activities

The taxonomy is a science-based tool for defining sustainable economic activities and reorienting investment towards a sustainable economy.

> The Delegated Acts determining the technical screening criteria for climate change mitigation and adaptation will be adopted by the end of 2020.

> The Delegated Acts determining the technical screening criteria for the other four environmental objectives – namely water, circular economy, pollution, biodiversity – will be adopted by the end of 2021.

> The sectoral coverage of the sustainable taxonomy is incomplete so far. It only covers a subset of sustainable activities and needs to be expanded.

> The taxonomy contains minimum social safeguards and will be reviewed by the end of 2021 to assess whether its scope should be extended to cover social objectives.

> The taxonomy will be reviewed by the end of 2021 to assess whether a taxonomy of unsustainable economic activities should be created.

The European Commission is also assessing the potential development of a taxonomy of environmentally harmful activities to reallocate capital away from activities which are not in line with sustainability objectives and facilitate financial institutions' management of climate and environment-related risks.[7] A growing number of financial institutions including the European Central Bank have voiced their support for the development of such a taxonomy.[8]

[7] European Commission (2020) **Consultation on the renewed sustainable finance strategy**

[8] European Central Bank (2020) **Eurosystem reply to the European Commission's public consultations on the Renewed Sustainable Finance Strategy and the revision of the NonFinancial Reporting Directive**

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In addition to the uses originally envisaged for the taxonomy, in the context of economic recovery the European Commission has signalled an intention to use the EU taxonomy to guide the allocation of public spending in the EU budget and recovery package.[9] It is also the European Commission's intent to support the greening of national budgets.[10]

Info: The EU budget and Next Generation EU

> The Multiannual Financial Framework, also known as the EU budget, has been revamped into a €1.1 trillion package to play a central role in the economic recovery. Despite its limited size, it is an important source of public investment to finance the transition towards a climate-neutral economy.

> The EU's recovery instrument, also known as Next Generation EU, has been proposed with funding of €750 billion to support the recovery, providing funding through the EU budget to programmes designed to kick-start the economy in line with European priorities and ensuring EU solidarity with the most affected Member States.

However, not all actors are supportive of the current scale and pace of progress on sustainable finance policy and the use of the taxonomy for greening public finances is far from agreed among Member States. Lobbying against climate and environmental regulation has been increasing, putting pressure on the European Commission and Member States.[11] Some Member States are still to be convinced that the transition is viable without further investment in fossil infrastructure, notably in Central and Eastern Europe where coal continues to play a key role.

[9] European Commission (2020) **Europe's moment: Repair and prepare for the next generation**

[10] European Commission (2020) **European Green Deal Investment Plan**

[11] Corporate Europe Observatory (2020) **Corona Lobby Watch: Opportunistic lobbyists abuse the EU's unprecedented health crisis**

EU Heads of State and Government reached a €1.82 trillion deal on the overall budget and recovery package at the special meeting of the European Council of 17-21 July.[12] The €750 billion Next Generation EU is to be composed of €390 billion in grants and €360 billion in loans, and will be attached to a €1.074 trillion seven-year EU budget. The European Parliament's main groups adopted a resolution saying that they do not accept the European Council's deal as it stands and are ready to improve the proposal.[13]

Throughout the remainder of 2020, the European Parliament and Member State governments will negotiate legislation. The German presidency, Members of the European Parliament, and Member State governments will agree details of conditionalities, governance and potential exclusion lists that will bring bite to broad political principles. Throughout the process, the European Commission will play a key role in proposing new ideas notably on the use of the taxonomy of sustainable activities.

Mainstreaming sustainability in public finance instruments

In recent years, there has been a steady increase in sustainable investments in Europe, driven by both the public and private sectors.[14] However, the level of investment has been insufficient compared to the level that is needed to meet the EU's sustainability ambitions. Since the COVID-19 pandemic, public investment has fallen in several countries.[15] Concerted public investment in sustainability will be needed to attract private investment and rebuild the economy.

[12] European Council (2020) **European Council conclusions, 17-21 July 2020**

[13] EU Law Live (2020) **European Parliament resolution on post-pandemic economic recovery: European Council's agreement is unacceptable as it stands**

[14] ESMA (2020) **ESMA Report on Trends, Risks and Vulnerabilities**

[15] European Central Bank (2020) **Public investment in Europe**

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Info: The investment needs to finance Europe's future sustainability[16]

> The additional investment need for the climate transition stands at €340 billion per year. This includes €240 billion to meet the EU's current 2030 climate and energy targets and €100 billion for transport infrastructure.

> Meeting the EU's other policy goals will require a further €447 billion, including €130 billion to deliver environmental goals, €125 billion for the digital transformation, and €192 billion for social goals including housing, health and long-term care, education and life-long training.

> The above are conservative estimates of investment needs. They exclude the higher costs of raising the EU 2030 climate ambition, adaptation and resilience, marine issues and the agri-food sector.

Climate mainstreaming of the EU budget is currently implemented through an expenditure target which can vary across different funding streams. The European Commission proposed a climate mainstreaming target of 25% for the EU budget. At the special meeting of the European Council of 17-21 July, the European Council proposed to raise the target to 30%. However, a report by the European Court of Auditors found that the EU is falling short of meeting the 20% climate target in the 2014-2020 EU budget, and that climate spending is overestimated.[17]

The climate mainstreaming approach is based on climate markers assessing the relative contribution to climate change as opposed to the actual impact of European funds.[18] As such, this approach makes it difficult to assess whether EU budget spending has an impact on reducing emissions and climate vulnerabilities across Europe.[19] The lack of comprehensive data on investment needs, planned investments and actual expenditure disaggregated into the various sectors relevant to climate change is a further challenge to a transparent and accountable allocation of funds.[20]

[16] European Commission (2020) **Commission Staff Working Document: Identifying Europe's recovery needs**

[17] European Court of Auditors (2020) **Tracking climate spending in the EU budget**

[18] CAN Europe (2018) **Climate mainstreaming and climate proofing**

[19] European Court of Auditors (2020) **Tracking climate spending in the EU budget**; European Parliament Research Service (2019), **Mainstreaming of climate action in the EU budget;** European Court of Auditors (2017) **Landscape review: EU action on energy and climate change**

[20] Trinomics (2017) **Assessing the state-of-play of climate finance tracking in Europe**

The European Commission is preparing a new climate and environmental tracking methodology based on the EU taxonomy to improve the tracking of public expenditure at EU level. To be effective in steering the EU towards climate neutrality, the European Commission will also need to devise a role for the taxonomy towards national spending priorities. Advances made in France could serve as the basis for an EU-wide climate and environmental tracking methodology.[21]

The European Commission should monitor alignment with agreed targets for mainstreaming sustainability in the Multiannual Financial Framework, Next Generation EU and InvestEU using the taxonomy.

> The taxonomy should be used when designing the climate and environmental aspects of the new methodology for monitoring the proportion of public expenditure that is sustainable, recognising that the taxonomy so far only covers a small set of sustainable activities and will need to be broadened with time.

> Monitoring should be based on the proportion of spend aligned to the 'substantial contribution' criteria of the taxonomy as they stand at the time, i.e. monitoring should refer to the climate taxonomy from early 2021, the environmental taxonomy from early 2022, and the social taxonomy from the date when it is agreed.

> In relation to public funding that is specifically ringfenced for sustainability, the taxonomy should be integrated into the guidance, procedures and methodologies used for programme and project selection and appraisal.

> However, new use of the taxonomy should not distract from the existing need to improve the existing assessment tool for impact measurement of EU spending, including inclusion of measures such as emissions reduction and vulnerability reduction.

[21] IKEM and I4CE (2019) **Tracking investment into energy transition in Germany and France: a comparison of methodologies and selected results**

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The European Commission should improve the reporting and monitoring framework to measure how EU and national spending contribute to sustainable activities.

> For effective use in the public sphere, it will be necessary to update reporting and monitoring to measure how EU and national spending contributes to sustainable activities. For example, an electronic reporting language based on data tagging could be used in national accounts.[22]

> Work will also be required to map taxonomy-compliant activities against the Statistical Classification of Economic Activities within the European Community (NACE) codes.

Strengthening sustainability and resilience proofing

The EU and Member States continue to finance high-carbon infrastructure, directing public financial resources to projects which could increase the risk of stranded assets and increase the overall costs of getting to climate neutrality.[23] Due to the long lifespans of infrastructure assets, investments must be future-proofed in line with sustainability goals.

The European Green Deal Communication introduces a green oath: 'Do No Harm',[24] which mirrors the 'Think Sustainability First' principle developed by the High-Level Expert Group on Sustainable Finance[25] to improve the way the better regulation guidelines and supporting tools address sustainability and innovation issues. The European Commission is preparing new sustainability proofing guidelines which will be based on the taxonomy. These guidelines are intended to be applied by InvestEU implementing partners, providing a reference for private investors and financial intermediaries, and possibly more widely to the EU budget and Next Generation EU. This still needs to be agreed in legislation.

[22] Climate Disclosure Standard Board (2020) **eXtensible Business Reporting Language (XBRL)**

[23] Euractiv (2019) **EU's new list of energy projects includes 32 gas facilities**

[24] European Commission (2019) **The European Green Deal**

[25] HLEG (2018) **Financing a Sustainable European Economy**

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The European Commission should require a binding implementation of sustainability proofing throughout the entire Multiannual Financial Framework, Next Generation EU and InvestEU.

> The sustainability proofing guidelines should be used to proof the Multiannual Financial Framework, recovery fund and InvestEU. The sustainability proofing guidelines should be developed based on the 'Do No Harm' thresholds and 'minimum safeguards' of the taxonomy in addition to an exclusion list for all fossil fuels and other significantly harmful activities which are not covered by the taxonomy.[26]

> When a taxonomy of unsustainable activities is developed, this should be used as a basis for the exclusion list.

> In addition, methodologies for public investment should include a 'Think Resilience' principle to ensure that relevant sustainability risks have been considered. This is covered in more detail in chapter 5.

Encouraging sustainable reforms to public banks

The European Investment Bank and other national and regional public banks are crucial to provide counter-cyclical investment and invest in a green recovery. However, investing in a green recovery will require aligning their activities with climate goals. The European Investment Bank's revised Energy Lending Policy is a major step in this direction.[27] It foresees the phasing out of fossil fuels after the end of 2021. The European Investment Bank will develop a Climate Bank Roadmap to guide its transition.

The European Council has encouraged other public banks to adopt responsible investment policies and to phase out financing of fossil fuel projects.[28] Other than KfW in Germany, Cassa Depositi e Prestiti in Italy and Hrvatska Banka za Obnovu i Razvitak in Croatia, no other public banks have as yet made commitments to align with the Paris Agreement. On the other hand,

[26] For an example of significantly harmful activities, see: WWF (2020) **Operational tools for 'do no harm' and 'do good' approaches in MFF, InvestEU, EU recovery fund and state aid**

[27] European Investment Bank (2019) **EU Bank launches ambitious new climate strategy and Energy Lending Policy**

[28] European Council (2019) **Council Conclusions on Climate Finance**

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EU development finance institutions have shown strong climate leadership, e.g. Agence Française de Développement in France and FMO in the Netherlands.

The European institutions and Member States do not have a clear joint vision for the role of public and development finance institutions in building a more sustainable global economy. Public and promotional banks need clear mandates for sustainability to be provided by national governments. The Finance in Common summit in November 2020 is expected to include a joint declaration which will seek to align 450 public development banks with the Paris Agreement, SDGs and Convention on Biological Diversity, creating an opportunity for shareholders to update the mandates of the banks and align their activities with sustainability goals and a sustainable recovery from the COVID-19 crisis.

The European Investment Bank has asked EU governments to provide nearly €18 billion and commit €175 billion more to support the EU's economic recovery and climate ambitions.[29] A capital increase of the European Investment Bank could be agreed by EU Heads of State and Government by the end of 2020.[30]

European institutions and Member States should adjust the mandates and capitalisation of public banks in order to achieve sustainability goals.

> European institutions and Member States should support the emergence of a strong joint declaration from public banks at the Finance in Common summit in November 2020.

> Public finance institutional mandates should be adjusted to support these institutions playing a transformational role in green recovery, making counter-cyclical investments to support climate neutrality by 2050 and acting as climate banks to mobilise public and private funds at scale. Substantial increases in capitalisation should be considered in support of these expanded mandates.

> European public finance institutions should adopt policies which replicate of the European Investment Bank's Energy Lending Policy, and which apply to all financial intermediaries.

[29] Politico (2020) **EU bank demands €18B plus pledges for more to help pandemic recovery, climate plans**
[30] European Council (2020) **European Council conclusions, 17-21 July 2020**

Strengthening sustainability in state aid

The European Commission polices state aid to ensure a level playing field within the single market. State aid refers to any form of assistance to selected "undertakings" by public actors which has the potential to distort competition and affect trade between member states.[31] It can take the form of wage subsidies, relief from tax and social contribution, financial support, and loans and guarantees via banks.

State aid rules are in place to prevent member states from distorting competition, for instance by supporting their own industries or propping up failing sectors. The treaty on the functioning of the EU forbids state aid, apart from in certain specific circumstances: where government interventions are deemed necessary for a well-functioning and equitable economy. In other words, where public intervention can be justified, including for environmental purposes, it can be exempt from the prohibition under specific conditions.

These exceptions are set out in state aid guidelines issues by the European Commission. The guidelines send a strong signal of where intervention is appropriate and where not. From a sustainability perspective, these guidelines would ideally give Member States more space for more sustainable spending, allowing for cleaner markets to be scaled up and "ruling out" support for inefficient and polluting industries in the absence of science-based and just transition plans.

In practice, the impact has been mixed. The guidelines have given Member States space to accelerate the deployment of renewable energy. In 2018, excluding aid to agriculture, fisheries and railways, about 55% of total state aid expenditure was aimed at environmental and energy savings.[32] However, its impact on increasing small-scale renewables has been limited. At the same time, large amounts of state aid are still being granted to activities that have a negative impact on the environment. State aid guidelines have been used to reinforce the dominant market positions of fossil fuel incumbents, through capacity mechanisms,[33] and to subsidise power costs for energy-intensive industries.

[31] E3G (2014) **What is state aid?**

[32] Linklaters (2020) **Competition and sustainability: Evolving industrial and State aid policies to fuel green initiatives**

[33] Littlecott, C. (2014) **Keeping coal alive and kicking: Hidden subsidies and preferential treatment in the UK Capacity Market**

Moreover, in the context of the COVID-19 pandemic, state aid rules have been temporarily loosened to give member states room to stabilise their economies.[34] The European Commission has been approving government plans to support companies, including airline bail outs, without attaching any green conditions to this aid. The latest update of the guidelines includes an obligation on large companies to report on how aid received will be aligned with the green and digital transitions but no further requirements at this stage, though the European Commission has called on member states to ensure that state bailouts have green conditions attached.[35] Some member states have done so, for example France in its state aid for Air France, but there is a risk of large sums of money going to carbon-intensive sectors in the absence of EU-wide guidance on green conditions.

The European Commission is currently conducting a "fitness check" of several guidelines, including a revision of its Energy and Environmental State Aid Guidelines by the end of 2021, the rules on Important Projects of Common European Interest (IPCEI) and the General Block Exemption Regulation (GBER). This provides an opportunity to further integrate sustainability-related conditionalities in line with the taxonomy and the principles of Do No Significant Harm while phasing out support for fossil fuels. The updated guidelines will also be key in shaping member state recovery efforts over the next few years ensuring that these are consistent with the European Green Deal.

[34] European Commission (2020) **Temporary Framework for State aid measures to support the economy in the current COVID-19 outbreak**

[35] Euractiv (2020) **EU decides: No green strings attached on cash to virus-hit firms**; Business Green (2020) **EU urges member states to attach green conditions to State Aid, after revamped rules omit mandatory climate conditions**

The European Commission should set sustainability-related conditions for companies requesting state aid based on science-based transition plans and referencing the taxonomy and Do No Significant Harm.

> In the short term, while the temporary state aid framework is in place, the European Commission could require Member States to only give aid to large companies in carbon-intensive sectors in instances where they have climate-neutral transition plans in place or on the basis of commitments to meet emissions and material usage reduction targets.[36] It could also impose conditions on specific types of state aid, e.g. requiring any car-scrappage schemes to promote purchases of electric vehicles.

> In the medium term, the European Commission could propose extended flexibility for a set of "green" activities where it will continue to approve state aid rapidly to give Member States space to lock-in a greener recovery. In the power and transport sectors, the taxonomy could be used as a guide for which activities could be fast tracked. In the buildings, industry and agriculture sectors the European Commission would need to go beyond the taxonomy to define a list of "no regret" investment options in line with climate neutrality.

> In the longer term, once an "unsustainable" taxonomy has been defined, this could be used as a basis for defining activities and sectors for which the European Commission will no longer grant state aid approval.

NB: All these safeguards rely on enhanced reporting and verification procedures.

[36] **Bruegel** (2020) **A green recovery**

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Strengthening sustainability in national budgets and fiscal policy

Public finance tools and frameworks used by national public authorities have, to date, not been central in advancing sustainable finance. Yet a lack of quantification of either the fiscal risks of climate change or the costs of measures to offset them will undercut the effectiveness of government recovery spending. The European Green Deal Communication sets out the need to redirect national budgets towards sustainable priorities and away from harmful activities. It also signals a need for distribution of responsibility for greening public finances across public finance actors such as national authorities and the European Semester. [37]

Sixteen of the EU's Member States joined the Coalition of Finance Ministers for Climate Action launched in April 2019 and have endorsed the Helsinki principles which include a principle to take climate change into account in economic and fiscal planning.[38] In addition, 17 of the EU's Member States are represented in the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), launched at the Paris One Planet Summit in December 2017. EU Member States are also represented by the European Investment Bank, the European Supervisory Authorities (ESAs) and the European Central Bank. These initiatives have operated in siloes but there is potential for collaboration to ensure consistencies in approaches to greening public finances.

In terms of advancing sustainable finance, the development of national finance strategies which are costed with specific capital mobilisation plans will be crucial to raise the finance required to meet the EU's climate and sustainability goals at scale and pace.[39] Some countries have made progress in the development of a national financing strategy. For example, France adopted its Strategy for Green Finance in 2017 while Germany is set to release its Sustainable Finance Strategy later this year.[40] However, the mainstreaming of this practice across Member States lags behind the level of ambition in the European Commission.

The European Commission has several governance tools to monitor national spending, notably the European Semester process which conducts detailed

[37] European Commission (2019) **The European Green Deal**

[38] Finance Ministers for Climate Action (2020) **The Coalition of Finance Ministers for Climate Action**

[39] Orozco, D. (2019) **Designing net zero and resilient economies**

[40] Lemmet, S. and Ducret, P. (2017) **Executive Summary: French Strategy for Green Finance**

analysis to coordinate economic policies across the EU. The European Commission has recently focused on greening the European Semester and aligning it with the SDGs.[41] However, the implementation of country-specific recommendations from this process has declined over time.[42] It will be important to ensure that future recommendations on sustainable investments are implemented through a strong governance process.

The European Commission should support Member States in adopting national financing strategies aligned with the EU's vision for sustainable finance.

> There is a need to reframe economic analysis and planning to drive the required systemic change. The European Commission should provide Member States with guidance on the creation of national financing strategies that translate the priorities identified in the European Semester and national planning processes into specific and coherent integrated investment plans which are costed with specific capital mobilisation plans.

> This could form part of the planned process for refocusing the European Semester process of macroeconomic coordination to integrate the United Nations' sustainable development goals.

The European Commission should support Member States to green national budgets and fiscal policy and should work with ECOFIN to define a screening process.

> National authorities should align national budgets with the taxonomy, eliminate harmful subsidies (such as fossil fuel subsidies) and increase taxation on harmful activities and companies.

> Screening and benchmarking should be based on the taxonomy and should apply 'Do No Harm' criteria and stress-testing for different climate impact scenarios to 2050. The taxonomy should be integrated in budget guidelines, pre-budget statements and budget documents.

[41] European Commission (2020) **About greening the European Semester**

[42] Verdun, A. and Zeitlin, J. (2017) **Introduction: the European Semester as a new architecture of EU socioeconomic governance in theory and practice**

The European Commission should improve the machinery of governance to oversee the sustainability of national budgets, state aid and fiscal policy.

> The European Commission should issue Country Specific Recommendations under the European Semester to align national budgets with the taxonomy, eliminate harmful subsidies (such as fossil fuel subsidies) and increase taxation on harmful activities.

> Governance of public spending and fiscal policy should include a stronger role for national parliaments, and for the national finance and economic ministries which set the European Semester's policy priorities.

> The European Commission should produce an annual report for the European Parliament on the alignment of national budgets, state aid and fiscal policy with the taxonomy.

Integrating sustainability into governance for recovery

The Recovery and Resilience Facility under Next Generation EU, through which most of the money will be disbursed, will sit within the European Semester. Member States will be required to draft National Recovery and Resilience Plans by October 2020 based on the priorities identified through the National Energy and Climate Plans, Just Transition Plans and the European Semester.

There is currently no binding governance to oversee effective spending in line with climate neutrality under the National Recovery and Resilience Plans.[43] The National Energy and Climate Plans and Just Transition Plans will be crucial in directing public spending towards the EU's climate objectives. However, assessments of the National Energy and Climate Plans, on which the Just Transition Plans will be based, have found that they are not consistent with the 2050 climate neutrality target.[44]

[43] Jacques Delors Centre (2020) **How to spend it right: A more democratic governance for the EU Recovery and Resilience Facility**

[44] CAN Europe (2020) **Pave the way for increased climate ambition: Opportunities and gaps in the final National Energy and Climate Plans**; CAN Europe and Sandbag (2019) **Just transition or just talk?**

The European Commission should improve the machinery of governance to oversee the sustainability and fair distribution of recovery spending.

> The European Parliament should be given the oversight to approve national spending priorities submitted under the Recovery and Resilience Facility to ensure compatibility with green, fair and resilient investment goals and to ensure that funding is distributed in those regions of Europe which have the greatest needs.

> Governance of recovery spending should include a stronger role for national parliaments, and for the national finance and economic ministries which set the European Semester's policy priorities.

> Regular checks should be conducted by the European Court of Auditors in absence of an independent Clean Economy Observatory as part of the Climate Law and action taken to course-correct investments on an annual basis.

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2 – PRIVATE FINANCE

Overarching recommendations

> Financial firms, as well as real economy firms, should be expected to create and disclose plans for transition to climate neutrality by 2050 and should disclose progress against these plans annually.

> The ongoing process to develop the taxonomy of sustainable economic activities must continue to be governed independently and built on science-based evidence.

> Expectations on financial firms should be strengthened beyond disclosure, to include integration of material ESG factors and long-term sustainability into investment, lending and insurance decisions.

Private finance is starting to take note of sustainability but investment in risky and unsustainable activities continues.

It has been widely noted that investments which performed well on environmental and social governance criteria outperformed main market indices during the stock market volatility during the first half of 2020. Evidence increasingly shows that this was not a short-term phenomenon and that outperformance can be demonstrated over previous years.[45]

Despite this recent shift in market perceptions, corporate governance practices remain inadequate in their integration of long-term horizons and sustainability in decision-making processes. For example, only 14% of companies in Europe report their board discussing climate issues in their non-financial report, and only 15% report a link between sustainability objectives and executive remuneration while just 18% of boards have oversight of corporate climate-related risks and opportunities.[46]

[45] ESGClarity (2020) **ESG outperformance begun well before covid downturn**, summarising key findings from research by Morningstar

[46] Alliance for Corporate Transparency (2019) **2019 Research Report**

This reflects the fact that integrating sustainability issues into investment decisions is not yet a mainstream practice. There is a long way to go to change this situation, although the regulatory context has been changing fast in recent years. In general, there is now more awareness and action for sustainability integration among asset owners and asset managers, with banks and insurers still lagging in their ambition and actions.

Going beyond disclosure to focus on targets and plans

The Sustainable Finance Action Plan committed the European Commission to assess the possible need to require corporate boards to develop and disclose sustainability strategies, including appropriate due diligence throughout the supply chain, and measurable sustainability targets. The development of comprehensive long-term sustainability strategies by companies can have many benefits, including channelling resources towards relevant investments at the firm level and protecting employees and customers.

Now that Europe is moving to putting climate neutrality by 2050 into law it is no longer appropriate for climate transition planning by firms to be a discretionary activity. This risks policy failure due to continued investments in unsustainable activities, and a further build-up of climate-related risk in the financial system. Mark Carney, the UN Envoy on Climate Change and Finance and an advisor to the UK government for COP26, has noted that: "We need the whole economy to transition. Investment professionals are asking 'who is ready', 'who will benefit' and they need common information to compare them."[47]

Expectations should not only be on real economy firms but also on financial sector firms which are taking decisions daily that will shape the future direction of the real economy for decades to come. Several initiatives are in place to support asset managers in disclosing the alignment of their portfolio with the Paris Agreement, e.g. the Institutional Investors Group on Climate Change and the 2° Investing Initiative[48]. Autumn 2020 will see new methodologies emerge, e.g. from the Paris Aligned Investment Initiative[49] and the Science Based Targets Initiative[50].

[47] ESGClarity (2020) **Carney: we need the whole economy to support transition to net zero carbon**

[48] 2Dii and UN PRI (2018) **PACTA**

[49] IIGCC (2019/2020) **Paris Aligned Investment Initiative**

[50] SBTi (2018-20) **Science-based Target Setting Resource for Financial Institutions**

In order to ensure that economic transition occurs at the necessary scale and pace, both financial and non-financial firms should be asked to make and disclose climate transition plans. Plans made by financial firms should relate primarily to financed rather than operational emissions. The European Commission published a study on directors' duties and sustainable corporate governance in July 2020. The study suggested that policy intervention should foster more sustainable corporate governance and contribute to more accountability for companies' sustainable value creation.[51]

Financial firms, as well as real economy firms, should be expected to create and disclose plans for transition to climate neutrality by 2050 and should disclose progress against these plans annually.

