British Embassy
Luxembourg

THE STATE OF PLAY OF **SUSTAINABLE FINANCE**

in Luxembourg and the United Kingdom

Deloitte.

British Embassy
Luxembourg

The state of play of sustainable finance in Luxembourg and the United Kingdom

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CONTENTS

1. FOREWORD

Fleur Thomas
His Majesty's Ambassador to the Grand Duchy of Luxembourg

Fighting climate change is one of the most pressing challenges of our time.

It requires a concerted effort from individuals, organisations and governments across the world to adopt sustainable practices, transition away from fossil fuels and make greener investments. The consequences of inaction are dire: the loss of biodiversity, rising sea levels, extreme weather patterns, and economic challenges that will affect everyone, and especially future generations. Mitigating climate change therefore demands urgent action, notably by keeping the global temperature rise to below 2°C above pre-industrial levels.

The COP26 climate summit in Glasgow highlighted the importance of sustainable finance in fighting climate change. Under the UK's presidency, this was the first UN Climate Change Conference of the Parties to dedicate a specific day to international climate finance. We cannot deny that the finance industry plays a significant role in shaping our world, with sectors like banking, payments, insurance, bonds, and funds tying almost all countries together in our global economy. The finance industry thus has a tremendous responsibility to lead a just transition to a sustainable economy. Any push for sustainable finance will have a ripple effect, with other industries following suit by choice or necessity.

The UK and Luxembourg have already demonstrated their commitment to sustainable finance, with innovative green bond offerings and a pledge to achieve net zero emissions by 2050, placing themselves among the most climate-ambitious nations in the world.

Sustainable finance is not a passing fad; rather, it is a fundamental shift in the way financial markets operate. Investors in Luxembourg and the UK are increasingly recognising the need to integrate sustainability into investment decision-making. As we work towards a more sustainable future, it is essential to take action now to mitigate the impacts of climate change permanently.

This report examines the state of sustainable finance in Luxembourg and the UK, two hubs that are well-positioned to be active change-makers in this fight for a more sustainable future. It highlights the drivers, challenges, and opportunities in sustainable finance, drawing on extensive research and interviews with experts in the field.

I am therefore pleased to introduce this report on sustainable finance in Luxembourg and the UK, and I am confident that its insights will inspire collaborative action towards a more sustainable future for all.

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The United Kingdom and Luxembourg have developed strong ties in the field of financial services over many decades. Unsurprisingly, the UK is Luxembourg’s main partner for trade in financial services. Our two countries are recognised as among the most international financial centers in the world. As complementary financial centres in Europe, our cooperation has proven to be a valuable asset in the global financial landscape.

As leading financial centres, the UK and Luxembourg can also collectively support the green transition and the development of a more sustainable global financial system that benefits not only our economies but also the planet. As two nations that share a deep commitment to responsible finance, we can collaborate to drive innovation, raise standards, mobilise private capital and develop new tools that promote sustainable investments.

I am proud of the progress we have made so far and I am confident that the UK and Luxembourg will continue to play a leading role in shaping the future of sustainable finance. We have a shared ambition of creating a more sustainable and prosperous future for generations to come.

Yuriko Backes
Luxembourg Minister of Finance

2. GENERAL CONTEXT: THE ROLE OF SUSTAINABLE FINANCE

One of the aims of the Paris Agreement is to achieve carbon neutrality by 2050. To meet this goal, large investments will be required in order to convert fossil fuel-dependent economies into economies predominantly reliant on renewable energy. At the beginning of 2021, less than ten per cent of EU firms were aligning with the Paris Agreement's goal to limit the global temperature increase to less than two degrees Celsius by 2100.[1]

"Sustainable finance relates to investment and finance that considers environmental, social and governance (ESG) impacts"[2], as described by UKSIF and Oxford. However, sustainable finance does not only concern the transition to carbon neutral economies and meeting the aims of the Paris Agreement. It is much more than that. The sector is also a driving force for a just transition to carbon neutrality and the greening of the economy that *"is as equitable and inclusive to all parties involved as possible, offering adequate employment opportunities, and leaving no one behind."*[3]

Mobilising sustainable finance to accelerate a just transition will require significant shifts across industries and systems, as well as the policy and regulatory landscape.[4] Governments are expected to set out measures that will deliver fair economic and industrywide transformations.

In addition to meeting the requirements of new legislation, companies should explore ways to modify non-sustainable operations whilst embracing the business opportunities in sustainable finance. Data shows that compared to today's *"business as usual"* scenario, bold action to shift towards more sustainable business practices could result in a direct economic gain of £21.7 trillion by 2030.[5]

Ninety-five per cent of all corporate lending in the EU is provided by banks. As such, they are ideally positioned to make one of the most significant and positive contributions towards the transition to a sustainable economy — further backed by the EU which has implemented new regulations to leverage the sector's considerable influence. According to the United Nations Environment Programme Finance Initiative (UNEP FI)[6], financial institution will need to mobilise about £835.5 billion in yearly investment in order to meet the targets to transition to a global carbon neutral economy.[7] This could explain why both international organisations and governments worldwide have recently been taking actions to strengthen their sustainable finance agendas.

Sustainable finance is already on the way to becoming the new normal, particularly in the fund industry. Other sectors will likely follow suit, for example, private investors will also play a vital role in directing capital flows and creating the conditions necessary for companies and governments to take into account ESG considerations when investing. Estimates by the Organisation for Economic Co-operation and Development (OECD) show that in 2022, loans made up 72 per cent of public climate financing, with grants accounting for a further 25 per cent[8] of financing. Global Environmental, Social and Governance (ESG) assets under management (AUM) have increased from $2.2 trillion in 2015 to $18.4 trillion in 2021 and are expected to reach $34 trillion in 2026.

"Sustainable finance relates to investment and finance that considers environmental, social and governance (ESG) impacts"

Reports show that this conventional funding model does not support equitable climate action[9] because emerging and developing economies are being pushed into more debt as they work towards greener economies. At the same time, the degree of transformation required is unprecedented meaning substantial changes may need to be made. To move forward, government and business leaders should seek to address the uncertainties, practical challenges, and questions associated with such a colossal transition that will impact the world and its people on so many levels.

The growth of impact investing and investor participation in voluntary carbon markets and sustainable finance can also bring significant opportunities. By 2030, the World Economic Forum (WEF) predicts that the adoption of more environmentally friendly practices could create a £8.2/8.3 trillion market opportunity annually.[10] Given its influence in managing global capital flows, the financial services sector, led by regulations, holds great responsibility and has an excellent opportunity to lead the just transition.

Reports show that this conventional funding model does not support equitable climate action

The financial services sector as a whole has a critical role in the just transition to a greener economy. As well as benefitting the global population and protecting the planet and its resources for future generations, sustainable finance also presents significant investment opportunities which are becoming more apparent to key stakeholders and market players. With climate change affecting (amongst others), the planet's non-renewable resources, natural habitats, and weather patterns, the repercussions of failing to meet climate change mitigation targets are immense.

3. THE SUSTAINABLE FINANCE AGENDA AT THE INTERNATIONAL LEVEL

International sustainable finance initiatives and frameworks aim to facilitate access to funds that support sustainable economic growth.

Formal action around sustainable finance became more widespread from 1992, with the creation of the UNEP FI.[11] Since its inception, the UNEP FI has launched numerous initiatives as well as published reports predating both the Paris Agreement and the UN Sustainable Development Goals (SDGs or Global Goals).

Despite the prior work of the UNEP FI, sustainable finance only began to gain ground within the financial sector when financial flows towards climate-resilient development (thanks to investment in climate-neutral, climate-resilient, resource-efficient and green economies) accelerated when countries collectively signed the Paris Agreement in 2015.

2015 represented a turning point for bringing sustainable finance to mainstream awareness. This was predominantly due to the Paris Agreement, but also thanks to other milestone events held that year where international commitment to climate change mitigation was cemented on the world stage. Among them was the UN General Assembly resolution on the SDGs, and the Third International Conference on Financing for Development.

Since 2015, more and more countries, institutions and private companies have defined policies and internal governance that favour greener economies and operations, on the understanding that sustainable finance is essential to long-term sustainable development both for the planet and individual businesses. What's more, the transition towards a carbon neutral economy will also require the mobilisation of private and public financing for renewable and green alternatives to fossil fuels.

In addition to the widespread development of sustainable finance roadmaps across the globe, the number of those embracing sustainable financing demonstrates just how committed public and private players are to the transition towards a greener economy.

The UK's leadership on sustainable finance during our COP26 Presidency was critical to COP objectives to keep 1.5 degrees within reach. Glasgow represented a step-change in driving forward work to align financial flows with the Paris Agreement and transforming the entire financial system for Net Zero.

The UK's efforts led to $130 trillion – around 40% of the world's financial assets[12] – now being committed to Net Zero. The plumbing of the financial system has evolved into a forward-looking one: the TCFD now recommends all financial institutions disclose the alignment of their activities with a well-below 2C scenario.

The UK will become the world's first net zero-aligned financial system. That means moving towards mandatory disclosures on transition planning for financial firms and a sector-wide transition plan, published as part of the refreshed Green Finance Strategy in 2023.

GENERAL SUSTAINABILITY INITIATIVES

PARIS AGREEMENT

The Paris Agreement was signed in 2015 at the United Nations Climate Change Conference (COP21). The agreement is a global, 5-year cycle framework that aims to mitigate climate change, maintain an average global temperature rise below 2°C and pursue efforts to limit a global temperature rise to less than to 1.5°C compared to pre-industrial levels. At least 55 nations representing a minimum of 55% of global emissions output had ratified, accepted or approved the Paris Agreement by 4 November 2016.

As a result of the Paris Agreement, the 193 member states of the UN General Assembly signed the 2030 Agenda for Sustainable Development. The Sustainable Development Goals (SDGs) are made up of 17 goals and 169 targets to achieve a stable, sustainable, and prosperous future for society, the environment and the economy.

UNITED KINGDOM

Date of signature: 26 April 2016

Ratification date: 18 November 2016

LUXEMBOURG

Date of signature: 22 April 2016

Ratification date: 04 November 2016

NATIONALLY DETERMINED CONTRIBUTIONS PARTNERSHIP

The NDC Partnership is a global coalition of countries and institutions that collaborate to drive transformational climate action through sustainable development. The 200 members (which includes 115 countries and 80 institutions) work towards the goals of the Paris Agreement at country-level by providing a framework of objectives, sharing best practices and through the provision of additional assistance, via financing programs, for example. The partnership has ten guiding principles, which include:

- Mobilise climate and development action across government and society
- Raise climate change mitigation ambition at country level
- Place climate at the heart of finance recovery packages
- Catalyse sustainability through the promotion of knowledge exchange

Target year: 2030 | Base year: 1990

UNITED KINGDOM

68% reduction in GHG emissions by 2030, compared to 1990

Economy-wide | Base year target | Target year: 2030 | Base year: 1990

LUXEMBOURG

40% reduction in GHG emissions by 2030 compared with a 2005 baseline

Economy-wide | Base year target | Target year: 2030 | Base year: 2005

FINANCIAL SECTOR INITIATIVES

PRINCIPLES & INITIATIVES

Principles have been established in the financial sector on an industry-basis to provide a framework and structure for incorporating ESG factors (including SDGs) into decision-making strategies. These principles promote transparency and standardisation, and address the potential risks and opportunities of incorporating ESG factors into decision-making. The principals include:

- PRI: Principles for Responsible Investing (launched in 2006 by the UNEP Finance Initiative and the UN Global Compact)
- PSI: Principles for Sustainable Insurance (3 principles launched in 2012 at the UN Conference on Sustainable Development)
- PRB: Principles for Responsible Banking (6 principles launched by UNEP-FI in 2019)

Several international initiatives have been launched to improve and standardise practices for corporate disclosure on climate-related and environmental risks in the financial sector. These include:

- TCFD: Task Force on Climate-Related Disclosures (established in 2015, TCFD is supported by over 4000 organisations and nine National Governments. TCFD provides a framework for assessing and reporting on climate-related risk management strategy)
- NGFS: Network for Greening the Financial System (launched at the Paris One Planet Summit on 12 December 2017, NGFS aims to deliver more transparency on climate risk management and reporting and share best practices)

UNITED KINGDOM

495 entities from the UK support the TCFD, including the Bank of England, Association of British Insurers and UK Export Finance

LUXEMBOURG

18 Luxembourgish entities support the TCFD, including the Central Bank of Luxembourg and the European Investment Bank

NET ZERO ALLIANCES

Various net-zero alliances have been launched allowing different industries to share best practices and establish commitments and requirements for members to comply with in pursuit of the 2050 net-zero target (in line with UNEP-FI or specific UN Principles). These include:

- Glasgow Financial Alliance for Net Zero (GFANZ): an international network of over 550 financial institutions committed to accelerating the decarbonisation of the economy, spanning 50 countries and representing 40% of global private financial assets
- Net-Zero Asset Management Alliance (NZAM): 273 signatories that commit to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner across the signatories' assets under management.
- Net-Zero Banking Alliance (NZBA): 113 banks from 41 countries committed to meet the guidelines set by NZBA to meet net zero targets through banks' lending and investment portfolio requirements, within 18 to 36 months of joining
- Net-Zero Insurance Alliance: 29 leading insurers representing 15% of world premium volume globally

