

Aviva's Climate Transition Plan

First Release

It takes

AVIVA



Contents

1 Foreword	3
2 Our ambition and strategy	5
3 How we intend to deliver on our pledges	14
• 3.1 Investments.....	16
• 3.1.1 Baseline measurement.....	16
• 3.1.2 Targets.....	18
• 3.1.3 Action plans.....	19
• 3.2 Operations – Internal Operations.....	22
• 3.2.1 Baseline measurement.....	22
• 3.2.2 Targets.....	23
• 3.2.3 Action plans.....	24
• 3.3 Operations – Supply chain	25
• 3.4 Insurance – General Insurance Underwriting.....	26
• 3.4.1 Baseline measurement.....	27
• 3.4.2 Targets.....	31
• 3.4.3 Action plans.....	32
• 3.4.4 Future enhancements.....	33
• 3.5 Insurance – Claims management	33
• 3.6 Governance and roadmap.....	34
4 How we embed Climate Risk into our Enterprise Risk Management.....	36
5 Using our influence to help deliver Net Zero	39
• 5.1 Sphere 1: Our customers	40
• 5.2 Sphere 2: Our peers and the broader financial services ecosystem	40
• 5.3 Sphere 3: Governments.....	41
• 5.4 Sphere 4: International Financial Architecture.....	44
• 5.5 Sphere 5: Civil society.....	46
6 Appendix.....	47

This report is part of our 2021 reporting suite, which also includes the Annual Report and Accounts, our Climate-related Financial Disclosure and the Sustainability Report.

	Annual report 2021
	aviva.com/investors
	aviva.com/sustainability
	TCFD report
	Reporting criteria



Foreword

For over 325 years, Aviva has been a company that faces up to the challenges ahead. Today, it's clear that the climate crisis is the greatest risk currently facing our business, our sector, everyone on the planet – even humanity itself.

Following the Paris Agreement and Glasgow Climate Pact, the international community has agreed to focus on the long-term target of limiting temperature rise to 1.5°C above pre-industrial levels. Only by achieving this target will we be able to reduce the direct consequences of global warming such as extreme weather, droughts, rising sea levels and ocean acidity. Failing to achieve this would, instead, catastrophically affect human society and world biodiversity.

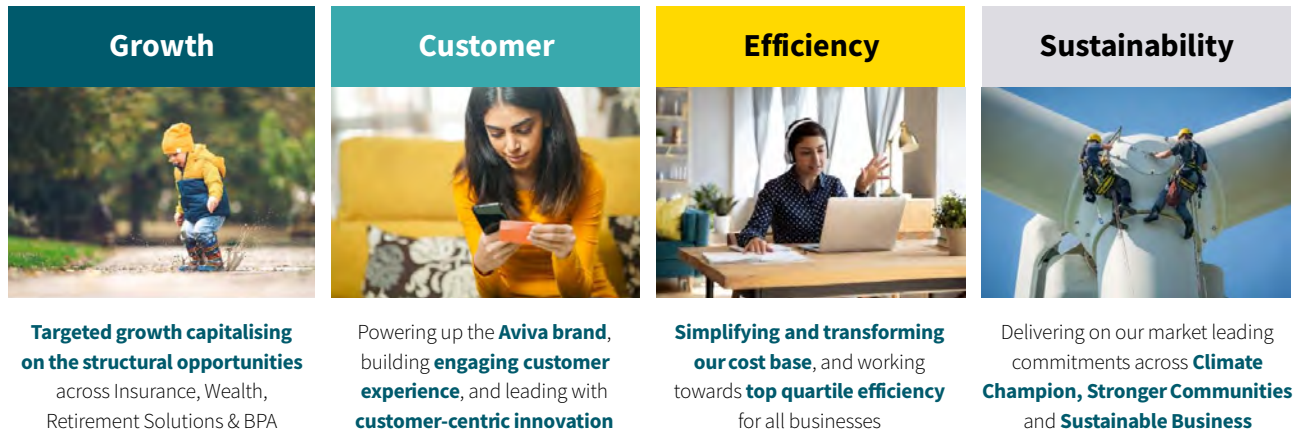
Following COP26 in Glasgow, in seeking to implement the goals of the Paris Agreement the parties have asked that non-state actors – and the financial industry in particular – play a pivotal role and we, as the UK's leading insurer, have a huge responsibility to act. By contributing to the transition to a low carbon future we'll help our customers, our people and our business. Taking action on climate change alongside others, we can help improve the resilience of the financial system, our economy, and society more widely.

Aviva has a strong track record in promoting sustainability and leading on climate action and reporting. We have reported on climate change in our Annual Report and Accounts and Sustainability Reports since 2004 and have published a climate disclosure in accordance with TCFD since 2016 (all reports can be found [here](#)).

Building on our climate work over the last three decades, we are pursuing one of the most ambitious carbon reduction plans of any major insurer. In March 2021, we announced our ambition to become a Net Zero carbon company by 2040.

Figure 1: Clear strategy and plans to deliver Aviva's promise

The leading UK provider and go-to customer brand for all insurance, wealth and retirement solutions, with strong franchises in Canada and Ireland



We recognise that ambition is not enough. To actually make a difference, we need a plan and we need to execute it. This document is the first release of that Climate Transition Plan, setting out the steps we'll take to reduce emissions to Net Zero in our operations and supply chain by 2030, and in our investments and underwriting by 2040.

However, this is only the first release. We don't have all the answers laid out before us, so we're looking to keep laying the path as we walk along it, and we expect to iterate our plan regularly in the coming years. Our Climate Transition Plan has been developed in line with TCFD's recommendations, Glasgow Financial Alliance for Net Zero (GFANZ) financial institution best practices for Net Zero transition plans principles, and the Institutional Investors Group on Climate Change (IIGCC) principles.

We're setting Science Based Targets aligned to a 1.5°C pathway for our operations, supply chain and investments. And our climate goals will be delivered in a way that contributes to tackling the related challenges in biodiversity and nature, ensuring that our focus is not only on GHG offsetting but that we also target broader ecosystem resilience.

Moreover, we know the economy-wide shift to Net Zero emissions will require a greater and deeper level of engagement between companies and their investors. Our climate engagement escalation programme includes 30 'systemically important carbon emitters' that contribute towards 30 per cent of global Scope 3 emissions. Here, our focus is on long-term Net Zero targets, clear roadmaps for change, strong governance and reporting to enable accountability for delivery, and the alignment of corporate lobbying with the commitments of the Paris Agreement.

We are strong advocates of the need for listed companies to publish consistent information to inform better decisions and manage climate-related risks and opportunities to foster the transition. As such, we put our TCFD summary to an advisory shareholder vote each year, and we fully support the recent initiative by the UK government to move towards making publication of transition plans mandatory.

A structured approach and increased transparency will enable customers, investors and regulators to clearly assess how we intend to act in transitioning to a low carbon economy. We welcome inputs and comments on this plan and hope to inspire other companies to replicate what we're doing where it works for them.

We're determined to play our part more widely and are proud to have recently won the Reuters Responsible Business Award for our role in accelerating the transition of the finance sector. We believe it's paramount for businesses like ours to work together and define common strategies and rules. And we'll help to set new standards, engaging with our clients to develop and implement their transition plans and supporting investments and insurance towards major decarbonisation.

Moreover, considering the highly systemic importance and innovative value of Net Zero Underwriting, in this document we're looking to share our work with all our stakeholders and the industry to further contribute to the global climate effort. We welcome feedback on this work from peers and standard setters.

Our ambition and strategy

We pledge to be a Net Zero¹ company by 2040, abating the carbon emissions we produce ourselves and from our suppliers by 2030, from our insurance book by 2040, and from customers' and shareholders' investments by 2040.²

Figure 2: Aviva's climate goals

By the end of 2021

- Aviva stopped underwriting insurance for companies making more than 5% of their revenue from coal or unconventional fossil fuels, unless they have signed up to Science Based Targets

By the end of 2022

- Divest from companies which make more than 5% of their revenue from coal unless they have signed up to Science Based Targets
- Expected to invest a further £10bn of assets from auto-enrolment default fund and other policyholder funds into low carbon strategies (of which £5bn has already been announced)

By the end of 2025

- 25% cut in carbon intensity of investments
- 100% renewable electricity for all offices, which total 230,231m²
- 100% electric/hybrid vehicle new leases for our 1,540-strong motor fleet
- Aviva will invest £6bn in green assets, including £1.5bn of policyholder money into climate transaction funds
- Aviva investors will invest £2.5bn in low carbon and renewable energy infrastructure and deliver £1bn of carbon transaction loans

By the end of 2030

- 60% cut in carbon intensity of investments
- Net Zero operations
- Net Zero supply chain
- £100m committed to nature-based solutions

By the end of 2040

- Net Zero company with Net Zero carbon investments

¹ The SBTi Net-Zero Standard defines corporate Net Zero as: (i) Reducing Scope 1, 2 and 3 emissions to zero or to a residual level that is consistent with reaching Net Zero emissions at the global or sector level in eligible 1.5°C-aligned pathways; (ii) Neutralising any residual emissions at the Net Zero target year and any GHG emissions released into the atmosphere thereafter

² This will cover shareholder and policyholder assets where we have control and data and the main asset classes of Aviva's core markets (credit, equities, direct real estate and sovereign debt). We will be able to expand this further as new data and methodologies become available. For more details, please see www.aviva.com/climate-goals



This Climate Transition Plan covers all material areas of our business including investments, insurance and operations, and aims at steering our entire business model towards a trajectory that aligns with the latest and most ambitious climate science recommendations. In the next sections we describe our approach to implement our Net Zero pledges and ensure their achievement. To deliver this plan will require action on our investments and underwriting, which between them account for around 90% of our current emissions, alongside how we run and operate our business.

All the actions we'll undertake to steer our business towards low carbon emissions, as well as the broader decarbonisation pursued by our investees, suppliers and customers, will eventually contribute to our final goal of achieving Net Zero by 2040. Nevertheless, given that global efforts are currently aiming at achieving Net Zero by 2050, it's likely that in 2040 our operations, investments and insurance will still produce a range of residual emissions.

In anticipation of the residual emissions we'll have across the company by 2030 and 2040, we're looking to invest in carbon removal using nature-based solutions and potentially negative emissions technology to ensure Net Zero emissions. We've committed to invest £100m into nature-based solutions by 2030 as a first step. This effort will also fit with our broader and long-standing commitment to protect and enhance the planet's precious biodiversity as habitat loss and degradation sit at the nexus of both climate change and biodiversity loss.

We recognise the interlinked nature of climate and biodiversity. At COP26 in October 2021 we signed up to the Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation. We've also launched the Aviva Biodiversity Policy, are a member of the Taskforce for Nature-related Financial Disclosures (TNFD), and joined the Terra Carta initiative and the global business coalition Business for Nature.

We are focusing our efforts on influencing governments and policymakers in the UK and around the world to ensure that our financial system does not place demands on the natural world that exceed its supply. Additionally, while investing in nature-based solutions for carbon removal we acknowledge the importance of avoiding unintended negative consequences on broader ecosystem resilience, and that carbon-removal solutions should always aim at preserving biodiversity. And we'll carry out an assessment of deforestation risk in our portfolio as the first step in assessing wider biodiversity impacts and dependencies.³

We're also exploring internal carbon pricing and its potential use in various areas of our business to ensure that we properly consider the emissions of the projects and initiatives we undertake. We believe carbon pricing may be a valuable instrument to support our decision-making processes and increase our awareness of the impacts our initiatives have on the ecosystem.

Throughout the process we'll manage the risks the low carbon economy transition will pose to our business, in the best interests of our shareholders, customers and wider society. Therefore, we embed Climate Risk into our Enterprise Risk Management Framework, with a special focus on transition risks and a board-approved risk appetite that requires a reduction in the firm's carbon footprint and material investment of new money into green assets annually.