> The European Commission should table legislation by mid-2021 to set a mandatory requirement for financial and non-financial firms to develop sustainability strategies and to publish transition plans to achieve science-based targets for climate neutrality by 2050.

> Companies – including financial firms such as banks and insurers as well as asset owners and managers – should be required to develop sustainability strategies, to publish climate transition plans, and to link remuneration of executive staff to achievement of corporate sustainability targets. Strategies, targets and plans should be informed by a materiality assessment process and climate-related scenario analysis.

> The upcoming legislative proposal on sustainable corporate governance should require companies to align shareholder interests with strategic goals and stakeholder accountability. Companies should be required to improve integration of long-term climate and broader ESG risks and impacts at board level.

[51] EY (2020) **Study on directors' duties and sustainable corporate governance**

Ensuring robust due diligence on sustainability

Current due diligence practices are insufficient to foster environmental and human rights risk management. Only a third of companies undertake environmental and human rights due diligence despite the existing voluntary framework.[52] Companies also fail to extend corporate risk assessment processes to those affected by its supply chain. There is also a lack of access to remedies for those affected by corporate environmental and human rights harms of companies.

Asset managers will be required to conduct due diligence on ESG and SRI funds through proposed changes to the Undertakings for the Collective Investment in Transferable Securities Directive (UCITS) and the Alternative Investment Fund Managers Directive (AIFMD). However, mandatory due diligence is also needed among real economy firms, banks and insurance companies.

The European Commission launched a study on due diligence which was published in February 2020.[53] The study indicated a need for policy intervention, a conclusion which was supported by companies and NGOs.[54]

The European Commission should mandate companies to undertake corporate environmental and human rights due diligence.

> An environmental and human rights due diligence legislation should be prepared for real economy companies, banks and insurance companies in 2021, to support enforcement of disclosure requirements.

> Rules should ensure that due diligence processes are developed and conducted with involvement of civil society stakeholders.

> Corporate responsibility should be proportional to the extent of the company's impacts but also its ability to mitigate these impacts. Small and medium-sized enterprises operating in high-risk sectors should still be required to undertake due diligence.

[52] British Standards Institute (2020) **Study on due diligence requirements through the supply chain**

[53] Ibid.

[54] European Commission (2020) **Consultation on the Renewed Sustainable Finance Strategy**

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Strengthening financial and corporate sustainability disclosure

Since 2018, the EU Non-Financial Reporting Directive requires large public interest companies to disclose material information on key environmental, social and governance aspects. However, the European Securities and Markets Authority has assessed that the quality, consistency, comparability and accessibility of sustainability data are inadequate to analyse market developments and assess potential risks to investors.[55] The recommendations of the Task Force on Climate-related Financial Disclosures are referenced only in non-binding guidelines and five years after publication are still followed by few European companies.[56]

Corporate disclosure is a route to supporting European companies in effectively transitioning their businesses towards a resilient net-zero future. Currently, most European companies are not making enough progress. While 82% of companies report on climate change policies, only 36% have a climate change target and just 14% are science-based targets. Only 28% report on the outcomes of their actions taken to address climate change.[57]

Disclosure is also an opportunity for companies to improve their resilience to climate risks. Transition risks and physical risks are currently reported by only 16% and 22% of companies respectively. Just over 20% of companies report on the effects of these risks on their strategies, while fewer than 32% report on risk mitigation strategies. On average, 7% of companies disclose the use of climate-related scenarios to inform their strategies. Only 11% report the risks on their value chains and just 3% report the breakdown of these risks by activity or region.

In the Sustainable Finance Action Plan, the European Commission set out various actions for strengthening sustainability disclosure, including a commitment to reforming the Non-Financial Reporting Directive which resulted in a public consultation in early 2020.[58] The Taxonomy Regulation places complementary reporting requirements on companies falling under the scope of the Non-

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[55] European Securities and Markets Authority (2020) **ESMA Report on Trends, Risks and Vulnerabilities**

[56] Climate Disclosure Standards Board (2020) **Falling short? Why environmental and climate-related disclosures under the Non-Financial Reporting Directive must improve**

[57] Alliance for Corporate Transparency (2019) **2019 Research Report**

[58] European Commission (2020) **Non-financial reporting by large companies (updated rules)**

Financial Reporting Directive.[59] The European Commission is also assessing the use of Distributed Ledger Technologies to facilitate the availability of information relevant to investors through the European Financial Transparency Gateway.[60]

The European Commission should ensure that companies report robustly on material sustainability risk issues in their mainstream annual reports.

> The current review of the Non-Financial Reporting Directive should keep 'double materiality' at its core and ensure that companies are required to report all material sustainability-related information in their mainstream report whether this information is defined as material to the company or material to the environment.

> Climate disclosures should be made in line with the recommendations of the Task Force for Climate-related Financial Disclosures.

> Sustainability related disclosures should be subject to the same audit and verification requirements required of financial information, thereby increasing the reliability and rigour of material sustainability information.

The European Commission has consulted on the idea of creating a database of reported corporate sustainability data. This idea would address the issue that data is currently scattered between many annual reports issued in different jurisdictions and languages. However, in the 21st century solving that problem does not require a new reporting mechanism but rather the modernising of existing reporting. If sustainability disclosure is brought up to the same standards as financial disclosure through use of electronic reporting, and use of data tagging, then an open database can be created from existing reported data.

59 European Parliament and Council of the EU (2020) **Taxonomy Regulation**

60 **The European Financial Transparency Gateway (EFTG)**

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The European Commission should facilitate the collation and presentation of reported corporate sustainability data in an open and freely available database, to facilitate data access by all stakeholders.

> Creation of a new database need not require any additional disclosure by companies if existing reporting requirements are fit for purpose.

> Mainstream reports should be provided to regulators in digital form and sustainability data points should be tagged in accordance with a common methodology (e.g. XBRL) to make them machine readable.

> Reports should be filed with relevant regulators and tagged data should then be pooled at European level to create a central resource for stakeholders.

Integrating sustainability into investment ratings

Sustainable investing assets are growing in Europe.[61] In recent years, ESG ratings have become a widely used tool to support investors in identifying the risks and opportunities related to the sustainability in their investments. S&P Global, Moody's and MSCI have recently made notable acquisitions of leading ESG firms.[62] This creates a risk of market concentration and reduced competition which could increase the cost of access to ESG data and analysis and could hamper future improvements to ESG rating methodologies.

ESG ratings are currently not regulated and there are very few safeguards to ensure quality or consistency. The variability between the ESG data provided by different sustainability providers hampers the comparability and reliability of ESG data, and its consistent use by investors. The largest rating agencies are primarily from the US and the UK which also risks divergence of mainstream practice from priorities that are important within the European Union.

[61] Global Sustainable Investment Alliance (2019) **2018 Global Sustainable Investment Review**
[62] Financial Times (2019) **Credit rating agencies join battle for ESG supremacy**

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ESG data from sustainability providers is usually based on information reported by companies. Yet the lack of standardisation and comparability of ESG information currently disclosed by most companies, and its limited availability, hinders effective decision-making by investors. There are several issues with the data currently reported, e.g.

> The availability and quality of information in Central and Eastern Europe is behind compared to the rest of Europe.[63]

> Companies primarily report on their policies rather than on the outcome and impact of these policies, which is inadequate to determine accurately sustainability impacts.[64]

> Companies rarely apply a double materiality perspective to disclosure.[65]

Data issues are compounded by a lack of transparency around the criteria and methodology used in proprietary ESG research, combined with a lack of consistency in research approaches between different research firms.

The variability in ESG ratings from different providers reflects a significant divergence in rating methodologies. Some methodologies allow unsustainable businesses, such as coal and weapon companies, to feature in ESG funds and indexes. In addition, ESG ratings are often based on company policies, the majority of which are not founded on science-based targets. It would be preferable for leading ESG ratings to be set in response to corporate sustainability strategies that are in line with science-based climate and environmental targets, and with specific social goals.

[63] Alliance for Corporate Transparency (2019) **2019 Research Report**

[64] Alliance for Corporate Transparency (2019) **2019 Research Report**

[65] Climate Disclosure Standards Board (2020) **Falling short? Why environmental and climate-related disclosures under the Non-Financial Reporting Directive must improve**

The European Commission and European Supervisory Authorities should ensure that ESG data, research and ratings meet minimum standards.

> The European Commission should monitor concentration risks in the ESG ratings market and should consider preventing the further concentration of ESG providers in order to allow enough choice between ESG data, research and rating providers.

> The European institutions should monitor market developments to understand the range of offerings available in the market and could consider establishing a European sustainability rating agency which would assess corporate disclosures through the lens of the taxonomy.

> The European Commission should provide ESG data, research and rating providers with a legal status and should require providers to meet minimum standards regarding transparency of their methodologies and sourcing of data, and adequate pricing of services. ESG ratings should be subject to audit and verification requirements.

Maintaining the integrity of the taxonomy

This EU taxonomy will define which activities are classed as 'sustainable' in terms of climate change, environmental and social impacts. The taxonomy will gradually be embedded into law and will be regularly updated and reviewed. It will also underpin classification systems for other areas such as standards, the ecolabel and sustainability benchmarks.

The taxonomy, together with standards and labels for sustainable financial products, constitute a toolbox to support investors to make informed decisions. This should stimulate growth in certified sustainable investments whilst avoiding 'greenwashing' – the practice of overstating environmental impact.

The European Commission is in the process of setting up a Platform on Sustainable Finance which will govern the future development of the taxonomy. Future work will address several key areas:

> The taxonomy does not yet cover all sustainable activities, initial work has focused on climate change mitigation and adaptation. More work will be needed to address other environmental impacts, and social impacts.

> The taxonomy defines sustainable activities but does not yet clearly differentiate unsustainable activities from 'neutral' activities that neither contribute to nor harm sustainability.

> Due to a lack of policy coherence across European files the taxonomy's thresholds for climate change mitigation in the buildings, industry and agriculture sectors are not yet aligned with climate neutrality by 2050:

> > The threshold for building renovation lacks an absolute minimum energy standard target, while the threshold for construction of new buildings is based on the Near-Zero Energy Building (NZEB) which varies between Member States.[66]

> > Industrial activities are evaluated against benchmarks from the Best Available Technologies defined under the EU Emissions Trading Scheme, are not aligned with climate neutrality by 2050.[67]

> > Agricultural activities are evaluated against benchmarks derived from the Common Agricultural Policy (CAP) which is widely criticised as incompatible with climate neutrality by 2050.[68]

The integrity and usefulness of the taxonomy depends on its objectivity and science-based approach. This approach must not become subject to political interference. Future work must be conducted independently of political considerations.

The ongoing process to develop the taxonomy of sustainable economic activities must continue to be governed independently and built on science-based evidence.

> The Taxonomy's Delegated Acts should ensure that the taxonomy continues to be governed independently, remains science-based and is not affected by political considerations.

[66] Agora Energiewende (2020) **Critical review of the potential contribution of the European Commission proposal for an EU Recovery and Resilience Programme and a new Multiannual Financial Framework to achieving the objectives of the Green Deal and the 2030 and 2050 climate targets**

[67] Ibid.

[68] Pe're G. and Lakner S. (2020) **The EU's Common Agricultural Policy Could Be Spent Much More Efficiently to Address Challenges for Farmers, Climate, and Biodiversity**

> The taxonomy should be strengthened for the buildings, industry and agriculture sectors in line with climate neutrality and broadened to cover more sustainable activities.
>
> Social thresholds should be strengthened and subsequently a social taxonomy should be developed in 2022 with a view to complete by the end of the year.
>
> An unsustainable taxonomy should be developed in 2022 with a view to complete by the end of the year.
>
> To create consistent signals across financial markets the European Commission should collaborate with countries that are also developing taxonomies and identify principles for harmonisation while retaining a science-based approach.

Aligning investor disclosures with the taxonomy

A Regulation on Sustainability Disclosures in the Financial Sector was adopted in 2019 and requires institutional investors to make a wide range of disclosures about how they consider and integrate sustainability in their investment decisions.[69]

In April 2020 the European Supervisory Agencies published a joint consultation paper on their proposed regulatory technical standards[70] which contains a substantial list of proposed metrics to be reported against. As the taxonomy is still only partially developed, some of these metrics address areas not yet defined by the taxonomy. It will be important to ensure that taxonomy development and investor disclosure do not diverge.

The European Commission and European Supervisory Authorities should ensure that taxonomy development and investor disclosure rules do not diverge.

[69] Official Journal of the European Union (2019) **Regulation (EU) 2019/2088 of the European Parliament and of the Council**

[70] European Banking Authority (2020) **Joint Consultation Paper on ESG Disclosures Standards for Financial Markets Participants**

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> The taxonomy and investor disclosure requirements should be aligned so that the principal adverse indicators proposed for investor disclosure explicitly map to the taxonomy's Do No Harm criteria for environmental objectives and minimum social safeguards.

> In the short term this could be achieved by moving to principle-based reporting through either a removal of mandatory principle adverse impacts metrics entirely or, alternatively, selection of a shorter list of the most well-established issues and metrics to report on.

> In either case, the stringency of the requirements could be maintained by an increasing focus on requirements for investment managers to disclose how principle adverse impacts are being identified and what actions are being taken to mitigate them.

Incentivising long-term shareholder engagement by institutional investors

In the Sustainable Finance Action Plan, the European Commission asked the European Supervisory Agencies to collect evidence of undue short-term pressure from the financial sector on corporations and consider further steps. The European Supervisory Agencies delivered their reports in December 2019.[71] The studies found evidence of short-termism in the financial sector.

Institutional shareholders manage large sums of capital on behalf of citizens and thus have a potentially large influence over listed companies. However, asset managers do not necessarily retain holdings on a long-term basis. Unless instructed to do so by asset owners they have limited incentives to improve the long-term performance and sustainability of investee companies.

The Shareholder Rights Directive II introduces transparency requirements to better align long-term interests between asset owners and asset managers with

[71] European Securities and Markets Authority (2019) **Undue short-term pressure on corporates**; European Banking Authority (2019) **EBA Report on undue short-term pressure from the financial sector on corporations**; European Insurance and Occupational Pensions Authority (2019) **Potential undue short-term pressure from financial markets on corporates: Investigation on European insurance and occupational pension sectors**

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regards to shareholder engagement.[72] However, the Shareholder Rights Directive applies solely to equity investments, while the alignment of an investment strategy with the time horizon of beneficiaries should be applicable to all asset classes. Some countries have set out national stewardship codes, such as the UK and the Netherlands, but this practice remains rare at the national level. Individual investors can still have difficulty to engage with companies they have invested in, for example due to practical issues with cross-border voting. [73]

The European Commission should enhance long-term shareholder engagement between institutional investors and investee companies.

> The EU framework for the Shareholder Rights Directive should clarify the rights and obligations of shareholders and improve the conditions for individual shareholders to actively participate in company decision-making processes by strengthening shareholder voting mechanisms and reducing thresholds for tabling shareholder resolutions.

> Institutional investors should be required to disclose how they implement their investment and engagement policies in all asset classes, including consideration of sustainability factors, and to engage with investee companies to seek to improve their long-term performance and sustainability. This should be mainstreamed through national stewardship codes and subsequently by instituting an EU stewardship code.

> Institutional investors should also be obliged to produce reports explaining how their actions in corporate governance best serve the company and their clients.

> Long-term investment could be further incentivised by linking voting rights and reduced dividend taxation to the duration of shareholding.

Strengthening fiduciary duties for asset managers and pension providers

Several pieces of EU legislation require institutional investors and asset managers to act in the best interest of their beneficiaries. This is commonly

[72] European Parliament and Council of the European Union (2017) **Shareholder Rights Directive II**

[73] EuroFinuse (2012) **Barriers to shareholders engagement: report on cross-border voting**

referred to as 'fiduciary duty'. The European Parliament adopted the Disclosure Regulation in early March 2019 under the Sustainable Finance Action Plan, requiring asset managers to disclose how they consider sustainability factors in their risk and decision-making processes. Anticipating the stricter standards, some European asset managers – particularly in France and Germany – reported lower sustainable asset values in 2018.[74]

Asset managers will also be required to conduct due diligence on ESG and SRI funds through proposed changes to the Undertakings for the Collective Investment in Transferable Securities Directive (UCITS) and the Alternative Investment Fund Managers Directive (AIFMD).

However, the original intent of the European Commission to address systemic factors and risks in the investment decisions process has not been taken forward. Among 33 of Europe's largest asset managers who cooperated with a WWF study in 2018, none had aligned their equity and bond portfolios with a low carbon trajectory across all climate-relevant asset classes.[75]

Instead the regulation focused on increasing transparency and disclosure of investors' duties towards end-investors. The fiduciary duty of institutional investors and asset managers is not clearly legislated to enforce the consideration of sustainability factors and risks in the mainstream investment process.

[74] Global Sustainable Investment Alliance (2019) **2018 Global Sustainable Investment Review**

[75] WWF (2018) **European Asset Owners: Climate Alignment of Public Equity and Corporate Bond Portfolios**

The European Commission should clarify fiduciary duties for asset managers to set a clear expectation that they will integrate material ESG factors and long-term sustainability into all investment decisions.

- Expectations should ensure the alignment of investment horizons with those of clients and beneficiaries and should ensure appropriate consideration of sustainability risks within that timeframe.
- Requirements on asset managers should ensure that they have a solid understanding of the preferences of their clients, including ESG factors, and that they provide clear information to their clients about the potential benefits and risks including the effect on the prospective return of the investment strategy.
- The financial and non-financial interests of end-investors should be transmitted throughout the investment chain by guiding the extension of mandates from asset owners to asset managers and other intermediaries.

Pension providers' long-term investment policies make their assets potentially more exposed to long-term risks compared with other financial institutions. To demonstrate the scale of the potential risks involved, a stress test of Institutions for Occupational Retirement Provision (IORPs) conducted in 2019 by the European Insurance and Occupational Pensions Authority wiped out €270 billion or almost a quarter of investments.[76]

Sustainability reporting and ESG integration by EU pension providers were taken up by the IORP II Directive in 2016 and private voluntary plans for personal pensions under the PEPP Regulation in 2017.

In late 2019 a report by a high-level group of experts on pensions recommended that the EU and Member States further clarify how pension providers can take into account the impact of Environmental, Social and Governance (ESG) factors on investment decisions and develop cost-effective tools and methodologies to assess the vulnerability of EU pension providers to long-term sustainability risks.[77] The European Insurance and Occupational Pensions Authority issued

[76] EIOPA (2019) **Occupational Pensions Stress Test 2019**

[77] High-Level Group of Experts on Pensions (2019 **Final Report of the High-level Group of Experts on Pensions**

an opinion in 2019 recommending further action by pension provides to take account of ESG issues.[78] The European Commission will review the IORP II Directive by January 2023 and report on its effectiveness.[79]

The European Commission should strengthen fiduciary duties for pension providers to explicitly include integration of sustainability into investment decisions.

> Integration and disclosure of sustainability impacts by pension providers to clients and regulators should be made mandatory and should be based on agreed science-based criteria and forward-looking scenario analysis.

> Pension providers should be encouraged to instruct asset managers actively to engage with companies in order to reduce sustainability impacts and improve sustainability outcomes.

> End-investors, including occupational pension beneficiaries and policyholders should be consulted about their sustainability-related preferences.

> As long-term investors, pension funds should be encouraged to invest in new sustainable infrastructure. The EU can potentially support this through creating incentives for such investments and by taking supportive measures to reduce risk perception (e.g. first-loss public investment).

[78] EIOPA (2019) **Opinion on the supervision of the management of environmental, social and governance risks faced by IORPs**

[79] European Commission (2020) **Consultation on the Renewed Sustainable Finance Strategy**

3 – FAIRNESS

Overarching recommendations

> The European Commission should develop an Action Plan to promote fair access to affordable capital in Europe, including support for a more diverse ecosystem of financial actors

> The European Commission and European Investment Bank should build the capacity of stakeholders at regional and local level to develop bankable projects which support climate transition and social inclusion.

> A broad approach to a transition that is both fast and just should be integrated into financial decision-making by a wide range of actors, starting at Member State level with the creation of plans to identify national financing needs and plans.

In order to support a European Green Deal, finance must work to address, rather than to amplify, economic inequalities and to support a fast and just transition.

The political, social, economic and cultural implications of an economy-wide decarbonisation are becoming increasingly important. The transition to achieve climate safety requires a rapid and deep decarbonisation of all real economy sectors. This will lead to significant changes in business models, jobs, skill needs and consumer prices. Transition challenges will differ across sectors, geographies and social groups, particularly affecting those which are dependent on fossil fuels and carbon-intensive processes, as well as disproportionately affecting lower income households.

These longstanding multi-faceted inequalities across society have been increased by the COVID-19 pandemic. GDP contraction is expected to be higher in Southern Europe and precarious households face additional risks. Negotiations on economic recovery measures have created a North and South division, adding new fragmentation to the previous divide between East and West Europe in advancing the transition to a net-zero and resilient economy.

It is essential to ensure that the recovery and transition is just and equitable for all affected communities. The European Green Deal is based on the premise of delivering prosperity for citizens and a fairer society through a just transition to a sustainable economy. The Renewed Sustainable Finance Strategy provides an opportunity to ensure a green and fair recovery and put in place structural reforms taking an all-Europe approach to addressing its needs and disparities in order to be politically viable in the long term.

Rebalancing access to affordable capital for disadvantaged communities

There is a longstanding economic divide between Western and Eastern Europe. Countries in Central, Eastern and South-Eastern Europe have the smallest economies in Europe; Bulgaria, Croatia, Greece and Latvia have the lowest GDP per capita.[80] However, the economic situation of these countries is improving.[81] Even so, the Member States with the highest level of material deprivation are Bulgaria, Greece and Romania.[82]

The 2008-2009 financial crisis was followed by significant cuts to public investment to limit deficits in Southern and South-Eastern Europe, which came at the expense of economic growth. Investment levels in countries with high debts, including Spain, Italy, Portugal and Greece, never recovered.[83] Southern and South-Eastern countries have stagnated economically since the financial crisis. Greece, Italy and Croatia experienced negative growth while Portugal and Spain experienced very low growth.[84]

Achieving Europe’s transition to climate neutrality is a challenge spanning across national and regional borders. Different countries, regions and communities will bear different impacts, which could exacerbate or reduce existing inequalities.

[80] Eurostat (2020) **GDP per capita in PPS**

[81] Eurostat (2020) **Real GDP growth rate**

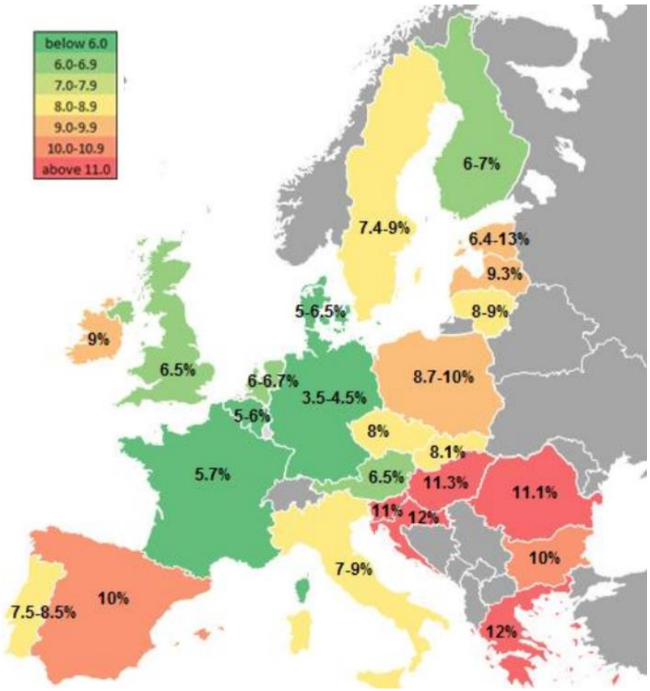
[82] Eurostat (2020) **Material deprivation statistics - early results**

[83] European Commission (2020) **Commission Staff Working Document: Identifying Europe’s recovery needs**

[84] Eurostat (2019) **National accounts and GDP**

European countries face different investment needs to decarbonise their economies. Over the next 30 years, countries in Central and Eastern Europe are expected to have to spend two to three times the investment of other European countries as a share of GDP to achieve climate neutrality.[85] The cost of capital is particularly important in this regard, and differs significantly across Europe as shown in Figure 3. For instance, the cost of capital for onshore wind projects varies from 3.5% in Germany to 12% in Greece, which implies that the levelised cost of energy for a project in Germany is approximately half that of Greece.[86]

Figure 3. Cost of capital for onshore wind across the EU, 2016[87]



European countries face different investment needs to decarbonise their economies. Over the next 30 years, countries in Central, Eastern and South-Eastern Europe are expected to have to spend two to three times the investment of other European countries as a share of GDP to achieve climate neutrality.[88] The cost of capital is particularly important in this regard, and differs significantly across Europe as shown in Figure 3. For instance, the cost of capital for onshore wind projects varies from 3.5% in Germany to 12% in Greece, which implies that

[85] European Investment Bank (2019) **Investment Report 2019/2020**

[86] See: Agora Energiewende (2016) **Reducing the cost of financing renewables in Europe;** DiaCore (2016) **The impact of risks in renewable energy investments and the role of smart policies**

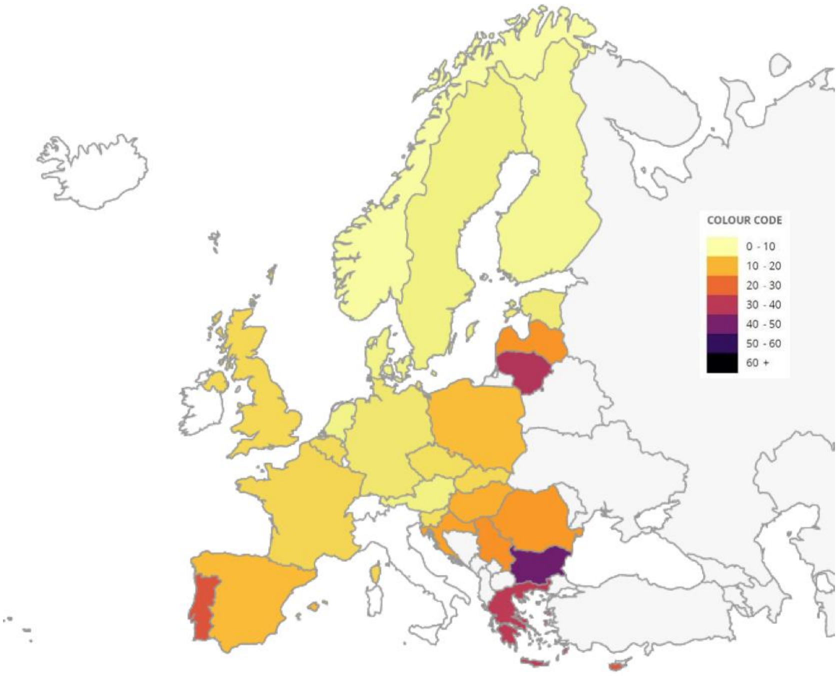
[87] DiaCore (2016) **The impact of risks in renewable energy investments and the role of smart policies**

[88] European Investment Bank (2019) **Investment Report 2019/2020**

the levelised cost of energy (LCOE) for a project in Germany is approximately half that of Greece.[89]

Subnational regions also face significant economic disparities. Investment levels in middle-income regions have declined by 14% while those in high-income regions have increased by 1% since 2002.[90] Many low-income regions are still addressing the challenges of job losses due to the decline of traditional industries.[91] These regions have a heritage of carbon-intensive industries and face deindustrialisation with an inappropriately skilled labour force and high labour costs, rendering it difficult to take advantage of new industries.