UNITED KINGDOM

GFANZ was launched in April 2021, during the UK's COP26 presidency

LUXEMBOURG

The Luxembourg Stock Exchange joined GFANZ during COP26 in Glasgow

DIFFERENT PRINCIPLES ESTABLISHED:

	Worldwide	UK	Luxembourg
PRI Principles for Responsible Investing	By the end of 2022, more than 5,000 signatories worldwide had committed to implement these principles	As of December 2022, there were 787 signatory companies	As of December 2022, there were 107 signatory companies
PSI Principles for Sustainable Insurance	As of 2022, 138 companies and 99 supporting institutions were signatories of the Principles for Sustainable Insurance	As of 2022, 6 companies from the United Kingdom were signatories of the PSI	As of 2022, 2 insurers from Luxembourg had signed the PSI.
PRB Principles for Responsible Banking	By the end of 2022, more than 5,000 signatories worldwide had committed to implement these principles	As of 2022, 14 companies from the United Kingdom were signatories of the PRB	As of 2022, 4 companies from Luxembourg had signed the PRB

4. THE UNITED KINGDOM'S AGENDA

"The UK is a world-leader in green finance. The UK Government has been accelerating green finance through its Green Finance Taskforce and Green Finance Strategy, as well as its Presidency of COP26. The Bank of England has been instrumental in driving developments in supervisory frameworks globally to promote a greening of the financial system, including through the G20 Financial Stability Board's Task Force on Climate- related Financial Disclosures (TCFD) and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). UK financial institutions have played a key role in green finance innovation."[13]

Significant progress relating to the transition of a decarbonised UK economy has been made in recent years, including the hosting of COP26 in 2021, in Glasgow. During the summit, participating countries committed to speeding up the pace of climate action. Ahead of the summit, the UK had already set out its Net Zero Strategy which details policies and proposals for decarbonising the UK economy. At COP26, the UK formally announced its commitment to becoming the first net zero-aligned financial centre in the world by 2050. Providing the goods and services required to fulfil the world's objectives of going net zero by 2030 is estimated to be worth £1 trillion to UK businesses.[14]

Sustainable finance lies at the heart of achieving the UK's ambitious climate and environmental goals. The government is progressing towards the objectives outlined in Greening Finance: A Roadmap to Sustainable Investing (October 2021), which sets out the UK's ambition to be the most advantageous jurisdiction in the world for sustainable investment. In March 2023, the UK published its updated Green Finance Strategy, analysing the UK's current progress towards transitioning to a decarbonised economy, and defining how the financial services sector can meet its net zero and environmental objectives. The report also lays out how the UK will mobilise the investment required to meet the country's climate and nature goals and maintain its leading position in this expanding global industry. It is estimated that through the late 2020s and 2030s, an additional £50–60 billion in capital investment will be needed annually to achieve the UK's net zero aspirations.

As a forward-thinking and dynamic country, the UK has a long-standing commitment to sustainable development and proactively tackling climate change on various fronts. These include funding research and promoting climate change mitigation measures, and the UK's recognition of the central role the sustainable finance sector has in meeting sustainability targets and facilitating the transition to a decarbonised economy.

International level

COP26

The UK held the COP 26[15] Presidency and was instrumental n orchestrating the successful delivery of the Glasgow Climate Pact.[16] This work started two years before the summit, with the UK leading ambition-raising and diplomatic negotiations with other COP countries to garner support and bring an agreement to the table. As COP President, the UK advanced progress towards the attainment of targets under four other key areas:

1. ensuring promises on emissions reductions are kept to keep 1.5 degrees alive
2. delivering for climate vulnerable countries by ensuring commitments on adaptation and loss and damage are honoured
3. getting finance flowing
4. working together and continuing to be an inclusive Presidency

Task Force on Climate-related Financial Disclosures (TCFD)

The UK had a pivotal role in implementing the reporting recommendations of the Climate-related Financial Disclosures Task Force. It was the first G20 country to make it mandatory for UK firms to disclose climate-related financial information under the TCFD's reporting framework rules that came into force in April 2022. The TCFD's financial reporting recommendations make way for firms to standarise climate-related reporting helping investors understand their financial exposure to climate risk.

G7 2030 Nature Compact

During the G7 2021 Summit, which was held in the UK, the eight G7 members agreed on the G7 Nature Compact. The Nature Compact sets out agreements under which each of the G7 economies aims to protect, conserve and preserve biodiversity by 2030 and report on progress made with regards to the targets laid out in the Compact.[17]

By agreeing to the Nature Compact, the UK Government has committed – along with other countries – to take and implement measures to deliver the outcomes for nature established at the Convention on Biological Diversity (CBD) held in 2021, COP15 in Kunming and United Nations Framework Convention on Climate Change (UNFCCC) COP26 in Glasgow.

As part of its Nature Compact initiatives, the UK has launched the £500 million Blue Planet Fund,[18] which supports developing nations to tackle unsustainable fishing practices by investing in projects that protect and restore coastal ecosystems. The Fund also aims to safeguard the future of the communities that rely on the ocean for food and income from the future effects of unsustainable fishing practices and damaged ecosystems.

The Coalition of Finance Ministers for Climate Action

The Coalition of Finance Ministers for Climate Action brings together Ministers of Fiance from around the world and seeks to ensure fiscal and economic planning is part of the global response to climate change. The aim is to harness the expertise and fiscal and economic policy tools of the finance ministries of member countries in combating climate change.

The Coalition of Finance Ministers for Climate Action was launched in Washington in April 2019 on Finland's initiative. The UK and Luxembourg were both founding members The Coalition now has ove 80 member countries, each committed to a set of principles known as the Helsinki Principles. The UK and Luxembourg collaborate on Helsinki Principle 5, mobilising the private sector.

Founding member of The Network of Central Banks and Supervisors for Greening the Financial System (NGFS)[19]

The NGFS was founded by eight central banks and banking/financial supervisors, which, as of October 2022, is composed of 121 members and 19 observers. The NGFS was initially launched in December 2017 at the One Planet Summit held in Paris, under the leadership of Banque de France's governor François Villeroy de Galhau, the Dutch Central Bank's Frank Elderson and the Bank of England's former governor Mark Carney. It brings together Central Banks and Supervisors who volunteer to share best practices and collaborate to develop environmental and climate change management in the finance sector.

The UK was a founding member of the NGFS. It is also a steering committee member, and it chairs the workstream on monetary policy.

National level

Green Finance Strategy[20]

Building on the work of the Green Finance Taskforce, the initial Green Finance Strategy laid out the UK's plans for greening its financial systems and mobilising investment towards a carbon neutral economy, achieving sustainable and resilient growth while doing so. The Green Finance Strategy recognises the role of the UK's financial sector in delivering global and domestic climate and environmental objectives and will facilitate the UK meeting the Clean Growth Strategy, 25 Year Environment Plan and Industrial Strategy.

The 2023 Green Finance Strategy sets out five key objectives to reinforce and expand the UK's position as a world leader on green finance and investment: investment in the green economy, financial stability, incorporation of nature and adaptation and alignment of global financial flows with climate and nature objectives.

The 2023 Green Strategy presents the government's main green finance priorities and commitments to support the UK's 2050 zero emissions target:

- launch a formal assessment mechanism as soon as the first two IFRS Sustainability Disclosure Standards are published (expected in June 2023)
- launch of a call for evidence on Scope 3 greenhouse gas (GHG) emissions reporting
- expectation to consult on a UK Green Taxonomy this Autumn
- commitment to consult on the extension of transition plans disclosures to UK's largest companies after the Transition Plan Taskforce (TPT) completes its work in Autumn/Winter 2023
- consultation on the regulation of ESG ratings providers, to seek views on how regulation could help ensure better outcomes for these products
- consult on the specific steps and interventions needed to mobilise additional finance through high-integrity voluntary markets and protect against the risk of greenwashing.

Investment opportunities are a big pillar of the Green Finance Strategy. A number of new initiatives have already been launched by the UK government to mobilise and draw private investment. £30 billion of domestic investment were committed for green industrial revolution at the 2021 Spending Review, £6 billion for energy efficiency at the 2022 Autumn Statement and up to £20 billion for CCUS (carbon capture, utilisation and storage) announced at the 2023 Spring Budget. The government expressed its intention to intensify its work with the UK's public finance institutions, the UK's export credit agency and UK Export Finance to support sectors and technologies towards the transition.

UK Transition Plan Taskforce (TPT)

HM Treasury introduced the TPT in April 2022. Its task is to create, over a two-year mandate, gold standard for private sector climate transition plans applicable to the UK. Members of the group include representatives from businesses, financial institutions, regulators, policymakers, and civil society.

The TPT's recommendations expand upon the TCFD's recommendations and emerging standards from the International Sustainability Standards Board (ISSB), while also making some additional advancements. Their design follows the Glasgow Financial Alliance for Net Zero's (GFANZ) advice on the essential elements of a transition strategy. Considering the increasing focus on transition plans, the TPT's proposed framework will provide financial services firms, regulators and industry bodies with further detail and transparency on their progress in relation to their commitments and targets.

The Green Technical Advisory Group and UK Green Taxonomy[21]

The Green Technical Advisory Group or "GTAG" is an expert group, chaired by the Green Finance Institute, made up of key financial market stakeholders and subject matter experts. The role of the GTAG is to provide non-binding advise to HMG on market, regulatory and scientific considerations for developing and implementing a UK Green Taxonomy which facilitates more informed investment decisions.

Dasgupta Review

Professor Sir Partha Dasgupta (Frank Ramsey Professor Emeritus, University of Cambridge) undertook an extensive independent review on the economics of biodiversity for a report commissioned by the UK Treasury in 2019. The review was published ahead of the 2022 Convention on Biological Diversity taking place in China. The review is expected to help shape the UK Government's 25-year environment plan.

"The [Dasgupta] Review calls for changes in how we think, act and measure economic success to protect and enhance our prosperity and the natural world".[22]

The UK's Green Financing Programme[23]

The 'Programme' issues sovereign green bonds (Green Gilts) and retail Green Savings Bonds, which is an integral part element of the UK's wider green finance agenda. The Programme raises funds to finance some of the government's spending as it tackles biodiversity loss, climate change and other environmental challenges. The Allocation Report, which forms part of the Programme, was first published in 2021, and officially lays out how the government deploys funds and the impact of related spending, demonstrating how the Programme is already supporting the UK's climate and environmental priorities, using private capital to help finance government schemes which protect property and infrastructure from the effects of climate change, stimulating the development of self-sustaining markets for low-carbon technologies, and supporting jobs in low-carbon and the emergence of energy-efficient sectors across the UK.

Green Gilts

The Green Gilts demonstrate the UK's commitment to take unprecedented and innovative action to tackle environmental challenges, and recognise the role of finance in climate change mitigation and facilitating investment flows into projects that support the transition to a sustainable economy.

The UK government uses the funds generated via the sale of green gilts to finance key eco-friendly projects throughout the UK. After the initial Green Gilt sale, the UK went on to sell a further £6 billion of green gilts, resulting in a total of £16 billion in financing for green, government-backed projects, meaning the UK is one now one of the top three biggest national issuers of green bonds in the world. So far £26.6 billion was raised in green gilts.

The Green Gilt was followed with the world's first standalone retail Green Savings Bonds, issued by NS&I.

The Green Finance Institute (GFI)

The GFI was established in 2019 as an independent, commercially-minded organisation. GFI identifies the ways sustainable investing can break barriers that impact real-economy outcomes to benefit the environment, society and the economy. It also explores how private and public finance can be mobilised to support the greening of the financial system while maintaining the UK's competitiveness. GFI explores ways to develop the financial ecosystem and advise industry players on their sustainable finance journeys. An example is the "Broker's Handbook" which is designed to educate mortgage intermediaries about the different green home retrofit solutions and technologies that could help accelerate the decarbonisation of UK properties.[24]

UK Agenda Timeline

2006

The Economics of Change – The Stern Review

(by Nicholas Stern): the report assessed a wide range of evidence on the impacts of climate change and on the economic costs. The conclusion of the study is that the benefit of a strong and early action far outweigh the economic cost of not acting.

2008

Climate Change Act

Conclusions from The Stern Review led the UK Government to create the Climate Change Act, incorporating carbon reduction targets into UK legislation, becoming the first country to do so. Since then, the UK has reduced its emissions faster than any other G7 country; by 44% compared with 1990.

2012

Green Investment Bank (GIB)

The UK Government launched the Green Investment Bank (GIB), considered the first Green Bank in the world. It is designed to mobilise private finance into the green energy sector. GIB was acquired in 2017 by Macquarie and became Green Investment Group. It has committed or arranged £26+bn into green energy projects.[25]

2015

Paris Agreement

Sustainable Development Goals (SDGs), (cf. page 12).

2016

Green Finance Initiative

The UK Government, in collaboration with the City of London Corporation, launched the Green Finance Initiative which aims to provide public and market leadership on green finance (at regulatory and policy level), and to promote the UK as a leading centre for green finance.

2017

Clean Growth Strategy (CGS)

In accordance with Article 4 of the Paris Agreement specifying the requirement to develop a long-term strategy for carbon neutrality, the Clean Growth Strategy (CGS), sets green finance as one of its key building blocks to achieve this target. CGS aims to grow the UK's national income, at the same time as cutting greenhouse gas emissions.

Green Finance Taskforce

set up to accelerate growth of green finance and the UK's low carbon economy. The taskforce published a report with recommendations for the Government and the private sector to work together towards those objectives.