³ <https://www.aviva.ca/content/dam/aviva-public/ca/sustainability/aviva-biodiversity-policy.pdf>

Alongside our contribution to the Net Zero transition, we are strong advocates of the need to support adaptation and build resilience to climate change risks. As the frequency and intensity of extreme weather increases, we have, where possible, been working to reduce the impact on our customers' lives and livelihoods, and build resilience to climate change. In July 2021, we launched our first Building Future Communities report, in which we call for urgent action to ensure UK homes and businesses are protected from flood and extreme weather events caused by climate change (further details on the report can be found in our TCFD report).

Finally, we recognise that the role we can play in the world's emissions reduction goes beyond the activities we operate directly and the assets we own and manage. In this sense, we intend to make the most of our sphere of influence by extending our engagement beyond our workforce, investees, and customers.

We do and will continue to advocate for systemic change across various levels of the financial architecture to pivot markets to deliver the goals of the Paris Agreement and mobilise private capital to transition to a low carbon economy. We'll also carry on engaging directly with governments to encourage and support their role in enabling the transition. And we'll continue to play a leading role in alliances such as the UN-convened Net Zero Asset Owners Alliance (NZAOA), Net Zero Insurance Alliance (NZIA), the Net Zero Asset Managers Initiative (NZAMI), the Glasgow Financial Alliance for Net Zero (GFANZ) and the World Benchmarking Alliance (WBA) – influencing best practices and amplifying our voice when advocating for change.

Figure 3: Aviva's partnership ecosystem

Alliances	2021 progress	Impact
	<ul style="list-style-type: none"> Supported the creation of GFANZ in the run-up to COP26 Co-led the Financial Institution Transition Plans work-stream and launched a set of best practice principles for transition plans ahead of COP26 Co-led the Call to Action work-stream and launched a policy call to action ahead of COP26 	<ul style="list-style-type: none"> GFANZ is turning commitments into action and mobilising private capital for climate action by bringing together private sector actors to find solutions to key challenges and set industry standards for Net Zero
 	<ul style="list-style-type: none"> Being part of multiple alliances (Net Zero Asset Owner, Managers and Insurers alliance) to collectively act on investor ambition to deliver climate action Contributing to the NZAOA's first progress report ("Credible Ambition Immediate Action") and being represented on the workstream developing bond carbon attribution methodology Piloting carbon attribution model for underwriting, aligning to the CRO Forum's weighted average carbon intensity (WACI) methodology, to share with the other NZIA members as a possible way of measuring our impact 	<ul style="list-style-type: none"> Financial services can better tackle the challenges of transitioning to a low carbon economy, such as improving data quality, by collaborating together and aligning methodologies. Working in alliances we can influence best practice and amplify our voice when advocating for changes to be made
	<ul style="list-style-type: none"> In 2018, launching the WBA, who publish free and transparent benchmarks rating companies on their contribution towards achieving the UN SDGs In 2021, WBA launched assessments on how companies are gearing up to the Just Transition A study concluded that Electric Utilities and Automotive industries are increasingly off track against climate targets and an oil and gas benchmarking report advises that most companies say they need to reduce emissions, yet none of those analysed has committed to stopping exploration, putting them at odds with Paris targets 	<ul style="list-style-type: none"> By devising SDG performance metrics, investors have the information they need to make sustainable investment decisions within certain industries. We expect capital to move towards sustainable business as the data quality improves

Ambition

Net Zero for all three scopes by 2040

Target

Publish a Climate Transition Plan and continue to report progress through the Climate-related Financial Disclosure

Activities in 2021

- Developed understanding of contents for a Climate Transition Plan
- Worked on a methodology for measuring the carbon intensity of Sovereign Bonds with the UN Net Zero Asset Owner Alliance (NZAOA)
- Created and are proposing a methodology for measuring the carbon impact of underwriting

Outcomes and 2022 Priorities

- Publish Climate Transition Plan
- Increase level of assurance over specific climate metrics from Limited to Reasonable (now on par with financial reporting)
- Feasibility of internal carbon pricing across the business – operations, supply chain, investments, underwriting
- 2022 – update to Climate Transition Plan/ Net Zero plans for 2023

Target

Publish a Biodiversity Policy

Activities in 2021

- A cross-functional working group developed an initial understanding of the impacts and dependencies Aviva has on biodiversity
- Committed to a number of alliances and pledges to collaborate on methodologies, data and measurement
- Established 'Wild Aviva' in the UK to promote biodiversity in and around our offices

Outcomes and 2022 Priorities

- Published Aviva's Biodiversity Policy
- Understand the targets we could set in 2023
- Propose response to Taskforce on Nature-related Financial Disclosures (TNFD) draft biodiversity framework

Target

Publish an employee guide: Tackling Climate Change Together

Activities in 2021

- Collated all the activity we have underway to support our colleagues in tackling climate change including examples to stimulate further actions
- 20,995 (99.2%) of our colleagues have completed essential training on climate change and Aviva in 2021
- Launched an employee electric vehicle salary sacrifice scheme in the UK
- Increased the maximum allowance for the cycle to work scheme to include e-bikes
- Aviva Staff Pension Scheme (UK) Trustee stated a Net Zero by 2040 ambition and moved to an Environmental, Social and Governance (ESG) default solution

Outcomes and 2022 Priorities

- Our annual staff survey – 'Voice of Aviva' results showed that 90% of colleagues take action on sustainability in the office, while 60% of colleagues advise that they have included sustainability in their job roles

Ambition

Net Zero for all three scopes by 2040 continued

Target

Science Based Targets aligned to a 1.5°C pathway

Activities in 2021

- The Science Based Targets initiative (SBTi) is a collaboration between United Nations Global Compact, CDP (a global disclosure system, formerly the Carbon Disclosure Project), World Resources Initiative and Worldwide Fund for Nature. We committed to the SBTi in March 2021

Outcomes and 2022 Priorities

- Validation of SBTi pathways

Target

Engagement with teeth to drive the transition

Activities in 2021

- We announced our climate engagement escalation programme, through which we seek to influence 30 systemically important carbon emitters, in which we invest, that currently produce 30% of global Scope 3 emissions in the oil and gas, metals and mining, and utilities sectors
- More widely, through our annual letter to Chairs of companies we have advised we may vote against re-election of directors at companies that do not make adequate climate plans, and in two years divest from those that do not comply

Outcomes and 2022 Priorities

- At the beginning of 2022 Aviva Investors Chief Executive Officer, Mark Versey, wrote to 37 finance ministers and central bank governors for countries whose sovereign debt we hold
- In 2023, we will complete our engagement escalation process for the 30 largest carbon emitters globally

Target

Link ESG performance with remuneration

Activities in 2021

- 10% of the Long Term Incentive Plan is based on ESG metrics, split across separate measures (one climate and two diversity and inclusion metrics)

Outcomes and 2022 Priorities

- Increase weighting within the 20% allocated range covering climate, customer, and diversity and inclusion metrics

Ambition

Net Zero operations by 2030

Target

8% reduction in operational carbon emissions year on year to 2030

Activities in 2021

- Solar carport and energy storage at our office in Perth is fully operational, generating 549,540 kWh and taking the building off-grid for periods each day
- Introduced our award-winning smart building optimisation programme to two offices in Canada
- Change temperature set-points across UK offices; a major catalyst for reducing our gas consumption

Outcomes and 2022 Priorities

- Deliver 8% reduction in Scope 1 and 2 supply chain and operational emissions
- Seek planning approval for a wind turbine at our Perth office
- Installation of solar panels at our Norwich office
- Installing Air Source Heat Pumps in Perth
- Piloting a revolutionary air handling control system in our Norwich office
- Rollout of our bespoke desktop power management system

Target

Switch car fleet to 100% electric vehicles Group-wide by 2025 via EV100

Purchasing 100% electricity from renewable sources Group-wide by 2025 via RE100

Activities in 2021

- Signed up to the EV100 pledge
- At the end of 2021, 39% of company car fleet Group-wide are electric vehicles
- At the end of 2021, 81% of electricity was purchased/generated from renewable sources

Outcomes and 2022 Priorities

- 2023 onwards – Electricity for operations from 100% renewable sources, and switch to full electric vehicle fleet by 2025

Target

Proportion of purchasing spend signed up to Science Based Targets

Activities in 2021

- Net Zero contract clauses being included in supplier contracts
- Understanding our SBTi-aligned supplier baseline

Outcomes and 2022 Priorities

- Created a sustainability best practice guide for suppliers

Ambition

Increasing sustainable investments

Target

By the end of 2022, we expect to invest £10 billion of assets from our auto-enrolment default funds and other policyholder funds into low carbon strategies

Activities in 2021

- Aviva and Blackrock designed a fund that has 50% lower carbon intensity than the benchmark
- £1.7 billion has been invested to date

Outcomes and 2022 Priorities

- Complete the investment of £10 billion of auto-enrolment assets into low carbon strategies

Target

By 2025, we will invest £6 billion in green assets (from a baseline of 2020), including £1.5 billion of policyholder money into climate transition funds.

Activities in 2021

- We have expanded our definition of green assets to capture the types of assets we are able to invest in. Our definition of green gilts can be found in our Reporting Criteria publication
- Investment in green assets of £4 billion originated since 2020, including an investment of £227 million in green gilts in 2021
- We have invested £50 million into sustainability-targeted venture capital funds such as the UK Clean Growth Fund in 2021 through our Ventures area of the business
- Aviva Investors has launched the Climate Transition Global Credit Fund and the Climate Transition Real Assets Fund

Outcomes and 2022 Priorities

- Seeking to invest a further £1.2 billion in green assets

Target

By 2025, Aviva Investors will invest £2.5 billion in low carbon and renewable energy infrastructure and deliver £1 billion of sustainable transition loans.

Activities in 2021

- Sustainable transition loans – £783 million investment since year-end 2019
- Reduction in carbon emissions from Aviva Investors Real Estate Investment portfolio – 37% from a 2019 baseline

Outcomes and 2022 Priorities

- Seek to invest a further £0.5 billion in low carbon and renewable energy infrastructure and £0.2 billion in sustainable transition loans to continue progress towards Aviva Investors' 2025 Real Assets target

Target

Our UK pension customers to choose to put more than 20% of new savings into sustainable impact funds or Net Zero aligned funds by the end of 2022.

Activities in 2021

- Aviva conducted research which showed choosing a sustainability fund to invest in was 21x better than making a number of carbon-reducing lifestyle choices combined¹
- Aviva created a ESG profiling tool that helps customers choose what funds they put their money into in line with their values

Outcomes and 2022 Priorities

- 22% of new customer money was put into sustainable impact funds or Net Zero aligned funds across 2021 and are on track to increase further for 2022

¹ Research carried out with data analytics company, Route2, in association with Make Money Matter. Source: <https://www.aviva.com/content/dam/aviva-corporate/documents/sustainability/communities/pension-fund-carbon-savings-research-A-summary-of-the-approach.pdf>

Ambition

Not investing in the highest carbon emitters

Target

Divested all companies making more than 5% of their revenue from thermal coal, and companies making more than 10% of their revenue from unconventional fuel extraction, unless they have signed up to Science Based Targets by end 2022.

Activities in 2021

- Identified 202 thermal coal and power companies and 7 unconventional fossil fuel extractors for Aviva's Investment Stoplist which applies to Shareholder, Participating and Policyholder portfolios

Outcomes and 2022 Priorities

- Publish an Aviva ESG Baseline Exclusion Policy in 2022
- Divestment of stock according to the Exclusion Policy by end 2022

Target

Stop insuring companies making more than 5% of their revenue from thermal coal or unconventional fossil fuels from renewal at the end of 2021.