Figure 4. Inability to keep home adequately warm in the EU, 2016[92]



European citizens face inequalities across socio-economic groups. Households suffering from material deprivation are more likely to suffer from energy poverty. In 2016, 44.5 million people were unable to keep their home warm and 41.5 million people had arrears on their utility bills.[93] Energy poverty levels differ across Europe, as shown in Figure 4.

[89] See: Agora Energiewende (2016) **Reducing the cost of financing renewables in Europe;** DiaCore (2016) **The impact of risks in renewable energy investments and the role of smart policies**

[90] European Investment Bank (2019) **Investment Report 2019/2020**

[91] European Commission (2018) **Regions in industrial transition: no region left behind**

[92] European Energy Network (2019) **Position Paper on Energy Poverty in the European Union**

[93] European Energy Network (2019) **Position Paper on Energy Poverty in the European Union**

The COVID-19 pandemic has created new social and economic inequalities. GDP is forecast to contract by 8.3% across Europe.[94] GDP contraction in Spain, France, Italy and Croatia is expected to be around 11% in contrast to between 4% and 9% in other countries. Four countries are expected to experience job losses of more than 5% in 2020, including Italy, Spain, France and Estonia. [95] While some countries will have recovered job losses by 2021, employment will likely remain below previous levels in seven Central and Eastern European countries.[96]

The pandemic will induce significant losses in production and income levels, but the economic impact will be uneven across sectors. Most industries and services have experienced significant working restrictions, but the fossil fuel and carbon-intensive sectors have also been heavily hit due to a significant reduction in demand.[97] Companies in the oil and gas, aviation and industry sectors have already announced thousands of job losses.[98]

Furthermore, the economic impact of the pandemic will differ across regions within countries while the number of deprived communities already working under precarious conditions could significantly increase.

These economic disparities place an additional burden on countries in the East and South of Europe, carbon-intensive regions and communities suffering from energy poverty. Directing capital to countries, regions and communities to address these inequalities will be needed to maintain political stability in Europe.

The current financial system – in particular the banking system – is not working effectively to meet the needs of all Europeans and it is not likely that this problem can be solved purely by incumbent market actors, no matter how well regulated they are. The banking system is particularly important since it is the largest provider of finance to the real economy.

[94] European Commission (2020) **European Economic Forecast: Summer 2020 (Interim)**

[95] European Commission (2020) **Commission Staff Working Document: Identifying Europe's recovery needs**

[96] Ibid.

[97] IEA (2020) **Global Energy Review;** Eurometaux (2020) **COVID-19: Impacts on the European Metals Industry**

[98] Euronews (2020) **Coronavirus job cuts: Which companies in Europe are slashing their workforces because of COVID-19?**

Channelling finance to new industries and underserved communities is likely to require a more diverse set of financing mechanisms.

> This would include a greater role for public and blended finance and the reform of some public finance institutions, such as national development banks, to have stronger sustainability mandates.

> Another important aspect would be the emergence of smaller and nimbler financial institutions which have the capability to provide credit or insurance to the underserved, and to originate, fund and aggregate smaller or distributed projects. For example, co-operative, mutual and community-led organisations.

The European Commission should develop an Action Plan to promote fair access to affordable capital in Europe, including support for a more diverse ecosystem of financial actors

> Counteracting the economic divisions across Europe requires additional resources to ease the burden on less advantaged countries, regions and communities. Europe can rebalance access to affordable capital across Europe, to deliver the investment needed to meet sustainability goals.

> This includes ensuring that investment is flowing to the East and South, reducing economic inequalities while also meeting the 2030 and 2050 climate targets by investing in the technologies of the future, building in resilience to future crises, and investing in education and training to prepare the workforce for a clean economy.

> The Action Plan should address the role of public and blended finance to support investment in new industries and underserved communities and should identify measures to open credit and insurance markets to enable different types of institutions to flourish.

Raising awareness of the social impacts of the climate transition

The decarbonisation of the economy requires a rapid change in the scale and pace of climate action. This will create significant economic opportunities in new sectors, but it also brings several related socio-economic risks. The transition to climate neutrality creates a risk of stranded assets and requires significant changes to business models in fossil fuel and carbon-intensive sectors. Countries and regions whose economies depend on these assets and sectors may face job losses and higher costs of living which could threaten the livelihoods of entire communities.

The transition will affect the entire economy but will impact different sectors in different ways. The coal sector employs 237,000 people and will completely disappear. On the other hand, other sectors will undergo a large transformation which will have a significant net positive or negative impact on jobs in supply chains. The transport sector entails significantly more jobs with 14.6 million people or 6.4% of total EU employment.[99] The transition to electromobility could have a significant impact as it is expected to lead to less employment in manufacturing and more employment in services.[100] Heavy industries such as steel, cement and chemicals will also need to undergo a significant transformation. Industry provides 36 million jobs or 15.8% of total EU employment.[101] All of this creates a need for re-skilling the labour force and creating new jobs.

The transition will displace jobs for a share of the workforce that is concentrated in a few countries and regions. Coal and carbon-intensive regions in Central, Eastern and South-Eastern European countries are particularly vulnerable due to their dependence on high-carbon jobs.[102] Jobs in the transport sector are also vulnerable since they are more dispersed geographically than other sectors and depend on integrated transboundary supply chains, of which a significant part is in Central and Eastern European countries.[103] Increased regional unemployment could present a systemic financial risk at national and even international level.

The transition could also deepen existing inequalities among citizens and consumers if policies are designed in a socially regressive way. Home renovations could place a higher burden on lower income households without adequate financial incentives. Similarly, higher fuel taxes, the switch to electric vehicles and rising prices for carbon-intensive products such as meat could lead to a higher relative cost of living and increase existing vulnerabilities.[104] All of this creates a risk of potential opposition to climate action which could slow progress

[99] European Climate Foundation (2019) **Net-Zero 2050 series: Research & Innovation for EU Transport**

[100] E3G (2019) **The EU long-term strategy as an opportunity for just transition**

[101] European Climate Foundation (2019) **Net-Zero 2050 series: Research & Innovation for EU Industry**

[102] European Commission (2018) **EU coal regions: opportunities and challenges ahead**

[103] European Investment Bank (2019) **Investment Report 2019/2020**

[104] Bruegel (2018) **The Distributional Effects of Climate Policies**

and cause economic stagnation and multiple systemic financial risks and political instability.

Info: Facilitating a just transition in Europe

Facilitating a just transition of sectors, regions, communities, workers and consumers is a dual challenge requiring investment in decarbonisation and social inclusion. A just transition is required to ensure that the benefits of the climate transition are widely distributed while those who stand to be affected by the transition are supported.[105] The just transition should be addressed from a multi-faceted lens of prosperity looking beyond local job impacts and environmental concerns to other structural changes affecting labour markets, such as globalisation, digitalisation and the shift to services.

Investment in decarbonisation infrastructure such as renewable energy and energy efficiency can bring about significant jobs. Decarbonising Europe's energy supply is forecast to create 1.8 million additional jobs by 2050.[106] Investments in energy efficiency can stimulate the construction industry which generates 8% of GDP and around 10% of total EU employment.[107] A €1 million investment in energy efficiency can generate around 18 jobs.[108]

Significant investment is also needed in infrastructure, innovation, education and training in new green sectors such as eco-tourism and sustainable agriculture and other economic sectors. This could bring significant socio-economic benefits by mitigating job losses in high-carbon sectors and contributing to the well-being and prosperity of communities through better air quality, health and job prospects.[109]

There are challenges in ensuring a just transition. The socio-economic impacts of the climate transition are less granularly understood across some sectors such as transport, industry and agriculture, rendering it difficult to plan new investments and policy reforms across these sectors.[110] The impacts on different social groups

[105] European Bank for Reconstruction and Development (2020) **The EBRD just transition initiative**

[106] European Climate Foundation (2019) **Net-Zero 2050 series: Research & Innovation for EU Energy**

[107] Renovate Europe (2020) **Building Renovation: A kick-starter for the EU recovery**

[108] Renovate Europe (2020) **Building Renovation: A kick-starter for the EU recovery**

[109] European Commission (2019) **Employment and Social Developments in Europe 2019**

[110] E3G (2020) **The Just Transition Fund: 4 Benchmarks for Success**

are not integrated into investment decisions and policy-making in a preventative manner. Poor policy design related to the transition sparked the French yellow vest movement while tariff changes for renewables are currently causing public criticism in other countries.[111]

The European Commission should raise awareness about the just transition and conduct assessments of vulnerable sectors and communities.

> The EU should conduct comprehensive monitoring and assessment on the social and economic vulnerabilities due to the climate transition across sectors, regions and communities to identify just transition priorities and appropriate policy responses.

> The Just Transition Platform could be key in assessing the social and economic impacts of the climate transition and identifying just transition hot spots across Europe.

[111] Politico (2019) **The Yellow Jackets left behind**; Engie (2020) **Le tarif prosumer en Wallonie**

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Leveraging public funds and technical assistance for just transition

The European Green Deal Communication recognised that the transition can only succeed if it is conducted in a fair and inclusive way.[112] It proposed the Just Transition Mechanism which will focus on the regions and sectors most affected by the transition. As part of this, the Just Transition Fund will be instrumental in mobilising public and private investments for the just transition.

Just transition support will be linked to promoting a transition towards low-carbon and climate-resilient activities. It will target regions and territories impacted by the transition and seek to protect affected communities, providing access to re-skilling programmes, jobs in new economic sectors, and energy-efficient housing. Access to the fund requires the adoption of territorial just transition plans, but there is currently no climate conditionality attached such as coal and high-carbon technology phase-outs.[113] The European Council has recently agreed to exclude gas and nuclear from just transition funding.[114] On the other hand the European Parliament took a less progressive stance on gas.[115]

As the main instrument to leverage private and public funding, InvestEU also has significant potential to contribute to socially fair investment. It will support private and public investment, especially in regions where it is difficult to raise private capital. European structural and investment funds also play a crucial role in supporting social cohesion, notably through the European Regional Development Fund, the European Social Fund Plus and the Cohesion Fund. These funds can be used to invest in small businesses, innovation, infrastructure, employment and training.

[112] European Commission (2019) **The European Green Deal**

[113] E3G (2020) **The Just Transition Fund: 4 Benchmarks for Success**

[114] Council of the European Union (2020) **Just Transition Fund: Council agrees on its partial negotiating position**

[115] European Parliament (2020) **Just transition in EU regions: support to people, economy and environment**

Many Central, Eastern and South-Eastern European countries have failed to include sufficient measures for a just transition in their National Energy and Climate Plans.[116] One of the main bottlenecks to the just transition remains the difficulty in establishing a pipeline of projects.[117] Carbon-intensive regions tend to have limited technical capacity and resources to plan for projects. Yet an effective institutional structure led by high-capacity regional authorities together with an inclusive civil society stakeholder engagement format is necessary to build just transition strategies.[118]

The EU is leading several initiatives to support capacity building for a just transition. The Coal Platform for European Regions in Transitions was established in 2017 for coal regions to learn about assistance available to them. The Just Transition Platform was launched in June 2020 to assist EU countries and regions in making use of the support available through the Just Transition Mechanism.[119] The platform will offer technical and advisory support to stakeholders involved in just transition activities. The European Investment Bank and the European Bank for Reconstruction and Development have also started just transition initiatives.[120] Several domestic players and funders are also active in the just transition space. For example, in Germany development agency GIZ, public bank KfW and the Environment Ministry are all participating in just transition initiatives.

It will be important for these various initiatives to cooperate and build the capacity of regional authorities and the private sector in developing just transition strategies and project pipelines.

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[116] CAN Europe (2020) **Pave the way for increased climate ambition: Opportunities and gaps in the final National Energy and Climate Plans**; CAN Europe and Sandbag (2019) **Just transition or just talk?**

[117] European Commission (2018) **Boosting Investment in Social Infrastructure in Europe**

[118] Heinrich Boell Foundation/E3G/DUH (2018) **Europäische Braunkohleregionen im Wandel** (in German)

[119] European Commission (2020) **Just Transition Platform**

[120] European Investment Bank (2020) **Just Transition Mechanism: the EIB and the European Commission join forces in a proposed new public loan facility to finance green investments in the EU;** European Bank for Reconstruction and Development (2020) **The EBRD just transition initiative**

The European Commission should encourage Member States to adopt national and regional capital raising plans for the just transition.

> Just transition funding should be made conditional on a concrete capital raising plan that is aligned with the EU taxonomy with specific public funds and incentives to tackle the risks facing vulnerable communities and crowd in private investment to create opportunities for economic regeneration.

> The European Commission should provide guidance to support Member States in establishing national and regional capital raising plans for the just transition aligned with the EU taxonomy and clear climate and social objectives and implementation milestones.

> These capital raising plans must be developed through an inclusive civil society stakeholder engagement process.

The European Commission and European Investment Bank should build the capacity of stakeholders at regional and local level to develop bankable projects which support climate transition and social inclusion.

> The European Commission should work through public finance institutions to assist regions in planning for a just transition through a formal involvement of companies and civil society to identify local projects and build up effective instruments for social investment.

> The Just Transition Platform should act as an intermediary to improve consistency in national approaches and build on direct cooperation with public finance institutions and municipalities to ensure local presence, particularly in Central, Eastern and Southern-Eastern European countries.

> The Commission should work closely with the European Investment Bank, which will be the conduit for a substantial proportion of just transition funding, on this issue.

Fostering investments for a fair and just recovery and climate transition

Social investments in Europe have traditionally been undertaken by the public sector and private finance has not played a role in any historical just transition process. Public finance institutions and local governments make up the majority of issuers. However, the current levels of investment are insufficient to upgrade the skills of the workforce and rejuvenate regions in industrial decline.

While a strong public sector response is required for a sustainable economic recovery and a just climate transition, mobilising private investors is also important. The long-term returns and public good nature of social investments tend to make them attractive to large long-term investors. Therefore, financial intermediaries will be key for channelling private investments towards social infrastructure. Public finance institutions have a large role to play in providing a counter-cyclical role in the economy and funding social infrastructure and cross-border initiatives.[121]

The European Commission should stimulate public finance institutions to support a fair economic recovery and a just climate transition by developing a strategy to crowd in private capital.

- The EU should encourage public finance institutions to develop strategies linked to ambitious climate and social goals and to put in place financing instruments that can crowd in private capital.
- Institutional investors can be incentivised to invest in less familiar types of investment which have high sustainability impacts and non-traditional return profiles, such as projects that support just transition, through use of public risk-sharing and blended finance, with clear impact reporting on social benefit.

Institutional investors have the possibility to invest in equity, but there is still a lack of debt instruments or project bonds for social infrastructure.[122] Socially labelled bonds are bonds where the use of proceeds is earmarked for social, or green and social projects. Yet socially labelled bonds are different from green

[121] European Commission (2018) **Boosting Investment in Social Infrastructure in Europe**

[122] Ibid.

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bonds in that social impact is much more complex to measure than environmental impact.[123] France, Spain, Germany and the Netherlands are leading the issuance of socially labelled bonds in Europe.

The ESG fund market is characterised by a wide dispersion of definitions and standards in different European markets, which makes it difficult to compare the extent of climate, environmental and social ambition of each product. There is a need for consistency at EU level to help mobilise the broadest possible range of private finance alongside public budgets to contribute to social impact. The EU is currently in the process of developing an EU Green Bond Standard based on the EU taxonomy for sustainable activities.[124] The taxonomy already includes social factors by defining social minimum safeguards alongside the environmental criteria. However, it also alludes to the need for a taxonomy of socially sustainable activities. Other experts have called for a social taxonomy to be developed.[125]

The European Commission should further develop the social element of the taxonomy.

> The minimum social safeguards of the taxonomy should be strengthened to become a social 'Do No Harm' and should be operationalised in a Delegated Act. Use of such safeguards should be required across private and public funds.

> Furthermore, work to develop a social taxonomy should be started in 2022 with a view to completion by the end of the year to enable the identification of activities that deliver socially beneficial outcomes and applied across public and private investments, in line with other aspects of the taxonomy.

[123] Stockholm Sustainable Finance Centre (2020) **A Swedish market for sustainability-related and socially labelled bonds: Institutional investors as drivers**

[124] European Commission (2020) **EU Green Bond Standard;** European Parliament and Council of the EU (2020) **Taxonomy Regulation**

[125] Institut fur Okonomie und Okumene (2020) **A Proposal for a Social Taxonomy for Sustainable Investment**

Despite the abundance of funds and policies which could support a just transition, EU and national initiatives lack a coordinated approach to the just transition together with a more strategic financing model.[126] There is currently no clear standard for the activities that constitute a just transition that can be applied across different sectors, regions and communities.[127] Such a standard could draw on existing best practice initiatives and develop shared approaches to dealing with the industry, worker and community dimensions of the transition.[128]

For example, the World Bank identified a sustainability checklist for assessing economic recovery interventions at project level capturing the impact on job creation, decarbonisation and the mobilisation of private finance.[129] In another example, a research project led by E3G identified conditions for a successful transition drawing upon diverse experts on German and Czech transitions.[130]

Efforts to establish standards related to the just transition are growing. The International Capital Market Association's social bond principles include many areas which are key to a just transition such as education and training, affordable housing and job creation.[131] There are also examples from leading public finance institutions. For example, the Caisse des Dépôts in France developed a framework for green, social and sustainability bonds which directly supports a just transition, stating that the transition towards a resilient, low-carbon and respectful of and the biodiversity economic model "must be fair between all citizens".[132]

[126] Friends of Europe (2018) **The Regional Dimension of Climate Change**

[127] E3G (2018) **A Just Transition for All or Just a Transition?**

[128] Robins et al (2020) **Financing climate action with positive social impact: How banking can support a just transition in the UK**

[129] World Bank (2020) **Planning for the economic recovery from COVID-19: A sustainability checklist for policymakers**

[130] Heinrich Boell Foundation/E3G/DUH (2018) **Europäische Braunkohleregionen im Wandel** (in German)

[131] Robins, N. (2020) **Why governments need to issue just transition sovereign bonds and how they could do it**; ICMA (2020) **The Social Bond Principles**

[132] Caisse des Depots (2019) Framework: **Green, Social and Sustainability Bonds**

The European Commission should develop a standard to define investments which are compatible with the just transition.

> The EU should develop a standard defining the principles of the just transition, in order to ensure that public and private investments and fiscal policy can adequately respond to the socio-economic impacts of the climate transition.

> These principles should be applied across all public funds and in fiscal policy decisions.

> This should be aligned with the EU taxonomy and incorporate elements that make for a successful just transition.[133]

In the last few years, there has been an increase in the number of private investors with a social impact.[134] Earlier this year, 161 investors representing US$10.2 trillion in assets endorsed a statement of commitment to support a just transition.[135] Yet the increase in the quantity of capital will need to be matched by improvements to its quality with a focus on long-term impact in terms of environmental, social and governance outcomes.[136] This requires it to be integrated in corporate governance practices, in particular for large firms linked to the just transition.[137]

133 Heinrich Boell Foundation/E3G/DUH (2018) **Europäische Braunkohleregionen im Wandel** (in German)

134 Eursofi (2018) **European SRI Study**; Deloitte/EVPA/Global Social Entrepreneurship Network (2018) **Central & Eastern Europe: Opportunities for Social Investment**

135 UNPRI (2020) **Statement of Investor Commitment to Support a Just Transition on Climate Change**

136 Robins, N. et al (2020) **Financing climate action with positive social impact: How banking can support a just transition in the UK**

137 Robins, N. et al (2020) **Climate change and the just transition: A guide for investor action**

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The European Commission should require company directors to integrate the just transition into their company strategies and disclosures.

> Company directors should be required to integrate the just transition as part of the upcoming legislative proposal on sustainable corporate governance.

> Companies should incorporate workplace and community dimensions into their sustainability strategies and disclosures and include policies on retraining, reskilling, redeployment and new job creation.

> Sustainability strategies should establish accountability to a range of stakeholders through appropriate board structures and social dialogue with workers.

The European Commission should require institutional investors and asset managers to integrate the just transition into their decisions.

> The EU framework for the Shareholder Rights Directive should be reviewed to strengthen shareholder engagement and stewardship and integrate the just transition into shareholder stewardship.

> Investor duties should be strengthened to ensure that investors assess portfolio exposure to transition risks and opportunities across all asset classes. Investors should integrate the social dimension into their sustainability strategies and disclosures and should be encouraged to engage with companies to promote action towards a just transition.

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4 – INCLUSION

Overarching recommendations

> The European Commission should ensure that retail investors are asked about their sustainability preferences and that sustainable investments are labelled for impact.

> New policies should be put in place to ensure that European citizens' can exercise their right to sustainability-related data that is relevant to their lives and communities.

> The European Commission should develop an Action Plan to address financial exclusion that is linked to sustainability issues.

Under a European Green Deal, European citizens should have equal access to finance and should be able to decide their own financial investments and risks.

The public reputation of the financial sector has not recovered from the last financial crisis, and Europe is now headed into a much greater recession. The Renewed Sustainable Finance Strategy offers an opportunity to shift the focus to the real economy to ensure that companies, citizens and public authorities have the tools they need to finance the green transition in a more inclusive way.

Technocratic solutions which appear to benefit financial institutions at the expense of citizens will not be politically palatable in the 2020s. Financial reforms must enable individuals to select the impact of their pensions and savings, to have access to information about the environmental risks their communities face, and to be protected from financial exclusion as a result of risks that are not under their control.

Enabling citizens to invest according to their sustainability preferences

Most retail investors want to invest more sustainably. Over 70% of retail investors consider it important to invest in companies with a positive social and environmental impact.[138] The majority of investors are also ready to accept trade-offs on financial returns with an increase in sustainable investments.[139]

However, most retail investors lack the opportunity to invest according to their sustainability preferences.[140] Retail sustainable investing assets represented 12% of the total assets managed in the European market in 2018.[141] Evidence shows that the majority of financial advisers do not approach their clients about their sustainability preferences.[142] Many financial advisers still perceive sustainably-denominated products as presenting a negative trade-off with returns, despite multiple studies indicating the opposite.[143] Around half of retail investors want their financial advisor to communicate more about sustainable investing.[144]

The Sustainable Finance Action Plan included an action to improve the integration of sustainability into financial advice.[145] In June 2020 the European Commission published the draft Delegated Acts to incorporate the sustainability preferences of investors into the EU financial services regulatory framework based on the technical advice issued by the European Securities and Markets Authority and the European Insurance and Occupational Pensions Authority in 2019, requiring investment advisors to ask retail investors about their sustainability preferences and take these preferences into account in the financial products that are offered. [146]

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[138] Nataxis Investment Managers (2019) **Mind Shift: Getting past the screens of responsible investing**

[139] Bauer, Ruof, Smeets (2020) **Get Real! Individuals Prefer More Sustainable Investments;** 2 Degrees Investing Initiative (2020) **A Large Majority of Retail Clients Want to Invest Sustainably**

[140] Schroders (2019) Schroders Global Investor Study 2019: **People's sustainable investment ambitions fail to reflect their actions**

[141] High-Level Expert Group on sustainable finance (2018) **Final Report**

[142] Eccles, Kastrapeli (2018) **The Investing Enlightenment**

[143] Eurosif (2018) **European SRI Study 2018**

[144] Ref 167

[145] European Commission (2018) **Communication: Financing Sustainable Growth**

[146] Nevzat, van den Bogart (2020) **Commission publishes draft delegated acts on the introduction of ESG considerations**

The European Commission should ensure that retail investors are asked about their sustainability preferences and offered sustainable funds and products as a default option.

> Guidance for financial advisors in retail financial services should be provided in order to integrate sustainability and fully incorporate customer preferences into advice.

> The European Supervisory Authorities Joint Committee should be mandated to develop a template questionnaire to introduce a consistent assessment framework for financial advisors.

> Retail investors should be systematically offered sustainable investment products as a default option at a comparable cost and if those products meet the suitability assessment test.

> These rules should be replicated across the insurance and banking sectors by reviewing and amending all relevant elements of the EU financial services regulatory framework to incorporate investment advice that can respond to consumer preference on sustainability.