2018

25 Year Environment Plan

a broader plan that forms part of the UK's Clean Growth Strategy that includes broader environmental goals (e.g. biodiversity protection) over a 25-year period.

Green Finance Taskforce report

compiled by an independent taskforce, the report detailed challenges and opportunities for green finance in the UK, setting baseline recommendations on how the UK Government and private sector can work together to make green finance an integral part of UK's financial services industry.

2019

Net zero emissions law

The UK passed regulations that aim to bring its greenhouse gas emissions to zero by 2050, making it the first major economy in the world to do so.[26] The law legalised some of the most ambitious emission reduction targets in the world when it was passed.

Green Finance Strategy (GFS)

The GFS was published in response to the recommendations of the Green Finance Taskforce. The GFS developed major strategic pillars to enhance the competitiveness of the UK financial services sector by aligning private sector financial flows towards clean, environmentally sustainable, and resilient growth. The GFS has three main focuses:[27]

1. greening finance (making the consideration of climate and environmental factors a financial and strategic imperative)
2. financing green (mobilising finance for clean and resilient growth)
3. capture the opportunity (associated with the greening of financial systems and mobilising finance for UK businesses)

Green Finance Institute (GFI) established

a forum that aims to foster further collaboration between the UK's public and private sectors to create new opportunities for investors and to strengthen UK's position as global leader in green finance.

Voluntary National Review: The UK produced its first Voluntary National Review in which it assessed and shared its progress towards the SDGs.

2022

UK Transition Plan Taskforce

(TPT), aimed to develop a gold standard for private sector climate transition plans applicable to the UK.

2023

Update of the

Green Finance Strategy

The strategy highlights the aim of the government to harmonise with international frameworks and reaffirms its commitment to the green agenda. Firms' transition plans and UK Green Taxonomy are the main priorities for 2023.

2021

Environment Act 2021[28]

New, legally binding targets were set by the government to protect and enhance the environment through the improving air and water quality, tackling waste, increasing recycling initiatives and halting the decline of species abundance following the UK's exit from the EU. The Office for Environmental Protection (OEP) was created as new independent watchdog to enforce and monitor the targets.[29]

Green Technical Advisory Group (GTAG)

appointment of a new, expert group that provides the government with independent, non-binding advice on the design and implementation of a UK Green Taxonomy and supporting consumers, businesses, and investors in making sustainable financial decisions.[30]

Sovereign Green Market Pioneer[31]

The Climate Bonds Initiative has granted the UK government two awards in recognition of its work as a global pioneer in green finance in 2021: the Largest Green Sovereign Bond and Sovereign Green Market Pioneer.

Roadmap on Greening Finance

The roadmap on Greening Finance outlines the government's long-term goals for greening the financial sector and bringing it in line with the UK's commitment to meeting its net zero target. The Roadmap focuses on three main areas: **informing** (ensuring that there is data available that can be used to support sustainable decision-making), **acting** (policies or legislation that are enacted support taking the environment and climate change into account), and **shifting** (to net-zero and nature-positive economy).[32]

Net Zero Strategy

defines the policies and proposals the UK will undertake to cut greenhouse gas domestic carbon emissions by 100% by 2050 compared to 1990 levels. The strategy highlights green opportunities, and sets out plans to enhance private investment flows to support meeting the UK's net zero targets.

UK Centre for Greening Finance and Investment (CGFI)

has a mandate to accelerate and support financial institutions around the world to adopt and utilise environmental and climate data and analytics. Through its activities, CGFI will open doors for the UK to take the lead in financing green and greening finance.[33]

Dasgupta Review

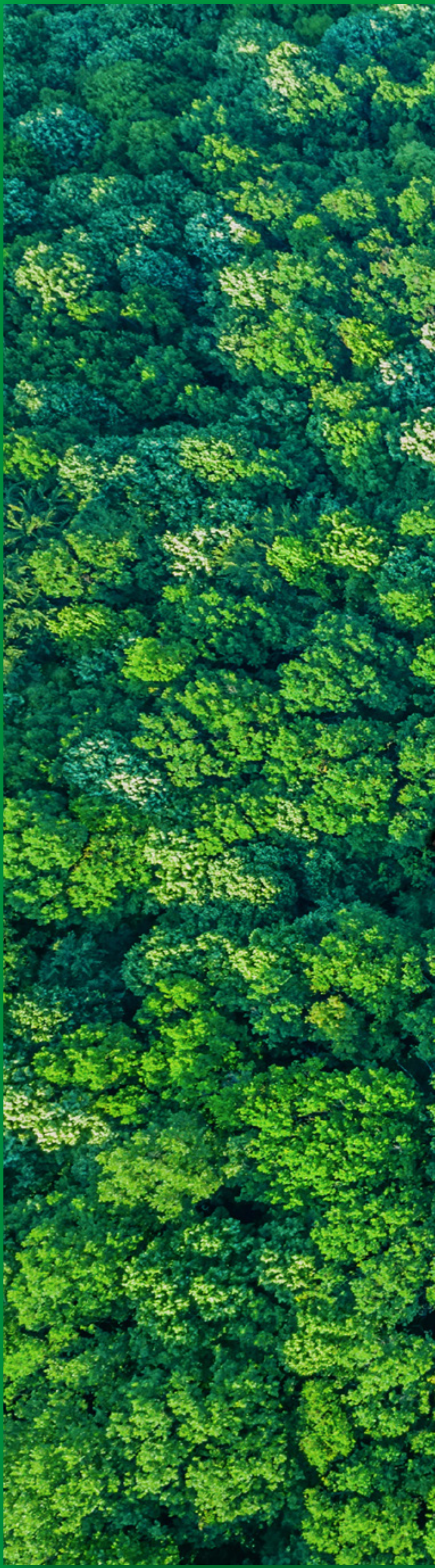
the independent review covers the research undertaken by Professor Sir Partha Dasgupta, highlighting the relationship between biodiversity and economics. The report claims that to protect and enhance prosperity and the natural world, we must change the way we think, act, and measure economic success.[34] The UK Government used the findings of the review to shape some of its ambitions for its COP26 and G7 presidencies.[35]

COP26

The UK held the COP26 Presidency, with the principal aim of limiting the rise in global temperature to 1.5°C. The UK aimed to deliver this aim via the Glasgow Climate Pact, which they successfully achieved. A historic surge in the number of companies, regions, and investors seeking to align with climate and environmental goals was triggered by the UK's COP26 Presidency in 2021. National net zero targets already encompass more than 90% of global GDP.

The United Kingdom

Number of Climate Laws and Policies[36]	61
Climate Targets[37]	202
Country Greenhouse Gas Emissions Data (CAIT 2016)[38]	461.54 MtCO2e
% of Global Emissions[39]	0.97%
Global Climate Risk Index[40]	65



5. LUXEMBOURG'S AGENDA

Luxembourg is a pioneer in sustainable finance.

As such, it is home to leading governmental and private bodies that deliver innovative solutions relating to sustainable finance. These include the Luxembourg Sustainable Finance Initiative (LSFI) launched in 2020 to coordinate key stakeholders in the transition to sustainable energy and to raise awareness on the subject.[41]

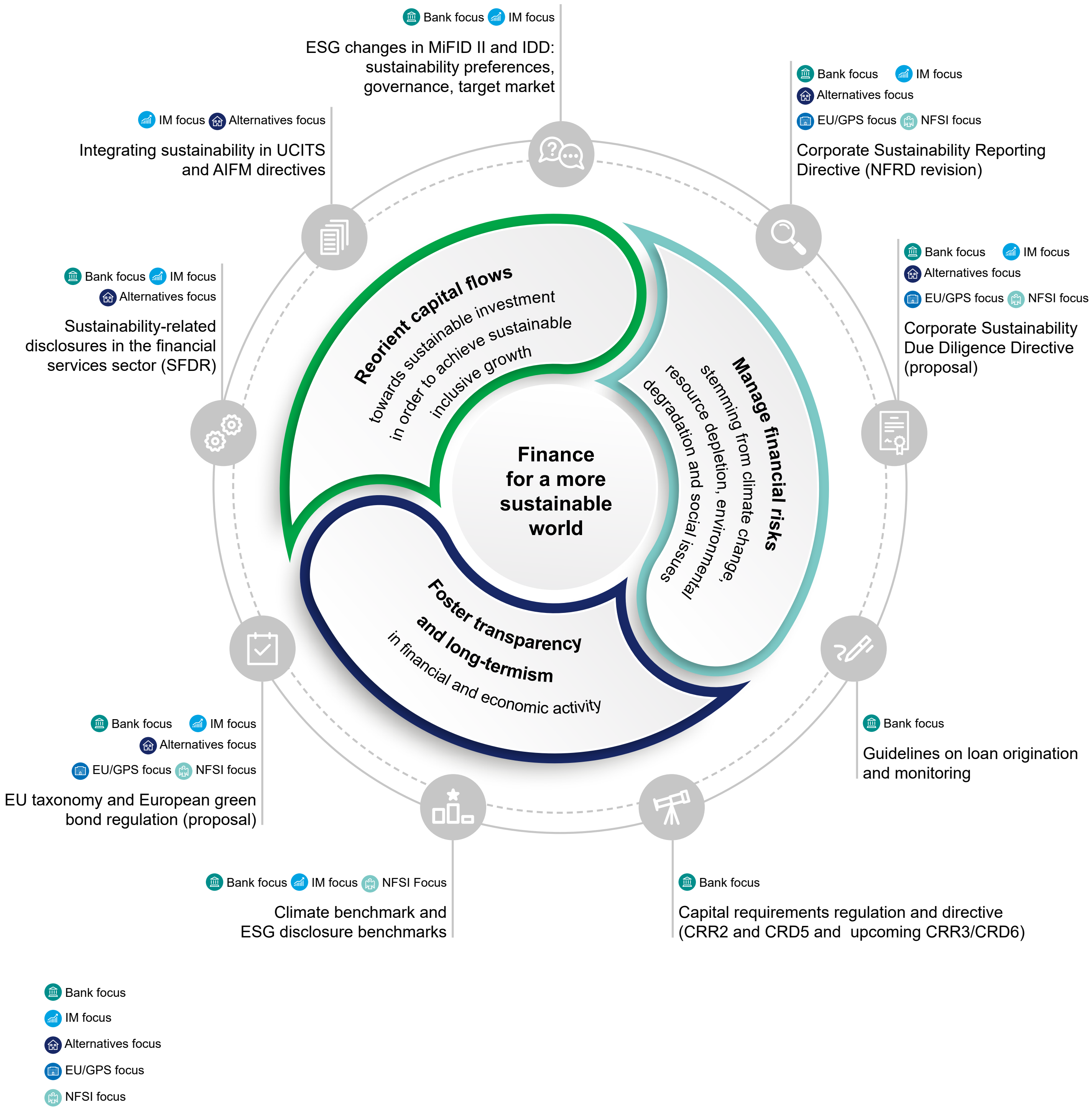
Other sustainable finance initiatives in Luxembourg include: The Luxembourg Finance Labelling Agency (LuxFLAG) a climate finance quality label for Asset Managers and other financial providers, the Luxembourg-EIB Climate Finance Platform, the International Climate Finance Accelerator, the Luxembourg Earth Impact Fund, and the Forestry and Climate Change Fund (FCCF).

Luxembourg's financial centre serves as a leading international platform for sustainable finance, facilitating capital flows towards sustainable investment via the activities carried out by responsible investment funds, sustainable bond listings and sophisticated, independent ESG fund labelling. Luxembourg also has the largest market share of listed green bonds worldwide, and was first state to issue a sovereign sustainability bond in the EU.[42]

As part of the European Union (EU), Luxembourg follows the agenda set by the Commission to meet the goals of the Paris Agreement. If these targets are met, the EU will become the first climate-neutral economy by 2050. To meet these goals, existing laws need to be reviewed and amended, and private investment channelled into projects that transition the EU into a carbon neutral, more resource-efficient and sustainable economy. The European Green Deal, announced in 2019 and approved in 2020, advocates for the development and implementation of a new sustainable finance strategy to support the transition.[43] With the Deal, a Financing Sustainable Growth Action Plan based on three main objectives was introduced, which also underline the importance of the EU's financial sector and its central role in enabling the wider transition towards sustainable finance:

1. **reorient capital flows** towards sustainable investments in order to achieve sustainable and inclusive growth
2. **manage financial risks** stemming from climate change, resource depletion and social issues
3. **foster transparency** and a long-term outlook in financial and economic activity.[44]

The EC's strategy proposes actions in a number of areas with regards to sustainable finance, as shown in Figure 1.



IM: Investment Management

Source:Deloitte

To support the fulfilment of each objective, the European Commission (EC) is in the process of defining a robust and extensive regulatory framework:

First Pillar

EU Taxonomy is a cornerstone of the first pillar. It provides a classification system for sustainable activities, identifying which operations are deemed sustainable through an evaluation framework that assesses how green a company's turnover, CAPEX, and OPEX is. It also implies firms operating under MiFID II and IDD should incorporate clients' ESG preferences into suitability assessments when providing investment advice.

Second Pillar

The second pillar requires that consideration of environmental and social risks should be incorporated into financial decision-making. To determine banks' susceptibility to risk caused by climate-related and environmental (C&E) factors, the European Central Bank is conducting a climate stress-testing and thematic assessment. Regulations and standards such as the Capital Requirements Regulation (CRR 2) and the Capital Requirements Directive (CRD 5) also make up part of this pillar.