Activities in 2021

- Publish an Aviva Underwriting ESG Baseline Underwriting Statement including thermal coal and unconventional fossil fuel companies

Outcomes and 2022 Priorities

- We are looking to set further targets ourselves and in conjunction with Net Zero Insurance Alliance

Ambition

We intend to make it easy for customers to make climate-friendly choices and support people as the economy changes

Target

To become a leading renewable energy insurer

Activities in 2021

- We expanded our personal lines motor insurance cover for roadside breakdown, electrical surges and EV accessories
- We significantly grew our renewable energy account, providing a risk-engineered approach to renewable infrastructure underwriting across a range of different renewable products
- Our global rollout means that all core markets are able to provide renewable energy general insurance cover

Outcomes and 2022 Priorities

- Underwriting renewable infrastructure of 75GW across six continents
- We are targeting to become the third largest renewable energy insurer in the London Market by the end of 2022

Ambition

Taking steps today to plan our negative emissions

Target

Initial £100 million budget to begin to create a nature-based carbon removal offsets by 2030

Activities in 2021

- We have developed our understanding of the carbon removals market and have built up our knowledge of the innovative projects that provide nature-based removal offsets. We have sought partners to work with going forward

Outcomes and 2022 Priorities

- Launch first Aviva Forest partnership to begin to create carbon removals

Ambition

We pledge to continue arguing the case for an economic recovery driven by cutting carbon and creating new jobs, infrastructure and opportunities in a Net Zero economy

Target

We want governments to go further and mandate companies to disclose action plans which align their business strategies to science-based climate goals, including short- and medium-term milestones.

Activities in 2021

- Climate-focused partnership for a Net Zero future – WWF and Aviva published a joint paper on 'Transition Plans for a Net Zero Future'
- At COP26 we again used our voice to support strong commitments and leadership on climate action. We were pleased with the GFANZ and ISSB announcements, among others, which we had been actively encouraging for many years. We had eight colleagues attend including our most senior leaders, among the 20,000 delegates and 100 heads of state

Outcomes and 2022 Priorities

- At COP26 the UK Government announced the establishment of a Transition Plan Taskforce to build the standard for the plans – Aviva's CEO is co-chairing the Net Zero Transition Plan Taskforce
- Proposed response to 2021 TCFD update and UK Greening Finance Roadmap, including preparations for International Sustainability Standards Board (ISSB) reporting

How we intend to deliver on our pledges

To deliver on our pledges, we plan to organise our effort in five functional streams to detail our goals and approach: Investments, Internal Operations, Supply Chain, General Insurance Underwriting and Claims Management. Emissions from Life Underwriting are mainly related to investments and are already addressed in the Investments stream. Given the cross-functional effort this requires, we've put in place governance to ensure the execution of our Climate Transition Plan, and have also incorporated targets aligned to delivery and performance of our Net Zero pledges into senior management's Long Term Incentive Plans (please refer to section: Governance and roadmap).

The Net Zero journey across all the identified streams consists of three key steps: baseline measurement, target setting and business actions (figure 4).

Baseline measurement is the first step, to obtain a clear picture of the emissions we directly produce or indirectly contribute to. A significant variety of measurement methodologies is required to capture all our emissions which are produced by very different sources, such as the combustion of natural gas to heat our buildings or the emissions we finance via our equity investment.

Figure 4: Climate Transition Plan developed according to International Standards

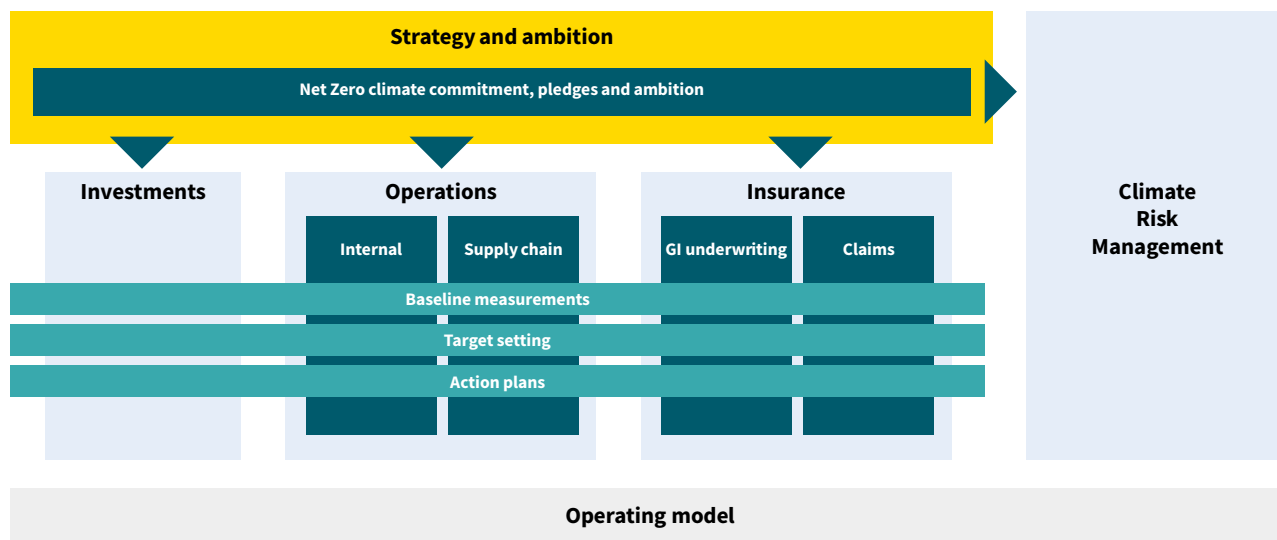
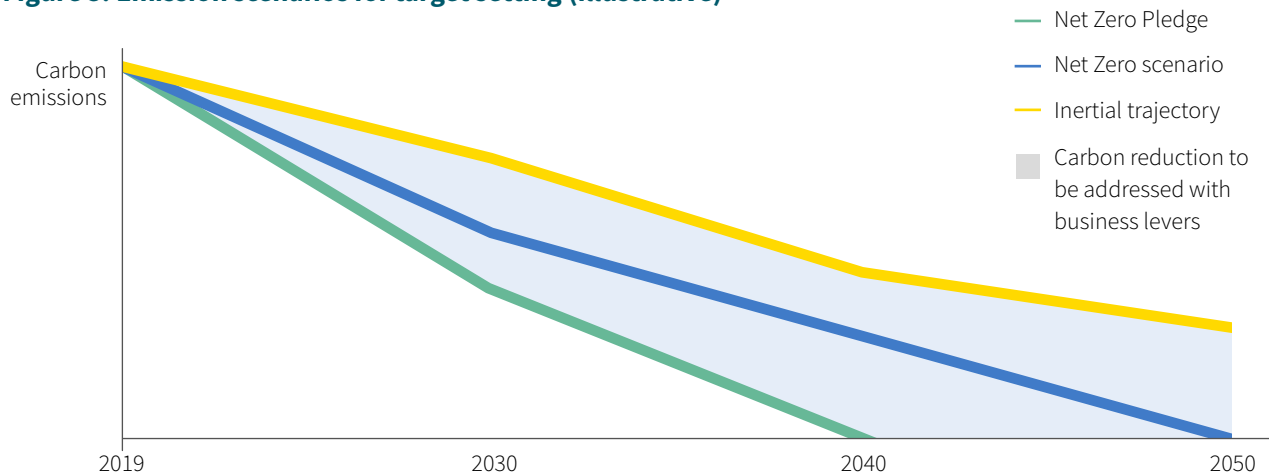


Figure 5: Emission scenarios for target setting (illustrative)





The level of maturity of measurement methodologies varies significantly depending on several elements such as the activities directly or indirectly performed, the asset classes we invest in and the assets we insure. Aviva is committed to being at the forefront of the climate effort and contributing significantly to methodology development in alignment with international guidelines and standards.

Data availability is a key aspect of baseline measurement. We need information on multiple parameters such as emission factors, consumption data (e.g. purchased electricity) or investees' total emissions to inform our calculations. We employ multiple sources like internal reports or invoices and third-party providers (e.g. MSCI) to collect all the required information.

A comprehensive target-setting approach requires three main elements: an official Net Zero Pledge (i.e. public commitments to reach Net Zero taken by companies); Net Zero scenarios (i.e. emission trajectories developed by standard setters such as IPCC,⁴ IEA⁵ and NGFS⁶ showing how to reach Net Zero by 2050 to limit global warming to 1.5°C compared with pre-industrial levels); and inertial trajectory showing the evolution of portfolio emissions if the insurer takes no additional climate action above and beyond considering public pledges from policyholders, investees and announced regulatory changes. The gap between the inertial trajectory of carbon emissions and the Net Zero Pledge needs to be addressed with dedicated business levers (figure 5).

We also need to set adequate interim targets which are crucial to ensure that immediate actions are taken to frontload emissions reduction as much as possible, in order to minimise the usage of the carbon budget available to keep temperature rise below 1.5°C with respect to pre-industrial levels. To do this, we rely on guidelines and principles defined by international standard setters and alliances (e.g. NZIA or NZAOA), and we're currently preparing our science-based targets for submission to the Science Based Targets initiative (SBTi) for formal validation.

These targets should also be supported by secondary goals that ensure we deliver emissions abatement in the most efficient and impactful way possible. On investments, for example, it's crucial to pair emission reduction targets with engagement targets to encourage the decarbonisation of our investees rather than just divesting and switching to lower carbon emitting sectors.

Carbon emissions will need to be reduced through dedicated business actions, with a reduction target equal to the difference between the inertial trajectory and the Net Zero Pledge, and clear roadmaps to ensure the delivery of our targets. We define levers we can use to reduce emissions based on international best practices to maximise the impact on our carbon footprint, while at the same time protecting the interests of our shareholders and customers. In this sense, it's crucial that for each action foreseen, we not only quantify the emission reduction potential but also assess the financial impact it might have on our financial statements and capital. This will also allow us to understand the interdependencies between our Net Zero journey and our growth strategy, ensuring alignment and avoiding conflicts.⁷

To ensure the delivery of our targets we'll constantly monitor and track the progress achieved through our actions. This will provide us with key insights on the effectiveness of the levers we employ to reduce our emissions and their impacts on our business and broader society so that we can adequately steer the process.

To monitor and oversee the execution of our plan we defined a governance structure (see section 3.6) and ensured that climate considerations are integrated in the Long Term Incentive Plan of our Senior Management and built into the performance and pay criteria of certain areas of our business (e.g. investments).

We provide highlights on the three key steps for operationalisation across all the five streams we envisage in the following sections.