Member States should offer retail investors a stake in Europe's sustainable future by developing policy measures that incentivise sustainable investment.

> Retail investors could be incentivised to make sustainable investments through measures such as preferential interest rates on savings accounts, or income tax relief.

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Protecting retail investors from greenwashing

The presence of greenwashing practices in the market has led to scepticism among retail investors about environmental and social information.[147] This, in turn, could undermine their confidence in sustainable finance, leading to unsatisfied demand and reduced participation.[148] This could reduce incentives for asset managers to design suitable products and lead to insufficient investment in sustainability.

There is a wide variety of products on the market for sustainable financial assets offered under various denominations. The products with denominations such as 'ESG' (Environmental, Social and Governance), SRI (Socially Responsible Investing), 'sustainable' or 'impact' are often used interchangeably by the industry.

Info: Sustainable investing terminology[149]

Environmental, Social and Governance (ESG), Socially Responsible Investing (SRI) and impact investing are often used interchangeably by the industry.

ESG integration considers how Environmental, Social and Governance factors impact financial performance, both positively and negatively. An oil and gas company could be considered a responsible investment if it is working to reduce its emissions, has a strong safety record and is giving back to local communities.

Socially Responsible Investing involves actively selecting or eliminating investments according to a set of specific criteria such as positive or negative screening or the level of corporate engagement and shareholder engagement. With screening, investors may eliminate a company if it is involved in weapons contracting. Negative screening is most prominent in Europe.

[147] 2 Degrees Investing Initiative (2020) **EU Retail Funds' Environmental Impact Claims Do Not Comply with Regulatory Guidance**

[148] UK Financial Conduct Authority (2019) **Climate Change and Green Finance: summary of responses and next steps**

[149] Zhou (2019) **ESG, SRI, and Impact Investing: What's the Difference?**

Impact investing seeks to maximise societal impact by investing in an organisation completing a project or programme with a positive environmental or social impact.

While these descriptions enable the creation of tailored products to the needs of lenders and investors, it can be difficult for retail investors to compare the climate, environmental and social impacts of projects. This ambiguity can enable greenwashing and may weaken retail investor protection, given that financial literacy remains low in some Member States.[150]

The European Commission should protect retail investors from greenwashing by establishing minimum standards and disclosure requirements for sustainably denominated funds.

> The European Commission should establish minimum standards for sustainably denominated funds based on the EU taxonomy and should require the disclosure of standardised sustainable impact information for retail funds and products.

The European Commission should take steps to improve financial literacy and raise awareness of sustainable finance among citizens and finance professionals.

> The European Commission should promote the inclusion of sustainability and sustainable finance in the curricula of finance graduates and professionals.

> The European Commission should promote the inclusion of sustainability and sustainable finance in the curricula of school students in the context of a wider effort to raise awareness about climate action and sustainability.

> The European Commission should stimulate cooperation between Member States to ensure that there are sufficient initiatives to educate citizens beyond school education to reduce their environmental

[150] Batsaikhan, Demertzis (2018) **Financial literacy and inclusive growth in the European Union**

footprint also through their investment decisions. Member States should also continue wider efforts to raise the financial literacy of EU citizens.

Mandating the disclosure of environmental impact claims

The savings of European households represent over 40% of financial assets in the EU.[151] Currently, 40% of retail investors want to have a measurable environmental impact in the real economy with their savings.[152] However, they are not given the means to select the real sustainable impact of financial products offered to them in their pensions and savings.

There is ample evidence of greenwashing taking place in the market. Most ESG products are not explicitly designed to deliver a measurable impact and often fail to provide evidence that they do. Yet, a significant number of actors in the financial sector continue to promote those funds by making environmental impact claims. For example, a study of marketing claims of 230 retail funds across Europe found that 52% of the funds made environmental investor impact claims, 99% of which do not comply with existing regulatory guidance.[153]

Currently, there is no label for financial products seeking to deliver a measurable environmental investor impact.[154] A number of organisations such as the Impact Management Project and the Global Impact Investing Network are currently developing frameworks that can provide the basis for such a label.[155] So far there has not been any in-depth analysis on how investment products and strategies have an impact on the real economy.[156]

[151] High-Level Expert Group on Sustainable Finance (2018) **Final Report**

[152] 2 Degrees Investing Initiative (2020) **EU Retail Funds' Environmental Impact Claims Do Not Comply with Regulatory Guidance**

[153] 8% of the claims are incorrect, 61% are unclear, 81% are too broad, and 99% have at least one of those characteristics. 2 Degrees Investing Initiative (2020) **EU Retail Funds' Environmental Impact Claims Do Not Comply with Regulatory Guidance**

[154] 2 Degrees Investing Initiative (2020) **Feedback on the second version of the Ecolabel criteria for financial products**

[155] Ibid.

[156] 2 Degrees Investing Initiative (2020) **EU Retail Funds' Environmental Impact Claims Do Not Comply with Regulatory Guidance**

The Sustainable Finance Action Plan included an action to explore the use of the EU Ecolabel framework for certain financial products.[157] The EU Ecolabel for Financial Products is currently being developed to define the minimum environmental performance of financial products. The European Commission presents the Ecolabel as a means to allow retail investors concerned with the environmental impact of their investment to make informed choices and contribute to the green transition.[158] The Joint Research Centre published the second version of the Ecolabel criteria for financial products in April 2020.

However, evidence shows that the draft criteria of the Ecolabel on financial products and the second technical report are misaligned with the requirements of the Ecolabel Regulation.[159] The draft criteria allow funds deriving only 18% of revenue from environmentally sustainable activities to obtain the label, which can hardly be considered sustainable and will only perpetuate greenwashing practices. Furthermore, the technical report omits the concept of 'investor impact'. This creates a significant risk of non-impactful financial products relating to sustainability characteristics being offered to impact-focused clients.

The European Commission should revise the Ecolabel for financial products to match sustainability preferences and should establish a new sustainability impact label

> In order to maintain quality standards and policy ambition, development of the Ecolabel for financial products should be postponed until the taxonomy is implemented and revised in order to increase the percentage of green investment in the fund to at least 70% and tighten the exclusion criteria.

> A voluntary sustainability impact label should be established for green or sustainable funds, and for products that seek to deliver a measurable sustainability impact. This should be developed in partnership with impact investment firms, drawing on their expertise in measuring impact and identifying best practice and common approaches.

[157] European Commission (2018) **Communication: Financing Sustainable Growth**

[158] European Commission 2019 **Sustainable Products in a Circular Economy - Towards an EU Product Policy Framework contributing to the Circular Economy**

[159] 2 Degrees Investing Initiative (2020) **Feedback on the second version of the Ecolabel criteria for financial products**

> Building on the EU taxonomy, a science-based sustainability impact measurement framework could be developed and used to define a set of standardised impact measurement requirements which would apply to all funds and products to enable an assessment of coherence with the sustainable investment preferences of retail investors.

Supporting the development of digital finance solutions for citizens

In recent years, an increasing number of innovative financial technology (fintech) companies have appeared in Europe. Few of these have a business model that focuses on sustainability.

New models of financing and inclusion can be developed through fintech and digital technologies such as artificial intelligence and blockchain. Crowdcube is a crowdfunding platform to raise early stage finance for start-ups.[160] Enerchain is a peer-to-peer energy trading platform to enable individuals to generate their own energy and trade the excesses.[161] Enfuce will enable consumers in Finland to trace the carbon footprint of their purchases upon payment.[162]

Financial institutions are also starting to realise the benefits of fintech solutions. Spanish bank BBVA recently issued a green bond using blockchain with a platform for verification and reporting.[163] Munich Re has partnered with PrecisionHawk, a drone data platform, to improve reporting following a natural disaster.[164]

The fintech agenda presents new opportunities to support the implementation of the Renewed Sustainable Finance Strategy and the democratisation of finance through solutions enabling retail investors to select their pensions and saving plans.

[160] High (2020) **FinTech profile: Crowdcube - innovation in crowdfunding**

[161] Ponton (2017) **European Energy Trading Firms Test Peer-To-Peer Trading Over The Blockchain**

[162] Tan (2020) **Fintech for sustainability: turning awareness into action**

[163] BBVA (2019) **'Blockchain' set to shape future of green bonds**

[164] KPMG (2019) **Forging the future How financial institutions are embracing fintech to evolve and grow**

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The European Commission should support the development of digital finance solutions to advance the sustainable finance agenda.

> The European Commission should support initiatives providing citizens with access to comparable information on the sustainability of investment products and companies to enable them to make more informed financial decisions based on their sustainability preferences.

> The European Commission should advance the uptake of regulatory use cases supporting the ambitions of the sustainable finance agenda by fintech companies, including defining the requirements for digitalising the taxonomy, supporting pilot schemes on green bond and SDG-related reporting and verification and digitalising public corporate reporting.

> Member States should stimulate local initiatives that allow citizens to identify and jointly finance local sustainable projects. Even though some projects might be limited in scale, using digital tools avoids excessive dependency of local sustainable projects on market intermediaries and supports efficient pricing and transparency.

Ensuring the right to sustainability-related financial data

Democracy in Europe encompasses a wide range of tools beyond the European Parliament including access to information, public participation and access to justice, which can be used to safeguard the interests of European citizens.

The Aarhus Regulation was created in 2006 to implement the Aarhus Convention, which is the main international legal instrument regulating access to information, public participation in decision-making and access to justice in environmental matters.[165] The involvement of citizens in these matters is crucial to the success of the European Green Deal.

The European Commission set out in the European Green Deal Communication that it will consider revising the Aarhus Regulation to improve access to justice for citizens and NGOs who have concerns about the legality of decisions related

[165] **Aarhus Convention Regulation** (2006)

to the environment.[166] This follows a complaint from civil society questioning the consistency of the EU system on access to justice in environmental matters with the Aarhus Convention.[167] The European Commission also plans to launch a European Climate Pact to engage with the public on climate action. [168]

Another source of concern is the limited access to environmental information and in particular data on physical climate risks and second and third order impacts.[169] European communities which are exposed to physical climate risks are at risk of capital flight, which could deprive vulnerable citizens from access to finance. Their ability to access environmental data will be important to be able to understand these risks and participate in public decision-making. Barriers to public participation are numerous and continue to grow in the EU.[170]

Revision of the Aarhus Regulation under the European Green Deal work programme[171] would provide an opportunity to address these matters.

New policies should be put in place to ensure that European citizens' can exercise their right to sustainability-related data that is relevant to their lives and communities.

> The EU should ensure that all European citizens are able to exercise their Aarhus Convention rights: to receive environmental information that is held by public authorities; to participate in preparing plans, programmes, policies and legislation that may affect the environment and to review procedures when these rights have been violated.

> Relevant financial data might for example include information about present and future climate change impacts which may affect citizens' future access to credit or insurance or may affect the value of their personal assets.

[166] European Commission (2019) **Communication on the European Green Deal**

[167] Milieu Consulting (2019) **Study on EU implementation of the Aarhus Convention in the area of access to justice in environmental matters**

[168] Ibid.

[169] European Environment Bureau (2019) **Still too hard to access environmental information in the EU – EEB report**; European Commission (2020) **Adaptation to Climate Change Blueprint for a new, more ambitious EU strategy**; E3G (2020) **Roadmap for an Updated EU Strategy on Adaptation to Climate Change**

[170] Soffer (2019) **To meet its climate commitments, the EU must involve its people**

[171] European Environment Bureau (2020) **'Green Deal Commission' overlooks environmental rights in 2020 work programme**

Avoiding financial exclusion due to sustainability risks

Sustainability risks that could directly affect access to finance now and in the future include physical climate risk (e.g. exposure to flood risk or sea level rise), future access to resources such as water, and (for companies) dependence on unsustainable supply chains. Awareness and understanding of sustainability risks remain inadequate within financial firms that offer services to businesses and individuals. There is also a low level of understanding of climate risk within corporations, despite efforts by the Task Force for Climate-Related Financial Disclosure to mainstream climate risk disclosure.[172]

Achieving resilience to climate risk requires investments to be based on a data-driven assessment of risk. However, the information costs related to mapping climate risks are considered high.[173] There is a huge amount of data in existence but some of the most valuable is proprietary e.g. held by Bloomberg and insurance companies and not open to the market, let alone available to citizens. An even bigger problem is inconsistencies or usability of data which would benefit from public sector coordination effort.[174]

Asset managers and investors still prioritise acting on transition risks over physical climate risks.[175] Although investors are starting to assess portfolio-related climate risks, they are not adapting their investment strategies accordingly.[176] Insurance companies are experienced at climate risk assessment, but not all of them take a preventive and resilient approach to their investment strategies and client interactions, despite the fact that climate will hit them both in terms of their asset base and liabilities.

Nevertheless, greater awareness of sustainability risks is now affecting access to finance. For example, European banks are already discriminating between borrowers based on their exposure to sustainability risks.[177] The price, credit worthiness and insurability of real estate in affected regions is changing as financial firms make use of real-time flood data[178]. Further impacts on asset

[172] Alliance for Corporate Transparency (2019) **2019 Research Report**

[173] Pillay et al. (2017) **Mobilizing Adaptation Finance in Developing Countries**

[174] Financial Stability Institute (2019) **Turning up the heat – climate risk assessment in the insurance sector**

[175] Sjöblom et al. (2018). **Climatic Risks and Opportunities in Real Estate Portfolio Management**

[176] Burgess, K. and Rapoport, E. (2019). **Climate Risk and Real Estate Investment in Decision-Making**

[177] Bank of Italy (2018) **Natural catastrophes and bank lending: the case of flood risk in Italy**

[178] Ambiental Risk Analytics (2020) **Europe FloodScore**

value are likely to materialise as episodes of extreme heat become more common in Europe.

Citizens and small businesses are likely to have little or no control of the financial risks that they face from sustainability impacts and Europe does not yet have a plan to support them. The Adaptation Blueprint[179] noted in the context of international development that "climate finance needs to be better targeted to those countries and communities that are particularly vulnerable to the impact of climate change and have less capacity to address them" but failed to note that the same is true within Europe's borders. These risks are likely to fall in an uneven way, disproportionately affecting communities which are already economically disadvantaged.

The European Commission and the European Supervisory Agencies should develop an Action Plan to protect small businesses and citizens from financial exclusion resulting from unavoidable sustainability risks

> The European Commission should commission research into the present and future scale of reduced access to finance for citizens and small and medium-sized enterprises as a result of sustainability risks, with a view to developing an Action Plan to support those who are exposed to sustainability-related risks that cannot be avoided, through no fault of their own.

> The EU and European Supervisory Agencies (e.g. EIOPA) can help ensure a standardised approach to sustainability risk across the financial services sector, and ensure that better sustainability risk assessment by financial services companies translates into greater awareness together with options for action for customers, e.g. through the provision of education, information and specialised products.

> As sustainability risk quantification techniques mature and sustainability risk assessments become more accurate the EU could consider policy measures to support financial inclusion, e.g. restrictions on refusals to insure, or caps on prices.

[179] European Commission (2020) **Adaptation to Climate Change: Blueprint for a new, more ambitious EU strategy**

5 – RESILIENCE

Overarching recommendations

> A 'Think Resilience' principle should be incorporated into public finance investment decision-making to encourage risk assessment and resilience stress tests for investments, complementing the 'Do No Harm' oath.

> The European Commission should propose a European public-private disaster risk finance pool to increase access to affordable and comprehensive insurance.

> The European Commission should support Member States to adopt national and regional investment plans for climate adaptation and resilience.

COVID-19 has demonstrated the importance of social and economic resilience. Action is needed now to finance Europe's resilience, and to protect against future risks.

The far-reaching economic and financial impacts of the COVID-19 pandemic demonstrate the importance of societal resilience and Building Back Better. Sustainability risks present further challenges for the future, which we need to prepare for now.

In the last decade, three European countries reached the global top 10 for economic losses from storms, floods and earthquakes over the last decade: France, Germany, and Italy.[180] Germany was the third most affected country in the world in 2018, when a heatwave led to over a thousand fatalities and severe drought prompted 8,000 farmers to call for emergency relief to compensate for their losses.[181] Europe then experienced its warmest year on record in 2019,

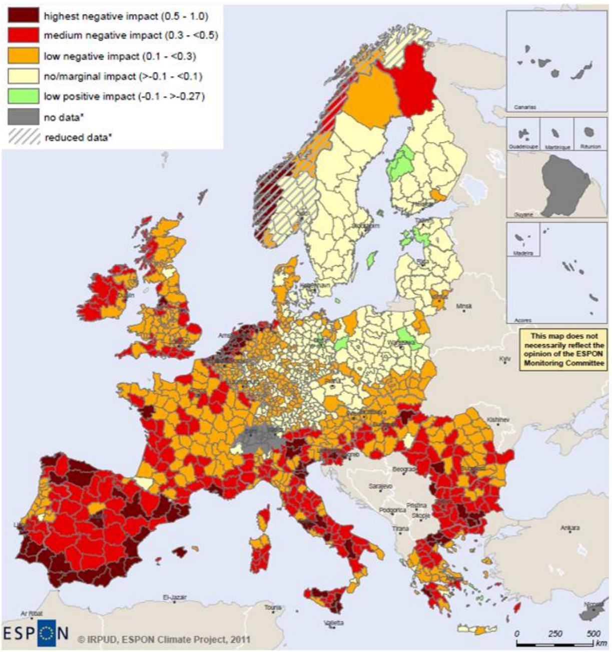
[180] UNDRR (2018) **Economic losses, poverty & disasters: 1998-2017**

[181] Germanwatch (2020) **Global Climate Risk Index**

following decades of worsening impacts.[182] Europe is experiencing an increased frequency of droughts[183] and 2020 has so far seen yet more extreme weather events. The aggregate potential impact of climate change is shown in Figure 5.

Across Europe, the reported economic losses from weather and climate-related extremes already cost €12 billion per year.[184] These economic losses would be even more staggering if the full picture of cascading and indirect losses had been considered. Indeed, these are a growing area of concern but are not yet integrated in financial decision-making.[185] For example, increasingly dry and warm conditions increase the risk of wildfires, which damage soil and can increase the risk of later landslides and flooding.[186]

Figure 5. Aggregate potential impact of climate change[187]



In addition, the incidence of such extremes is projected to worsen in the future. Under current climate commitments, the world is expected to warm up by

[182] Copernicus Climate Change Service (2020) **European State of the Climate 2019**

[183] DW (2020) **Central Europe to face extreme droughts without climate action**

[184] European Commission (2020) **Adaptation to Climate Change: Blueprint for a new, more ambitious EU strategy**

[185] UNDRR and E3G (2019) **Opportunities to integrate disaster reduction risk and climate resilience into sustainable finance**

[186] AghaKouchak A. et al (2018) **How do natural hazards cascade to cause disasters?**

[187] Espon Climate (2011) **Climate Change and Territorial Effects on Regions and Local Economies**

3°C on average by the end of the century.[188] Climate impacts would expose the EU economy to an additional annual loss of at least €170 billion, or 1.36% of GDP, under global warming of 3°C.[189]

Despite these risks, Europe suffers from under-investment in climate resilience, particularly in vulnerable Southern European countries.[190] Indeed, a mere 2% from the proceeds of green bonds went into adaptation in 2017.[191] There is insufficient investment in nature-based solutions, such as afforestation and wetland restoration to tackle flooding and managed retreat in coastal areas to adapt to rising sea levels. In addition, agricultural subsidies are not aligned with climate and environmental goals,[192] adding further risks related to food supply chains and biodiversity loss.

Integrating climate resilience into wider EU recovery efforts

The COVID-19 pandemic has exposed the lack of resilience in our societies and the ways in which our economies function. In its recovery plan, the European Commission has recognised the need to recover better and build resilience.[193] However, it has not used the multi-faceted approach that is needed to build resilience against a range of challenges, including climate and environmental impacts.[194]

The Recovery and Resilience Facility, which will disburse a majority of funding, may contribute little to increasing climate resilience since it is currently absent from its assessment criteria.[195] Similarly, rescEU is restricted in its ability to improve climate resilience, contributing only to short term emergency response as opposed to long-term risk assessments.[196] Yet, Europe's ability to prevent

[188] IPCC (2018) **Global Warming of 1.5°C, Chapter 4, Strengthening and Implementing the Global Response**

[189] Ibid.

[190] Espon Climate (2011) **Climate Change and Territorial Effects on Regions and Local Economies**

[191] Climate Bonds Initiative (2018) **The Green Bond Market in Europe**

[192] European Commission (2019) **Evaluation of the impacts of the CAP on habitats, landscapes, biodiversity**; European Commission (2019) **Evaluation study of the impact of the CAP on climate change and greenhouse gas emissions**

[193] European Commission (2020) **Europe's moment: Repair and Prepare for the Next Generation**

[194] E3G (2020) **Why the EU Recovery Package won't prepare us for climate change – yet**

[195] European Commission (2020) **Proposal for a Regulation establishing a Recovery and Resilience Facility**

[196] European Commission (2017) **rescEU: A stronger collective European response to disasters**

future crises will require the integration of climate and environmental resilience as part of wider socio-economic resilience.

The Technical Expert Group responsible for developing the EU taxonomy has attempted to take a systemic view of the role of climate change adaptation and resilience across economic activities. This is a helpful first step towards wider recognition within European policy that the impacts of climate change will potentially affect all financial investments and present a systemic financial risk.[197]

The European Commission should encourage risk assessment and resilience stress tests for investment ('Think Resilience').

> The COVID-19 pandemic reinforces the need to build economic resilience into all investments. The EU should support all public and private investments to be resilient to climate and environmental risks.

> This could be achieved using stress tests to make climate and environmental resilience a baseline requirement for investments – a 'Think Resilience' principle. This principle should complement the sustainability proofing guidelines currently being developed to ensure that investments are not only sustainable but also resilient.

> Technical support should be provided so that investors have the rights tools and methodologies to conduct assessments of climate and environmental resilience.

Improving monitoring of systemic climate risks

Risks are rising because of the growing number of assets exposed to hazards, the growing interconnectedness of markets and societies in a digitalised economy, and the inadequacy of prevention measures.[198] The costs of disasters with potential cascading and global effects are a real threat to economic stability and the well-being of societies, thus augmenting the need for resilience measures to protect from future disasters.

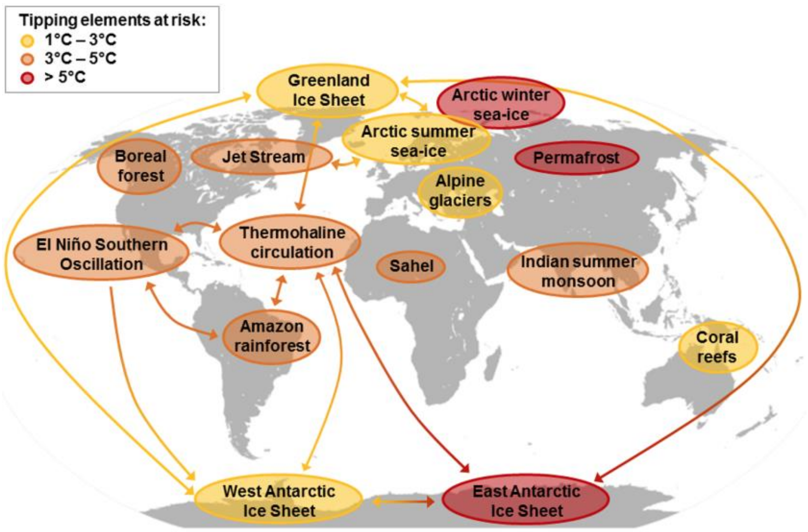
[197] UNDRR and E3G (2019) **Opportunities to integrate disaster reduction risk and climate resilience into sustainable finance**

[198] Ibid.

The material impacts of climate tipping points and second and third order effects could have significant repercussions. Non-linear responses to climate change could appear as “tipping elements” as shown in Figure 6.[199] Their precise occurrence is uncertain but the risks of breaching them, leading to irreversible climate change, increases as temperatures rise beyond 1.5°C. These could cause second and third order effects such as socio-economic, ecological, transnational and political changes, employment losses, food shocks, the spread of vector and waterborne infectious diseases, the loss of insects affecting ecosystem stability, migration flows, conflicts and failure to deal with climate instability.[200]

Most financial institutions lack climate-related physical risk models assessing the material impacts of climate tipping points and second and third order effects. At EU level, the European Environment Agency conducts reviews of climate vulnerabilities, but it does not account for second and third order effects. Climate-related physical risk models could assess the macro-economic impacts on existing infrastructure assets, services and users and inform public and private adaptation and resilience investments.

Figure 6. Global map of potential tipping points[201]



[199] Potsdam Institute for Climate Impact Research (2019) **Tipping Elements - the Achilles Heels of the Earth System**

[200] E3G (2019) **A New Resilience Agenda for Europe**

[201] Steffen et al. (2018) **Trajectories of the Earth System in the Anthropocene**

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The EU should establish an independent Climate Risk Observatory responsible for monitoring systemic risks and identifying resilience priorities through evidence-based analysis.

> The EU should support transparent and open-source co-development of models by the private and public sectors. These should be used to develop an independent Climate Risk Observatory to conduct more comprehensive monitoring and assessment on climate vulnerabilities and risks across EU sectors and supply chains, and to identify resilience investment priorities and appropriate policy responses.

> A Climate Risk Observatory could create sectoral roadmaps for the EU Long-Term Strategy on climate change which identify material risks together with second and third order impacts. These could also be used as a benchmark to inform and assess national and regional adaptation and resilience action plans.