Third Pillar

SFDR, CSRD and NFRD are all part of the third pillar. The Sustainable Finance Disclosure Regulation (SFDR), improves transparency in the sustainable investing market. The Corporate Sustainability Reporting Directive (CSRD) and the Non-Financial Reporting Directive (NFRD) obliges banks to disclose their Green Asset Ratio, including the Taxonomy alignment of their financing activities. They are also required to make risk-related disclosures in this respect.

Luxembourg Sustainable Finance Roadmap[45]

Luxembourg's Sustainable Finance Roadmap was published on 4 October 2018 in collaboration with the Ministry of Finance and UNEP FI. It forms part of the framework of the government's "Luxembourg 2030 – National Plan on Sustainable Development" in conjunction with the other commitments undertaken by Luxembourg at international level. The Roadmap defines Luxembourg's sustainable development vision and sets out a plan that will see Luxembourg achieve its sustainability targets by 2030, and meeting the terms of the Paris Agreement.

Sustainability Bond Framework[46]

Launched on 2 September 2020, the Sustainability Bond Framework enables the issuance of green, social or sustainability bonds.[47] Bonds issued in accordance with the Framework can exclusively be invested into green, social or sustainable projects. The projects or investments the bonds finance, the process for project evaluation and selection, management of proceeds, reporting and external review of the projects or investments are all considered as part of the Framework, which provides an objective and transparent tool for determining the sustainability of Luxembourg's public investments. Bonds issued through the Framework are internationally recognised as green, social or sustainable bonds.

Luxembourg Sustainable Finance Strategy[48]

Aligning with the recommendations in the Luxembourg Sustainable Finance Roadmap and in parallel with Luxembourg's international and national commitments, the Strategy was launched on, on 9 February 2021.[49] The Strategy provides a framework for the initiatives already being carried out by the government and various financial sector participants to support the transition to a carbon neutral future and strengthen the financial centre's role as a leading international hub for sustainable finance.

The Strategy is built around three pillars: Awareness & Promotion, Unlocking Potential and Measuring Progress; and divided into two parts: Luxembourg's Sustainable Finance landscape (Part 1) and the Luxembourg Sustainable Finance Initiative's (LSFI) "Action Plan" (Part 2).

The Strategy guides the LSFI's "Action Plan" to measure achievements on Luxembourg's short, medium and long term goals in relation to sustainability and mitigating climate change.

Part 1 of the Strategy is a strategic focus on the core financial sector and how it can help in the transition towards increasing sustainability while developing Luxembourg's role as an international hub for sustainable finance.

Part 2 of the Strategy summarises the implementation of the 3 pillars.

- Awareness & Promotion: seeking to raise awareness and promote sustainable finance, aiming to help every player be informed, aware of it, to embark and foster the transition towards sustainability.
- Unlocking Potential: aiming to create a knowledge and experience sharing platform to unlock the sector's potential.
- Measuring Progress: assessing sustainable finance in Luxembourg in order to understand where the sector stands, what the key trends are, and what strategies towards sustainability are used.[50]

Luxembourg Agenda Timeline

2006

Luxembourg Stock Exchange (LuxSE)

LuxSE introduced the "Ten Principles of Corporate Governance" which all Luxembourgish firms listed on the LuxSE must comply with. In 2017, Principle 9 was added, requiring businesses to document how they produce long-term value by integrating corporate social responsibility (CSR) into their corporate strategy. Businesses must disclose the process used to generate their CSR performance indicators and statistics and the measures it has taken to attain them.

Launch of Luxembourg Finance Labelling Agency (LuxFLAG)

LuxFlag was founded by seven private and public partners, including the Luxembourg Government, ALFI, the European Investment Bank and Luxembourg for Finance. LuxFLAG's labelling tool gives Asset Managers the ability to highlight the sustainability, ESG or impact credentials of their investment products with various predetermined classifications.

LuxFLAG also launched the **Microfinance Investment Fund Label** for Microfinance Investment Vehicles (MIVs). The classification is given to MIVs that meet the necessary criteria set out by LuxFlag to award the label, giving investors confidence that the fund has invested (directly or indirectly) in the microfinance sector, as assessed by an independent body.

2007

The European Investment Bank (EIB) issued the world's first Green Bond

labelled a Climate Awareness Bond (CAB), the EIB's Green Bond was listed on LuxSE. CAB provides clarity and accountability into how the relevant funds are invested in projects that support sustainability or climate change mitigation.

Creation of Inspiring More Sustainability (IMS)[51]

A network for Luxembourgish companies that engage in generating positive corporate social responsibility through the exploration of new solutions and actions, pilot groups and working groups.

2011

Action plan for the Development of A Solidarity Economy in Luxembourg

The Department of Solidarity Economy, (part of the Ministry of Economy and Foreign Trade), laid out a first dedicated action plan with a view to promoting solidarity economy. The same year, the Business Initiative a.s.b.l. launched a new support system for businesses pursuing social or solidarity goals in Luxembourg, called "1,2,3 GO Social".

2015

Sustainable Development Goals (SDGs) – **Paris Agreement** (cf. page 12)

Luxembourg's Climate Finance Task Force (CFTF)

The Luxembourg's Climate Finance Task Force (CFTF) was established in 2015 and brought together public and private industry experts in order to develop initiatives in the field of green and sustainable finance in Luxembourg.

2016

LuxSE launched the Luxembourg Green Exchange (LGX)

LuxSE launches LGX, the first platform in the world exclusively dedicated to green bonds, which now includes a full suite of sustainability-orientated products and services. LGX is made up of the LGX Platform, the LGX Academy, LGX DataHub and LGX Assistance Services. A total of £830+ bn was raised through the sustainable bonds displayed on LGX.

European Commission's High-Level Expert Group (HLEG) on sustainable finance

LuxSE was appointed to the European Commission's (EC) HLEG on Sustainable Finance in 2016. The group was mandated to provide the EC with strategic recommendations on how to direct more public and private capital into sustainable investments, identify the action financial institutions and supervisors can take to protect the financial system from environmental risk, and how to deploy policies relating to these across Europe.

2017

National Plan for Sustainable Development

The plan is the blueprint for Luxembourg's sustainable finance strategy. The plan was taken into consideration as part of the development of the Luxembourg Sustainable Finance Roadmap (published in October 2018). Along with other players, LuxSE played a central role in the creation of the plan.

Creation of Luxembourg-EIB Climate Finance Platform

A blended finance platform that mobilises private capital into investment funds that have a strong impact in the fight against climate change.

The Forestry and Climate Change Fund (FCCF)

The FCCF is a pioneering impact fund aiming to demonstrate that sustainable forestry within secondary & degraded tropical forests generates economic, ecological and social value and contributes to healthy landscapes, climate change mitigation & adaptation and local economic development. The blended finance and public-private structure was launched with investments in the junior and senior tranches by the Luxembourg Government.

2018

Publication of the Luxembourg Sustainable Finance Roadmap

The Roadmap was drafted under the guidance of the Luxembourg Ministry of Finance and the Ministry of Sustainable Development and Infrastructure, the UN Environment Programme and Luxembourg For Finance (LFF). It contributes to the framework of the "Luxembourg 2030 – National Plan on Sustainable Development" of the Luxembourg government, the various commitments taken by Luxembourg at international level and is in line with the trend of leading financial centres' efforts to boost sustainable finance.

EU TEG

LuxSE was appointed as a Member of the European Commission's (EC) Technical Expert Group on Sustainable Finance (TEG). The TEG was mandated to assist the EC in developing implementation measures for the EC Action Plan on Financing Sustainable Growth and its subsequent package of legislative proposals, which was published in March 2018.

Amundi Planet Emerging Green One Fund (EGO)

As a partner of International Finance Corporation (IFC), Amundi – Europe's largest Asset Manager – launched the world's largest targeted green bond fund, which focused on investing into emerging market green bonds. Luxembourg, alongside Sweden and Switzerland, fund a technical assistance programme run by the IFC that helps build green bond markets in emerging markets.

International Climate Finance Accelerator (ICFA)

An innovative accelerator programme that supports fund managers specialising in climate finance (or that aspire to make greater positive environmental impact as climate fund managers). The two-year programme provides financial support, training and high-level coaching to first and second-time fund managers that, amongst others, have a target of 75% of their investment portfolio in climate change mitigation, adaption and EU taxonomy pillars and invest using ESG criteria.

2021

Luxembourg Sustainable Finance Strategy

the strategy provides a framework for implementing sustainable finance in Luxembourg around three pillars: Awareness & Promotion, Unlocking Potential and Measuring Progress. The strategy and divided into two parts: Luxembourg's Sustainable Finance landscape (Part 1) and the LSFI's "Action Plan" (Part 2).

2023

Luxembourg Earth Impact Fund (LEIF)

Initiated by the Luxembourg Ministry of Finance, the first sub-fund of the LEIF was set up. The Green Earth Impact Fund (GEIF) sub-fund invests to positively impact climate change, water protection, and biodiversity in emerging and frontier markets with BlueOrchard Finance.

2020

Launch of the Sustainability Bond Framework

The Framework enables the issuance of green, social or sustainability bonds in line with the government strategy towards sustainable finance. The framework meets the International Capital Markets Association's (ICMA) Green, Social and Sustainability Bonds principles.[52]

Strategic partnership with the University of Luxembourg

Collaborating with the University of Luxembourg, the government set up a sustainable finance research programme – the first in the country. The programme includes a professor, assistant professor, research scientist, 4 PhDs and a master track dedicated to sustainable finance. The University of Luxembourg also offers professional certificates and fundamental and applied research in sustainable finance.

Launch of Luxembourg Sustainable Finance Initiative (LSFI)

The Luxembourg Sustainable Finance Initiative is a not-for-profit public-private partnership that designs and implements the Luxembourg Sustainable Finance Strategy.

Luxembourg issued the first sovereign sustainability bond in Europe[53]

the £1.32 billion bond will contribute to financing and refinancing sustainable projects, broadly defined as social and green initiatives and related investments.

2022

SFDR/TR

Luxembourg implemented the Regulation (EU) 2019/2088 of 27 November 2019 on sustainability-related disclosures in the financial services sector, as amended (the SFDR), and the Regulation (EU) 2020/852 of 18 June 2020 on the establishment of a framework to facilitate sustainable investment (the Taxonomy Regulation or TR) (hereafter the SFDR/TR Implementing Law). The regulations explicitly state that the Commission de surveillance du secteur financier (CSSF) and the Commissariat aux Assurances (CAA) are the competent authorities responsible in Luxembourg for the supervision of the proper implementation of the SFDR and the Taxonomy Regulation by all financial market participants (FMPs) and financial advisers (FAs).[54]

European Commission's High-Level Expert Group (HLEG) on scaling up sustainable finance in low and middle income countries

LuxSE was appointed as a Member of the EC HLEG on scaling up sustainable finance in low and middle-income countries. The group's mandate is to provide recommendations on how to scale up funding for sustainable development from the private sector.

Luxembourg

Number of Climate Laws and Policies[55]	18
Climate Targets[56]	9
Country Greenhouse Gas Emissions Data (CAIT 2016)[57]	9.77 MtCO2e
% of Global Emissions[58]	0.02%
Global Climate Risk Index[59]	97.17

6. OVERVIEW OF THE SUSTAINABLE FINANCE MARKET IN **THE UNITED KINGDOM**

The United Kingdom's green financial products market is one of the most advanced and competitive in the world.

The UK is a central banking hub, the largest international debt issuance centre in the world, one of the leading asset management centres, and a centre for commercial insurance and reinsurance as well as foreign exchange trading.

Building on its strong foundation as a dynamic and competitive conventional finance centre, the UK aims to continue to expand its product offering, and become a global reference in terms of sustainable finance, also leveraging the opportunities represented by this transition.

To date, the UK remains the only financial centre in the world that leads in both conventional and green financial centre rankings,[60] meaning it is well-placed to expand on its sustainable finance market offering which will make it even more competitive. For the fourth consecutive time, London has been awarded the top green financial centre by the Global Green Finance Index. A global survey of finance professionals and 149 quantitative parameters are taken into account in the ranking, which focuses on four main competitiveness pillars: business environment, financial infrastructure, human capital talent, and overall sustainability factors.

To maintain its current position and adopt sustainable finance, the UK will need to continue to innovate financial tools and products. Its service offering and financial products should remain aligned with global standards and focus on establishing outcomes-based trading relationships with global markets.

Together with public and private stakeholders, the UK government's vision is to develop a sustainable and highly competitive financial sector that empowers not only the country, but also the industry as a whole and the financial players choosing to operate in the UK.