⁴ Intergovernmental Panel on Climate Change

⁵ International Energy Agency

⁶ Network for Greening the Financial System

⁷ Example of conflicts may be a reduction in the scope of commercial risks we can underwrite, or a reduction in the breadth of assets that we can include in fund mandates. On the other hand, mitigants could be the engineering and technological innovations required by the wider energy transition

3.1 Investments

3.1.1 Baseline measurement

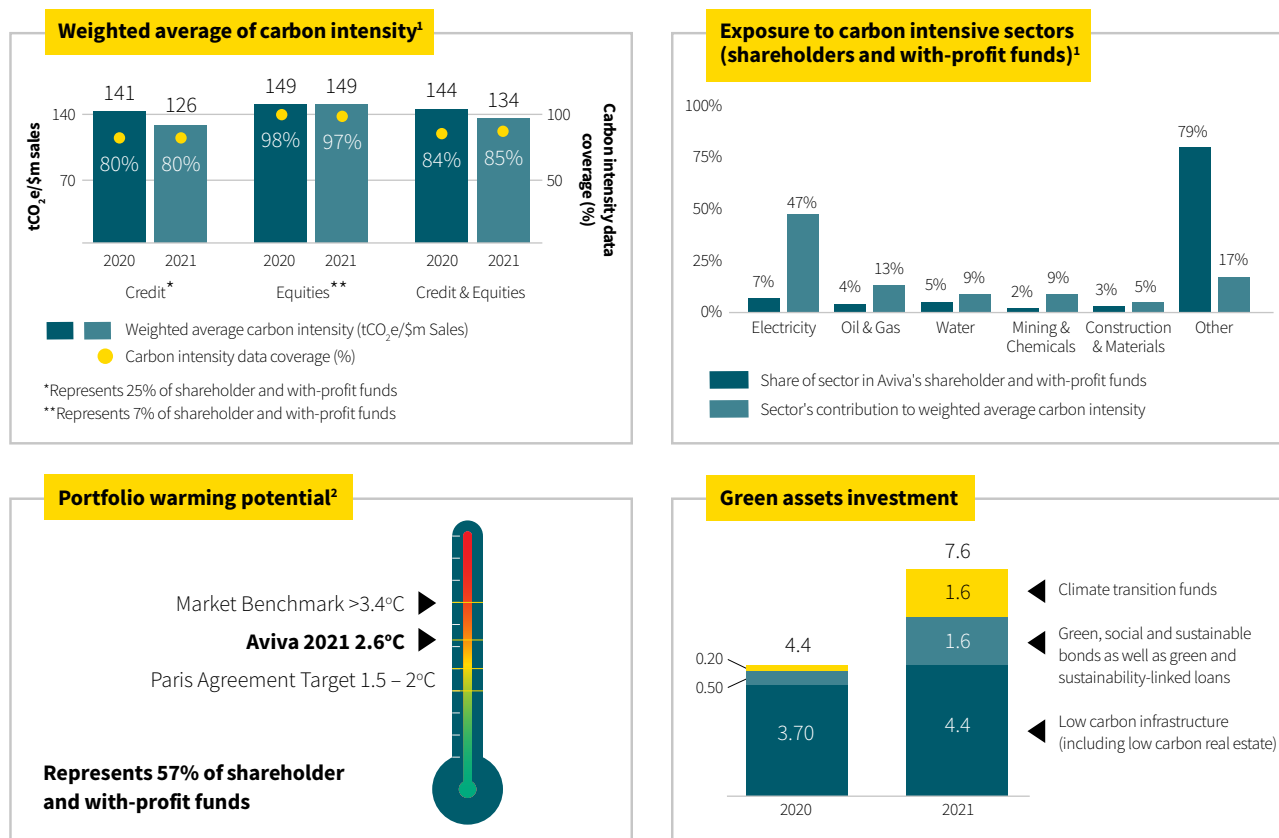
Our investments represent the biggest share of the emissions which we have an influence on and agency over as a company, and therefore are one of the areas on which our efforts should focus the most. Given the magnitude of our portfolio and the variety of industries in which we invest, we’re in a strong position to help drive change, fostering the transition to a lower carbon economy across a broad set of sectors.

The main metric we use to assess our portfolio performance for our Net Zero commitments is carbon intensity by revenue. This provides us with an assessment of the carbon intensity of our investees’ businesses that we can use to gain a clear picture of our investment carbon footprint. By baselining and understanding what this looks like across our investments, we can target action accordingly in order to reach our 2040 goal.

To enhance the baseline intensity measurement of our portfolio emissions we also employ other supporting metrics (e.g. portfolio warming potential and amount of investments in green assets). These allow us to assess the level of alignment of our investments with global or national targets on climate change mitigation (figures 6 and 7).

Figure 6: Comprehensive set of climate metrics

Climate metrics	Risk/opportunity	Measurement	Data provider
Investment in green assets	Green bonds and low carbon infrastructure	Measure Aviva’s investment in green assets i.e. green bonds and low carbon infrastructure and compare to target	Aviva
Carbon footprinting	Equity and credit	Use carbon footprinting and weighted average carbon intensity data to assess the exposure of our assets compared to 25% reduction target by 2025	Aviva/MSCI/Carbon Intelligence/PCAF/Deloitte
Portfolio warming potential	Equity, credit, real estate, sovereign and green assets	Measure the portfolio temperature pathways and alignment to Paris Agreement target	Aviva/MSCI

Figure 7: 2021 Aviva's climate metrics at a glance

For further detail on these metrics please see Aviva's Climate-related Financial Disclosure 2021.

As the UK's leading insurer, our investment portfolio is composed of several asset classes and our exposure spans almost every sector. This variety of assets results in challenges when it comes to measuring our emissions baseline.

Methodologies on many asset classes are still under development and data quality and availability represent an obstacle to full coverage. Right now, nevertheless, we firmly believe this is no excuse to postpone or avoid action. Throughout all the complexity of the metrics, we will keep our eye on the prize: driving the real economy to cut carbon and minimise damage to the planet.

With this approach we have begun calculating our investment baseline by focusing the measurement of our emissions on the portion of our portfolio for which we have the highest degree of confidence in terms of accuracy, given available data and methodology.

As a first stage we have included in our baseline measurement the direct equity and corporate bonds which we own as part of our shareholder funds⁸ and the investment in direct real estate where we have direct management control. We're currently working towards expanding this view for these asset classes to include policyholder funds.

Our goal is to extend in 2022 the scope of our measurement to policyholder assets, as well as to other asset classes, such as sovereign bonds, infrastructure and electricity generation project finance.

The figures⁹ reported in Figure 7 are our current view and calculated according to the methodologies available, for example those developed by international standard setters such as the NZAOA and the Partnership for Carbon Accounting Financials (PCAF), with MSCI as our provider for data on companies' emissions.

To ensure the delivery of our targets we are establishing a methodology to understand corporate emissions of our investees and assess the alignment of our investments' emissions with our commitments.

⁸ Including participating funds

⁹ In 2020, the previous definition of our green assets has been expanded (the initial definition from 2015 was based on the green assets available at that time) to include low carbon real estate and specific climate-related funds (such as the Climate Transition fund range) as well as explicitly excluding external mandates

3.1.2 Targets





We believe that our targets on investments should not only be ambitious but also able to address all the different ways in which we can contribute to the world's transition to a low carbon economy.

We seek to align our investments with a pathway towards Net Zero carbon emissions and ensure consistency with the 1.5°C ambition. We signed up to key global targets in line with the NZAOA and plan to reduce the carbon intensity of our investment portfolio by 25% by 2025, and by 60% by 2030, aiming to achieve Net Zero emissions by 2040.¹⁰ These targets are in line with the required emission reduction to reach the 1.5°C ambition as defined in the latest IPCC analysis.

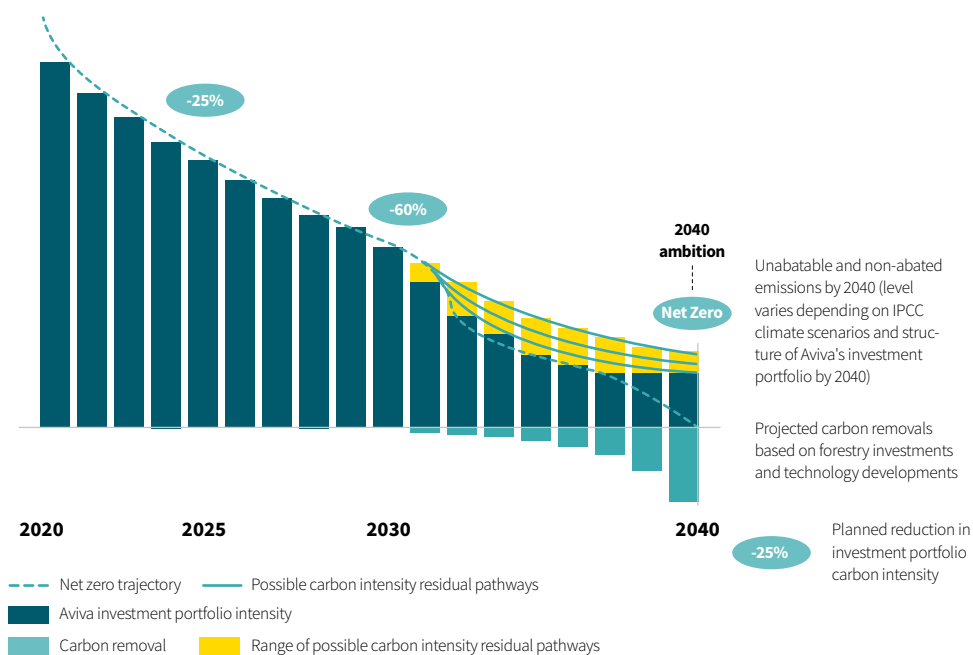
We're also pursuing SBTi-approved targets to ensure the alignment of our commitments with the requirements of the most ambitious and recognised standard setter on climate today. We'll be setting targets for required asset classes such as listed equity and debt, real estate and electricity generation project finance, and are looking forward to sharing these in due course.

Further, we intend to explore possible sector-level targets for the highest-emitting sectors where we have a material exposure in line with NZAOA requirements during 2022 and their best use in the context of risk assessment, decision making and engagement approaches.

Figure 8: Delivering on our Net Zero ambitions

Establishing a methodology to project corporate emissions for all the companies we invest or could invest in	
 Stakeholder alignment	One Aviva working group to formalise a methodology to project corporate emissions
 Tools designed for scale	Need-designated systems, not spreadsheets to operate at scale required to meet our needs
 Whole portfolio analysis	Ability to dissect client's portfolio at the granularity most appropriate to their needs
 Integrate with trading systems	Empower investors to incorporate forward-looking carbon metrics into portfolio management

Aviva's Net Zero trajectory for Scope 3 (investment) emissions



¹⁰ This will cover shareholder and policyholder assets where we have control and data; and the main asset classes of Aviva's core markets (credit, equities, direct real estate and sovereign debt). We will be able to expand this further as new data and methodologies become available. For more details, please see www.aviva.com/climate-goals

3.1.3 Action plans

To deliver on our pledges, we work with a full set of levers across five main areas:

- Active ownership: using our voice and vote to pressure companies and directors to change
- Divesting where necessary, and applying portfolio constraints for high carbon-emitting sectors and individual names
- Tilting investments towards cleaner sectors and the best companies within sectors
- Financing the transition: grasping the opportunity of a low carbon economy
- Providing products and services for our customers and tools to interrogate their portfolio.

Active ownership: using our voice and vote to pressure companies and directors

Further to our decarbonisation objectives, we target engagement with 30 systemically important carbon emitters in which we invest – and that currently produce 30% of global Scope 3 emissions – to encourage the reduction of their carbon footprint. The programme will run for between one and three years, depending on individual company circumstances, and incorporate clear escalation measures for non-responsive businesses or those that do not act quickly enough. We're committed to full divestment of targeted companies that fail to meet our climate expectations. During 2021, with the 30 companies in scope we undertook 112 engagements (meetings and written communication) and recorded 95 engagement wins.¹¹

Moreover, in January 2022 we announced our intention to vote against the election of directors at companies where their commitments on climate change, biodiversity and human rights fall short of expectations. We're also introducing the policy on voting against targeted management resolutions at the worst-performing forest risk commodity companies in the Global Canopy Forest 500 ranking.

Divesting where necessary and applying portfolio constraints for high carbon-emitting sectors and individual names

Divestment is not our first choice. Many of the companies that will move our economy from a high carbon to low carbon world already exist today. It's far better they face into the challenge and bring about the change than just go bankrupt. But the option of divestment contributes to strengthen our engagement.

We will implement exclusion policies for companies generating more than 5% of their revenues from thermal coal and 10% for oil sand and Arctic drilling by the end of 2022. And we'll limit our investment in these companies to non-fossil-fuel project finance bonds unless they have set SBTi-approved targets in line with a 1.5°C temperature rise.

¹¹ An engagement win is recorded where a company makes improvements against one of the 5 strategic pillars of the CEEP – Targets, Transition Plan, Governance, Disclosures, Lobbying. Maximum engagement wins possible in the year is 150 (5 pillars x 30 companies)

Tilting investments towards cleaner sectors and the best companies within sectors

We will embed climate considerations in our investment selection and management processes where possible to tilt our portfolio towards leaders in emission reductions and avoid financing laggards. Where possible to date, we've been guiding new investments towards a lower carbon intensity than the existing portfolio average, and in 2022 we aim to expand this approach further.

We're also tilting passive investments towards low carbon options (e.g. My Future Focus).¹²

Similarly, we'll continue to tilt towards low carbon and renewable energy infrastructure and sustainable buildings through our origination process, as well as provide financial incentives based on environmental performance to our borrowers.