Reducing the risk of capital flight from vulnerable sectors and communities

Climate impacts could exacerbate geographical disparities and social inequalities within Europe. Climate impacts will differ across different regions, the hotspots being in the South, around the agglomerations and tourist resorts at the coastline.[202] Rising insurance prices could also widen the protection gap between the insured and uninsured. On average, only 35% of climate-related economic losses are insured, with proportions as low as 5% or less in Southern and Eastern Europe.[203]

There is a significant protection gap in Europe, where assets are not properly insured against climate impacts. This is particularly alarming for the most exposed sectors, such as farming and fishing, for vulnerable assets, such as coastal properties, and for low income households.[204]

[202] Espon Climate (2011) **Climate Change and Territorial Effects on Regions and Local Economies**

[203] European Commission (2020) **Adaptation to Climate Change: Blueprint for a new, more ambitious EU strategy**

[204] E3G (2019) **A New Resilience Agenda for Europe**

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As climate-related disasters become more frequent and severe, insurance prices against their impacts are expected to increase. This means that more sectors will find it hard to insure their assets, leading to capital flight from those sectors exposed to physical climate risk, further widening the protection gap and depriving vulnerable communities from access to finance.[205] This could exacerbate geographical disparities and social inequalities within Europe.

The availability and affordability of disaster financial risk management tools differs widely across Europe. While the financial industry can play a leading role in managing the financial risk arising from adverse climate impacts by absorbing losses and promoting resilience, there are currently no public solutions to maintain and broaden risk transfer mechanisms.

The European Commission should raise awareness about climate physical risk and conduct assessments of vulnerable sectors and communities to address capital flight and financial exclusion.

> With climate impacts and climate disclosure both on the rise there is a need to prevent capital flight from the most vulnerable regions, especially in those Member States which are not ready to cope with the effects of climate change.

> A Climate Risk Observatory could be key in assessing the social and economic impacts of insurance coverage gaps and the risks of withdrawal of credit from vulnerable sectors and communities.

[205] UNDRR and E3G (2019) **Opportunities to integrate disaster reduction risk and climate resilience into sustainable finance**

The European Commission should develop a European public-private disaster risk pool to improve access to affordable and comprehensive climate risk insurance.

> The uneven distribution of physical climate impacts across Europe will be a cohesion challenge moving forward. Looking to the medium and longer-term, this can only be equitably addressed through a risk-sharing mechanism.

> The European Commission should develop a climate-related disaster risk pool by pooling risks and funds from private and public actors and insurance companies. This can provide a rapid and cost-effective protection against catastrophic events such as floods or fires, share the burden for disaster loss across European regions and transfer excessive risk to the reinsurance and capital markets.

> Work should start on this now in order to minimise future political tensions between or within Member States, and to equip the EU to show leadership and credibility on this issue in the international context.

Supporting Member States to produce improved climate resilience plans

Despite the growing threat of climate impacts, resilience efforts in Europe have so far been insufficient. The evaluation of the EU Strategy on Adaptation to Climate Change highlighted critical gaps,[206] evidencing the need to introduce reforms to the climate risk governance system in the EU. Even though there is a growing consensus that prevention is critical to reducing risks and provides large savings – every €1 invested in risk prevention saves €4 or more in disaster-response efforts[207] – the EU continues to rely on a reactive climate risk management approach rather than prevention.[208]

The fundamental problem is that institutions are not designed to deliver resilience across many sectors. In 2013, the EU launched an Adaptation Strategy to address climate risk prevention, encouraging Member States to develop

[206] European Commission (2018) **Evaluation of the EU Strategy on adaptation to climate change**

[207] European Commission (2020) **Funding opportunities for disaster risk management within EU cohesion policy**

[208] E3G (2019) **A New Resilience Agenda for Europe**

national adaptation plans. For Member States, ensuring that they have comprehensive national strategies for climate change adaptation and resilience could help develop project pipelines and attract investment.[209]

However, the presence of budgets for adaptation and mainstreaming across sectors such as agriculture, forestry, water, health and infrastructure and across policy instruments vary widely across countries.[210] Despite progress made in collecting information on climate vulnerability and impacts, there is a lack of data on investment needs across sectors – these range between €35 billion up to over €500 billion – and planned investments.[211]

There also remain shortcomings in the monitoring financial flows and assessment of their impact. Comprehensive monitoring of financial flows on climate change adaptation and resilience is lacking across all relevant sectors.[212] Moreover, there is no mechanism at the EU level to assess the impact of climate change adaptation and resilience initiatives in terms of vulnerability reduction.[213]

Amidst growing climate change impacts, resilience is becoming a bigger priority for the EU. Under the European Green Deal, the European Commission has committed to adopt a new, more ambitious EU Strategy on Adaptation to Climate Change.[214] The European Commission's Blueprint for the new EU Adaptation Strategy envisages improved knowledge of climate impacts, reinforce planning and climate risk management and accelerate action.[215]

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[209] UNDRR and E3G (2019) **Opportunities to integrate disaster reduction risk and climate resilience into sustainable finance**

[210] European Commission (2020) **Promoting and supporting action within the EU**: National adaptation strategies and action plans

[211] Trinomics (2017) **Assessing the state-of-play of climate finance tracking in Europe;** European Commission (2020) **Commission Staff Working Document: Identifying Europe's recovery needs**

[212] Trinomics (2017), **Assessing the state-of-play of climate finance tracking in Europe**

[213] European Court of Auditors (2020) **Tracking climate spending in the EU budget**; European Parliament Research Service (2019), **Mainstreaming of climate action in the EU budget;** European Court of Auditors (2017) **Landscape review: EU action on energy and climate change**

[214] European Commission (2019) **The European Green Deal**

[215] European Commission (2020) **Adaptation to Climate Change: Blueprint for a new, more ambitious EU strategy**

The European Commission should encourage Member States to adopt national and regional investment plans for systemic adaptation and resilience.

> Member States should be encouraged to develop action plans that stress test how their key economic sector, infrastructure and critical systems will withstand different global warming scenarios and identify short-to-medium term actions to reduce vulnerabilities through the support of the Climate Risk Observatory.

> The European Commission should unlock public and private capital by comprehensive engagement with Member States, regional and local authorities and public finance institutions on the formulation of investment plans for their adaptation and resilience action plans. These should make linkages with national budgets and capital-raising plans.

Increasing investment into projects that build resilience

Climate resilience remains under-explored by mainstream investors globally. Private sector finance for adaptation represents less than 1% of all climate-related finance.[216] Of green bonds more specifically, 5% were categorised as adaptation between 2010 and 2019.[217] The European Bank for Reconstruction and Development was the first financial institution to issue a climate resilience bond, worth $700 million, aligned with the Climate Resilience Principles issued in September 2019 by the Climate Bonds Initiative.

Sustainable finance is an important agenda for the implementation of climate adaptation and resilience. The Sustainable Finance Action Plan sought to develop several financial tools which will help increase investments in adaptation and resilience. The EU Green Bond Standard, which will be aligned with the EU taxonomy, will help to make it clear to investors how they can invest in adaptation and resilience. With InvestEU as the main instrument to leverage public and private investment, the Capital Markets Union and new measures under the Renewed Sustainable Finance Strategy, there is significant opportunity to increase investment into adaptation and resilience.

[216] IFC (2016b). **How Banks Can Seize Opportunities in Climate and Green Investment**

[217] Stockholm Environment Institute (2020) **Green Bonds: A Mechanism for Bridging the Adaptation Gap?**

Adaptation and resilience efforts can offer positive benefits but monetising the benefit of projects proves difficult. The Global Commission on Adaptation estimates that investing $1.8 trillion globally in five areas could unlock benefits worth $7.1 trillion from now until 2030.[218] However, there is a lack of hard evidence for monetising the benefits of resilience in absence of a clear cashflow stream.[219] The public and private sectors need to co-invest since the payback period is much longer than typical infrastructure investments.

In addition, the small size of adaptation activities means that they are not considered cost-efficient on their own. Green bond issuances can be made up of small-sized standardised financial assets pooled into larger sized asset-backed securities containing resilience elements. In addition, issuers can invest in a portfolio of projects, only some of which need to include resilience elements.[220]

In general, there is a lack of regional and local technical assistance and blended finance facilities focusing on resilience in Europe. The Coalition for Climate Resilient Investment, a private sector led initiative, was launched in September 2019. It will develop case studies to build the business case, analytical tools alongside a range of instruments such as a technology transfer programmes, technical assistance facilities and blended finance facilities.[221]

The European Commission and European Investment Bank should strategically engage with public finance institutions to support project development capacity for climate resilience.

> The European Commission and the European Investment Bank should assist regions and cities in planning and developing resilience projects through support for improved regional and city-level urban planning.

> The European Commission and the European Investment Bank should strategically engage with public finance institutions and municipalities to identify a viable business case for resilience, provide blended finance and ensure local presence, particularly in vulnerable Southern European countries.

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[218] Global Commission on Adaptation (2019) **Adapt now: A global call for leadership on climate resilience**

[219] Cambridge Institute for Sustainability Leadership (2018) **Financing climate adaptation: what's next?**

[220] Stockholm Environment Institute (2020) **Green Bonds: A Mechanism for Bridging the Adaptation Gap?**

[221] Willis Towers Watson (2019) **Private-sector led Coalition for Climate Resilient Investment brings together companies across the infrastructure investment value chain with assets totalling USD 5 trillion**

The European Commission should encourage public finance institutions to prioritise resilience and to take steps to de-risk resilience finance.

> De-risking investments in adaptation and resilience finance – notably through credit enhancement of resilience bonds – can enable public finance institutions to leverage increased amounts of private finance.

> The European Commission should encourage public finance institutions to set specific targets for higher levels of adaptation and resilience finance and back the issuance of resilience bonds, as well as setting expectations of their intermediaries that resilience will be prioritised.

6 – SYSTEMIC RISK

Overarching recommendations

> The European Commission should renew and link the mandates of the European Supervisory Agencies to enable a co-ordinated approach to climate-related financial risk.

> The European Commission should create a taxonomy of unsustainable economic activities and the European Central Bank should conduct climate stress testing at European level.

> The European Central Bank should green European monetary policy, and with the European Supervisory Authorities should ensure that banks and insurance firms are incentivised to manage climate risk, including through a risk-based differentiated capital requirement framework.

This year a health crisis cascaded to create systemic social, economic and financial impacts. Sustainability risks could create equally powerful impacts in the future and must be managed.

In 2020 we are seeing an economic crisis unfold around the world that has been driven by second and third order effects of an initial health crisis. The COVID-19 pandemic arose as a result of cross-infection from animals to humans, something that has become increasingly likely due to increased cross-species exposure as a result of biodiversity depletion and industrial scale animal farming.[222]

In recent years a consensus has emerged among financial regulators and central banks that climate change is a threat to financial stability both due to physical risks and transition risks.[223] Transition risks are associated with the uncertain financial impacts that could result from a rapid net-zero transition and are commonly understood as relating to stranded assets. Physical risks arise from

[222] CarbonBrief (2020) **Q&A: Could climate change and biodiversity loss raise the risk of pandemics?**
[223] NGFS (2018) **NGFS First Progress Report**

the interaction of climate-related hazards with the vulnerability of exposure to human and natural systems.[224] Further financial risk arises from the second and third order effects that may occur as a result of climate impacts.

Launching the finance agenda of the UN's COP26 climate summit, Mark Carney and Christine Lagarde urged companies, financial institutions and central banks to accelerate climate risk assessment and disclosure.[225] Pressure to change is not just coming from regulators and policymakers. An increasing number of investors and activists are also demanding change from financial institutions.[226]

Link the sustainability mandates of the European Supervisory Agencies

The European Green Deal Communication did not address the need for a joined-up approach to climate-related financial risk. However, the European Green Deal is only one of the two main ambitions relevant to the EU's economic agenda. The other is *An Economy that Works for People,* which relates to the Economic and Monetary Union, the Banking Union and the Capital Markets Union.[227] These address the governance of financial services and focus on the integration of EU economies, development of capital markets and the supervision of banks. It is important that management of systemic climate-related financial risk does not fall between the cracks of these two policy frameworks.

The European Supervisory Agencies have recently created action plans on sustainable finance [228] but responsibilities are split between them, and there is no common strategy or formal co-ordination process for addressing climate risk (an example of such a coordination process is the cross-regulator taskforce on climate risk disclosures[229] that was created in the United Kingdom in 2019). However, the European Central Bank, European Banking Authority and European Insurance and Occupational Pensions Authority are all members of the international Central Banks and Financial Supervisors' Network for Greening the Financial System.

[224] Bank for International Settlements and Banque de France (2020) **The Green Swan: Central banking and financial stability in the age of climate change**

[225] Financial Times (2020) **Carney and Lagarde press for business action on climate change**

[226] Financial Times (2020) **Energy's stranded assets are a cause of financial stability concern**

[227] European Commission (2020) **Adjusted Work Programme 2020**

[228] ESMA (2020) Strategy on Sustainable Finance; EBA (2020) **EBA Action plan on sustainable finance**; EIOPA (2020) **Sustainable finance**

[229] UK financial regulators (2019) **Joint Statement on Climate Change**

The Agencies are already working together on issues related to sustainability, e.g. in publishing the Joint Consultation Paper on ESG disclosures Standards for Financial Market Participants in April 2020.[230] This paper sets out proposed disclosure metrics for financial firms which should ideally be aligned with the taxonomy (see recommendation in Chapter 2). In order to add this level of oversight to existing supervisory responsibilities it is likely that the European Supervisory Agencies will require new budgets and resources in order to build the required internal skills and capability.

In January 2020 the Bank for International Settlements and the Banque de France called for five Cs to address financial stability risk – contribute to coordination to combat climate change – in other words, increased coordination among central banks, regulators and supervisors as well as other players such as government, the private sector and civil society.[231]

The European Commission should renew and link the mandates of the European Supervisory Agencies, enabling financial regulators and supervisors at EU and national levels to prioritise sustainable finance.

> The European Supervisory Agencies should play a stronger and more urgent role in identifying and reporting on the risks that sustainability factors pose to financial stability and the need to address environmental harmful investments.

> In order to facilitate increased action around sustainability by the European Supervisory agencies their budgets and resources should be appropriately strengthened, so that they are able to develop the skills and capability required for their new responsibilities.

> The Joint Committee and the European Systemic Risk Board could develop a common EU methodology for environmental scenario analysis, which could later evolve into climate and environment stress testing.

[230] European Banking Authority (2020), **Joint Consultation Paper on ESG Disclosures by Financial Markets Participants**

[231] Bank for International Settlements and Banque de France (2020) **The Green Swan: Central banking and financial stability in the age of climate change**

> The European Commission should ensure that both its agendas related to economic development including the European Green Deal and An Economy that Works for People are used to advance sustainable finance.

Identifying unsustainable economic activities and avoiding stranded assets

The first aim of the Sustainable Finance Action Plan was to re-orient capital flows towards sustainable investment, but so far there have not been any European policy measures with a specific goal to move finance out of unsustainable investments.[232] This is the case despite the European Systemic Risk Board indicating in 2016 that reducing carbon emissions requires economies to reduce their carbon intensity, which "implies a shift away from fossil-fuel energy and related physical capital".[233]

Info: Climate-related financial risks related to stranded assets

The transition to climate neutrality creates a risk of stranded assets. These are fossil fuel assets that are no longer profitable due to policy changes, reputational impacts, technological breakthroughs and shifts in market preferences and social norms. This can lead to unanticipated asset write-downs, devaluations or conversion to liabilities.

Globally, current policies are on a path to 2.8 to 3.2°C of warming[234] while the majority of equity and bond indices (e.g. S&P 500, MSCI World) are on a 5°C warming path.[235]Companies with stranded assets could face large losses, triggering financial instability across the financial system – from the banks that lend to them, the insurers that underwrite them and the asset

[232] European Commission (2018) **Action Plan: Financing Sustainable Growth**

[233] European Systemic Risk Board (2016) **Too late, too sudden: Transition to a low-carbon economy and systemic risk**

[234] Climate Action Tracker (2020) **Temperatures**

[235] WWF (2018) **European Asset Owners: Climate Alignment of Public Equity and Corporate Bond Portfolios;** Mirova (2019) **Estimating Portfolio Coherence with Climate Scenarios**

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managers that invest in them.[236] Estimates of the value and scope of stranded assets vary depending on the models and assumptions used. Carbon Tracker estimated the amount at $1.6 trillion and IRENA at $18 trillion.[237]

Coal is at high risk of stranded assets since 81% of European coal-fired power generation is already uncompetitive compared to new renewables and storage, while 100% will be uncompetitive in 2025.[238] Countries in Western Europe are implementing coal phase-outs and power utilities are taking steps to decommission these uncompetitive assets. However, several Central and Eastern European countries are planning to keep coal in their energy mix, locking consumers into high electricity prices and exposing state owned utilities and tax payers to the cost of stranded assets.[239] The eight most coal-exposed financial institutions provided financing of €14.8 billion to European coal corporations from November 2018 to December 2019.[240]

There is a growing consensus that unabated oil and gas use is not compatible with the Paris Agreement.[241] Stranded assets in the oil and gas sector are already taking form. Oil and gas company BP had an asset write-down of up to 17.5 billion in June 2020 due to COVID-19 and the shift away from fossil fuels.[242] Since then, BP has elaborated a strategy to become net-zero by 2050 and cut oil and gas production by at least 40% by 2030.[243] Some Western European countries have started debates about the future of oil and gas.[244]

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[236] Financial Times (2020) **Energy's stranded assets are a cause of financial stability concern**

[237] Carbon Tracker (2020) **Mind The Gap: the $1.6 trillion energy transition risk** and IRENA (2017) **Stranded assets and renewables: How the energy transition affects the value of energy reserves, buildings and capital stock**

[238] Rocky Mountain Institute, Sierra Club and Carbon Tracker (2020) **How to Retire Early: Making Accelerated Coal Phaseout Feasible and Just**

[239] E3G (2020) **The Just Transition Fund: 4 Benchmarks for Success**

[240] Europe Beyond Coal Campaign (2020) **Fool's gold: The financial institutions risking our renewable energy future with coal**

[241] E3G (2020) **Financial risks for gas investments in Europe**

[242] Forbes (2020) **BP's Big Writedown: A Harbinger For A Declining Industry Or Of A Struggling Company?**

[243] BP (2020) **From International Oil Company to Integrated Energy Company: BP sets out strategy for decade of delivery towards net zero ambition**

[244] E3G (2020) **The Just Transition Fund: 4 Benchmarks for Success**

The Network of Central Banks and Supervisors for Greening the Financial System has identified an unsustainable taxonomy as an important step to identifying the assets that will be impacted by the Paris Agreement.[245] The European Central Bank has voiced support for the development of an 'unsustainable' taxonomy from a prudential perspective.[246]

The Consultation for the Renewed Sustainable Finance Strategy raised the possibility that the European Commission could make moves towards developing an 'unsustainable' taxonomy and a 'transition' taxonomy. The lack of a science-based definition of sustainable economic activities has led to substantial greenwashing and has slowed down efforts to increase sustainable investment. It is now time to take steps to address this gap by creating a taxonomy of unsustainable activities.

The existing taxonomy of sustainable activities[247] should facilitate efforts to increase sustainable investment based on objective assessment in line with science. However, at this point there is still a risk that the thresholds defining which gas projects fall within the scope of the taxonomy could be amended. This would pose a risk of stranded assets, since gas investments are not aligned with a 1.5°C trajectory. It is important that the assessment methodology remains objective and aligned with the Paris Agreement.

Investment into climate transition is urgently needed. It is not clear whether a new taxonomy is needed or whether Europe should first seek to work with other jurisdictions which have already been carrying out related work, e.g. Japan and Canada, through the International Platform on Sustainable Finance. The underlying principles for work to define transition finance should be: i) objectivity and science-based assessment, ii) alignment with the Paris Agreement including alignment of transition activities with sectoral pathways to climate neutrality by 2050.

[245] NGFS (2019) **A call for action: Climate change as a source of financial risk**

[246] European Central Bank (2020) **Eurosystem reply to the European Commission's public consultations on the Renewed Sustainable Finance Strategy and the revision of the NonFinancial Reporting Directive**

[247] European Parliament and Council of the EU (2020) **Taxonomy Regulation**

The European Commission should broaden the taxonomy's scope in 2022 to include unsustainable activities

> The European Commission should take steps to create a taxonomy of unsustainable economic activities in 2022 with a view to complete by the end of the year, following review of the Taxonomy Regulation. These activities should be identified based on objective science-based assessment and in light of the Paris Agreement.

> The Taxonomy Delegated Acts should ensure that the taxonomy remains science-based and that it is not affected by political considerations that could result in stranded asset risk.

> The European Commission should seek to work with other jurisdictions to define transition activities, while maintaining the principles of i) objectivity and science-based assessment, ii) alignment with the Paris Agreement including alignment of transition activities with sectoral pathways to climate neutrality by 2050.

Integrating sustainability in credit ratings

Credit rating agencies influence the sustainability and stability of the financial system through their services, which means that the suitability of their assessment methodologies is of vital importance.[248] Research done by the European Securities and Markets Authority indicates that there is a lack of consistency in the extent to which Environmental, Social and Governance factors are considered within credit ratings across asset classes.[249] The research also indicates that there is an insufficient level of transparency about methodologies used.[250]

Credit rating agencies are becoming increasingly active in looking at climate change impacts and their fiscal and economic consequences.[251] While short-term impacts on credit from climate change are minimal, research indicates that rating agencies are starting to assess sustainability risks over longer time horizons. For example, 717 corporates had a credit rating downgrade attributed

[248] HLEG (2018) **Final Report 2018 by the High-Level Expert Group on Sustainable Finance**
[249] ESMA (2019) **ESMA advises on credit rating sustainability issues and sets disclosure requirements**
[250] ESMA (2019) **ESMA advises on credit rating sustainability issues and sets disclosure requirements**
[251] Inside Climate News (2019) **Climate Change Becomes an Issue for Ratings Agencies**

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to long-term climate and environmental factors by S&P Global Ratings between mid-2015 and mid-2017.[252]

In the Sustainable Finance Action Plan the European Commission proposed to explore amending the Credit Rating Agency Regulation to mandate credit rating agencies to integrate sustainability factors into their assessments. The Credit Rating Agency Regulation requires credit rating agencies to consider all factors that are material for the probability of default of the issuer or financial instrument when issuing or changing a credit rating or rating outlook.[253]

The European Securities and Markets Authority adopted guidelines on disclosure requirements for credit ratings and rating outlooks which will become applicable as of April 2020, and proposed that the European Commission assesses whether there are sufficient regulatory safeguards in place for other products that will meet the demand for pure sustainability assessments.[254] According to the guidelines, credit rating agencies should disclose cases where Environmental, Social or Governance factors are key drivers behind a change to a credit rating or rating outlook.

The European Commission should require credit rating agencies to integrate sustainability risks into their assessments.

> The EU should revise the Credit Rating Agency Regulation in 2021 to require that credit rating agencies integrate sustainability risks, including and second and third order impacts, into their assessments and disclose their methodologies for doing so.

> Credit rating agencies should conduct Environment, Social and Governance risk assessments using forward-looking scenarios and stress testing and should where possible use longer time horizons (e.g. 10 years or more), during which these risks are more likely to materialise.

[252] S&P Global (2017) **How Environmental And Climate Risks And Opportunities Factor Into Global Corporate Ratings**

[253] European Parliament and the Council (2009) **Credit Rating Agency Regulation**

[254] ESMA (2019) **Final Report: Guidelines on Disclosure Requirements Applicable to Credit Ratings**

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Integrating sustainability into monetary policy

In light of the COVID-19 pandemic, the European Central Bank signalled that it was 'ready to do whatever it takes' and unveiled packages of a total €1.1 trillion of quantitative easing to stimulate the eurozone economy.[255] These measures were aimed at ensuring that all sectors of the economy could benefit from supportive financing conditions that enable them to absorb the COVID-19 shock. Between mid-March and mid-May 2020, the European Central Bank purchased corporate bonds worth €30 billion, from which €7.6 billion went into fossil fuels.[256] At the same time, the Bank has calculated that it is currently holding around 20% of the eligible green corporate bond universe.[257]

So far, the European Central Bank has not communicated a policy to avoid supporting high carbon industries whereas there have been discussions on only targeting viable businesses, which would include many in high carbon sectors. The widely supported 'market neutrality' principle means implicit support for fossil fuel sectors, but even conservative central banks are starting to recognise that monetary policy must play a role in the fight against climate change.[258]

The Bank is in the process of reviewing its monetary policy strategy, and has extended the review from the end of 2020 to mid-2021.[259] The review presents an opportunity to assess whether the European Central Bank should be more proactive in greening its asset purchases, or in adjusting the conditions of its refinancing operations, including the collateral framework, to take risks related to climate change into consideration. [260]

[255] European Central Bank (2020) **Improving funding conditions for the real economy during the COVID-19 crisis: the ECB's collateral easing measures**

[256] Greenpeace (2020) **ECB injects over €7 billion into fossil fuels since start of COVID-19 crisis**

[257] European Central Bank (2020) **Never waste a crisis: COVID-19, climate change and monetary policy**

[258] Deutsche Bundesbank (2020) **Monetary policy must play a role in the climate fight**

[259] European Central Bank (2020) **ECB extends review of its monetary policy strategy until mid-2021**

[260] European Central Bank (2020) **Never waste a crisis: COVID-19, climate change and monetary policy**

Address sustainability risks in monetary policy, including supporting the European Central Bank to green its asset purchases

> The European Central Bank should align its asset purchasing programmes and collateral frameworks with the Paris Agreement to support the low carbon transition and should publicly disclose the alignment of its operations.

> The European Central Bank should guarantee that as part of crisis response measures it will keep purchasing bonds issued by the European Investment Bank and national and regional public banks to a certain volume, in order to support redistribution of capital to the East and South of Europe and in order to ramp up investment in a net-zero and resilient economy.

> The European Central Bank should align refinancing operations to the banking sector with the Paris Agreement to encourage more sustainable bank lending.