The UK will increase its investment for adaptation from £500 million in 2019 to £1.5 billion in 2025 as part of its plan to double International Climate Finance (ICF) to £11.6 billion between 2021–2022 and 2025–2026.[61]

Fund sector

The UK is home to one of the largest fund sectors in the world. Around £11.6 trillion assets under management (AUM) are held in UK funds in around 4600 UK-domiciled fund structures. Within Europe, the UK is by far the sector's largest and most dominant jurisdiction, with 37% of all European assets managed in the UK. With this volume of European assets managed in UK funds, the sector is bigger than those of France, Germany and Switzerland combined – the countries with the second, third and fourth largest AUM in Europe respectively.[62]

While fund domiciliation is more prominent in the US, Luxembourg and Ireland, the UK's fund specialisation is undoubtedly investment management. Some 44% of the UK's AUM is managed on behalf of international investors, demonstrating its importance as a global funds hub. Popular with both global retail and institutional clients, almost half of the AUM in UK funds (approximately £4.6 trillion) is managed on behalf of international clients.[63]

The UK pioneers Socially Responsible Investing (SRI) with many managers now signatories to the Net Zero Asset Managers initiative. Signatories are investment managers with some £7 trillion of AUM in the UK, who have made the commitment to net-zero as of July 2022.[64]

There was a 62% year-on-year increase in SRI funds managed in the UK in 2021. The AUM in the UK defined as "responsible" or "sustainable" are increasing steadily. Driven by investor demand, the opportunities presented by sustainable investments and regulatory changes, responsible AUM have grown to £89 billion. ESG integration is also becoming more prevalent in the UK, with the Investment Association's (IA) Responsible Investment Framework illustrating that almost half of the assets managed by its members integrated ESG in 2020, up from 37% in 2019.[65]

The UK has over 800 signatories supporting the UN Principles for Responsible Investment (PRIs). Only the substantially larger US market has more signatories. Almost 80% of the AUM in the UK are subject to ESG stewardship activity.[66] The UK (alongside the Nordic countries) has the highest share (70%) of signatories being graded at A or A+, according to the October 2022 City of London report.[67]

Close to 300 green, ethical and alternative energy funds were set up in the UK in 2021 — the largest number of any of the world's leading financial centres, and 25% more than in 2020. In addition, companies and funds on the London Stock Exchange (LSE) with Green Economy Mark represent £156bn.

Close to 300 green, ethical and alternative energy funds were set up in the UK in 2021 — the largest number of any of the world's leading financial centres, and 25% more than in 2020.

As more green funds launch in the UK, various players in the funds sector have identified the need to create and introduce green fund classifications. The classifications allow investors to compare investment products and understand a fund's environmental and social impact with a formal classification. The City of London Corporation and IMP+ACT Alliance collaborated to launch the IMP+ACT Classification System (ICS)[68] on 24 June 2020, supported by Deutsche Bank and the Impact Management Project. The ICS makes it easier for investors to understand the impact of green fund products, and promotes transparency with the overall aim of making sustainable investing more mainstream with a standardised classification.

Sustainable finance labelling is a focal point in the funds sector. It supports transparency, sets the scene for investors to make informed and aligned investment choices, and accelerates the transition to sustainable finance. The UK's Financial Conduct Authority, which regulates the financial services industry, is looking to set criteria or restrictive rules for the use of terms such as "ESG", "green" or "sustainable" within the fund industry.

Greenwashing remains a concern across the financial services industry, particularly in the funds sector, where product labels are common. Fund products can be marketed as sustainable even if the fund only adopts a tenuous ESG evaluation or if the fund has a limited positive societal impact. The FCA recognises that the lack of formal restrictions on the use of sustainability-related terminology when it comes to naming investment products, continues to leave space for non-sustainable or quasi-sustainable products to be labelled as sustainable funds.

This hampers transparency, limits investor clarity and creates something of an unfair playing field between bona fide sustainability funds and players that are erroneously labelling their fund products as sustainable. As a result, the FCA has announced its intention to introduce formal labels.

As well as ESG inclusion initiatives adopted by fund managers and sector-wide plans (classification and labelling), the UK government has also launched sustainable fund products. For example, the London Green Fund (LGF) — a £120 million fund — was set up in 2009 to exclusively invest in projects that lower the capital's carbon emissions. LGF was the UK's first JESSICA (Joint European Support for Sustainable Investment in City Areas) holding fund.[69]

Various bodies and associations are also working to enhance sustainable finance in the funds sector. This includes making sustainability a more central theme for stakeholders and investors. Members of the IA collectively manage around £10 trillion of assets for domestic and international clients.[70] The IA supports the Paris Agreement goals, and is taking a central role in the ongoing development of the UK fund industry's climate-related disclosures. It also assesses how firms operating in the UK's funds sector can communicate effectively as they work towards sustainable finance.

The UK Sustainable Investment and Finance Association (UKSIF) is a membership organisation that aims to expand, enhance and promote sustainable finance. It is similar to the IA in that its objective is to bring together the UK's sustainable finance community and drive growth for members as well as uncover new opportunities for them. There are also various working groups, associations and taskforces striving to promote, grow and mobilise the UK's sustainable funds and investment sector.

This underlines the UK government's commitment to retaining its position as a leading sustainable finance hub and paving the way to an exceptional green and sustainable fund offering.

Banking sector

The UK's banking sector is well-known for its international reach and for facilitating global cross-border capital flow. The sector is made up of a diverse range of traditional and newer players, including large retail banks, challenger banks and fintechs offering banking services. The result is a dynamic and forward-looking banking sector with one of the most technically advanced consumer markets in the world.

As a global banking hub, around 200 foreign banks are active in the UK. The popularity of the UK as a first choice for international banks is in part due to its position as a top jurisdiction for foreign exchange trading. More US dollars and euros are traded in London than in the US and EU member states, and more than a third of global foreign exchange trading takes place in London. That is more than in the US, Singapore and Hong Kong combined – the next three largest exchange centres respectively.

As the leader in international debt issuance, with some £139 billion of international debt issued from the UK government in 2021 puts the country at the forefront of bank lending and borrowing activity. The UK is also home to the world's largest cross-border banking sector, demonstrating how the financial services industry facilitates banks' global connectivity and international capital flows.[71]

The UK's banking sector provides a competitive backdrop for all types of international banking business – including banking in emerging areas like fintech. As the UK's sustainable finance ecosystem evolves, the country will be looking to retain its position as one of the world's most competitive and advanced banking centres. Its objective is to ensure that it provides the same opportunities for sustainable banking as it currently does for conventional banking. The UK was the largest green loans centre with £33bn issuance in 2022, and count more than 45 green mortgage products available.

At governmental level, the UK Infrastructure Bank (UKIB) — which is owned and backed by HM Treasury – provides £22 billion in infrastructure finance to invest in projects that mitigate climate change. Financing also supports regional economic growth in the UK.[72] As of 27 March 2023, it has announced 12 deals, investing approximately £1.2 billion and unlocking over £5 billion of private capital.[73]

The UK government founded the British Business Bank (BBB), a government-owned institution for economic development. BBB encourages smaller businesses to have access to financing in order to promote sustainable growth and prosperity across the UK and to make the transition to a net-zero economy possible. BBB supported £505 million in equity investments in clean technology startups between 2014 and the end of August 2022.[74]

Regulators are also closely involved in working towards the UK's sustainability targets and assessing how policy and legislation in the sector can support the transition to sustainable finance. Mitigating climate change risks is increasingly becoming a priority for supervisory bodies. For example, the UK Prudential Regulation Authority (PRA) was the first financial regulator to publish a set of expectations on the management of climate-related financial risks in 2019. The PRA has also considered stress testing for assessing climate risk in addition to evaluating potential methodologies to measure actual climate-related risk in the short, medium and long term, and in hypothetical scenarios. Through these evaluations and initiatives, the PRA aims to protect the UK banking system in different climate change scenarios, as well as identify how incorporating ESG into existing frameworks will mitigate these risks.

UK Finance (which merged with the British Banker Association (BBA) in July 2017) is the collective voice for the banking and finance industry, representing more than 300 firms. UK Finance works for and on behalf of members to promote a safe, transparent and innovative banking and finance industry by researching, offering policy expertise, thought leadership and advocacy with the aim of contributing to the advancement of the financial and banking industry, including its transition to sustainable finance.[75]

Tackling climate change effectively requires an interconnected approach spanning all financial sectors (and not just individual banks). The BoE's Climate Biennial Exploratory Scenario (CBES) stress test outlines how the UK can meet its net-zero UK greenhouse gas emissions by 2050 targets.[76] The CBES has run exploratory scenario exercises on climate risk, and how they could impact the largest UK banks and insurers.

The CBES has identified the risks of not acting quickly enough to mitigate climate change. It determines the outcomes of "Early Action" (EA) scenarios (acting quickly to mitigate climate change), "Late Action" (LA) scenarios (not acting quickly to mitigate climate change) and "No Additional Action" (NAA) scenarios (the consequences of not taking action to mitigate climate change). The CBES undertook extensive research to identify what policies are needed at governmental level, and the changes required by individual players to meet targets. They found that the current lack of data makes it challenging for players to understand how to manage climate risks. CBES engages with banks and the banking sector to share best practices and support their efforts.

Insurance sector

The UK is home to one of the largest insurance sectors in the world, with UK-based insurers holding £1.7 trillion in assets, contributing £29.1 billion to the UK's GDP and 600 authorised insurance companies operating across the country. The UK's insurance sector is truly global, with 85% of London Market's premium sourced internationally.[77]

£100.2 billion of gross written premiums are issued from London's insurance market, and it is the only location that is both a global insurance hub and a cyber-security hub, given 20% of all global cyber insurance runs through the City of London. More than half of all aviation and energy insurance, and a third of all shipping insurance worldwide is issued by the London insurance market.[78]

The sheer size of the sector underlines the impact it can have on climate change mitigation and the transition to sustainable finance. The government estimated that approximately £2.7 trillion of investment is required by 2035 to hit the UK's net-zero target. A 2022 analysis by the Boston Consulting Group suggests that around a third of that sum could be provided by members of the Association of British Insurers (ABI) with an investment of £60 billion each year.[79]

The UK's insurance industry is already committed to the transition to sustainable finance. This is showcased by the fact that over half of general insurance providers and over 85% of long-term savings providers have become accredited members of the UN's Race To Zero Campaign, making their net-zero targets public.[80] The ABI has even gone as far as to make a formal recommendation that its members commit to this campaign.

In June 2021, ABI published its Climate Change Roadmap for the insurance sector, making the UK the first country to have this type of framework for a domestic insurance market. The Roadmap defines new sustainability targets for the insurance sector (for example, investment innovation and a revolution in green products and services). The Roadmap is the most ambitious and far-reaching carbon reduction plan of any insurance and long-term savings sector in the world. The Roadmap is a "living document" and is updated periodically, integrating learnings, adapted plans and milestones.

Insurance companies are also considering climate change risks as part of their policy coverage. For example, the Flood Re (a flood re-insurance scheme) is a joint initiative by the UK insurance sector and the UK government. Its aim is to make household insurance policies that cover flood insurance more affordable, given certain regions of the UK have been more heavily affected by flooding as a result of climate change.

According to the revised version of the UK Green Finance Strategy, the Government is expecting the insurance industry to play a significant role in supporting the net zero transition by making long term investments that target sustainable business models, providing insurance products that support climate change adaptation, and underwriting key risks in project development.

The UK's insurance sector is truly global, with 85% of London Market's premium sourced internationally.

Green bonds

The total value of labelled green bonds issued in the UK amounted to £31 billion in 2021, up from just £1 billion in 2017. With ambitious climate targets, green bonds are the UK's primary instrument for raising green finance.

In real terms, Green Financing Programme has so far raised around £26.6 billion in green gilts. It is worth noting that the private sector is becoming increasingly active in the green bond space, with actors issuing 89 green bonds in 2021, of which 74 were investment grade corporate bonds. Both the UK's green gilt and green retail bond issuance will help finance the transition to a green economy, tackling environmental challenges and creating green jobs across the UK.

Sustainable finance activity in the UK is growing across various sectors: bonds, loans, funds, mergers and acquisitions. Investments and projects can range from providing funding for zero-emission buses and offshore wind farms, to financing schemes to decarbonise homes and buildings. Many of these projects are funded by corporate green bonds.

Corporate green bonds have the deepest penetration and the most significant impact on the green finance. Labelled green bonds account for 96% of all the UK government's green bond issuance. Nine per cent of the green finance market is made up of corporate bond issuance and 7% is attributable to raising corporate capital via loan and equity markets.[81]

One of the oldest stock exchanges in the world, the London Stock Exchange (LSE) is one of today's most advanced and dynamic in its green bond offering. LSE was the first exchange to launch green bond segment, raising £120 billion across 300 bonds. LSE became first exchange to use a public carbon market framework to drive funding into climate mitigation projects under new VCM designation.[82]

The LSE offers a Sustainable Bond Market (SBM) which operates as a wide-ranging sustainable finance platform. For issuers, the SBM is a platform that caters to investor and stakeholder requirements for reporting, disclosures and transparency. The platform provides access multiple types of investor looking to invest in the global sustainable economy.

The SBM is a prominent, all-inclusive and flexible platform that is designed to offer everything that issuers and investors could require in terms of sustainable debt finance securities. It defines classifications of sustainable debt finance securities. These classifications give investors key information: the issuer, how the financial instrument is used and use of proceeds. As of January 2021, SBM has been home to over 250 bonds, many of which are "world firsts" in terms of currency, geography and structure.[83]

Partially in recognition of the success of the UK government's sovereign green bond offering, HM Treasury and the Debt Management Office (DMO) published the Government Green Financing Framework in June 2021. Designed to give transparency and clarity on how the capital raised through sovereign green bonds is invested, the framework outlines "how proceeds from the green gilt and NS&I retail Green Savings Bonds will finance expenditures to help tackle climate change, biodiversity loss and other environmental challenges, while creating green jobs across the UK."