For example, to reduce our Real Estate portfolio carbon intensity, we set out the action we'll take in our 'Real Asset Net Zero Pathway'.¹³

- We'll introduce additional due diligence and Net Zero-aligned planning during acquisition phase
- We'll target energy use intensities in line with the UKGBC¹⁴ Advancing Net Zero Energy Use Intensity Pathway and follow design for performance processes in assets development
- We'll seize opportunities of asset decarbonisation in the refurbishment cycle and procure 100% renewable energy for all landlord-controlled areas in our Real Estate portfolio, including the installation of Electric Vehicle (EV) charging points across the portfolio
- We may opt for disposal when assets in our portfolio won't present sufficient decarbonisation opportunities, while protecting our clients' interest
- We'll also engage our occupiers, encouraging them to switch to renewable energy tariffs and highlighting opportunities for energy and carbon savings through retrofit and behavioural interventions.

Financing the transition

We'll grasp the opportunities arising from the transition, which will include continuously seeking Net Zero transition opportunities across different forms of financing (e.g. green bonds, joint public and private partnership). For example, in 2021 our UK Life business invested £206m in the first and second tranches of UK Government green gilts with GI Shareholder funds writing a further £21m, with £100m invested from our policyholder funds.

We have set goals for such transition financing, which represents one of the biggest contributions that the financial industry can bring towards a low carbon economy.

We've targeted green investments aimed at investing £6bn in green assets from 2020-2025, and will increase the amount of our shareholder and customer investments going into sustainable impact and Net Zero-aligned funds and assets (Figure 9).

Moreover, we've committed to delivering £1bn of sustainable transition loans and investing £2.5bn in low carbon and renewable energy infrastructure. We aim to increase our low carbon and renewable energy generation capacity to 1.5GW by 2025, and reduce our Real Estate carbon intensity by 30% and energy intensity by 10% by 2025, measured against a 2019 baseline.

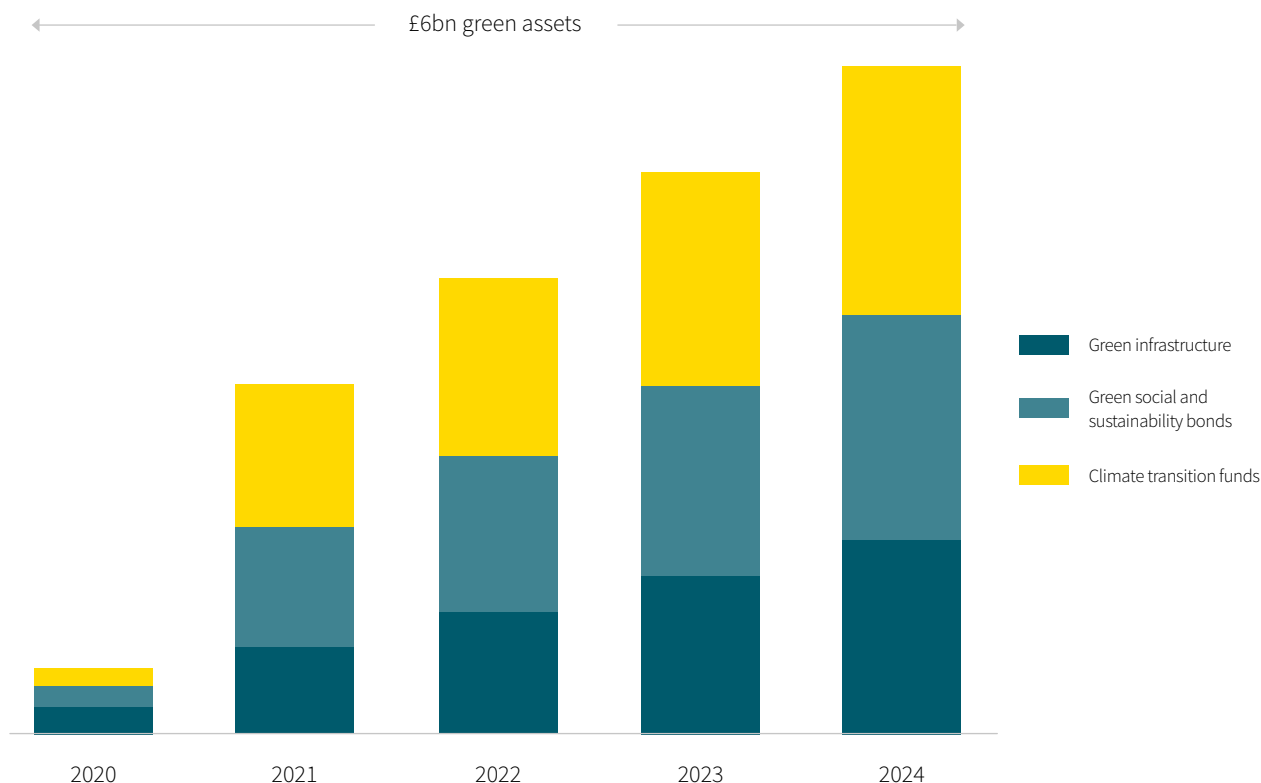


¹² <https://www.aviva.co.uk/business/workplace-pensions/corporate/my-future-focus/>

¹³ <https://www.avivainvestors.com/en-gb/about/company-news/2021/01/aviva-investors-publishes-net-zero-pathway-for-real-assets/>

¹⁴ UK Green Building Council

Figure 9: We targeted green investment aiming at reaching additional £6 billion in green assets from 1/1/2020- 31/12/2024 (indicative)



Providing products and services for our customers and tools to interrogate their portfolio

We'll focus our efforts on assisting our customers by integrating consideration of long-term climate-related issues into the products and services we offer.¹⁵ As an Asset Manager, we'll act as long-term stewards of our clients' assets, originating new assets that are aligned to a 2040 Net Zero pathway.

For example, our stewardship fund range has been added as a default strategy option for our corporate pension customers in the UK.

In the second half of 2021, we launched our Climate Transition Real Assets Fund and Natural Capital Transition Fund, both of which will invest in companies that provide solutions and are transitioning their business models across the themes of sustainable land, sustainable oceans, the circular economy and climate change. They will exclude firms involved in certain harmful activities or severe environmental controversies, given we consider that in these cases the sustainability risks to climate are so severe that providing equity and debt funding is fundamentally misaligned with our Responsible Investment Philosophy.¹⁶

¹⁵ <https://www.aviva.co.uk/aviva-edit/your-money-articles/investing-in-a-better-future/>

¹⁶ <https://www.avivainvestors.com/en-gb/about/responsible-investment/policies-and-documents/>

3.2 Operations – Internal Operations

Reducing emissions on our own operations represents the best opportunity to lead by example in the fight against climate change.

We started the decarbonisation journey of our operations almost 20 years ago, measuring emissions since 2004 and becoming the first major insurer to be carbon neutral on our operations in 2006, offsetting all our Scope 1 and 2 and operational Scope 3 emissions.

Since 2010 we've reduced our own emissions by 81%. In the years to come we aim to achieve further reduction by following a science-based reduction pathway, and move from sourcing credits for avoided emissions (which make our operations carbon neutral) to solutions which remove carbon emissions from the atmosphere and will lead to Net Zero operations by 2030.

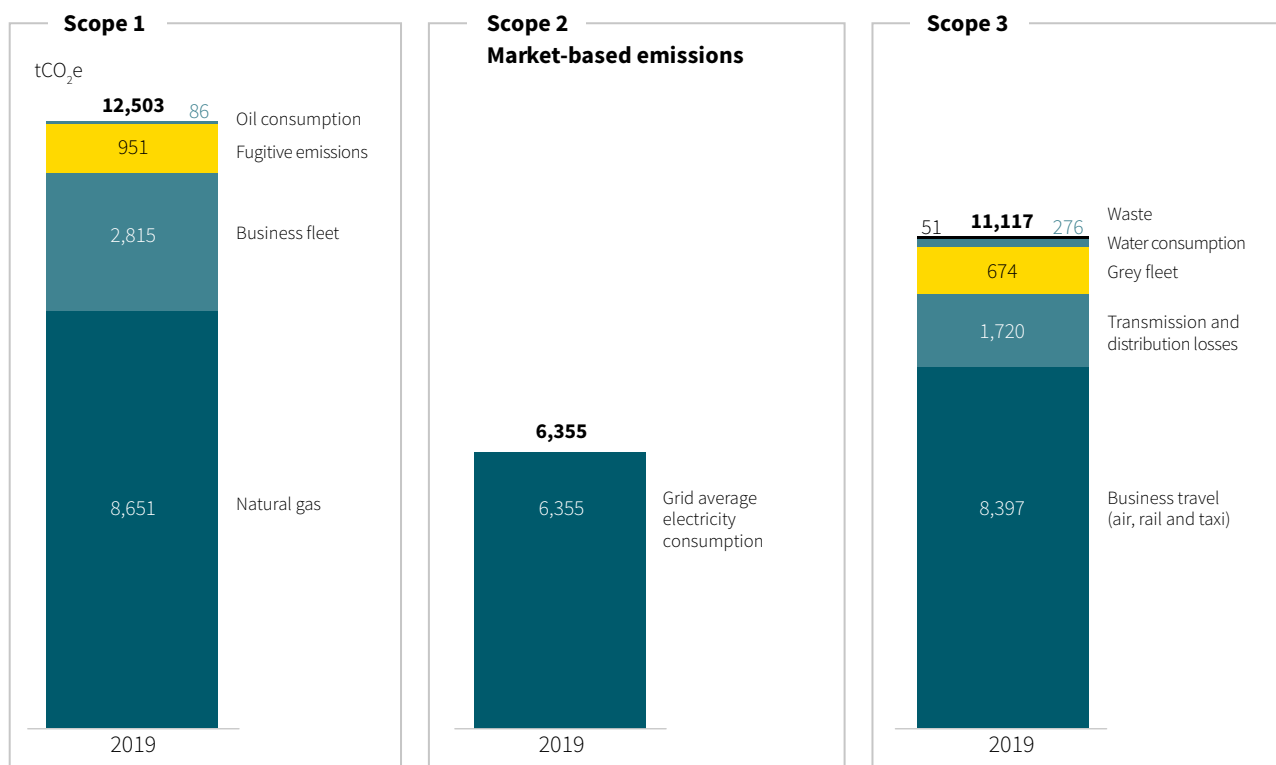
3.2.1 Baseline measurement

A granular and clear picture of operations' emissions is key to understanding our standpoint and driving the actions we need to implement to reach Net Zero. To measure our baseline we defined a solid and cross-functional process enabling the calculation of not only total operations emissions, but also the additional supporting metrics (e.g. share of renewable energy consumption over total, business mileage, carbon intensity per employee etc.) that provide us with essential insights to monitor and steer our actions.

The baseline measurement process is articulated in three key phases: data collection performed by business units from several internal and external information sources (e.g. invoices), calculation of relevant metrics performed by the Group Sustainability team leveraging the most updated and granular emission factors, and submission for external assurance before finally flowing into Group reporting.

Our internal operations emissions arise mainly from ten sources: natural gas, fugitive emissions, oil and company-owned cars for Scope 1; grid electricity consumption for Scope 2; and business travel (air, rail and taxi), transmission and distribution losses, our employees' fleet (grey fleet), water consumption and waste for Scope 3. In 2021 we expanded our operational carbon emissions calculation to include emissions from homeworking and so reflect our hybrid model (Figure 10).

Figure 10: Baseline operational carbon footprint 2019 (continuing businesses)



Please see our [Sustainability Report Archive](#) for further details on our carbon footprint.