Stress-testing Europe's economy against climate-related financial risk

The European Central Bank is an active member of the Network of Central Banks and Supervisors for Greening the Financial System, which published a report in June 2020 in which it recommends that central banks assess the implications of climate change for risk management as climate-related shocks may affect the riskiness of their financial portfolios and market operations.[261]

[261] Network for Greening the Financial System (2020) **Climate Change and Monetary Policy**

Info: Climate stress testing progress within European Member States

Central banks and supervisors have a duty to take action to prevent systemic risks from arising. The main risk management approach currently being promoted to integrate climate change risks in the financial sector is the use of scenario analysis and stress testing.[262]

Central bank stress testing methodologies are now being adapted to incorporate climate risk scenarios. Climate stress tests on the Dutch financial system carried out by De Nederlandsche Bank in 2019 indicated significant exposure to transition risks, with losses on portfolio values declining by 1% to 3% for banks, 2% to 11% for insurance companies, and 3% to 10% for pension funds. [263] However, the second and third order effects due to physical risks have not yet been quantified.[264] A subsequent study revealed that the Dutch financial system is also exposed to environmental and social risks such as water stress, biodiversity loss, resource scarcity and human rights controversies.[265]

Apart from the Dutch central bank, financial regulators and central banks from England, France, Denmark and the EU have also announced plans to incorporate climate change into scenario analyses and stress tests.[266] France's financial regulator, the Autorité de Contrôle Prudentiel et de Résolution, will publish the results of its first climate stress test in April 2021, while the Bank of England is working on a climate stress testing process, although this is postponed due to the COVID-19 pandemic.[267] The European Banking Authority has launched a voluntary stress test focusing on transition risks[268] together with other actions under its Action Plan on Sustainable Finance.[269]

[262] UCL Institute for Innovation and Public Purpose (2019) **Climate-related financial policy in a world of radical uncertainty: Towards a precautionary approach**

[263] De Nederlandsche Bank (2019 **The Heat is on: A framework measuring financial stress under disruptive energy transition scenarios**

[264] International Monetary Fund (2019) **Stress-Testing for the Transition to a Low-Carbon Economy**

[265] De Nederlandsche Bank (2019) **Values at risk? Sustainability risks and goals in the Dutch financial sector**

[266] Bank of England (2019) **The 2021 biennial exploratory scenario on the financial risks from climate change**; Banque de France (2020) **Présentation des hypothèses provisoires pour l'exercice pilote climatique**; Danmarks Nationalbank (2019) **Climate change can have a spillover effect on financial stability**; European Systemic Risk Board (2020) **Positively green: Measuring climate change risks to financial stability**

[267] S&P Global (2020) **Stress tests promise greater clarity around European banks' climate risk**

[268] European Banking Authority (2020) **EBA launches 2020 EU-wide stress test exercise**

[269] European Banking Authority (2019) **EBA pushes for early action on sustainable finance**

For the second year in a row, the European Central Bank has identified climate-related risks as a key risk driver for the euro area banking system.[270] The European Central Bank committed to conducting a climate stress test by 2022 and is in the process of creating a guide on the management and disclosure of climate-related and environmental risk.[271]

The European Central Bank should set the European standard for whole-economy stress-testing against scenarios for climate-related financial risk

> The European Central Bank should build on the best practice that is already emerging from leading Member States when publishing its stress test of the European economy, in order to support risk management by all European Member States.

> The Bank's stress testing methodology should also build on and inform best practice within the Central Banks and Financial Supervisors' Network for Greening the Financial System.

Integrating sustainability into prudential requirements

Climate scenario analysis and stress testing is far from being normal practice in the financial sector. Only 7% of financial institutions conduct 1.5°C-compatible scenario analyses.[272] A mere 12.6% of financial institutions calculate the amount of carbon-related assets in their portfolio and just 2.4% report on the alignment of portfolios against 1.5°C-compatible trajectories, despite these indicators being suggested in the European Commission Guidelines on Reporting on Climate-Related Information.[273] In addition, disclosure practices do not provide sufficient transparency on financial impact models and the underlying asset-level data.[274]

The 2008 financial crisis demonstrated the reliance of the EU economy on bank lending. The banking sector is the largest provider of finance to the real economy

[270] European Central Bank (2020) **Guide on climate-related and environmental risks**

[271] Ibid.

[272] Alliance for Corporate Transparency (2019) **2019 Research Report**

[273] Ibid.

[274] European Securities and Markets Authority (2020) **ESMA Report on Trends, Risks and Vulnerabilities**

and its stability is of utmost importance to maintain economic stability.[275] But European banks continue to finance activities that contribute to climate change and environmental breakdown, and do not adequately disclose the related risks.

In Europe, only two out of the largest 17 banks had committed to a larger amount of sustainable investment per year than the fossil fuel finance provided as of July 2019.[276] Among the 12 largest banks and 14 largest insurers in Europe, only five partially disclose the impact of their financial portfolios, and none provide full disclosure.[277] In addition, many banks continue to take a short-term or superficial approach to climate change.[278] Most of the current approaches to climate risk management by banks remain voluntary, but 17 banks globally are piloting the 2° Investing Initiative's climate scenario analysis methodology.[279]

There is an opportunity to use macroprudential policy to redesign bank capital rules to encourage a more rapid shift away from fossil fuels.[280] This could be done either by reducing regulatory capital risk weightings on sustainable finance or raising it on unsustainable finance. Experts have advised that policies to penalise carbon-intensive assets are more effective than policies to support green assets.[281] A green supporting factor would risk weakening the banking system and undermine the efficacy of sustainable finance efforts.

Following the 2008 financial crisis, the banking sector has been going through a reform process under the Basel III framework to increase its financial stability and resilience.[282] The EU also developed several macro-prudential instruments for the banking sector aiming to address systemic risk in the financial system. Notably, the Capital Requirement Directive and Regulation review (CRD V/CRR II) proposed a mandate for the European Banking Authority to assess whether a dedicated prudential treatment of exposures related to assets or activities

[275] European Investment Bank (2020) **Investment Report 2019/2020**

[276] World Resources Institute (2019) **How Are Banks Doing on Sustainable Finance Commitments? Not Good Enough**

[277] European Central Bank (2019) **Financial Stability Review**

[278] University of Cambridge Institute for Sustainability Leadership (2020) **Bank 2030: Accelerating the transition to a low carbon economy**

[279] 2° Investing Initiative (2019) **17 international banks now piloting the 2° Investing Initiative's flagship climate scenario analysis methodology**

[280] New Economics (2020) **The ECB and climate change: outlining a vision for success**

[281] Finance Watch (2018) **A green supporting factor would weaken banks and do little for the environment;** Bruegel (2018) **Climate change adds to risk for banks, but EU lending proposals will do more harm than good;** New Economics (2020) **The ECB and climate change: outlining a vision for success;**

[282] Basel Committee on Banking Supervision (2017) **High-level summary of Basel III reforms**

associated substantially with sustainability objectives would be justified.[283] The European Banking Authority plans to publish a report on the prudential treatments of assets from a sustainability perspective in June 2025, indicating that changes to prudential requirements may not be implemented until after 2025.

The regulation review also proposed a mandate for the European Banking Authority to assess and possibly issue guidelines regarding the inclusion of ESG risks in the Supervisory Review and Evaluation Process, and a requirement for large, listed institutions to disclose Environment, Social and Governance risks. The European Banking Authority plans to launch a report on incorporating these risks into risk management and supervision by June 2021[284] although actions may not be implemented until 2024.

Action is also underway by the European insurance supervisor. According to a stress test run by EIOPA in 2019, only about 30% of Institutions for Occupational Retirement Provision have a strategy in place to manage Environment, Social and Governance risks to their investments, while 19% assess the impact of sustainability factors on investment risks and returns.[285]

The Solvency II Directive sets out the prudential framework for insurance companies.[286] In February 2019, the European Commission requested technical advice from the European Insurance and Occupation Pensions Authority on the integration of sustainability risks and sustainability factors in Solvency II.[287] The European Commission also mandated the European Insurance and Occupation Pensions Authority to investigate whether there is undue volatility of their solvency position that may impede long-term investments, as part of the 2020 Review of Solvency II.[288]

In September 2019, the European Insurance and Occupation Pensions Authority provided an opinion on sustainability within Solvency II.[289] It identified

[283] European Commission (2020) **Prudential requirements**

[284] European Banking Authority (2019) **EBA pushes for early action on sustainable finance**

[285] EIOPA (2019) **EIOPA publishes the results of the 2019 Occupational Pensions Stress Test**

[286] European Parliament, Council of the European Union (2009) **Solvency II Directive**

[287] EIOPA (2019) **Technical advice on the integration of sustainability risks and factors in Solvency II and the Insurance Distribution Directive**

[288] European Commission (2019) **Formal request to EIOPA for technical advice on the review of the Solvency II Directive**

[289] EIOPA (2019) **Opinion on Sustainability within Solvency II**

additional practices that should be adopted by insurance companies to ensure that sustainability risks are duly considered in companies' risk management. The European Commission will publish a report with analysis and clarifications of insurers' obligations as part potential Solvency II legislative changes, building on advice from European Insurance and Occupation Pensions Authority which has been delayed to December 2020 in light of COVID-19.[290]

The European Commission should support EBA, EIOPA and the ECB to take forward strong actions on financial supervision of climate-related financial risk

> The European Commission should work with the European Banking Authority to bring forward into 2021 its report planned for June 2025 on 'Prudential Treatment of exposures related to environmental and/or social objectives'.

> The European Commission should cooperate with the European Banking Authority, the European Insurance and Occupational Pensions Authority, the European Central Bank and the European Systemic Risk Board to develop risk-based differentiated capital requirement frameworks that are based on a long-term risk horizon and a higher capital requirement for carbon-intensive assets.

> The European Commission should work with the European Supervisory Authorities to make climate stress-testing for providers of credit and insurance mandatory, including bottom-up and top-down scenario analysis. In addition to stress-testing transition and physical risks at portfolio level, stress testing the resilience of most-exposed physical assets should be required. The forthcoming implementation of Basel III should be used to integrate sustainability risk management across bank supervision and appropriate reforms should also be made under Solvency II.

[290] EIOPA (2020) **EIOPA revises its timetable for advice on Solvency II Review until end December 2020**

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7 – INFRASTRUCTURE

Overarching recommendations

> The European Commission should support national capital raising plans for infrastructure by creating a European Panel on Climate Change responsible for advising Member States on infrastructure investments that are based on the least cost pathway to a net-zero economy.

> The European Commission and European Investment Bank should strategically engage with a network of public finance institutions to improve infrastructure project development capacity at regional and local level.

> Public finance institutions should support the creation of green infrastructure bonds in underserved regions and sectors.

In the next few years Europe must fund the sustainable infrastructure that it will need mid-century.

The stock of infrastructure of an economy is an essential driver of prosperity, providing access to services and jobs, and increasing quality of life. [291] Infrastructure financing decisions will also be essential to meeting Europe's environmental and sustainability goals.

In Europe, from 2009 to 2015, there was a 15% decline in infrastructure investment as a share of GDP. Central and Eastern Europe and Southern Europe are the regions with the largest reduction in infrastructure investment as a share of GDP,[292] which reinforces existing investment gaps and limits economic and social convergence in Europe.

[291] New Climate Economy (2016) **The Sustainable Infrastructure Imperative**

[292] European Investment Bank (2020) **Investment Report 2019/2020**

Since the onset of the COVID-19 pandemic in early 2020, investment in infrastructure has stalled.[293] Yet infrastructure investment will play an important role in the economic recovery[294] and given its capital-intensive nature this will require sustained long-term investment to ensure sufficient quality and quantity. Countries have announced unprecedented support for sustainable infrastructure in their recovery plans, providing an opportunity to accelerate the quantity and quality of infrastructure spending.[295]

New infrastructure must be aligned with the goal of achieving net zero greenhouse gas emissions by 2050.[296] The European Commission is set to propose a higher 2030 climate target later this year to meet the 2050 target, and to support international efforts to achieve that target.[297] But the EU is not on track to meet its existing decarbonisation targets for 2030 and 2050 [298] and Member States continue to finance carbon-intensive infrastructure, directing financial resources to projects which could increase the risk of stranded assets and increase the overall cost of decarbonisation.[299] Due to the long lifespans of infrastructure assets, the infrastructure being built now must be shifted to net-zero systems to achieve the climate targets in a cost-effective way.

Europe invested €158 billion, or 1.2% of GDP, in climate change mitigation in 2018, which is almost as much as the US (1.3%) but three times less than China (3.3%).[300] This level of investment was lower than in previous years and remains far from what is required to meet the 2030 climate targets. The additional investment requirement for the climate transition stands at over €340 billion per year to meet the current 2030 climate and energy targets and transport infrastructure. [301] Addressing this gap will require significant investment in both physical infrastructure such as energy, buildings and transport, and natural infrastructure such as forests, wetlands and corridors.

[293] The Guardian (2020) **Energy storage boom stalls in Europe**

[294] EY (2020) **Repairing the damage from COVID-19: How infrastructure spending can help economies return to full strength**

[295] Carbon Brief (2020) **The world's 'green recovery' plans to cut emissions after coronavirus**

[296] European Commission (2019) **The European Green Deal**

[297] European Council (2020) **European Council conclusions, 17-21 July 2020**

[298] Euractiv (2020) **EU way off the mark on energy savings goal, latest figures show**

[299] European Commission (2019) **EU's new list of energy projects includes 32 gas facilities**

[300] European Investment Bank (2020) **Investment Report 2019/2020**

[301] European Commission (2020) **Commission Staff Working Document – Europe's moment: Repair and Prepare for the Next Generation**

Sustainable infrastructure projects can be perceived as risky with a higher financing cost. Investors require projects to be above a certain size threshold yet decentralised solutions such as electric vehicle charging points and heat pumps, which constitute the majority of investment needs, are small and illiquid, and have an unattractive risk-return profile and high transaction costs.[302]

The European Commission's approach to mobilising investments into sustainable infrastructure has been to leverage private investment alongside public funds. As the main instrument for this, InvestEU has significant potential to lead investment towards climate neutrality by 2050.[303] InvestEU is a single investment fund integrating 14 financial instruments and building on the European Fund for Strategic Investments.[304]

InvestEU financing can be blended with other EU grants targeting investment, such as the Connecting Europe Facility which is the main EU fund responsible for infrastructure investments in the transport, energy and digital sectors, the LIFE programme, and the Smart Finance for Smart Buildings initiative. These can be combined at the project or financial instrument level to achieve coordination, synergies and complementarity and to leverage other sources of public and private finance.

The European Investment Bank will act as the main implementing partner under InvestEU with 75% of the guarantee, while other public finance institutions which can access low cost debt and offer finance to financial intermediaries such as commercial banks, institutional investors, infrastructure funds and private equity funds will have access to the remaining 25%.

Improving national planning for sustainable infrastructure

The European Green Deal Communication recognises the decarbonisation of the economy as a challenge spanning across sectors including energy, buildings,

[302] United Europe and Roland Berger (2015) **Squaring the circle - Improving European infrastructure financing**

[303] European Commission (2018) **InvestEU Programme Regulation**

[304] European Investment Fund (2020) **European Fund for Strategic Investments (EFSI): Boosting jobs and growth**; European Investment Bank (2018) **Evaluation of the European Fund for Strategic Investments**

transport, industry and agriculture and land use.[305] Public investment to support the transition will require comprehensive and detailed medium-term planning.[306]

In Europe, the National Energy and Climate Plans under the Energy Union Governance Regulation are the primary framework through which countries plan their climate mitigation infrastructure and policies at EU level.[307] However, assessments of the National Energy and Climate Plans have found that they are of poor quality and are not consistent with Europe's 2050 climate neutrality target.[308] Member States were asked to develop national long-term strategies by January 2020 to ensure consistency with the 10-year National Energy and Climate Plans, but to date not all countries have submitted their long-term strategies.[309]

There are discrepancies in the extent to which different sectors are addressed in the National Energy and Climate Plans. Some types of investments, such as energy efficiency and low carbon heating and cooling, are not seen as a pressing issue by some Member States. For example, there are currently no mass deployment programmes to deliver building retrofits. Member States are required to align their sectoral plans such as their long-term renovation strategies and Common Agricultural Policy Strategic Plans with the content of the National Energy and Climate Plan, but countries are behind on the adoption of sectoral decarbonisation plans in some sectors. For example, to date only five countries have submitted a long-term renovation strategy.[310]

At the national level, there is a lack of long-term stable regulatory environment defining incentives and usage policy over time, which demotivates project promoters.[311] Also, some decarbonisation technologies are highly integrated across sectors and some Member States lack regulation for an integrated planning approach across departments and levels of government.[312] For example, even where governments have committed to support electric vehicles, this has not provided enough certainty over deployment and in some cases the

[305] European Commission (2019) **The European Green Deal**

[306] European Investment Bank (2020) **Investment Report 2019/2020**

[307] European Commission (2020) **National energy and climate plans (NECPs)**

[308] CAN Europe (2020) **Pave the way for increased climate ambition: Opportunities and gaps in the final National Energy and Climate Plans**

[309] European Commission (2020) **Long-term strategies**

[310] Euractiv (2020) **EU countries dragging their feet on building renovation plans**

[311] E3G (2019) **Making deep decarbonisation of the energy system reality**

[312] E3G (2019) **Making deep decarbonisation of the energy system reality**

regulatory structures are not in place to drive a whole systems approach. Electric vehicle charging infrastructure is pursued at the local level and yet requires to be part of national transport planning efforts.

Info: Sectoral decarbonisation investment needs

Buildings produce 36% of greenhouse gas emissions in Europe.[313] Almost 75% of the building stock is energy inefficient and yet only 1% of the building stock is renovated each year.[314] Despite the EU's commitment to the "energy efficiency first principle", buildings-related investments in energy efficiency and low carbon heating and cooling face the largest annual investment gap.[315]

Transport is responsible for about 27% of the EU's total greenhouse gas emissions, [316] and it is the only sector whose emissions are growing.[317] Road transport accounts for over 80% of emissions,[318] with high polluting vehicles being resold in Eastern Europe causing significant local air pollution problems. Europe needs a fifteen-fold increase in electric vehicle charging points by 2030 to meet climate targets.[319]

Power generation is the largest emitting sector in Europe and plays a crucial role in decarbonising energy use across transport, industry and buildings.[320] Renewable energy investments are needed, particularly in distributed power generation and power system flexibility.

Energy-intensive industries such as steel, cement and chemicals account for 17% of EU emissions, and represent some of the most challenging areas to abate.[321] Significant large-scale industrial investments and regeneration are

313 European Commission (2019) **Energy performance of buildings directive**

314 Ibid

315 European Commission (2019) **United in delivering the Energy Union and Climate Action - Setting the foundations for a successful clean energy transition**

316 European Environment Agency (2019) **Greenhouse gas emissions from transport in Europe**

317 European Parliament (2019) **Emissions from planes and ships: facts and figures**

318 European Environment Agency (2018) **Greenhouse gas emissions from transport in Europe**

319 Euractiv (2020) **Massive rise in EV charging points needed to reach EU climate goals, analysis finds**

320 European Environment Agency (2020) **CO2 Intensity of Electricity Generation**

321 E3G (2020) **Fostering Climate-Neutral, Energy-Intensive Industries in Europe**

needed in carbon-intensive regions. Many of these industrial production plants are in Central and Eastern Europe.[322]

Agriculture contributes to 10% of greenhouse gas emissions from the EU and nearly 70% of those emissions come from the animal sector.[323] Nature-based solutions are vital in the fight against climate change,[324] but currently constitute a small proportion of climate investments.[325]

In order to generate project pipelines that meet national investment needs, National Energy and Climate Plans must identify those needs across different sectors. Currently this is not happening in a consistent or sufficient way.[326] A comprehensive assessment of the scale and type of funding needed will a necessary step to attract the level of capital required to meet all of Europe's needs.[327]

[322] E3G (2020) **Funding the Just Transition to a Net Zero Economy in Europe**

[323] European Commission (2020) **Farm to Fork Strategy**

[324] European Commission (2020) **EU Biodiversity Strategy for 2030**

[325] European Investment Bank (2020) **Investment Report 2019/2020**

[326] European Commission (2019) **United in delivering the Energy Union and Climate Action - Setting the foundations for a successful clean energy transition**

[327] Orozco, D. (2019) **Designing net zero and resilient economies**

The European Commission should support Member States in adopting capital raising plans to mobilise the financial resources needed for sustainable infrastructure.

> Member States should be mandated under the National Energy and Climate Plan framework to develop plans for decarbonising all sectors of the economy in line with the 2050 climate neutrality target.

> National Energy and Climate Plans should include practical and achievable time-bound sectoral deployment targets and assessment of investment needs. They should also include capital raising plans that set out policies, regulatory reforms and financial instruments needed to unlock private investment.

> National Energy and Climate Plans should be driven by dedicated national delivery agencies which can manage cross-departmental coordination between the energy system and other sectors, working in partnership with local governments.

> The European Commission should provide guidance to Member States on the development of capital raising plans across all sectors to ensure alignment of national approaches with net-zero pathways based on the advice provided by a European Panel on Climate Change.

Reforming infrastructure governance to align with climate targets

The EU faces complex challenges in identifying least cost pathways to net zero. For example, one important challenge is that there is no clearly preferred way to decarbonise heating and a mix of measures will inevitably be required and this will result in different approaches being adopted both between and within member states.[328] The current approach to infrastructure planning through the National Energy and Climate Plans does not benefit from a single, internally consistent and up-to-date analysis of current and future technology including costs and deployment potential and their associated uncertainty.

To support an improved governance of the financial system, the European Commission is in the process of setting up a Platform on Sustainable Finance

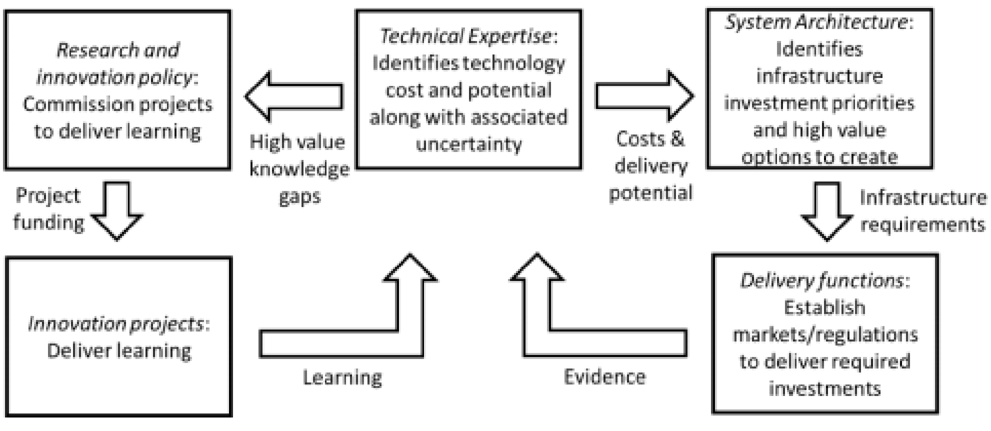
[328] E3G (2019) **EU Energy System Decarbonisation Policy: Breaking the Logjam**

under the Taxonomy Regulation.[329] The Platform will monitor and report on capital flows towards sustainable investment, and will advise the European Commission on the possible need to develop further measures to improve data availability and quality, and on the evaluation and development of sustainable finance policies, including concerning policy coherence issues. However, it is unlikely that the Platform will have the capacity to provide the full oversight needed to monitor financial flows into sustainable infrastructure.

The European Parliament is now discussing a proposal to create a European Panel on Climate Change in the context of the European Climate Law.[330]
The independent scientific body has the potential not only to provide greater transparency and accountability but also to set the EU in the right policy direction towards climate neutrality. It would be composed of scientists with expertise in the climate field and structured to ensure their independence and autonomy.

A new independent European Panel on Climate Change could support infrastructure planning by providing science-based analysis as an input to policy choices. Such an institution could also support a cross-European approach to research and innovation, as set out in Chapter 8 on Innovation.

Figure 7: Net-Zero Delivery Architecture which could be delivered through an independent European Panel on Climate Change[331]



[329] European Parliament and Council of the EU (2020) **Taxonomy Regulation**
[330] European Parliament (2020) **Draft Opinion on the European Climate Law**
[331] E3G (2019) **EU Energy System Decarbonisation Policy: Breaking the Logjam**

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The EU should create an independent European Panel on Climate Change under the European Climate Law.

> The panel should look across public and private infrastructure investment and provide technical support to make long-term infrastructure commitments that are based on the least cost pathway to a net-zero economy.

> It would advise the European Commission and Member States on priority infrastructure and technology deployment targets, and monitor progress and ensure policy coherence.

> The panel would ensure a shared evidence base for taking policy decisions on decarbonisation and would highlight knowledge gaps and uncertainties, engaging with Member States and industry to support policy continuity and consistent progress towards targets.

> The European Commission should produce an annual report for the European Parliament on progress made in the transition to a net-zero economy as part of the State of the Energy Union.

Providing technical assistance for local and regional project pipelines

Despite an abundance of sustainable infrastructure initiatives in the EU, there remains a weak pipeline of shovel ready projects for investors to invest in.

Investors typically have little information about project pipelines and have limited engagement with project promoters. Infrastructure projects are of widely varying sizes and types, meaning that there may not be a pipeline of opportunities to invest in projects that are comparable and have a 'standard' financing volume and risk level. [332] Investors also typically require a standard approach to project contracting which ensures de-risking and guaranteed returns, however standardised approaches are not always available for newer types of infrastructure investment.[333]

[332] United Europe and Roland Berger (2015) **Squaring the circle - Improving European infrastructure financing**

[333] Ibid.

E3G

There is a lack of technical assistance and capacity building support to project promoters to design sustainable projects at regional and local level and to engage with investors willing to invest in sustainable infrastructure.[334] In particular, there is a lack of support for decentralised solutions such as energy efficiency, low carbon heating and cooling and electric vehicle charging stations, and sophisticated solutions such as nature-based solutions for resilience.