As a pioneer in green bonds, the UK has received awards in recognition of its sovereign green bond offering. The Largest Green Sovereign Bond award celebrating the UK government's inaugural green gilt issuance in September 2021, was issued by the DMO. The Sovereign Green Market Pioneer award recognises the UK government's establishment of the world's first green saving bonds.

Payments sector

ESG is a top priority for many players operating in the UK's payments industry. In the transition towards sustainable finance, there are two main ways we expect the industry to enact change. The first is through a micro approach where payment operators provide products or services that embed some ESG objectives or features. This approach includes analytics modules to measure carbon footprints according to payment behaviour, replacing plastic cards with greener materials, digitalisation, stronger governance and taking positive steps to fight against financial crime and corruption.[84]

By contrast, a macro approach may see players take higher level action such as introducing an ESG feature that is linked to a product. These could be informal initiatives or incentive programmes (such as planting trees on behalf of customers or loyalty programmes that motivate costumers to be more eco-friendly).[85] As an example, ESG fintech company, ekko, promotes transparency by helping its customers to understand the environmental impacts of their everyday financial choices so they can make more informed purchases.

Financial inclusion is one of the key ways that the payment industry can support the shift to sustainable finance, and several projects and initiatives are underway across the sector in the UK. Fintech firms can support globally underserved communities by providing platforms that will enable them to deposit, withdraw and save money. Many players collaborate to share expertise, know-how and best practices.

The Payments Association (TPA) was founded in the UK in 2008 and today operates across the UK, the EU and Asia. TPA's aim is to enhance members' commercial interests, tackle societal problems such as financial exclusion, and evaluate new opportunities for innovation in payments. As a highly reputed and influential association, TPA works closely with industry stakeholders including the Bank of England, the Financial Conduct Agency, HM Treasury, the Payment Systems Regulator, Pay.UK, UK Finance and Innovate Finance. TPA also runs seven projects that drive industry change and shape the future of the payments landscape. The projects are called ESG, Inclusion, Regulator, Financial Crime, International Trade, Digital Currencies and Open Banking.[86]

TPA recently launched Project Inclusion. The project covers the important of financial inclusion in the payments industry and focuses on the cost of living and the impact of open banking to address inclusion issues. It examines how SMEs can navigate some of these topics B2B.

While ESG is a top priority for players operating in the payments industry, data, statistics and information relating to the progression of sustainable finance in the industry is currently limited. An increasingly widespread adoption of the micro and macro approaches outlined above will be one way to gauge progress and will also provide more data around the transition to sustainable finance in the payments industry. The promotion of sustainable finance also continues to be a theme, for example, in May 2022, TPA published a whitepaper entitled "Sustainability Superheroes – A how-to guide to ESG for Fintechs." The guide shone a spotlight on practical and measurable ways for industry players to monitor progress towards sustainability, as well as sharing insights and success stories.

7. OVERVIEW OF THE SUSTAINABLE FINANCE MARKET IN **LUXEMBOURG**

Today, Luxembourg is recognised as a leading sustainable finance hub, owing in part to its reputation as a prominent jurisdiction for cross-border fund distribution, corporate and private banking, as well as insurance. So, what are the reasons behind Luxembourg's success?

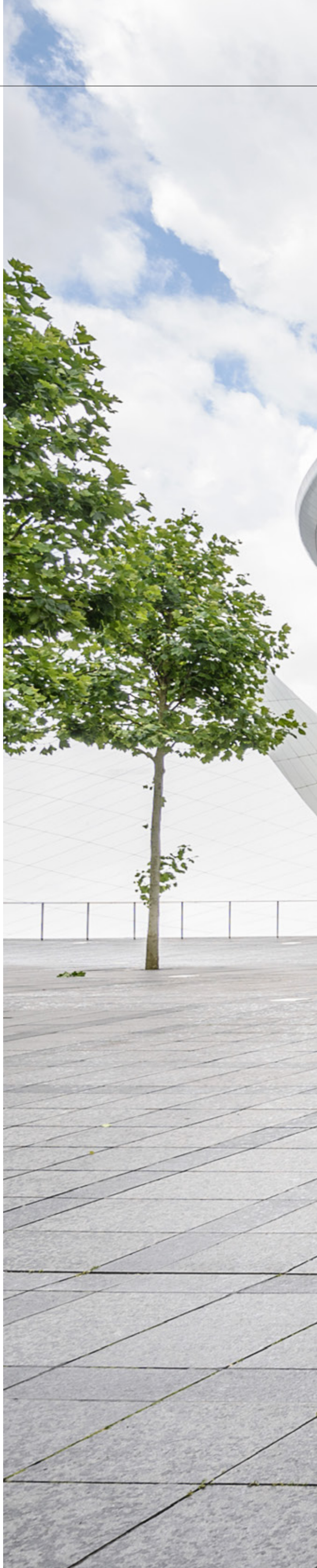
First and foremost, it has long been a jurisdiction of choice when it comes to asset management, fintech, banking, insurance, public and private investment, wealth management, and structuring European and global capital flows.

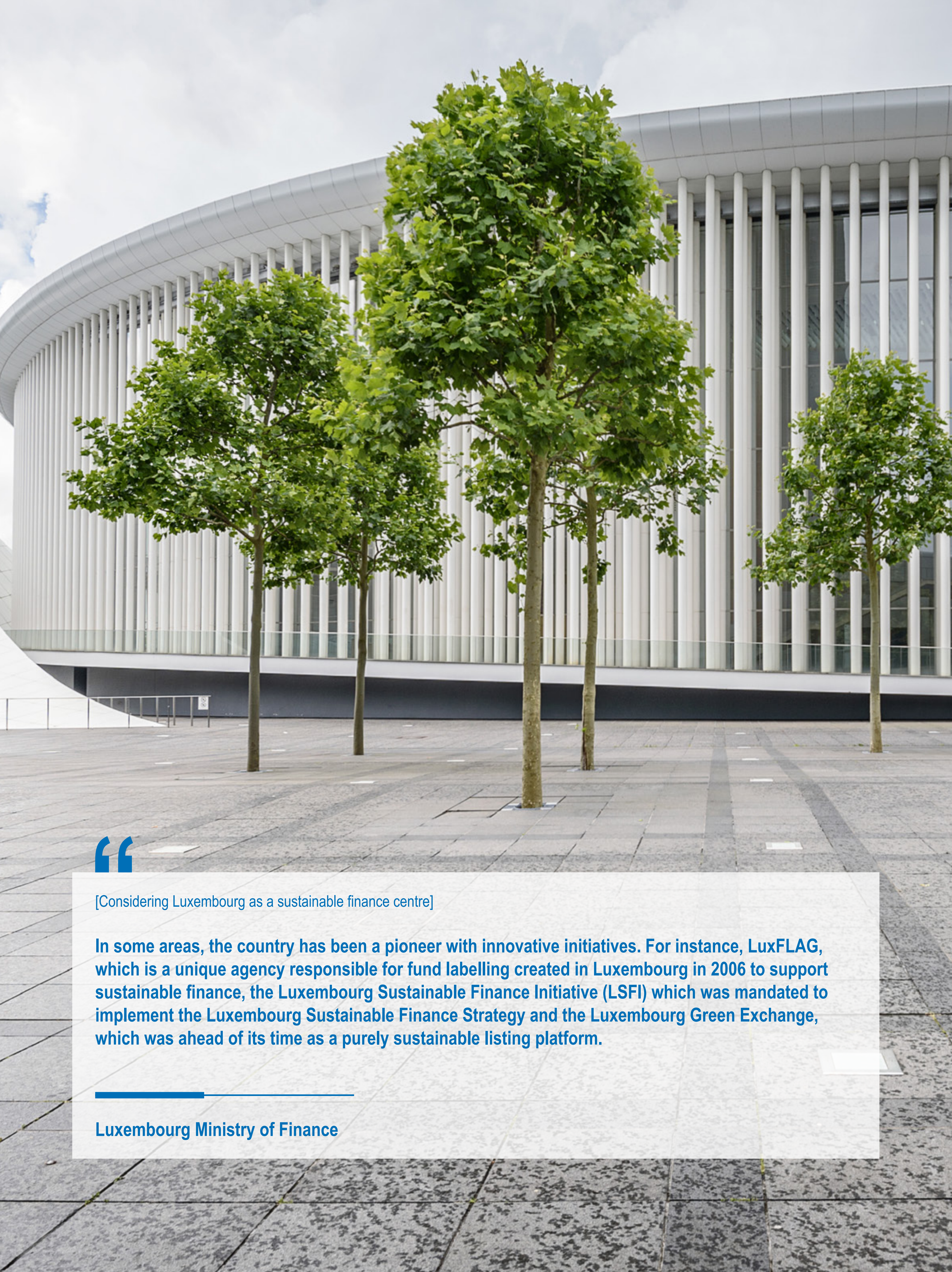
The government has also always looked to consistently adapt the country's toolbox of financial instruments and legislative framework to meet emerging trends and industry requirements, and to capture any associated opportunities.

Luxembourg has been able to develop its sustainable finance offering, regulation and products thanks to its:

- track record for social, economic, financial and political stability (underpinned by stable AAA ratings from independent ratings bodies)
- sophisticated legal, regulatory and tax framework which are optimised to suit international financial institutions and investors.
- international outlook and broad range of products, investment vehicles and talent
- long-standing position as a leading jurisdiction for the setup and administration of responsible investment and impact funds, delivered through specific investment vehicles and layered funds that serve both public and private investors.[87]
- track record in facilitating cross-border capital flows and linking international suppliers and customers. This includes the distribution of Luxembourg-domiciled funds in 77 countries and the highest banking internationalisation rate in Europe, with 92.4%[88] of banks being foreign. Of these, more than a third are non-EU players, showcasing Luxembourg as a choice for international banks as these players can easily enter the EU Single Market.
- close and mutually beneficial working relationship between public and private actors.

The government has capitalised on its ability to bring relevant stakeholders together to discuss requirements and potential areas of opportunity in the financial sector, and has adopted the same approach to developing Luxembourg's sustainable finance industry. Luxembourg's public and private sectors have collaborated to create pioneering frameworks, regulations and products that align with sustainability goals and investor demand.





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[Considering Luxembourg as a sustainable finance centre]

In some areas, the country has been a pioneer with innovative initiatives. For instance, LuxFLAG, which is a unique agency responsible for fund labelling created in Luxembourg in 2006 to support sustainable finance, the Luxembourg Sustainable Finance Initiative (LSFI) which was mandated to implement the Luxembourg Sustainable Finance Strategy and the Luxembourg Green Exchange, which was ahead of its time as a purely sustainable listing platform.

Luxembourg Ministry of Finance

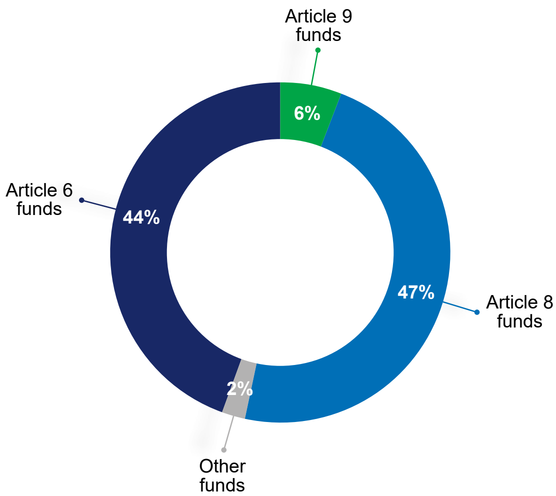
Fund Sector

Luxembourg is the largest fund domicile in Europe, handling 65% of the distribution of cross-border funds worldwide. These funds are distributed in more than 70 countries worldwide.[89] As of March 2023, total net assets of UCITS accounted for £4,557.74 bn. In terms of sustainable investment funds, Luxembourg is already an established market leader, given approximately a third of the assets managed by sustainable funds in Europe are domiciled in the country.

Luxembourg-domiciled ESG UCITS funds accounted for some £1.93 trillion in total assets at the end of June 2022 (representing 54.6% AUM overall), with 4,022 of a total of 9,656 UCITS funds being ESG funds. Therefore, ESG-related UCITS funds already represent a significant portion of the AUM in Luxembourg, despite the fact that sustainability remains a relatively new focus for the finance industry.

The Compound Annual Growth Rate (CAGR) of ESG UCITS funds domiciled in Luxembourg is projected to be 9.8% by 2026 (against Q2 2022 figures), surpassing £2.90 trillion in a base case scenario (52.3% increase in absolute terms).

Within one year of the introduction of the Sustainable Finance Disclosure Regulation (SFDR), over 53% of all assets in Luxembourg-domiciled UCITS funds are held in Article 8 and 9 funds, which have a combined value of more than £1.75 trillion. The proportion of AUM is as follows:



These figures[90] highlight the underlying maturity of Luxembourg's fund market. Article 8 funds are a natural first step for most players under SFDR, and the number of Article 6 funds are expected to diminish as more players meet the regulations required to have Article 8 classification. Article 9 funds currently only represent a small segment of the Luxembourg funds universe, as the regulations surrounding sustainability are more stringent. The number of Article 9 funds is likely to increase given the shift towards sustainability and demand from investors for sustainable investment products.