3.2.2 Targets

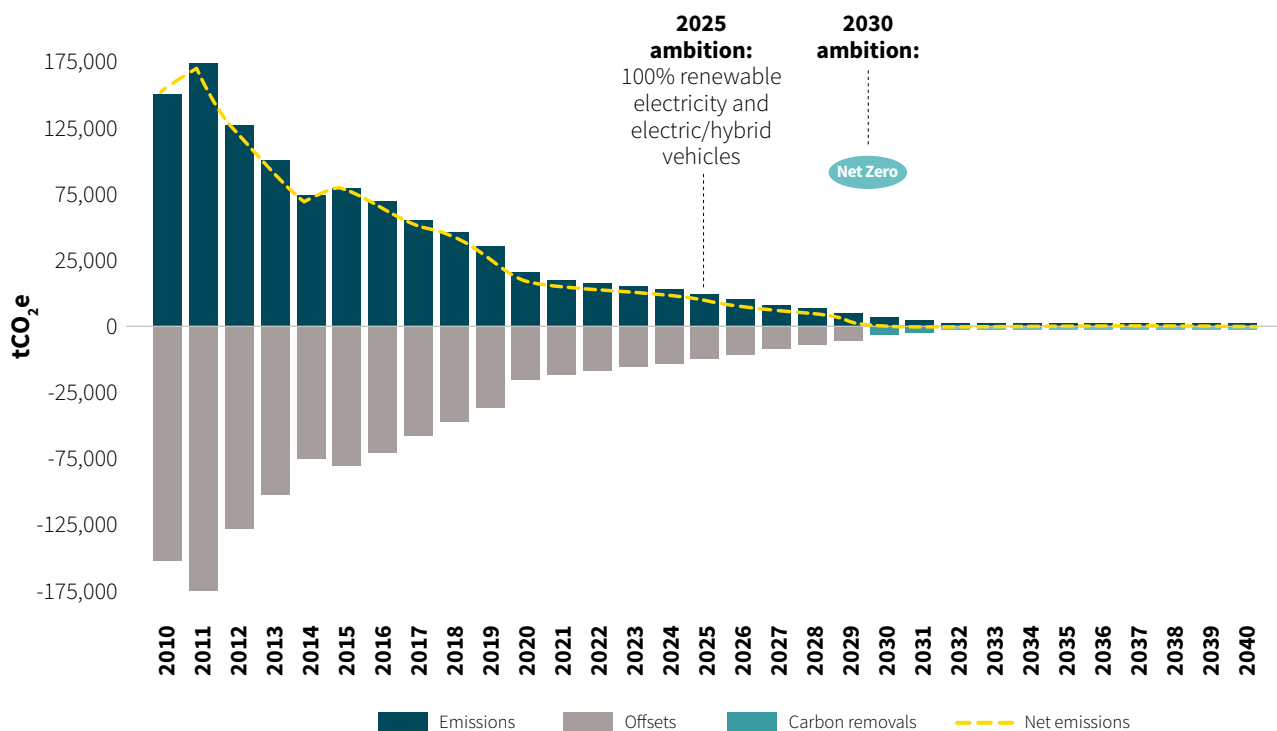
Scope 1 and 2 represent the biggest share of our internal operations emissions, as well as where we have the greatest direct control. Using a science-based approach, we're aiming to **reduce emissions by 90% by 2030** (from a 2019 baseline), leaving us with a residual share of non-abatable emissions that will be tackled through carbon removals to reach Net Zero. We're currently working to get validation of our targets from SBTi to obtain external approval for our commitments, ensuring that our effort is in line with what is required to avoid a temperature rise greater than 1.5°C (Figure 11).

As part of our broader Net Zero goals by 2030 we'll also include business travel as it represents the biggest emission source in our Scope 3 emissions related to operations.



Figure 11: Clear path identified to reach Net Zero Operations by 2030

Absolute operations emissions (Scope 1 and 2), MCO₂e



Emissions reduction forecasts are for illustrative purposes only. Pathways are based on a reduction of 8% per year 2020-2030. This goes beyond SBTi's AC 1.5 degree pathway (>4.2% per year, which would reach next zero by 2040). Exact targets and milestones will be determined as part of SBT commitment.

3.2.3 Action plans

To deliver these targets, we'll apply a number of business levers such as using technology to improve our energy efficiency, or fostering the required cultural change in our own workforce.

We're aware that our journey to Net Zero will not follow the same path across all geographies in which we operate, and for this reason we focus our efforts on our core markets¹⁷ where we believe we will have the greatest potential reduction, with the final aim to achieve our target as one Aviva.

To reach Net Zero on our internal operations (as well as on supply chain, covered in the next section) we will naturally capitalise on technological advancements occurring in the coming years as part of the global effort to fight climate change. Nevertheless, given the ambitious nature of our 2030 target, we acknowledge that non-abatable emissions from our internal operations will be present in 2030. To tackle this residual portion of emissions we're currently focusing our effort on supporting carbon sequestration via both nature-based and technological solutions, and we're actively engaging with several key organisations to help us achieve this goal.

Our property portfolio

To drastically reduce our Scope 2 emissions, we're aiming to source 100% of our electricity consumption from renewable sources by 2025, in line with the RE100 commitment we made in 2016. In the UK and Ireland, we've already achieved this milestone investing in projects such as the Aviva Scotland Solar Project in our Perth site where, via solar panels (powered by cutting-edge Tesla Powerpack technology), we were able to achieve nearly 400 tonnes of carbon emissions saving each year.

Removing natural gas (Scope 1) from our internal operations remains one of our biggest challenges. Presently, technological alternatives are still limited, but we'll take advantage of available options (e.g. switching to ground source heat pumps). Nevertheless, we expect natural gas to make up the majority of our residual emissions for Scope 1 and 2 by 2030.

Vehicle fleet

In line with our EV100 commitment, 100% of our vehicles will be electric or hybrid by 2025. In addition, we're ensuring that 10% of our car parking spaces in the UK and 5% Group-wide are fitted with EV charging points.

Business travel

To reduce our business travel (Scope 3) emissions, we'll continue to foster the strong cultural change in our workforce, and to promote 'tech over travel'.

In the coming months we'll also focus efforts on developing detailed actions to reduce our remaining Scope 3 emissions.¹⁸



¹⁷ Our core markets being our businesses in UK, Canada and Ireland, and Aviva Investors

¹⁸ Although not officially included in our Net Zero 2030 targets

3.3 Operations – Supply chain

As part of our operations Net Zero goal to be reached by 2030, we'll also address our supply chain emissions by looking to ensure that our purchased goods and services (Scope 3 Category 1) are aligned to the low carbon economy transition. We'll do this using a two-phase approach: in the short term we'll focus on setting a supplier engagement target to drive the adoption of science-based targets amongst our suppliers, while in the long term we plan to measure the emissions produced by our suppliers and set reduction targets on these (Figure 12).

To assess our supplier base starting point, we calculate the current percentage of our suppliers with science-based targets, based on our spend with them. Our objective is to grow this percentage in the coming years. We'll directly engage our suppliers to encourage them to collect emissions data, set science-based targets and ensure their businesses support the transition to a low carbon economy.

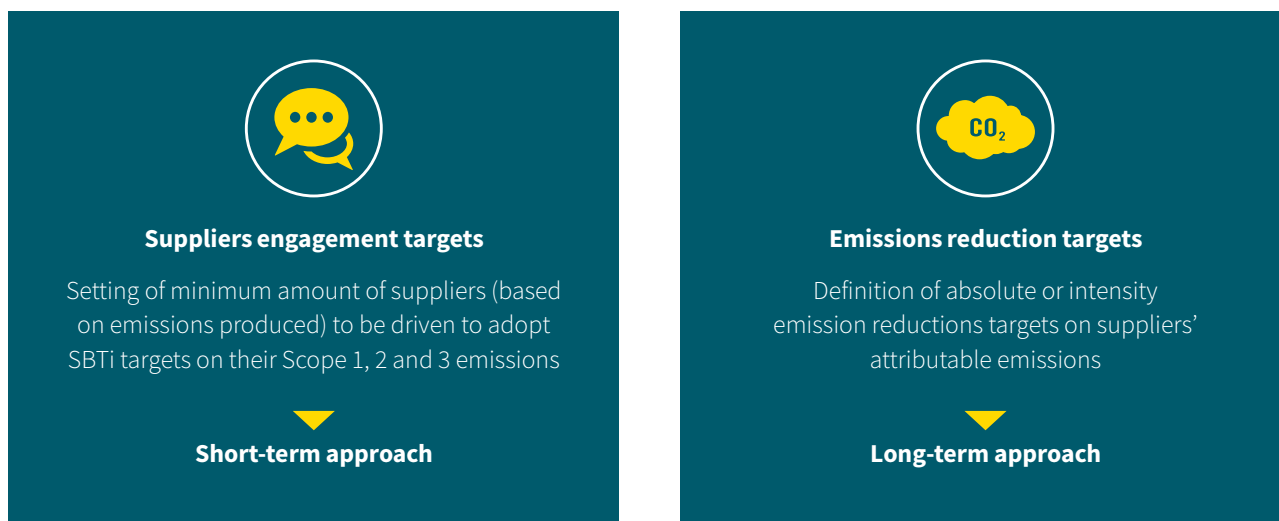
We see this engagement target as the best approach for our near-term targets on supply chain as it allows us to expand our influence beyond the portion of business our suppliers perform to serve us. In this way we can contribute to change the mindset of our suppliers to embrace a more holistic transformation of their operations.

This approach will also encourage greater uptake of carbon measurement and reduction strategies across our supply chain through which, in turn, we expect the data availability and quality from our suppliers to improve.

This will enable us to achieve a more precise measurement of the emissions produced by our suppliers and thus to switch to the second phase of our approach, calculating our suppliers' emissions and setting a quantitative target. The calculation will be based on a vendor management system and will allow us to estimate the emissions associated with goods and services we purchase.

To reduce our supply chain's emissions, we'll continue our supplier engagement, include carbon management clauses in our contracts, and consider supplier emissions in our tender process. Finally, we'll employ retendering as an ultimate lever to tilt our spend towards suppliers adequately decarbonising their way to do business.

Figure 12: Two approaches followed for target setting on supply chain



3.4 Insurance – General Insurance Underwriting

In the context of accelerating the transition to Net Zero for the whole economy, insurers play a unique role thanks to the nature of insurance contracts as enablers of the use of assets. With our customers we will continue to integrate climate change consideration at all stages of thinking about risk – understanding, prevention, reduction and protection through insurance and reinsurance, so that our solutions continue to be accessible and affordable.

The UK Commercial Property and Casualty insurance landscape will undergo significant changes in the next 30 years as the transition to a lower carbon economy unfolds (Figure 13). Inertial growth, driven by organic insurance penetration, is estimated at £9bn.¹⁹ In addition to this, organic insurance growth of low carbon assets replacing existing insured assets will amount to £20bn,¹⁹ only marginally offset by the decrease in underwriting volumes driven by the loss of relevance of some high-emitting sectors (-£4bn).¹⁹

Underwriting is a new focus area for climate discussions. Aviva is committed to being at the forefront of using it to address the climate crisis, investing significantly in developing a consistent methodology to do so.

Considering the highly systemic importance and innovative value of Net Zero underwriting, we'll also be sharing our work with the global insurance industry as part of our membership of the United Nations-backed Net Zero Insurance Alliance (NZIA) – as well as our broader stakeholders – to further contribute to the global climate effort.

For the global insurance industry to realise the ambition to reach Net Zero, we believe it's paramount for insurers to work together and to define common strategies and rules. The methodology we propose is composed of three steps: baseline measurement, target setting and business actions. In sharing this methodology with the market, we look to support the industry, get their feedback and provide information on some concrete actions we're performing in order to decarbonise our portfolio.

Figure 13: UK Insurance landscape future changes



Inertial growth targets

Increase in underwriting volumes driven by organic increase in insurance penetration

+£9bn market size



Substitution of existing assets

Insurance on low carbon assets replacing existing insured assets (i.e. EVs, more efficient housing)

+£20bn market size



Loss of business

Decrease in underwriting volumes driven by industrial sectors gradually losing relevance

-£4B Market size

¹⁹ BCG analysis



3.4.1 Baseline measurement

As Net Zero underwriting is a very new topic, we've developed a new methodology for the measurement of carbon emissions linked to insurance policies. This contributes to the current effort led by PCAF and NZIA to establish a common methodology for the measurement of insured emissions.