A report by the European Court of Auditors on the technical assistance provided under the European Investment Advisory Hub found limited evidence of it having increased the project pipeline. It lacked a strategy for targeting support into priority sectors such as energy and transport, it has been done through a centralised approach though the European Investment Bank while cooperation with other public finance institutions to improve geographical coverage was limited.[335]

Under InvestEU, technical assistance will be provided under the InvestEU Advisory Hub which will work in conjunction with the InvestEU Portal which will support engagement between project promoters and investors. The InvestEU Advisory Hub will provide project development advisory support to facilitate market-making activities and the collaboration of sectoral actors, in particular in small and decentralised projects.[336] The InvestEU Advisory Hub will consolidate the European Investment Advisory Hub and other European Investment Bank run support programmes. Funding for InvestEU Advisory Hub was initially proposed at €525 and still needs to be agreed in legislation. This level of funding will be insufficient to build investment pipelines across the EU and will need to be combined with other sources of technical assistance.[337]

In addition, InvestEU will retain a demand-driven approach to infrastructure planning rather than an integrated approach linked to national infrastructure planning process. While this approach works well for large assets such as power generation and manufacturing plants, it is less suitable for decentralised assets.[338] A new focus on regional and local support will therefore be needed.

[334] HLEG (2018) **Final Report 2018 by the High-Level Expert Group on Sustainable Finance**

[335] European Court of Auditors (2020) **The European Investment Advisory Hub — Launched to boost investment in the EU, the Hub's impact remains limited**

[336] European Commission (2019) **The InvestEU Programme: Questions and Answers**

[337] Climate Strategy (2020) **Making InvestEU fit for purpose for the EU Green Deal, and the Covid Recovery** (upon request)

[338] Ibid.

The European Commission and the European Investment Bank should strategically engage with a network of public finance institutions to improve project development capacity at regional and local level.

> The European Commission and European Investment Bank should strategically engage with public finance institutions through the InvestEU Advisory Hub to create bankable project pipelines developed from national and local planning processes and to improve consistency in business models and project contracts across Europe.

> The European Commission and European Investment Bank should build on direct cooperation with public finance institutions and municipalities to ensure local presence, particularly in Eastern and Southern European countries, to address geographical imbalances.

> Engagement between investors and project promoters should be driven through the InvestEU Portal to improve the visibility of project pipelines to investors.

> Support should be prioritised to target the key investment gaps in Europe's pathway to climate neutrality, including home renovations, expanded electric vehicle charging networks integrated with smart power, heating and cooling systems, and battery and clean energy production.

Growing green bond markets for infrastructure investment

Green bonds are an important source of finance for infrastructure. While Multilateral Development Banks and the public sector have played an important role in the early growth of this market, the private sector is playing an increasingly significant part. Initial green bond issuance was led by large issuances from multilateral development banks and sovereign entities, but green bond issuance from the private sector has now increased to just over half of the total amount of green bonds outstanding in 2019.[339]

Securitisation can pool many small loans into one investment, lowering transaction costs and meeting investors' minimum size thresholds. It can also

[339] Climate Bonds Initiative (2020) **2019 Green Bond Market Summary**

E3G

attract investors that may not usually invest in this asset class by providing a range of risk-return profiles of different types of investors. However, there are risks that green securitisation is indirectly used to finance unsustainable economic activities.

Amundi's 'Planet Emerging Green One Fund' showed the range of actors now engaged in the green bond market - the fund raised $1.4 billion from 16 institutional investors, including leading pension funds, insurance companies, and international development banks. [340] Rather than competing with the private sector, public finance institutions should now focus their efforts on developing green bonds for underserved sectors and regions.

The EU should encourage public finance institutions to accelerate issuances of green bonds and should support high-quality securitisation

> Green projects with public risk guarantees are economically attractive to private investors. To ensure that all regions of Europe benefit from this, public finance institutions could issue bonds to fund projects in underserved areas.

> Green bonds issuance could be encouraged across Europe by expanding credit guarantees through the European Investment Bank and national and regional public banks. Green bonds could be used to finance activities aligned with the EU taxonomy, for which adoption of the EU Green Bond Standard will provide a transparent framework.

> The EU should set expectations for transparent green securitisation that ensure a 'closed loop' of financing, avoiding greenwashing and guaranteeing that the underlying collateral and the use of proceeds of a security are genuinely sustainable and in line with the EU taxonomy.

[340] UNPRI (2019) **PRI Awards 2019 case study: Planet Emerging Green One Fund**

8 – INNOVATION

Overarching recommendations

> The European Commission should build a cross-European approach to research and innovation and should design an innovation ecosystem that prioritises sustainability.

> The European Commission and Member States should expand the role of public finance institutions in crowding in private patient capital for investment.

> The European Commission should support Member States to align national approaches to research and innovation with European sustainability goals.

Building a sustainable European economy will require investment in the industries of the future.

The COVID-19 pandemic has underlined the central role played by research and innovation in times of crisis. In the coming decades, Europe will face unprecedented climate and environmental challenges. Achieving Europe's climate targets will require a systemic transformation of its economy.[341]
The deployment of existing and emerging technologies at scale and pace will be needed for the required emissions reductions, while breakthrough technologies will need to be developed for hard-to-abate sectors. Research and innovation will also be critical to addressing related challenges such as biodiversity loss and ocean acidification.

There is ample evidence that countries investing more in research and innovation outperform those that invest less.[342] In terms of the climate

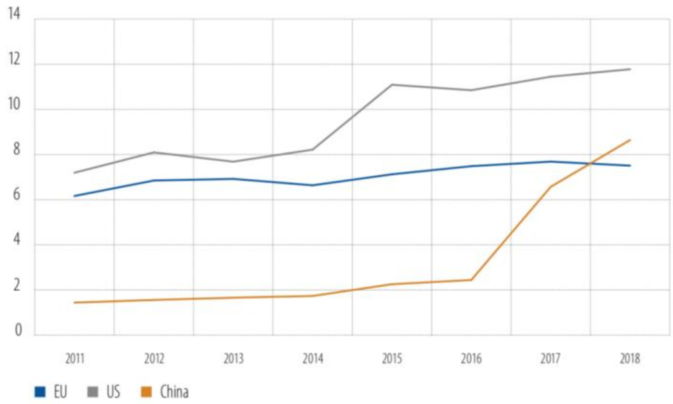
[341] E3G (2020) **Building an EU Research & Innovation Strategy for Net Zero** (forthcoming)

[342] European Commission (2019) **Research and Innovation analysis in the European Semester 2019 Country Reports**

transition, an early deployment of new technologies could reduce the cost of decarbonisation through economies of scale. [343] However, while Europe maintains a competitive knowledge position it faces increased global competition in innovative technologies.[344] Research and innovation is necessary to maintain the competitiveness of European industries (including small and medium-sized enterprises) in global value chains, driving investment and exports and creating jobs for a low carbon global economy.

Europe is behind other major economies in investing in innovation, which could undermine its competitiveness. Europe set a target in 2000 to increase research and innovation investments to 3% of GDP to match other leading global regions[345] however, Member States still only spend 2.1% of GDP on R&I, or over €300 billion annually.[346] Around two thirds of investment into research and innovation is made by private sector companies, but their investment intensity of 1.3% of GDP is well below that of their competitors in China (1.6%), the US (2%), Japan (2.6%), and South Korea (3.3%).[347] Moreover, this private investment is highly concentrated within Europe, with over 90% of all investment coming from just 567 companies.[348]

Figure 8. Investment in climate-related R&D, 2011-2018 (€ billion)[349]



[343] Bruegel (2019) **Getting better all the time: The benefits of learning for decarbonisation**

[344] European Investment Bank (2019) **Investment Report 2019/2020**

[345] European Commission (2010) **Europe 2020: A European Strategy for smart, sustainable and inclusive growth**

[346] European Commission (2017) **Lab-Fab-App Investing in the European future we want**

[347] European Commission (2018) **A renewed European Agenda for Research and Innovation - Europe's chance to shape its future**

[348] Climate Strategy (2018) **Funding Innovation to Deliver EU Competitive Climate Leadership**

[349] BNEF; European Investment Bank (2019) **Investment Report 2019/2020**

Underinvestment in climate-related research and innovation could put Europe at risk of meeting its climate targets. Europe's climate-related research and innovation intensity is very low at 0.04% of GDP,[350] and spending has only marginally increased over the past decade to €7.5 billion in 2018, remaining behind China (€8.6 billion) and the US (€12 billion) as shown in Figure 8.[351] Concentration is an issue with only 3-4% of private research and innovation investments being made by 102 companies working directly in climate-related sectors.[352] Without policy intervention the EU risks underinvesting in the necessary development and large-scale deployment of innovative climate technologies.

There is a significant East-West divide in the deployment of research and innovation across Europe. Except for Slovenia, Central and Eastern European countries lag behind other Member States (although in most cases their research and innovation intensity is increasing). Sweden, Austria, Germany and Denmark spent above 3% of GDP on research and investment in 2018, while seven Central and Eastern European countries reported spending below 1%.[353]

The climate transition represents an opportunity to level the playing field across Europe and for new leaders in clean economy research and innovation to emerge. For example, countries in Central and Eastern Europe have strong manufacturing bases integrated in Western European supply chains. This is particularly the case for the car industry, for which Central and Eastern Europe has large-scale production facilities.[354] Some countries in the region are already capitalising on the transition, for example, the Visegrad countries are ramping up efforts to upgrade car production lines towards electromobility.[355]

[350] European Investment Bank (2020) **Investment Report 2019/2020**

[351] European Investment Bank (2020) **Investment Report 2019/2020**

[352] Climate Strategy (2018) **Funding Innovation to Deliver EU Competitive Climate Leadership**

[353] Eurostat (2020) **Gross domestic expenditure on R&D (GERD)**

[354] European Investment Bank (2018) **Innovation investment in Central, Eastern and South-Eastern Europe: Building future prosperity and setting the ground for sustainable upward convergence**

[355] Euractiv (2019) **Visegrad countries fight to keep pace with e-mobility transition**

Info: Sectoral breakdown of climate mitigation-related research and innovation needs[356]

Industry is the backbone of the European economy and generates 80% of exports.[357] It accounts for 64% of private sector research and innovation, and 49% of EU research and innovation investments. Substantial investments are needed in low cost electrolysis, energy efficiency, material efficiency, new material chemistries, and carbon capture and storage.

Europe is a global leader in the **automotive** industry, and the transport sector accounts for 5% of GDP.[358] Additional innovation investments are needed in low cost electrolysis, electric vehicles, batteries, fuel cells, the smart integration of electric vehicles and charging networks, and zero carbon planes, ships and heavy trucks.[359]

Investments in **building technologies** can stimulate the construction industry, which generates 8% of European GDP.[360] Investments are needed in smart systems, electrification, heating and cooling including district networks, building envelope materials, and construction technologies such as 3D printing and building information modelling (BIM).

Power generation is the largest emitting sector in Europe and plays a crucial role in decarbonising energy use across transport, industry and buildings.[361] The decarbonisation of the energy system will position Europe to deliver clean technologies in a €5 trillion global market.[362] A net-zero energy system requires innovation investment in renewable energy, transmission and distribution, storage and energy efficiency.

The **agriculture** sector produces only 1% of European GDP[363] but offers a disproportional level of sustainability risks and benefits. Investments are

[356] E3G (2020) **Innovation priorities to deliver climate neutrality**
[357] European Climate Foundation (2019) **Net-Zero 2050 series: Research & Innovation for EU Industry**
[358] European Commission (2019) **Transport sector economic analysis**
[359] European Climate Foundation (2019) **Net-Zero 2050 series: Research & Innovation for EU Transport**
[360] Renovate Europe (2020) **Building Renovation: A kick-starter for the EU recovery**
[361] European Environment Agency (2020) **CO2 Intensity of Electricity Generation**
[362] European Climate Foundation (2019) **Net-Zero 2050 series: Research & Innovation for EU Energy**
[363] Eurostat (2019) **Performance of the agricultural sector**

required in smart farming systems, meat alternatives, organic fertilisers and pest management, soil carbon storage, ecosystem restoration and agroforestry. The sector can also provide a limited amount of inputs for the bio-based economy including the conversion of certain waste streams into bioproducts and the production bio-based chemicals and materials.

Integrating sustainability into national innovation planning

Europe has a more fragmented innovation system than its peers, making it harder to gain economy of scale advantages in selected sectors. National governments provide 30% of public funding into research and innovation, with just 8% of support coming through European funds.[364] It is therefore important to maximise the impact of public funding by aligning national and European research and innovation priorities. However, many Member States have still not recognised the value of investing in climate-related research and innovation. Indeed, few countries have set adequate research and innovation targets and made investment plans in their National Energy and Climate Plans which are commensurate with the level of ambition required to achieve the climate 2030 and 2050 targets.

The European Commission should support Member States in creating mission-based national R&I strategies with capital raising plans.

> National research and innovation programmes should create mission-based strategies and capital raising plans with short, medium and long-term priorities. New policies, regulatory reforms, financial instruments and fiscal incentives could then support implementation.

> National research and innovation strategies should ensure synergies with European priorities and funding instruments and should be included as part of EU level national planning processes.[365]

[364] E3G (2019) **Accelerating EU Decarbonisation with Research and Innovation Funding**

[365] E3G (2019) **Accelerating EU Decarbonisation with Research and Innovation Funding**

- The governance structures of national research and innovation programmes should include different types of institutions (including the private sector) in order to deliver effective policy decision making together with individual project support, and to support learning.
- The European Commission should provide guidance to Member States on the development of mission-based national R&I strategies with capital raising plans. Climate-related R&I targets should be based on the advice provided by a European Panel on Climate Change.

Building a cross-European approach to climate research and innovation

The EU has yet to identify a preferred (least cost) pathway to climate neutrality;[366] such analysis would facilitate alignment and impact across Europe and could enable pan-European innovation initiatives focused around common missions to emerge.

Meanwhile, the EU is still relying on incremental and siloed approaches to research and innovation. A mission-driven policy, combined with a linked capital raising plan, would have the potential to bring more cohesion by creating a one policy approach to research and innovation for decarbonisation.[367] An example of this approach is the Canfin-Zaouati Report in France which proposed accelerating green investment by developing risk-sharing public guarantee mechanisms, together with a dedicated public investment team to develop project pipelines.[368] Within Europe these functions could be fulfilled by a new institution – the European Panel on Climate Change proposed by the European Parliament in the context of the European Climate Law.[369]

[366] E3G (2019) **EU Energy System Decarbonisation Policy: Breaking the Logjam**

[367] Pilsner, L. and Dethier, S. (2020) **Viewpoint: Legal move on climate must be backed by game plan on carbon neutrality**; E3G (2020) **Mission-based innovation for climate and energy**

[368] Finance for Tomorrow (2018) **Report Canfin-Zaouati on blended finance mechanisms**

[369] European Parliament (2020) **Draft Opinion on the European Climate Law**

The European Commission should create an independent European Panel on Climate Change under the European Climate Law.

> Governance for zero-carbon research and innovation needs to be improved to ensure close alignment with market and industry needs, efficient allocation of resources across sectors, a consistent approach to across policies, fast learning and fair distribution of benefits across Europe.

> This function could be performed through an independent European Panel on Climate Change which would advise on sectoral deployment targets for existing and emerging technologies, processes and services, and on the development of future breakthrough technologies in the hard to abate sectors.[370]

> Through this mechanism an integrated sustainability research and innovation roadmap should be created to identify gaps and research/innovation needs for short, medium and long-term emissions reduction objectives across all economic sectors. The roadmap should be regularly updated and used as the benchmark for assessing sustainability research and innovation priorities across all relevant EU and national policies.[371]

> Rather than only reacting to sectoral demands, such an approach would maximise the impact of emissions reduction efforts because it would quickly identify barriers and gaps at a whole-economy level.

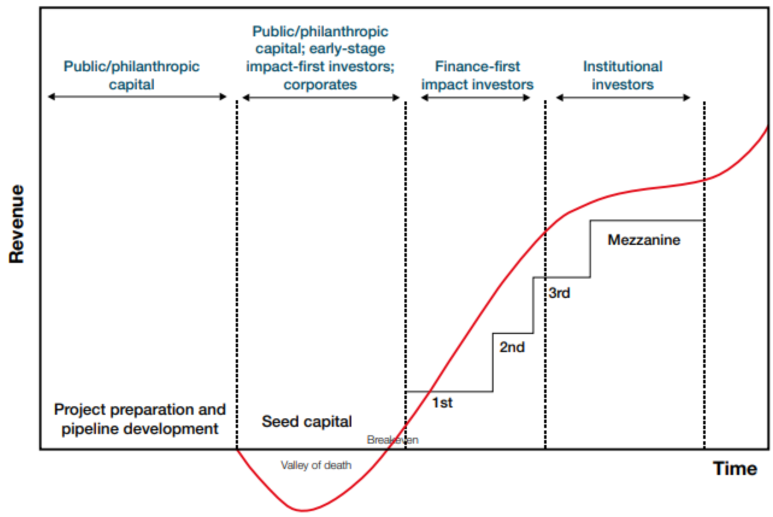
[370] Skillings and Fischer 2019, **EU Energy system decarbonisation policy: Breaking through the logjam**

[371] Such as the European Semester, National Energy and Climate Plans, National Long-Term Strategies, Just Transition Plans and Adaptation Strategies

Using public finance institutions to crowd in private finance investment

Despite a tradition of excellence in both academic research and research and development, Europe is falling behind other regions in accelerating the deployment of emerging clean technologies. Clean technologies face a particular challenge in that they are associated with high capital intensity, high technology and market risks and long development lead times, which means that they require large pools of patient capital – long-term capital requiring at least 10 to 15 years to generate returns.[372] Short-termism, risk-aversion, a fragmented supply of capital and inflexible public instruments have resulted in the private sector avoiding investments in clean technologies until returns become more certain.

Figure 9. Innovation financing cycle and investor type by stage[373]



Finance gaps exist in the stage between research activities in laboratories and the scaling up of a viable technology or process. This stage is often referred to as the "valley of death" as shown in Figure 9. The first finance gap occurs in the research and demonstration phases before commercialisation. This stage is particularly risky and requires long periods of up to five years from initial research to proof of concept. The next gap occurs in the pre-commercialisation and the commercialisation phases, where finance is needed for full-scale power generation or manufacturing plants.

[372] Mazzucato, M. (2019) **Governing Missions in the European Union**

[373] Finance Watch (2020) **Nature's Return: Embedding environmental goals at the heart of economic and financial decision-making**

Access to patient capital is thus essential for firms looking to develop and deploy innovative clean technologies. However, the wide range of activities along the innovation development chain from initial research to maturity require a range of financing instruments to suit different areas of the risk landscape. For example, grants are appropriate for early-stage research while equity can be offered to technology firms looking to scale up, and debt is more appropriate for lower risk incremental innovation such as the deployment of proven technologies.[374]

Europe has an extensive range of public instruments which can be used to support companies in accessing risk finance.[375] However, there is significant fragmentation in terms of the available instruments at EU and national level[376] and the instruments are not backed by a mission-driven approach that generates deep synergies and creates solutions developed around specific societal challenges.[377] Fragmentation means that funding may not be consistently available along the innovation development chain.[378] There are also disparities in the distribution of funding for innovation, with the majority of investments taking place in Western Europe.[379]

Increasing investments in sustainability-related research and innovation requires innovation funding tools to be focused on delivering sustainability goals including climate neutrality. The non-targeted approach of many instruments does not ensure sufficient and targeted support to technologies that will broaden the technology portfolio in specific sectors and lead to the largest sustainability benefits.[380] In addition, financial institutions working on innovation are not sufficiently focusing on increasing the sustainability of their portfolio. For example, the European Investment Fund has a climate target of just 10% for 2020, although this is expected to increase in the future.[381]

Public finance institutions can have a role in catalysing private sector investment. While the traditional functions of public finance institutions include

[374] Mazzucato, M. (2019) **Governing Missions in the European Union**

[375] E3G (2019) **Accelerating EU Decarbonisation with Research and Innovation Funding**

[376] Mazzucato, M. (2019) **Governing Missions in the European Union**

[377] E3G (2020) **Building an EU Research & Innovation Strategy for Net Zero** (forthcoming)

[378] E3G (2019) **Accelerating EU Decarbonisation with Research and Innovation Funding**

[379] European Commission (2017) **Interim evaluation of Horizon 2020**

[380] E3G (2020) **Fostering climate-neutral, energy-intensive industries in Europe: A policy vision for the EU Industrial Strategy**

[381] European Investment Fund (2019) **EIF Corporate Operational Plan 2020-2022**

infrastructure investment and counter-cyclical lending, some institutions have gone further in driving innovation through blended finance.[382] Examples include public venture capital funds, such as the Fonds National d'Amorçage in France, to public banks like KfW in Germany. Public finance institutions provide an opportunity to redistribute finance and reduce the economic divide within Europe.

The European Commission should support Member States to expand the role of public finance institutions in crowding in private capital for investment.

> Public sector participation can provide significant patient capital covering all stages in the innovation cycle in the form of grants, blended finance, guarantees, equity and debt to attract private investment. Mission-based governance and monitoring and evaluation frameworks capturing additionality can avoid crowding out private investment.

> Patient public capital should flow to the Central, Eastern and Southern parts of Europe to ensure that the benefits of research and innovation are distributed fairly.

> The European Commission and Member States should encourage public finance institutions working on innovation such as public banks to set a mission-based R&I strategy with climate targets replicating the European Investment Bank's Energy Lending Policy and to disclose against the EU taxonomy.

> Technical assistance could be provided at EU level by putting in place a dedicated research and innovation theme under the InvestEU Advisory Hub. This would support the facilitation of technical assistance in Member States on technical, commercial and financial advice for the development of bankable projects.

Supporting access to patient venture capital for smaller firms

Small and medium-sized enterprises involved in innovation are particularly likely to have difficulty with access to finance at the demonstration stage.

[382] Mazzucato, M. and Penna, C. (2016) **Beyond market failures: the market creating and shaping roles of state investment banks**

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For innovative, small and young companies, finance at this stage is typically provided by venture capital funds. Venture capital investment in start-ups has grown four times to €23 billion in Europe in the last five years. However, the absolute level of investment is low, compared to $130 billion in the US and $92 billion in China.[383]

In the absence of venture capital, European entrepreneurs tend to find themselves relying on risk-averse bank lending. Financing remains a constraint for innovative start-ups with high investment needs who typically lack a credit history or collateral.[384] Across Europe, start-ups and small and medium-sized enterprises are twice as likely as large firms to be financially constrained.[385]

In Central and Eastern Europe, firms rely on banking as private equity and venture capital markets lag behind the rest of the EU, except for Lithuania and Latvia.[386] Private equity volumes are only a third of the EU average in these countries, and venture capital accounts only for 6% of total investment volume.[387] Most innovation activity in the region comes from the large foreign-owned manufacturing firms.

Clean technologies may face additional barriers, as venture capital funds tend to be short-term and exit-driven which makes it harder to finance disruptive innovation. Patient venture capital may be required to provide access to finance to clean start-ups. Impact venture capital firms, and corporate venture capital firms focusing on clean technologies which are more likely to offer patient capital, have appeared in the last years.[388] Examples include Engie New Ventures, a corporate venture capital firm in France, and DOEN Foundation, an impact venture capital firm in the Netherlands.

Greater access to patient venture capital across Europe would enable more companies to cross the valley of death and attract larger amounts of capital for investments in the clean economy. At EU level the European Commission and the European Investment Fund have made efforts to increase venture capital

[383] Forbes (2019) **Raising Venture Funding In Europe Vs. The U.S.**

[384] Mazzucato et al. (2018) **The role of patient finance in mission-oriented innovation: the market shaping role of state investment banks**

[385] European Investment Bank (2019) **Investment Report 2019/2020**

[386] European Commission (2020) **European Innovation Scoreboard 2020: Annex B - Performance per indicator**

[387] European Investment Bank (2018) **Innovation investment in Central, Eastern and South-Eastern Europe: Building future prosperity and setting the ground for sustainable upward convergence**

[388] EcoSummit (2019) **Smart green VCs you should know**

through the pan-EU fund-of-funds VentureEU, which is expected to double the amount of venture capital available in Europe.[389] Public venture capital funds, and tax incentives for venture capital investors at national level, can also play an important role. However, there are concerns around the lack of alignment and coordination of measures across Europe.[390]

Provide additional services to start-ups and small and medium-sized Enterprises to help them to finance patient venture capital.

> Additional financial support should be provided to improve the access to patient venture capital for development stage innovation by small and medium-sized enterprises, notably in Central and Eastern Europe.

> The European Commission should facilitate access of start-ups and small and medium-sized enterprises to EU and national public funding tools through simplified registrations and quotas.

> Member States should encourage venture capital funds to set up ambitious climate targets and to disclose against the EU taxonomy in order to increase funding for start-ups developing clean technologies.

> Technical assistance should be provided in the form of additional financial incentives to the accelerators that provide training and networking opportunities to entrepreneurs and connection to private investors improve access to capital.

Designing the innovation ecosystem to incentivise sustainability

Banks and institutional investors currently lack awareness of sector-specific risks and opportunities and the risk management expertise that is required to invest in clean technologies, thus preventing them from adapting their products and investment strategies. In addition to providing them with de-risking instruments it is also important to improve their awareness of new innovations.

[389] European Commission (2018) **VentureEU: €2.1 billion to boost venture capital investment in Europe's innovative start-ups**

[390] Jacques Delors Institut (2017) **Public policies to promote venture capital**

In addition, access to capital is not the only barrier to clean innovation. Indeed, the absence of a stable policy framework is another key barrier.[391] Low carbon prices will not drive investments in clean technologies unless they are combined with other instruments. Clean products also require a certain demand to reach the market, yet the proportion of innovative public procurement remains low while established companies in Europe are often hesitant to buy new products from innovative clean technology companies.[392]

There is insufficient collaboration between innovation actors from government, industries, small and medium-sized enterprises, start-ups and investors to leverage private investment and deploy emerging innovations. The European Commission has sought to foster a more transformative innovation policy through the launch of Missions and European Innovation Ecosystems under Horizon Europe and industrial alliances. However, although these include sustainability goals, they currently do not have adequate governance in place to ensure a rapid transition to climate neutrality.