Many associations and organisations actively participate in or support the Luxembourg's development in the sector. For instance, the Association of the Luxembourg Fund Industry's (ALFI) 'Ambition 2025' plan outlines sustainable finance as one of its core priorities. Its mission is to create a competitive framework that drives product innovation while creating an environment under which sustainable products can flourish, meeting the needs of investors.[91]

LuxFLAG Labels, created in 2006, are used by asset managers to identify sustainable investment products LuxFLAG labels are available for microfinance, environment, climate finance and broad ESG funds as well as for green bonds. LuxFLAG labelled funds are predominantly domiciled in Luxembourg, and they have a global reach given they are distributed in more than 70 jurisdictions.

> **Luxembourg has been actively engaged in the microfinance industry since the early 1990s with the establishment of the first Luxembourg microfinance institutions. Today, almost a third of global MIVs are based in Luxembourg, accounting for more than 50% of the global AUM in MIVs.**
>
> **Lynn Robbroeckx**
> **Secretary General – Luxembourg For Finance**

Sustainable funds can no longer be seen as a niche area. It is expected that ESG/sustainable funds will represent an even larger share of the overall fund market in the future. The sustainability trend has definitely taken off and is here to stay. Asset managers and industry associations like ALFI or THEIA – its sister association in the UK – play an important role in engaging with policymakers and other international bodies to ensure that the regulatory frameworks that are developed are fit for purpose and that they really meet the objective of transitioning our economies towards a more sustainable business model.

Marc-André Bechet
Deputy Director General — ALFI

LuxFLAG's primary mission is to support investors in their sustainability journey and to reassure them that a fund product invests in the given sector in a transparent and sustainable manner, enabling transparency in the finance sector and fostering confidence among investors. LuxFLAG´s role within the sustainable finance market in Luxembourg is also to promote sustainable finance through the use of our labels. Labels are dedicated to financial products and fall under two main categories: impact and sustainable transition labels.

Isabelle Delas
CEO — LuxFLAG

Banking sector

Luxembourg has the highest banking internationalisation rate in Europe (92.4% of banks are foreign). There are 123 international banks from 26 different countries operating in the country.[92] This sets the backdrop for the country's unique banking ecosystem given Luxembourg's banks have the expertise and scope of products to serve multiple industries and jurisdictions.

Luxembourg is also the gateway for non-EU banking groups to enter the EU. Institutions from the US, Canada, Switzerland, Latin America and Asia, can benefit from a passport for their products and services, providing access to the EU Single Market as an onshore base for international private banking. In many cases, Luxembourg's banks act as global custodians for their own parent banking groups as well as their institutional clients from around the world. Luxembourg is also a one-stop shop for private banking and global wealth management, encompassing all of a client's assets and business interests across multiple jurisdictions and depositaries.

Many banks operating in Luxembourg are instrumental to several relevant sustainability initiatives outside the scope of their regulatory obligations. For example, while Luxembourg was the first European state to issue a sustainability bond, the support of banks was imperative in the success of the project, with several joining as joint lead managers.[93] This underlines the willingness of banks to support the transition to a sustainable economy.

The changes to banking regulations – particularly those related to disclosures surrounding investments and financing projects – mean that, in the near future, there will be more public data available on sustainability in the banking sector.

We will also have a broader picture of the impact banks will have on climate change mitigation through their activities. Banks will need to consider the following:

- the European Banking Authority (EBA) has published standards on Pillar 3 disclosures, calling on European Banks to disclose more information on their exposure to climate change-related risks, and the actions they are taking to mitigate these risks
- as of 2024, banks operating in Luxembourg must publish a Green Asset Ratio (GAR), breaking down each institution's EU taxonomy-compliant assets as a proportion of their overall loan portfolio
- using the Banking Book Taxonomy Alignment Ratio (BTAR), banks will be obliged to report on how compliant their overall balance sheet is with EU taxonomy, ultimately providing more sustainability data on the banking sector
- banks will also need to devise strategies to apply EU taxonomy to core banking products.

In October 2022, LuxFLAG launched the ESG Discretionary Mandate Label (ESGDML), in cooperation with ABBL. The label offers banks an independent and recognised classification for discretionary mandates.

"The ESGDML is for discretionary mandate products that assist with the transition to mitigate and adapt to the climate crisis, as well as other environmental and social issues embedded in the United Nations Sustainable Development Goals (SDGs)."[94]

As well as working towards meeting regulatory obligations with regards to EU taxonomy-compliant assets and reporting, banks are also looking to reduce their own carbon footprints with a holistic approach to meeting sustainability targets. Increasingly, they look to do this using a two-pronged approach that sees them working in compliance with industry regulations throughout the client life cycle, as well as considering internal policies and company culture to incorporate and promote ESG as part of everyday operations.

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At HSBC, we are prioritising financing and investment that supports our customers transition to lower carbon, including $750bn - $1tn of sustainable financing and investment by 2030. As of the end of 2022, we had deployed $210bn of this public commitment.
Conscious that HSBC still continues to finance a number of industries that significantly contribute to greenhouse gas emissions, we have a strategy to help our customers to reduce their emissions and to reduce our own. For more information visit www.hsbc.com/sustainability.

Emanuele Vignoli
CEO — HSBC Luxembourg

The European Investment Bank (EIB) and the European Investment Fund (EIF) also have their headquarters in Luxembourg, with both players taking a central role in the transition to sustainable finance through capital deployment. The EIB's Climate Bank Roadmap (covering the five-year period between 2021 and 2025) provides a framework in which new initiatives in climate mitigation action and environmental sustainability are financed.

The Luxembourg Banks and Bankers Association (ABBL) chairs the European Banking Federation (EBF), a working group that defines incentives and disincentives for sustainable finance. The EBF is the voice of the European banking sector, uniting national banking associations from all over Europe. It is dedicated to fostering a prosperous European economy supported by a stable, secure and inclusive financial ecosystem, as well as to a thriving society where financing is accessible to fund the aspirations of individuals, companies and innovators everywhere.[95]

"Within the next two years, ABBL plans to continue to monitor the regulatory developments of the EU Sustainable Finance Action Plan to develop further initiatives that support members in the field of ESG risks, sustainable lending, and disclosures and reporting. ABBL is also developing further guidance promoting best practices sharing in three additional areas: diversity, equity and inclusion; corporate social responsibility (which includes human rights); and energy savings.

ABBL already initiated its own working plan some years ago, in parallel to the work initiated at EU level and as part of its internal transformation project. A dedicated Sustainability Committee as well as specific working groups have been set up to engage in strategic dialogue with its members to monitor and advance developments in sustainable finance in the banking sector.

ABBL have also participated in the development of the European ESG template within the FinDatEx initiative alongside representatives from the UK. We also contributed to a collaboration between the EBF and UNEP-FI on the application of the EU taxonomy to the banking sector in collaboration with representatives from the UK.

Julien Froumouth
Sustainable Finance Adviser — ABBL

Insurance sector

Through careful and agile shaping of the industry for more than 35 years, Luxembourg has positioned itself as one of the main cross-border insurance and reinsurance centres in Europe, and is keen to maintain its competitiveness in this area.

The ACA - insurance professional association within the Luxembourg financial sector - already supports the UNEP FI Principles for Sustainable Insurance (PSI), which were introduced at the 2012 UN Conference on Sustainable Development.[96][97] According to an LSFI study, 80% of global insurers have already taken action, or are planning to take action, to align with the UN Principles for Responsible Investment (PRI), while 72% have already aligned (or will align soon) with the SDGs.

Generali Group pursues the proactive integration of relevant Environmental, Social and Governance (ESG) factors into the investment, supporting the achievement of both financial returns and social good. Alongside traditional financial risk/reward analysis techniques, the Group performs targeted screening to examine the sustainability policies, performance, practices and impacts of issuer companies, to avoid investing in companies that do not adhere to our principles. At Generali Luxembourg, we publish the SFDR classification of all the investment supports available through our insurance products and provide the pre-contractual annexes for those classifying article 8 or 9 under SFDR, if delivered by the asset/fund managers. Also, we make available the EET files to our insurance intermediaries who can than potentially automate the suitability process and align their recommendations and advice to clients. Generali Luxembourg have obtained since June 2021 the INDR and Responsibility Europe labels for responsible companies which for instance reduce the use of paper, avoid waste of water, and take care of other environmental and social aspects.

Michaël Cancian
Head of Product Development — Generali Luxembourg

Current regulations specific to the insurance industry include:

- insurance players' compliance with the SFDR and the Non-Financial Reporting Directive (NFRD) under the EU taxonomy, which subjects insurance companies to product and corporate reporting requirements respectively
- meeting amendments to the Insurance Distribution Directive (IDD) — which were introduced in August 2022 — to include sustainability factors and preferences within the product oversight and governance requirements for insurance undertakings and insurance distributors
- similar amendments to the Solvency II directive now mandates reporting on sustainability risks by insurance companies.

The insurance sector is increasingly able to formalise its sustainable product offering in the market. In December 2021, for example, LuxFLAG extended its scope beyond funds and green bonds to the insurance industry and, in collaboration with the ACA, an ESG insurance product label (ESGIP) under which insurance companies can classify their products under sustainable transition labels.

SOGELIFE has integrated sustainable funds within its product offering and in 2021 we created a new 100% SRI insurance product, which was awarded the LuxFLAG label. We also provide an assessment that allows clients to measure the SRI impact on their portfolio. This initiative goes above and beyond the spirit of the current regulations, by making it easier for our clients to understand.

Marc Jeanjean
Head of CSR — SOGELIFE

Green bonds

The Luxembourg Green Exchange (LGX) was established by the Luxembourg Stock Exchange (LuxSE) in 2016. Today, LGX displays more than 1,800 green, social, sustainability and sustainability-linked bonds from 300 issuers across the globe, amounting to more than £830 billion in investment for sustainable development.

The Luxembourg Stock Exchange first positioned itself as a pioneer in sustainable finance when the world's first green bond, EIB's "Climate Awareness Bond," was listed on the exchange in 2007, followed by the World Bank's inaugural green bond in 2008.

LGX is the world's leading platform for sustainable finance and covers a range of sustainable debt securities as well as ESG funds. Issuers from all sectors across 60 countries bring their sustainable debt instruments to LGX.

As part of its efforts to accelerate sustainable finance, LuxSE established the LGX Academy to strengthen sustainable finance knowledge and education among financial professionals, with a specific focus on emerging markets. In 2020, LuxSE launched the LGX DataHub, a centralised database for sustainable bond data covering 12,000+ sustainable debt instruments listed worldwide. The exchange has furthermore developed LGX Assistance Services, to help especially new issuers in the sustainable bond issuance process and assist existing issuers in improving their impact reporting.

From 2020 to 2022, the EU issued EUR 98 billion worth of social bonds under the EU SURE programme, to protect jobs and workers across Europe. In 2021, the EU also issued its inaugural EUR 12 billion green bond under the NextGeneration EU funding programme. The social and green bonds issued by the EU are all listed on LuxSE and displayed on LGX.

Given its status as a sustainable finance hub, Luxembourg has established a strong sustainability bond framework and issued Europe's first sovereign sustainability bond in 2020.

LuxSE plays a pivotal role in advancing sustainable finance globally and is actively involved in the development of standards and disclosures. The exchange is a member of different initiatives or working groups on a global level, including the European Commission's expert groups on sustainable finance, the UN-sponsored Sustainable Stock Exchanges initiative (SSE) and the World Federation of Exchanges (WFE) working group on sustainable finance.

In 2022, LGX continued to innovate when it started flagging gender-focused bonds to make it easier for investors to identify investment opportunities which advance gender equality objectives and contribute to the empowerment of women and girls across the world.

"LuxSE has an international outlook when it comes to sustainable finance. In this field, we cooperate with many countries and stock exchanges by providing trainings, sharing our experiences and data, building capacity, and offering the possibility to dual list some securities.

Laetitia Hamon
Head of Sustainable Finance – Luxembourg Stock Exchange

"In the last few years, the scope of LGX has broadened well beyond a platform that displays sustainable securities, with a full range of services that includes sustainable finance training through the LGX Academy, access to structured and comparable sustainability data via the LGX DataHub, and Assistance Services to support issuers in their sustainable finance journeys.

Laetitia Hamon
Head of Sustainable Finance – Luxembourg Stock Exchange

Payments Industry

Luxembourg is the go-to jurisdiction for players in the payments industry, partly due to its close association with the fintech sector. Luxembourg's government has long recognised the relevance and growing dominance of the payments industry, particularly given global market demand for new payment solutions. As a result, the government has looked to foster a business environment in Luxembourg in which industry players can develop, innovate and grow. The country has successfully attracted international payment service providers (PSPs) in recent years.

The payments industry differs from banking and insurance in that there are currently no applicable regulations that are specifically aimed at sustainable finance and related reporting requirements.

There will be more sustainability-related regulations for the payment industry to implement in the near future, with the introduction of the Corporate Sustainability Reporting Directive in 2023. The directive makes it mandatory for all companies in the financial sector — including those in the payments sector — to issue mandatory ESG disclosures on an annual basis. [98]

Luxembourg's payments industry is still in the early stages of adopting ESG, with current initiatives and regulations almost exclusively related to data and reporting. There is nevertheless an opportunity for the Luxembourg payments industry to have a central role in the transition to sustainable finance, given payments players' understanding of technological developments, not to mention their familiarity with artificial intelligence and use of data analytics. This expertise enables them to leverage their knowledge to develop new sustainability solutions at pace.