In the spirit of a broad industry collaboration on Net Zero, we're offering our views to the market as a contribution to the ongoing public debate on how to measure emissions of the Underwriting portfolio. As such, we very much welcome public feedback on the content of this section.

In a nutshell, measuring emissions of the Underwriting portfolio requires two building blocks:

- A measure of the emissions produced by the insured assets or clients
- An attribution factor that represents the 'fair share' of emissions attributed to the insurer.

To develop this methodology we made some choices: while we believe these are the right ones to represent the appropriate level of emissions of an insurance portfolio, we're aware that this might not be the final decision of the NZIA.

In our opinion, the key decisions are:

- Measuring emissions at asset level or client level
- Defining the appropriate attribution factor
- Setting targets on absolute emissions or emission intensity metrics.

In the remainder of this section we describe in detail our position on these three choices, while also representing potential alternatives.

3.4.1.1 Choice #1: Measure emissions at asset level or client level

In general, emissions can be measured at asset level or at client level.

- Asset-level measurements lead to accurate accounting of emissions based on technical features and usage of the insured asset. Ideally, asset-level measurements are recommended across lines of business, but they are more difficult to implement for commercial lines due to lower data availability, the challenge of allocating emissions for interdependent operations within a company, and policy bundles across assets. They are less suitable for liability lines.
- Client-level measurements are possible, based on the carbon behaviour of each client. They are less granular than asset level measurements but can be a good solution for commercial clients when asset-level measurements are not suitable. In this case, it's possible to leverage the public disclosure of carbon emissions by large corporates or to infer emissions for companies who don't disclose them publicly (including small to medium enterprises (SMEs)) from using statistical models. Such models can leverage corporate data from different sources to predict the level of emissions of a company based on what is observed for other companies with similar characteristics. Aviva is already working on developing a similar model and we'll be happy to share our learnings in 2022.

3.4.1.2 Choice #2: what is an appropriate attribution factor

Absolute metrics: insured emissions

Absolute metrics are key to having transparency on the actual level of emissions to abate in order to reach Net Zero.

Rather than considering the total emissions from insured assets or clients, we want to focus on those enabled by insurance, because that is the share of emissions we can influence the most. To this end we aim at measuring ‘insured emissions’; that is the share of policyholders’ emissions enabled through the insurance contract.

Insured emissions are therefore calculated as follows:

Formula 1: Insured emissions

$$\text{Carbon emissions of insured asset (or client)} \times \text{Underwriting Attribution Factor} = \text{Insured emissions}$$

Carbon emissions of insured assets (or clients) should include Scope 1 and 2 carbon emissions (and potentially Scope 3 for highly emitting sectors e.g. Oil and Gas, Mining).

Whenever possible, total emissions should be calculated at asset level, based on the technical features and usage of the insured asset. For example, the carbon emissions of a motor vehicle can be calculated as the product of the average emissions per mileage (tCO₂e/km) of that model,²⁰ and the average mileage each year.²¹ Similarly, property emissions can be calculated as a product of the emission factor per area (tCO₂e/sqm, based on EPC rating for personal property and on designated use for commercial property) and the floor area of the property. Aviva will continue to improve its data to bring together this information in 2022 using both internal and external sources.

To obtain insured emissions from the total emissions of a given asset, total emissions of insured assets need to be multiplied by the correct underwriting (UW) attribution factor for each asset. The choice of the attribution factor should be defined together with our peers and with support from international standard setters (e.g. NZIA,²² PCAF).²³

To support this effort, we’ve developed some guiding principles that we believe will help define the attribution factor:

- The attribution factor should stress the importance of insurance as enabler of the insured asset or client
- Attribution should lead to similar results across insurers (i.e. similar ranking of policies by insured emissions) regardless of risk assessments, pricing and other factors not related to carbon emissions; data needed should be available across insurers and methodology should be easy to implement
- Where possible, the attribution methodology should be applicable to both commercial and personal lines, to ensure consistency in carbon accounting
- If the attribution factor is a ratio between two metrics, then there should be consistency of reference period between numerator and denominator (e.g. both ‘stock’/lifetime or both ‘flow’/annual metrics)
- The attribution methodology should allow the calculation of insured emissions at the most granular level possible (e.g. asset level), creating appropriate incentives to insure green assets also for high-emitting clients, to support them in their climate transition.

We believe that a decision on the attribution methodology can only happen at industry level, but – in line with the principles just shared – we bring forward the following proposal:

Formula 2: Proposed UW attribution factor at asset level

Technical premium

Annualised asset value

In the formula, technical premium is the risk cost of premium, excluding profit and expense loadings.

Annualised asset value can be proxied by different metrics, such as the average yield or rental value of a given asset,²⁴ or the yearly asset depreciation.²⁵ The annualisation process is relatively simple for motor vehicles, but can be complex for properties, considering the much longer (and uncertain) lifetime. We welcome feedback from the industry to define the best parameters to base the annualisation on.

Considering that asset-level measurements might not be feasible for commercial insurance, we can apply a similar methodology at client level. In this case, we would consider overall client emissions and attribute them based on the following attribution factor:

²⁰ Looking at the specific model variant and fuel type, as declared by the manufacturer

²¹ As declared by the policyholder or as inferred by available statistics

²² Net Zero Insurance Alliance

²³ Partnership for Carbon Accounting Financials

²⁴ e.g. if a property is worth £100k and its rental return is 5%, we would consider £5k as annualised property value. It should be noted that the starting point for the calculation of yearly asset value (e.g., for a property) should be the rebuild cost and not the price of the asset, which is influenced by factors not linked to carbon emissions (e.g., the location of the property)

²⁵ i.e. how much the asset depreciates every year

Formula 3: Proposed UW attribution factor at client level

Technical premium

Annualised enterprise value

Annualised enterprise value can be proxied by metrics of yearly value creation, such as expected yearly net income, expected dividends or total shareholder return.²⁶

This attribution methodology is based on the analogy with financed emissions, which are attributed proportionally to the share of financing in a company. Similar to investors, insurers participate to the value of insured assets or clients through the payment of claims. The expected value of claim payments in a year is equal to the product of claim amount and claim frequency, that we proxy with the technical premium. Considering that insurance coverage enables emissions for one year, also asset value (or enterprise value) needs to be annualised. This approach could also be used for non-asset-based covers.

At the same time, we recognise that there are some challenges associated with our attribution approach. First, annualised enterprise value can fluctuate due to market trends and other factors not linked to carbon emissions. Second, identical assets can have very different values but similar emissions (e.g. properties with different market values due to different locations, but otherwise similar). This issue could be potentially addressed by annualising the replacement cost of insured assets rather than their market value, to better reflect the potential claim payment from the insurer.

3.4.1.3 Choice #3: Absolute emissions or emission intensity metrics

To quantify carbon emissions of insured assets or clients, two types of metrics can be considered:

- Absolute metrics: actual emissions, aiming to create full transparency on the emission baseline based on technical features and usage
- Emission intensity metrics: unitary metrics aiming to measure the carbon efficiency of insured assets or clients and comparing them (regardless of their size) – used for business steering and target setting (more details in the next paragraph).

There are three main types of emission intensity metrics:

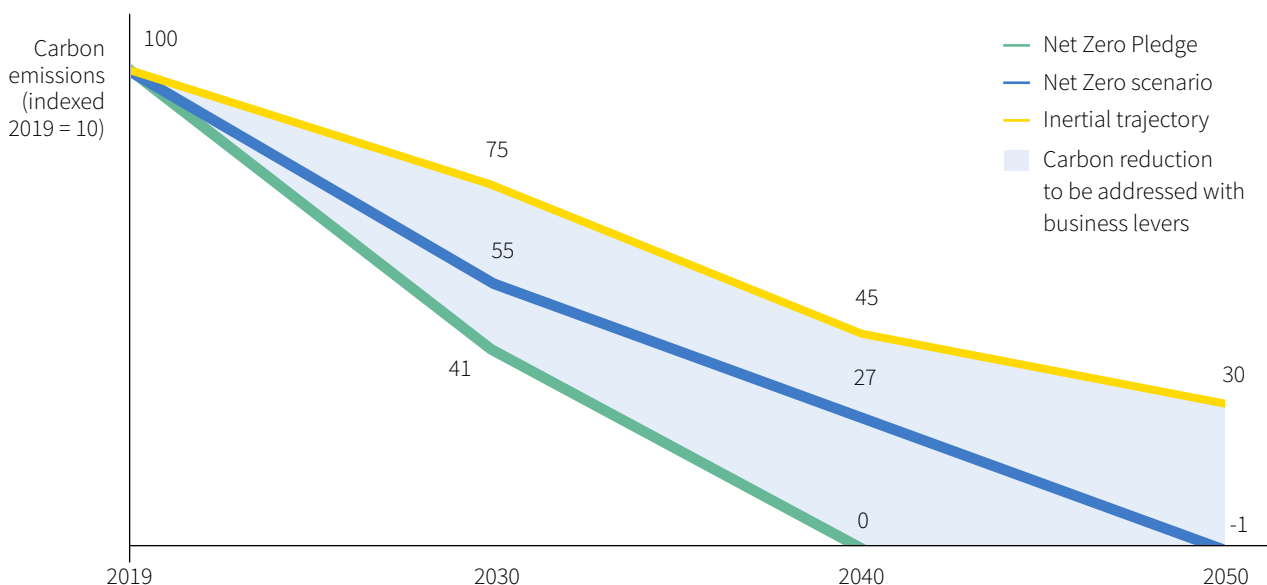
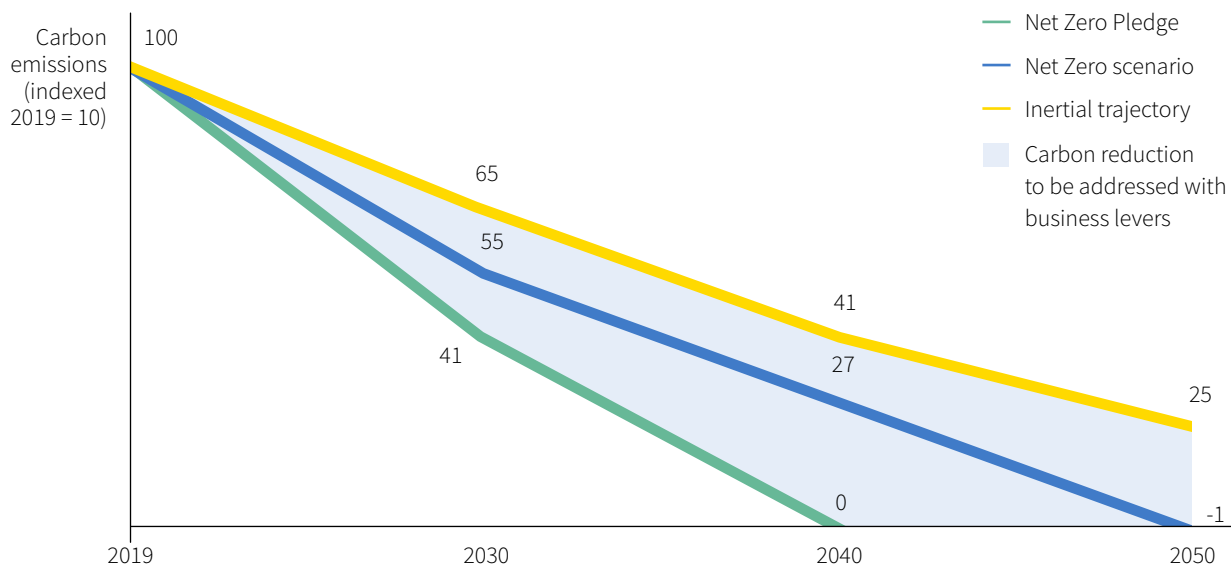
- Economic emission intensity: insured emissions divided by insurance premium (tCO₂e/£)
- Physical emission intensity: carbon emissions of insured asset or client divided by output (tCO₂e/output unit)
- Weighted average carbon intensity (WACI): yearly emissions of insured client divided by client revenues (tCO₂e/£).