Innovation clusters have emerged as useful tools to stimulate innovation and attract investment by enabling a network of companies to coexist in a geographic location and allowing them to collaborate and compete.[393] Examples include Clean Tech Delta in the Netherlands and the Green Tech Cluster in Austria. Estonia provides a best practice example of an active innovation policy relying on the use of knowledge-based innovation clusters through location-based policies.[394]

[391] Stockholm Environment Institute (2020) **Policies, not finance, are the obstacle to decarbonizing industry**

[392] World Economic Forum (2019) **Europe is no longer an innovation leader. Here's how it can get ahead**

[393] The Economist Intelligence Unit (2015) **Innovation Clusters: Understanding Life Cycles**

[394] European Bank for Reconstruction and Development (2014) **Policies supporting innovation**

The European Commission should develop a dynamic public-private innovation ecosystem that incentivises sustainability

> The European Commission should promote collaborative partnerships through industrial alliances between the public, industrial and finance sectors to originate and finance a suitable portfolio of research and innovation projects from small scale pilots to large-scale demonstration. Public procurement can also be used as a lever for private sector investment at scale.

> The European Commission should also promote the development of mission-driven clean technology clusters in Central and Eastern Europe with a focus on connecting start-ups and small and medium-sized enterprises with investors and industry and growing a stronger innovation and collaboration culture.

> The European Commission should work with Member States to create new financial instruments and incentives to mobilise private sector investment in research and innovation that supports European policy goals and national frameworks. For example, public-private risk-sharing financial instruments and tax incentives could incentivise companies investing in taxonomy-aligned research and innovation in Member States where there are currently lower levels of investment in research and innovation.

9 – INTERNATIONAL LEADERSHIP

Overarching recommendations

- Make finance a priority for Europe's international diplomacy in 2021 and ensure that Europe takes a leadership role to drive international reform at the G7 and G20, and ahead of the COP26 climate talks.
- The European Commission and Member States should use the International Platform on Sustainable Finance to co-create new international financial norms, (for example, on taxonomy, disclosure, green bonds and financial sector transition plans) and should enrol more major economies as members of the Platform.
- The European Commission and Member States should make reform of public banks and development finance institutions in support of green recovery and systemic resilience a key pillar of their international finance diplomacy.

Europe has the opportunity to fundamentally shape the international financial system of the future over the next 10 years, but this will require making international cooperation and leadership a clear priority under this Commission

The COVID-19 pandemic has shown that a health risk, believed to have originated from inadequate handling of environmental risk in Asia, can cascade to create widespread social, economic and financial impacts in Europe and the rest of the world. Climate change presents the prospect of future cascading impacts, as do other environmental and biodiversity risks. A more sustainable financial system will be essential to enable global resilience to future crises.

European actors are established international leaders in setting sustainable finance norms. However, significant progress is still required to reform the international financial system which is currently not aligned with climate goals, let alone wider environmental and social goals. Europe has a proven track record in developing international best practices and coordinating with other regions in harmonising and co-developing standards. This is a diplomatic skill that it will need to continue to invest in if the financial reforms it makes within its borders are to be viable and effective long-term. In the end the European Green Deal will require systemic financial reform globally, and not just within Europe.

Leading global efforts to drive financial reform for a global green recovery

In coming months and years all countries will need to build robust green recovery packages and prepare the foundations for the investment needs for the climate transition.[395] The G20 countries are particularly crucial to meet the Paris Agreement given the impacts of their economies on the world, being responsible for 80% of global greenhouse gas emissions.[396] As the world's top emitter and a major influencer over other countries via the Belt and Road Initiative, China is of particular importance.[397]

As well as focusing on their domestic recovery plans, G20 countries must also respond to the needs of developing countries.[398] This brings many challenges. On one hand, assistance provided to developing countries to assist recovery will risk locking in high-carbon infrastructure unless it specifically supports a low-carbon development pathway. At the same time, COVID has created debt repayment challenges for many countries and this may prevent them from access sufficient finance to deal with climate, environmental and social challenges.[399]

The European Green Deal Communication set out how the EU must develop a stronger 'green deal diplomacy' focused on supporting other countries to pursue sustainable development. The EU will also promote a coordinated multilateral response, in partnership with the United Nations, International Financial Institutions, as well as the G7 and the G20.[400] In the context of the pandemic

[395] The Coalition of Finance Ministers for Climate Action (2020) **Better Recovery, Better World**

[396] Climate Transparency (2019) **Brown to Green: The G20 transition towards a net-zero emissions economy**

[397] Climateworks Foundation (2019) **Decarbonizing the Belt and Road**

[398] E3G (2020) **Recovering better: A green, equitable and resilient recovery from coronavirus**

[399] Finance Watch (2020) **Debt sustainability and a sustainable COVID recovery**

[400] European Commission (2020) **Coronavirus: EU global response to fight the pandemic**

and the backdrop of the climate emergency, the EU's diplomatic role has become even more important.

The 2021 UK and Italian presidencies of the G7 and G20 and their joint Presidency of COP26 will present a unique opportunity for the European Commission and Member States to drive sustainable finance forward on the international stage. Perceptions of success or failure at COP26 will rest on whether key financial issues have been successfully negotiated. Debt restructuring, fossil fuel subsidies, sustainable infrastructure and management of climate risk are all areas where key diplomatic wins could be achieved. The European Union should prioritise finding internationally agreed solutions to these issues when negotiating as a bloc.

The European Commission and Member States should make finance a diplomatic priority in 2021 and should lead global efforts to drive international financial reform for global green recovery, supporting Italy and the United Kingdom in their Presidencies of COP26, the G7 and the G20.

> Key diplomatic outcomes for 2021 could include the integration of sustainability goals into debt restructuring frameworks, the agreement of ambitious standards for green infrastructure and an end to public finance for fossil fuel projects.

> Europe should take a global lead on reforms that promote financial resilience, including mandatory climate risk reporting and climate transition plans for companies, reform of fossil fuel subsidies and enforcement of sustainable supply chain standards.

> The EU should play a full part in negotiations at COP26 to ensure that financial outcomes are secured, including meeting the $100 billion climate finance target and negotiating a post-2025 finance goal together with satisfactory outcomes on Article 6 and on Loss and Damage.

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Showing leadership through international finance coalitions

Major systemic reforms are needed to mainstream sustainability in the financial system and lead to more inclusive and fairer set of global financial rules. Currently, the adoption of climate stress tests and corporate disclosure in line with the Task Force on Climate-related Financial Disclosures recommendations remain limited. Despite this, key changes are occurring globally. Investors have over $80 trillion of investor assets committing to integrate ESG through the Principles for Responsible Investment and more than $47 trillion of banking assets committed through the Principles for Responsible Banking.[401] Of the central banks and financial regulators, 65 have committed to take action on climate risk through the Network for Greening the Financial System.[402] Sustainable finance has also become a priority for the world's finance ministers.[403]

Taxonomies characterising investments that are aligned with long-term climate, biodiversity and SDG-compatible trajectories are essential to ensure that investors are working towards sustainability. Globally, a number of countries are in the process of developing such taxonomies, such as China, Japan, Malaysia, Europe, Canada and South Africa.[404] The World Bank also launched green taxonomy development guidelines for emerging markets to develop their own taxonomy.[405] Applying these taxonomies will help investors reorient financial flows towards activities that are sustainable and likely to build resilience to climate, environmental and social risks, and away from unsustainable activities.

The European Commission's Sustainable Finance Action Plan set out its intention for Europe to step into the role of global leader on sustainable development, following the decision of the United States to withdraw from the 2015 Paris Agreement, while also calling on other players to take decisive action to ensure

[401] PRI (2020) **UN-Convened Net-Zero Asset Owner Alliance**; UNEP (2020) **Principles for Responsible Banking**

[402] NGFS (2020) **Network for Greening the Financial System**

[403] Robins, N. (2020) **Earth Day 50: Sustainable finance: the road ahead**

[404] Central Banking (2020) **China moves towards single 'green finance' taxonomy**; Responsible Investor (2020) **Japanese climate experts propose national "transition taxonomy" for finance**; ESG Clarity (2020) **Malaysia targets green taxonomy**; TEG (2020) **Taxonomy: Final report of the Technical Expert Group on Sustainable Finance**; Responsible Investor (2020) **Canada moves ahead on creating green taxonomy for resource-heavy economies**; Republic of South Africa (2020) **Financing a Sustainable Economy**

[405] Environmental Finance (2020) **World Bank launches EM green taxonomy development guidelines**

a coordinated global effort.[406] The Sustainable Finance Action Plan has caught the attention of finance ministries, financial actors and institutions involved in managing the financial system across the globe, particularly through the creation of the EU taxonomy of sustainable activities. The European Green Deal Communication has also recognised the need for the EU to be at the forefront of coordinating international efforts towards building a coherent sustainable financial system.[407]

The EU's commitments to promote sustainable finance globally have more recently been supported by the EU-led initiative to create the International Platform on Sustainable Finance in October 2019.[408] This was set up as a multilateral forum for public authorities in charge of developing environmentally sustainable finance initiatives, including finance and economy ministries, central banks and supervisory & regulatory authorities, to promote integrated markets for environmentally sustainable investment at a global level. A first public report on the work of the International Platform on Sustainable Finance Platform will be published in Autumn 2020. With the addition of more countries there is significant potential for this platform to support global progress.

Sixteen of the EU's Member States have also joined the Coalition of Finance Ministers for Climate Action launched in April 2019 and have endorsed the Helsinki principles.[409] In addition, 17 of the EU's Member States are represented in the Network of Central Banks and Supervisors for Greening the Financial System launched at the Paris One Planet Summit in December 2017.[410] The involvement of key European actors, institutions and governments has been central to progress made in these fora. However, to date these various sustainable finance initiatives have operated in siloes. There is an opportunity for more collaboration to ensure common approaches and create synergies across the platforms.

[406] European Commission (2018) **Action Plan: Financing Sustainable Growth**

[407] European Commission (2019) **The European Green Deal**

[408] European Commission (2020) **International Platform on Sustainable Finance**

[409] Finance Ministers for Climate (2020) **The Coalition of Finance Ministers for Climate Action**

[410] Network of Central Banks and Supervisors for Greening the Financial System (2020) **Membership**

The European Commission should use the International Platform for Sustainable Finance to co-create new financial norms in major geographies.

> The European Commission should work through the International Platform on Sustainable Finance to ensure that there is harmonisation across sustainable finance initiatives at global level, such as the taxonomy, corporate disclosures and climate stress testing.

> The European Commission should also collaborate with related initiatives including the Coalition of Finance Ministers for Climate Action and the Sustainable Banking Network.

> The EU should encourage adoption of new financial norms in the European Neighbourhood and provide technical assistance to develop impact-oriented sustainable finance regulation in developing countries.

The European Commission should facilitate international monitoring of sustainable and unsustainable financial flows.

> Building on the observatory functions to be carried out by the Platform on Sustainable Finance, the European Commission should actively promote equivalent efforts at international level to measure and monitor the sustainability of financial flows, in order to track global progress towards alignment of the financial system with the Paris Agreement and implementation of Article 2.1c.

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Member States should show leadership within the Coalition of Finance Ministers for Climate Action.

> Finance ministers from European Member States should all be directly involved in this coalition and should attend its meetings in person.

> Through the Coalition, Member States should work towards the greening of public finances at national level within the EU, as well as the mainstreaming of national financing strategies in third geographies building on the example of the European Green Deal.

> The European Commission and ECOFIN should cooperate with the Coalition to identify best practices in greening public finances and fiscal governance.

Greening export finance

Public finance support for trade and investment support outside the EU is not consistently aligned with the Paris Agreement.[411] Many EU Export Credit Agencies have taken steps to ban export credit support for coal, however the majority of EU export financing for energy overseas still supports oil and gas. As private financial institutions slowly shift away from supporting fossil fuels there is a risk that Expert Credit Agencies will fill that credit void and pick up those transactions. In November 2019 the European Parliament issued a resolution calling the Member States to apply the same principle applied by the European Investment Bank when it comes to export credits.[412]

Export Credit Agencies have a significant role to play in stabilising the economy during the COVID-19 recovery as banking and insurance markets contract. The scope of their portfolios and geographies are changing, for example, some Export Credit Agencies have been mandated to support domestic markets. This is the case with both the Canadian and Dutch export credit agencies.[413] However, COVID-related changes to Export Credit Agency mandates, remits

[411] FERN and ECA-Watch Europe (2014) **A civil society assessment of Export Credit Agencies' compliance with EU Regulation**; Bankwatch Network (2017) **ECAs go to market: A critical review of transparency and sustainability at seven export credit agencies in Central and Eastern Europe**

[412] European Parliament (2019) **European Parliament resolution of 28 November 2019 on the 2019 UN Climate Change Conference in Madrid, Spain (COP 25)**

[413] Friends of the Earth US (2020) **ECAs, Covid and Climate: Recommendations to Ensure that Economic Support Protects People and the Planet**

and scope are now at risk of taking place without adequate parliamentary scrutiny. As Export Credit Agencies move into administering medium term transactions during the recovery, there is a risk that this could lead to increased support for fossil fuel projects.[414]

The temporary framework for state aid to support the economy includes short-term export credit insurance, meaning that there is potential for tension between the European Green Deal and promotion and protection of European corporations.[415] Export Credit Agencies could be encouraged to show leadership and ambition in redirecting public financial flows towards the development of resilient and low carbon societies. The obligation to provide green and resilient stimulus could be mandated as the COVID-19 response phase shifts from emergency support towards supporting economic recovery.

Export Credit Agencies are regulated through the Export Credit Agency Regulation[416] in which the EU has transposed the OECD's Arrangement on Officially Supported Export Credits[417] into legally binding EU regulation. The OECD Arrangement includes guidelines that restrict export credit for coal-fired power plants, the EU law goes a little further than the Arrangement as it also requires Export Credit Agencies to adhere to general provision for external action of the EU. These include the protection of human rights, the promotion of democracy and the fight against climate change. France, Sweden and Denmark have adopted unilateral policies on coal that go beyond the OECD arrangement with tighter or full restrictions.[418]

[414] Friends of the Earth US (2020) **ECAs, Covid and Climate: Recommendations to Ensure that Economic Support Protects People and the Planet**

[415] European Commission (2020) **State aid: Commission adopts Temporary Framework to enable Member States to further support the economy in the COVID-19 outbreak**

[416] European Parliament and Council of the EU (2011) **ECA Regulation**

[417] OECD (2020) **Arrangement on Officially Supported Export Credits**

[418] Perspective climate group (2020) **Study on external and internal climate change policies for export credit and insurance agencies** page 27; VedvarendeEnergi (2020) **VedvarendeEnergi opfordrer erhvervsministeren til at følge gode ord op med mere handling for grøn eksport**

Country/ Institution	Policies restricting support for fossil fuels
Denmark: Eksport Kredit Fonden (EKF)	The EKF does not provide direct support for coal and has no explicit policies on the screening for coal and related infrastructure. In December 2019, the government established a 'Green Future Fund' – with a majority to be administered by EKF – which excludes financing for fossil fuels and coal heavy utilities, including enterprises whose revenues from coal extraction or coal-power generation accounts for more than 20%. The government further reiterated in early 2020 its support for the phase-out of export credit for fossil fuel and associated facilities, including logistics, in response to parliamentary inquiries on the OECD CSFU revision.[419]
France: Bpifrance Assurance Export	France has an explicit ban on export credit for coal-fired power plants, shale oil and gas and routine flaring. Export finance may not be granted for operations relating to research, exploitation and production of coal and the production of energy from coal, without prejudice to operations aimed at reducing environmental impact of existing installations, without increasing their lifetime or production capacity.[420]
Netherlands: Atradius Dutch State Business	Since 2014, the Dutch government has a policy to not support coal projects overseas via its ECA. It is actively working on increasing support for 'green' projects.[421] It is still a heavy supporter of oil and gas.
Sweden: The Swedish Export Credit Corporation (SEK) and the Swedish Export Credit Agency (EKN)	Ban on export credits for fossil fuel exploration and extraction by 2022 including for example, mining and construction machinery, trucks, dump trucks and wheel loaders, drilling equipment, where the purpose is to use these for the extraction of coal and oil or gas. SEK has joined the Fossil Free Sweden Initiative and has limited lending to oil, gas, and coal to five percent of its total lending. EKN has ceased support for coal projects and mining including for example, mining and construction machinery, trucks, dump trucks and wheel loaders, drilling equipment, excavators, where the purpose is to use these for the extraction of coal.[422]

[419] VedvarendeEnergi (2020) **VedvarendeEnergi opfordrer erhvervsministeren til at følge gode ord op med mere handling for grøn eksport**

[420] Perspective climate group (2020) **Study on external and internal climate change policies for export credit and insurance agencies** page 27

[421] Perspective climate group (2020) **Study on external and internal climate change policies for export credit and insurance agencies** page 34 and 35

[422] Perspective climate group (2020) **Study on external and internal climate change policies for export credit and insurance agencies** page 38 and 39

As part of the Export Credit Agency Regulation, Member States are required to send an Annual Activity Report about export credit financing to the European Commission, based on which the European Commission produces an annual review.[423] The European Commission has reported full compliance with EU objectives and obligations. This has been contested in relation to human rights and the environment.[424] In particular, the information provided by Export Credit Agencies is currently inadequate to assess their compliance with the EU's climate objectives. It is not clear whether they have adopted targets or roadmaps to meet Paris Agreement commitments, and these commitments do not seem to be embedded in their policies.[425]

The European Commission should mandate national Export Credit Agencies (ECAs) to disclose against the EU taxonomy and to replicate the European Investment Bank's Energy Lending Policy in their own policies.

> The EU should set out rules to incentivise a phase out of export credit support for fossil fuels, and instead help green the portfolios of Export Credit Agencies. Export Credit Agencies should apply 'Do No Harm' stress tests to all export credit finance and integrate climate-related financial risks into investment decision-making.

> The EU must also improve its reporting template to capture climate risk exposure of Export Credit Agencies and complete data on their support for fossil fuel projects overseas. Better reporting would greatly increase the transparency of Export Credit Agencies and help the EU to take a more active stance on scrutinising their support for energy overseas. Reporting should be aligned with the Task Force on Climate-related Financial Disclosures recommendations and the EU taxonomy.

[423] VOXEU (2020) **Regulating under the radar: official export credit support**

[424] European Ombudsman (2016) **Recommendation of the European Ombudsman in case 212/2016/JN on the European Commission's annual reviewing of Member States' export credit agencies**

[425] FERN and ECA-Watch Europe (2014) **A civil society assessment of Export Credit Agencies' compliance with EU Regulation**; Bankwatch Network (2017) **ECAs go to market: A critical review of transparency and sustainability at seven export credit agencies in Central and Eastern Europe**

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Supporting Europe's finance goals through development finance

The European Green Deal Investment Plan called for engaging with international and national financial institutions with the aim of aligning their activities with the European Green Deal objectives.[426] The role of public finance institutions is more crucial than ever in the COVID-19 recovery since they have become key providers of counter-cyclical financing to both the private and the public sector and can provide the large sums of money that will be necessary to finance the climate transition. Globally, eleven multilateral development banks have pledged to raise annual climate finance to $175 billion by 2025.[427]

In particular, the European Investment Bank has a unique role to play supporting the EU's Green Deal Diplomacy. In November 2019, it announced a revised Energy Lending Policy, which foresees the phasing out of the support to energy projects reliant on fossil fuels after end of 2021.[428] This delivered on the earlier EU Finance Minister (ECOFIN) Council conclusions which stated that they "encourage[d] the MDBs to adopt responsible investment policies and to phase out financing of fossil fuel projects, in particular those using solid fossil fuels, taking into account the sustainable development, and energy needs, including energy security, of partner countries".[429]

The European Investment Bank will now turn this ambition into reality by developing its Climate Bank Roadmap to guide its transition. The European Investment Bank plays an important role for the EU since it is wholly owned by EU Member States, unlike other multilateral development banks such as the World Bank Group or the European Bank for Reconstruction and Development, of which EU Member States are only partial shareholders.[430] The difference in shareholding has resulted in the European Investment Bank to have increasingly ambitious policies on climate change in comparison to its peers, and to have taken on a real leadership role in this era of challenging climate geopolitics.

Collaboration on climate change between European MDBs and DFIs is important as many differences of approach remain. For example, not all banks have

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[426] European Commission (2020) **European Green Deal Investment Plan**

[427] Bennett V. (2019) **MDBs pledge to join forces to raise annual climate finance to $175 bn by 2025**

[428] European Investment Bank (2019) **EU Bank launches ambitious new climate strategy and Energy Lending Policy**

[429] ECOFIN (2019) **Council conclusions November 2019**

[430] E3G (2020) **The European Investment Bank: Becoming the EU Climate Bank**

accepted that new gas related infrastructure is not compatible with climate targets, although the European Investment Bank's Energy Lending Policy is setting a leading example to others. In this context, the European Commission published its planned architecture for the EU's external investment in December 2018, which recognised the need for more cooperation and synergies among European multilateral development banks and development finance institutions.[431] The High Level Group of Wise Persons on the European Financial Architecture for Development was established in April 2019 and published a report in December 2019 demonstrating that there remain systemic issues related to the EU architecture for investment.[432]

The European Green Deal Communication calls for engagement with third countries on climate issues and reinforcing existing initiatives. These include ending global fossil fuel subsidies, phasing-out financing by multilateral institutions of fossil fuel infrastructure, strengthening sustainable financing and phasing out all new coal plant construction.[433] China is critically important due to its influence through the Belt and Road Initiative. In particular, China Development Bank is the largest public bank worldwide and an important lender internationally. This is an example of an area where the EU could seek to have more strategic engagement. However, its heavy investments in coal have outweighed its investments in clean energy.[434] The European Green Deal Communication also calls for working with global partners to increase resilience to prevent climate and environmental challenges from becoming sources of conflict and support a just transition globally.

In order to encourage sustainable investments in partner countries, the EU has merged several financial instruments for cooperation and development into the Neighbourhood, Development and International Cooperation Instrument based on the European Fund for Sustainable Development Plus, a new External Action Guarantee of up to €60 billion expected to leverage up to half a trillion euro in investments, and financial assistance. To increase investments in climate resilience, it relies on a demand-driven approach through its implementing partners, which include the European Investment Bank, European Bank for Reconstruction and Development and development finance institutions.

[431] European Commission (2018) **Towards a more efficient financial architecture for investment outside the European Union**

[432] Council of the EU (2019) **The future of the European financial architecture for development**

[433] European Commission (2019) **The European Green Deal**

[434] E3G (2019) **Banking on Asia**

In terms of immediate neighbours, the European Green Deal Communication calls for developing climate, energy, and environmental partnerships with countries in the Southern Neighbourhood and the Eastern Partnership. In particular, the countries of the Southern Neighbourhood, which refers to North Africa and the Eastern Mediterranean, represent some of the world's most vulnerable countries to climate change.[435] North African countries are already some of the largest recipients of the European Fund for Sustainable Development.[436] However, there is a need for more strategic approaches to investment to address the risks of instability due to climate change.[437]

The European Green Deal Communication also calls for unlocking Africa's potential to make rapid progress towards a green economy, in terms of energy and efficiency, food systems, smart cities, and nature-based solutions. The more recent Commission communication *Towards a Comprehensive Strategy with Africa* specifically names the green transition and sustainable growth as priorities for partnership.[438] It includes a commitment to support African countries with their Nationally Determined Contributions, long-term strategies, and national adaptation plans, implying a role for the European Investment Bank, the European Bank for Reconstruction and Development and development finance institutions in devising financing strategies to mobilise the necessary capital.

The European Commission and Member States should make reform of public banks and development finance institutions in support of green recovery and systemic resilience a key pillar of their international finance diplomacy.

> Building on the ongoing reform of the European Investment Bank to become an EU climate bank, European institutions should promote this model to other countries. Key attributes for promotion are full Paris alignment across all lending sectors and all parts of the bank and the mobilisation of private finance at scale through public-private

435 E3G (2013) **Underpinning the MENA Democratic Transition: Delivering Climate, Energy, and Resource Security**

436 European Commission (2018) **The European Fund for Sustainable Development: 2018 Operational Report**

437 E3G (2018) **MENA Stability in a Changing Climate: A Transatlantic Agenda on Preventive Investment**

438 European Commission (2020) **Towards a comprehensive Strategy with Africa**

partnerships. Becoming a climate bank should mean that climate change takes central stage in a bank's overarching strategy.[439]

> The European Commission should develop an Action Plan to engage strategically to support the creation of project pipelines and financing of sustainable activities in developing countries and emerging markets. This can be achieved through coordination between DG DEVCO, the European Investment Bank, the European Bank for Reconstruction and Development and EU development finance institutions to develop tailored strategies to engage and promote sustainable development pathways and increase systemic resilience.

> A priority for the Action Plan should be to develop a joined-up approach to private sector mobilisation by non-EU multilateral development banks and development finance institutions – notably the African Development Bank and other African public finance institutions and China Development Bank which is the largest public bank worldwide and an important lender internationally through the Belt and Road Initiative.

> European Member States are key shareholders in multilateral public finance institutions and should work together for common goals. More coordination of their positions on the Boards of multilateral public finance institutions could be transformational in increasing the EU's influence in this space. The EEAS and DG DEVCO could consider whether its staff and delegations have a role in facilitating this coordination.

> The provision of counter-cyclical investment for a green recovery and systemic resilience should be a key aim of coordination between European shareholders in multilateral public finance institutions. Multilateral development banks and development finance institutions should be encouraged to work at the system level rather than project level, e.g. by assisting countries to adopt long-term strategies for financing sustainability and resilience.

[439] More information on E3G's vision for the EIB as a climate bank can be found in E3G (2020) **The European Investment Bank: Becoming the EU climate bank**