The impact the fintech industry will have in the transition to sustainable finance is likely to vary across markets and regions for various reasons including customer access to necessary technology and infrastructure. That said, the level of innovation and speed at which the fintech sector is developing means that the industry can drive green economic growth and economic development by accelerating eco-friendly payments and improving financial inclusion in regions and communities where it is currently lagging.[99]

8. CONCLUSION AND RECOMMENDATIONS

Based on the interviews and the research carried out during the development of this report, a clear set of opportunities for collaboration between the United Kingdom and Luxembourg have emerged.
Here, we give an overview of areas of common interest and identify potential opportunities for collaboration between both countries.

There is an undeniable sense of positivity when it comes to transitioning towards sustainable finance, particularly in terms of opportunities for the financial industry. Industry players are strongly in favour of a more sustainable finance ecosystem, both domestically and internationally. They view the transition as a priority, and they are clearly motivated to transform their working practices and implement any regulations that meet climate change targets.

Both the UK and Luxembourg governments have successfully implemented relevant regulations and built an excellent foundation for progress, and this is just the beginning.

Mitigating climate change risk is crucial to the planet as temperatures are rising, and biodiversity and nature at large are under threat. More awareness and a better understanding of these risks are essential to transitioning to sustainable finance.

The UK and Luxembourg already have complementary offerings, products and working practices, meaning industry players can work closely together to share knowledge, pinpoint opportunities and create mutually beneficial outcomes. We believe there are boundless opportunities for more strategic and fruitful cooperation between both countries.

Awareness and education

Change needs to be a collective commitment and general awareness of the need to shift to sustainable economies is critical.

Consumers and market players need to have a deeper cognisance of what sustainable finance actually is, how the transition will unfold and how it will impact them specifically. The bottom line is that shifting to a sustainable economy is a marathon and not a sprint.

To this end, we believe that sustainable finance literacy and awareness should be further promoted to highlight its urgency and inspire a desire for change. A bottom-up cultural shift has the potential to educate the general population on the need for sustainable finance, and will converge with the top-down approach of governments as they enforce new regulations and policies to green the economy. Communication should be clear, inclusive and relevant.

To take well-informed decisions, it is essential that investors have a thorough knowledge of responsible investing and sustainable finance, and the types of investment products on offer.

Starting points

- Exchange and secondment programmes between different organisations to promote education and awareness. These programmes would cover specific sustainability-related topics and build stronger bridges between relevant organisations, supporting the development of best practices in both countries. We expect that launching such programmes would lay a foundation for more systematic future collaborations.

- Tools and platforms for sustainability-related training and certifications recognised in both Luxembourg and the UK. These platforms could take various forms (for example, a database identifying relevant sustainability-related training and certifications classified by sector). LSFI in Luxembourg is already working in this direction with its Sustainable Finance Education and Training Working Group. Its primary objective is to map and identify gaps and needs, and propose practical solutions to develop suitable sustainable finance-related education paths and training.

- Strategic building of partnerships between universities, financial industry associations or institutions through summer internships, traineeships and programmes dedicated to a specific topic within sustainable finance (recognised by both the UK and Luxembourg). Potentially, equivalent bodies could oversee or facilitate these partnerships by connecting students with different member associations. By involving government-backed organisations, a link would be established between universities that educate young talent and industry associations that represent the market. This would set the stage for leveraging the data collected by research centres in the sustainable finance industry. Training could be sector-specific or cross-sectoral.

- Formalisation of upskilling. Sustainable finance training is not commonplace yet as it is not compulsory, and often not accredited. The UK and Luxembourg governments could potentially support upskilling in different ways (for example, by providing fiscal incentives for certified or accredited training). These incentives could be especially targeted to small and medium-sized players that may have time and resource constraints. Focusing on these actors may stimulate innovation, given it is often these businesses that are more agile and able to initiate change.

Expertise and talent

Specialist knowledge in sustainable finance has increased exponentially in the last decade, although there remains a real need to have subject matter experts who can support the acceleration and development of the transition to sustainable finance.

As we understand more about what is needed to mitigate climate change, we are forced to adapt accordingly. Sustainability-related regulations change quickly at both international and domestic levels. Technological advancements have also transformed our capacity to explore opportunities and shape the best path towards a transition to a sustainable economy. Expertise and sustainability knowledge, therefore, need to be approached from the angle of lifelong learning and development.

Sustainable finance is a very broad topic in a fast-evolving industry and there are relatively few experts that have both general industry expertise and an equally strong knowledge of sustainable finance.

Expertise surrounding sustainable finance should not be confined to the UK or Luxembourg, but shared as widely as possible. Both countries have already established several channels through which they can collaborate and explore sustainable finance topics. However, communication channels and official events or working groups could be enhanced to facilitate this sharing of expertise, insights and success stories around decarbonisation and sustainable finance. More regular meetings would allow more stakeholders to participate in knowledge sharing and discuss a wider range of topics. We believe that a more systematic approach is the way forward.

Today, there are forums, associations, working groups, partnerships and initiatives where finance professionals can share ideas and knowledge, as well as proactively contributing to the advancement of sustainable finance. However, it goes without saying there is plenty of opportunity to build on this.

Starting points

- Promotion and launch of events ("hackathons" which focus on a specific sustainability topic or challenge) where students can pitch ideas and connect with market players, consulting firms and industry associations.
- Industry association and government-backed organisations can promote regular events between market players and university/research centres.
- Identifying and developing a dedicated register of ESG data and proxies used by market players in specific sectors. This would ensure a convergence of standards, and set harmonised and clear rules for ESG data providers.

Regulatory evolution

Rather than adding a layer of complexity, regulations will ease the path towards a more sustainable future and economy.

Policymakers in both the UK and Luxembourg are working proactively to find the optimal balance between national climate change regulation and international alignment. The UK and Luxembourg's financial markets are deeply interconnected, and building a constructive relationship appropriate to the scale and nature of the two financial services sectors is of mutual benefit. This is critical for both countries as they are cross-border hubs with significant international reach. Policymakers continue to closely engage with authorities bilaterally and through multilateral fora to discuss regulatory matters of mutual interest. A bilateral cooperation that facilitates meaningful and productive dialogue is key in the future.

Industry associations have already noted that, wherever possible, policymakers should ensure the UK and the Luxembourg develop regulations that are in alignment as much as possible. Given both Luxembourg and the UK are cross-border financial hubs, any potential divergence between regulatory frameworks should be identified and explained clearly (for instance, any differences between the taxonomies). Minor differences between fund naming and labelling processes, for example, could become challenging for industry actors to understand and compare.

Starting points

- Careful and strategic promotion and establishment of cross-national and/or cross-sector working groups to ensure harmonisation. Wherever possible, we recommend focusing on sectors that have comparably less advanced sustainability regulations (e.g. the insurance sector) to provide guidance for implementing new regulations.

- A framework or table of correspondence to bridge any gaps between regulations. This would allow them to easily compare and understand the key differences and similarities between EU and UK regulations. Given there will be some divergence and natural non-alignment in regulations between the two jurisdictions, a framework of correspondence will allow financial industry players to easily interpret these. This would be especially helpful in cases where the divergence is relatively simple (e.g. labels). A transition framework or table of correspondence pinpointing potential divergences (e.g. a Luxembourg fund labelled Article 9 is like a Class X fund in the UK) will help distributors, investors and relevant stakeholders to navigate the different offerings.

- Establishment of periodic working groups between relevant public stakeholders in the UK and Luxembourg. The goal is to maintain communication on key topics related to regulatory evolution across different sectors. The working groups could discuss the potential impact of any regulatory changes and identify mutual opportunities. There may also be a benefit to scheduling regular but unofficial exchanges between public and pricate sector stakeholders to discuss specific sustainable finance topics. These exchanges would open up additional lines of communication between both countries and provide an informal space for knowledge sharing, research, success stories and brainstorming to accelerate the transition to sustainable finance.

Business opportunities

While a collaborative approach between governments, industry associations and market players will speed up the transition towards sustainable finance, it will also set the scene for business opportunities to emerge.

Both the research and interviews carried out in this report have inspired conversations and first steps towards proactive business development and collaborations that take advantage of the current need for change in the finance sector. These include the development of new products and solutions within sustainable finance.

There is plenty of scope for Luxembourg and the UK's government, public bodies and industry associations to facilitate and nurture initiatives where these opportunities can grow further. Connecting all relevant players to work and stimulate innovation surrounding common challenges and opportunities is key, as market players will not naturally look to collaborate, given they are usually in competition. Both countries' governments and industry associations should therefore continue to facilitate setting up a favourable environment where profitable projects could arise for all involved actors. This will be central to maximising the potential of collaboration and development of business opportunities.

Starting points

- Further develop blended finance products or offerings. By strategically applying public or philanthropic funds towards sustainable finance, industry players can effectively rebalance the risk-reward profiles of investments beyond strictly commercial terms. Because direct investments can take time to mature and returns are realised after some time,[100] blended finance products and offerings can be a key tool for mobilising capital towards sustainable finance because they help overcome initial barriers and hesitation to investing in sustainable finance.

  Given the importance of these instruments, there is an opportunity to further develop products and solution in this space. The opportunities for connecting relevant public sector stakeholders both in the UK and Luxembourg along with market players that are already involved in blended finance or are willing to shift towards such an offering should be enhanced or introduced wherever possible. These actors can then leverage their past experiences regarding blended finance, and potentially design new complementary cross-border products between the two countries. The Luxembourgish government could officially share key learnings and knowledge with the UK government from its recent initiatives in this space, for example the Luxembourg Ministry of Finance initiated the Green Earth Impact Fund (GEIF) as a Fund of Funds (FoF) managed by BlueOrchard as Investment Manager and Schroders as the AIFM within a blended finance structure.

- Leverage the UK and Luxembourg fintech ecosystems to facilitate and catalyse the development of innovative solutions and products within sustainable finance. Fintech players' offerings tend to be characterised by innovation because they are usually younger, more agile and technologically advanced compared to incumbent players in the finance industry. Their products or services are also, usually, more innovative or may be newer than more established actors, although this may be counterbalanced by limited resources or reach (in terms of capital, clients or geographies), as they may be start-ups.

  Promoting a closer collaboration between fintech industry associations in Luxembourg and the UK is one way to leverage the fintech ecosystem. Collaboration would connect the market players and working groups at association levels, promote initiatives, and support the establishment of innovative, cross-border solutions and products. An example of initiative, could be a contest/award involving fintech participants from both jurisdictions, who will be presenting products & solution marketable in both countries, or solutions to ease the distribution of products. The winners can receive funding in different forms or be included in accelerators and other programmes sponsored by government and other public bodies.

9. APPENDIX OBJECTIVES, SCOPE AND METHODOLOGY OF THE STUDY

Objectives

This report aims to provide an overview of the ways in which Luxembourg and the United Kingdom are leading sustainable finance hubs. It pinpoints mutual interests and potential opportunities for collaboration for public and private stakeholders as both countries transition to sustainable, carbon neutral economies.

In addition to presenting the similarities and differences between both hubs, this report also provides an overview of recent business and regulatory trends, the key challenges brought about by the introduction of sustainable finance regulations, and each country's overarching sustainable finance agenda.

The report includes the following sections:

- current policies and regulatory agendas in place in the United Kingdom and Luxembourg, as well as those at international level;
- overview of sustainable finance - across several sectors - in Luxembourg and the United Kingdom;
- presentation of recommendations and opportunity identification, and future areas of collaboration between both countries.

Scope and limitations

There are various constraints to this report that must be considered:

- It is limited to information publicly available up to March 2023, unless otherwise specified
- All currencies included in this report were converted into British Pounds with the following exchange rate: 1£ = 1.14€ = 1.21$ (or 1€ = £0.88 and 1$ = £0.83)

Methodology

This report was developed based on desk research and individual interviews with more than twenty key players operating mainly in Luxembourg and/or United Kingdom sustainable finance ecosystems.

Desk research refers to secondary data collected from existing resources. The sources collated and referenced in this study are drawn from reports and statistics which are publicly available or can be found on databases online. These reports and statistics also include market data, trends, or hard data.

With regards to the interviews, participants were established financial institutions, market players with relevant business activities in both countries, professional associations active in the financial sector, public and government bodies, and other relevant authorities.

The data collected provides a qualitative and holistic insight into the current state of the sustainability finance sector in each country.

The questions in the interviews covered the following topics:

- the key player's role and activities within the sustainable finance industry
- the perceived business priorities of the sustainable finance markets in Luxembourg and the United Kingdom
- the extent to which Luxembourg and the United Kingdom potentially stand out as hubs for sustainable finance
- the extent to which the two countries could support each other and collaborate.

In some cases, questions were slightly reformulated to make them more sector-specific (depending on the participant being interviewed), as a way to increase the relevance of the information collected. To create a basis for comparison, questions focused exclusively on Luxembourg and the United Kingdom. The data gathered in the interviews only reflects the interviewee's viewpoint, and not necessarily the opinion of the institution they represent.

Qualitative data collected in the interviews was reviewed to identify commonalities in responses and identify potential trends and, in turn, make relevant recommendations on how both countries can collaborate. Enabling elements and potential barriers that may impede the continued development of cooperation between the United Kingdom and Luxembourg with regards to their respective sustainable finance agendas were also identified. The report concludes with several calls to action.

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