The economic emission intensity represents the amount of emissions the insurer is enabling for each pound of earned premium. It is easy to compare across clients and we plan to use it as the KPI to steer the underwriting portfolio and to optimise product and client mix.

The physical emission intensity is the most accurate metric of carbon emissions, being directly linked to the output of the insured asset or client. However, it is asset-specific (or at least sector-specific) and not comparable across different assets (or sectors). In the short term, it's advisable to develop physical emission intensity metrics at least for the highest emitting sectors. These metrics can be used for target setting, to monitor energy efficiency improvements from a technical point of view and for sector-specific analyses.

The WACI measures the amount of emissions produced for each pound of revenues of the insured client. It is applicable only to commercial clients and allows easy comparisons to identify best practices. Despite having some limitations (e.g. being affected by volatility in revenues), it can be used to analyse commercial clients and to monitor their transition to low carbon production.

²⁶ All financial metrics to be estimated using average sector marginality or averages over time, in order to avoid distortions caused by yearly volatility

Figure 14: Preliminary emission scenarios for UK motor portfolio**Figure 15: Preliminary emission scenarios for UK property portfolio**

3.4.2 Targets

In the spirit of sharing our learnings and commitments with the market, Aviva will, pending agreement at an industry level and following the feasibility of application to our other core markets, aim to develop detailed carbon reduction targets for the underwriting portfolio during 2022.

A comprehensive target-setting exercise requires three main elements: an official Net Zero Pledge, a Net Zero scenario, and an inertial trajectory of carbon emissions.²⁷

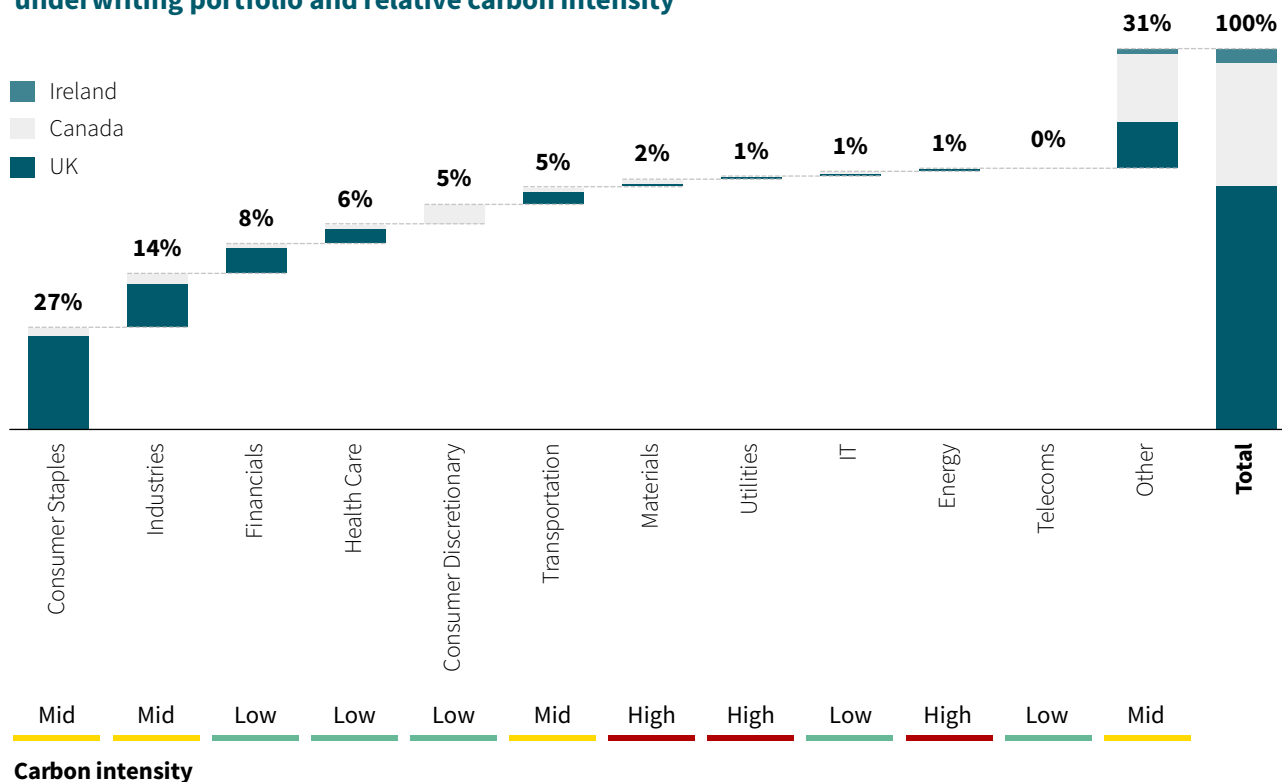
Aviva aims to reach Net Zero carbon emissions from the underwriting portfolio by 2040, 10 years earlier than most companies and economies. The foreseen actions should therefore be ambitious enough to address the gap between the trajectory and the Net Zero Pledge. To this end, a credible target-setting exercise should be detailed enough to steer business actions and ensure granular monitoring of emissions towards Net Zero. Aviva will set targets at overall personal and commercial portfolio level; at sector level for the commercial portfolio (where climate levers are focused on engaging the clients), and for each line of business for the personal portfolio (where the focus is on improving the carbon profile of insured assets, mainly motor and property).

Aviva recommends using mainly emission intensity metrics for target setting. In particular, economic emission intensity could be used at portfolio level, physical emission intensity could be used for the personal portfolio (i.e. tCO₂e/vehicle or tCO₂e/km for motor, tCO₂e/property or tCO₂e/sqm for property), and WACI could be used for the commercial portfolio (by sector). However, where supporting clients to make the transition has failed, we recognise the importance of phasing out certain highly carbon intensive activities – therefore we'll consider using absolute metrics for target setting in the highest emitting sectors.

Absolute insured emissions should be monitored internally at a granular level to create internal transparency on the level of actual emissions to cut to reach Net Zero.

Underwriting emissions are not yet included in the SBTi framework and for this reason they won't be part of our submission. Nevertheless, we support the inclusion of underwriting in the SBTi framework once methodology has been tested and widely accepted.

Figure 16: Overview of Aviva's volumes by sector in commercial underwriting portfolio and relative carbon intensity



²⁷ For more details, please refer to section 3

3.4.3 Action plans

Carbon emissions will need to be reduced through dedicated business levers, with a reduction target equal to the difference between the inertial trajectory and the Net Zero Pledge. Aviva is determined to act and is already working towards reinventing underwriting, factoring the climate transition throughout. With a joint effort involving all the Aviva GI businesses we have published our Baseline Environmental, Social and Governance (ESG) Underwriting Statement. This is aligned with our Investment Baseline Exclusion Policy, and details the sectors where we have a low level of risk appetite.

Potential macro-levers to reduce portfolio emissions are:²⁸

- Optimisation of business mix (including insuring more green assets)
- Incentivisation of climate positive behaviour from policyholders
- Client engagement and advice to support transition
- Product innovation (e.g. policies with offsetting options)
- Exclusion of high-emitting assets and clients
- Application of an internal carbon price.

We believe that decarbonisation objectives can be met with a strategy mainly focused on new business opportunities, with client exclusion being only a lever of last resort. However, we believe the highest emission fuels are not part of a Net Zero future. We have therefore stopped insuring thermal coal (power generation or mining) and providing cover to companies directly involved in the extraction of any fossil fuels.

We'll make an exception for those companies serious about their transition out of high carbon fuels and who have committed to clear science-based targets aligned to the Paris Agreement target of limiting temperature rises to 1.5°C. We're currently working in this direction and defining detailed initiatives for the commercial and personal lines.

While we are just at the beginning of our effort to reduce carbon emissions, many of the macro-levers mentioned above are already active. For example, Aviva has an integrated package of insurance designed specifically to support large companies in the complex market of renewable energy, including onshore windfarms, solar power and battery storage (Aviva Renewable Energy). Moreover, we're working on redesigning our policies to incentivise climate positive behaviour, for instance with motor insurance rewarding low-carbon driving patterns (e.g. lower mileage and steadier/slower speed).

Initiatives like these also require a transformational change for the organisation, including the need to build new capabilities and new underwriting policies for the new types of risks related to green assets.

Furthermore, it's important to note that the identification of levers is a dynamic, ongoing exercise that involves the entire ecosystem: we actively collaborate with market leaders from different sectors, academics, and associations to evaluate additional initiatives to support the carbon transition.

We're already supporting large corporates in the transition towards a low carbon economy. And we're committed to increasing the focus towards small businesses (which represent the larger part of our commercial portfolio) through risk advisory initiatives dedicated to the decarbonisation of their operations and supply chains.

To ensure we meet the Net Zero Pledge and intermediate targets, we're also assessing the impact of each business lever on carbon emissions, as well as on key financials and absorbed capital. By simulating alternative scenarios in terms of activated levers, we're committed to defining the target mix of levers that optimises the existing trade-offs between climate action and financial results.

²⁸ Not exhaustive

3.4.4 Future enhancements

Net Zero Underwriting is a new area where the methodological discussion has just begun. We expect relevant enhancements to come, mainly driven by the agreement on common standards for the insurance industry,²⁹ the improvement in data availability and the evolution of public policies on the subject. For this reason, Net Zero Underwriting should be considered an ongoing exercise, with periodic refinements of measurements and models.

Measurement of emissions can be improved by collecting more granular data on insured assets and their usage. For instance, carbon measurement for motor vehicles could also factor in speed, which has a relevant impact on emissions, as well as distance travelled.

Moreover, we encourage an increasing number of companies to publicly disclose their emissions and announce Net Zero pledges. Every company joining this effort creates a positive spillover effect on its entire ecosystem, including enhancing the level of understanding of current carbon emissions.

Analytical models for the inertial projection of carbon emissions can also be enhanced by adding more asset features and by leveraging more sophisticated modelling techniques (e.g. machine learning).

Finally, the estimated carbon impact of business levers will become more accurate over time, thanks to the observation of the actual results from the first applications of such levers. We also expect levers to change and become more sophisticated in the next few years, with focus on developing both monetary and non-monetary incentives for the transition for both internal and external stakeholders, including launching new carbon pricing frameworks.

3.5 Insurance – Claims management

Management of our customers' claims is one of our core business processes. The associated direct and indirect emissions produced when we manage claims are materially linked to the activities our suppliers need to perform to assess damages, repair them or provide replacements.

From a carbon footprint standpoint, our claims management process is considered as part of our supply chain. For this reason, the approach we'll apply to our claims management process mirrors the one we have across our supply chain, and will be submitted to SBTi as a single target for formal approval.

As described in the supply chain section, our objective is to increase the percentage of our claims management suppliers (based on the spend we attribute to them) that have approved SBTi targets. By working with our suppliers in this way we expect to drive broader management of their carbon footprint (i.e. greater than just the emissions they produce to serve us).

To achieve this, we'll directly engage with them, review, and consider appropriate changes to contracts aimed at improving climate and broader sustainability commitments – as well as consider the exclusion of new suppliers based on their SBTi status. Where material, we'll also encourage our suppliers to address their Scope 3 emissions. Starting from 2025, we'll perform a full calculation of our emissions baseline for our claims management and set absolute reduction targets to ensure we reach Net Zero by 2030.

To achieve our targets, we'll take specific actions that increase the efficiency of our processes and reduce the carbon footprint of our suppliers, regardless of their commitment. For example, using video calls or 3D scanning to create a virtual image of the damage on site to assess claims in order to reduce the need for travel, looking to repair over replace where possible to drive down generated waste, and replace with household energy efficient appliances. We'll aim to target our actions where we can have the most material impact, and will look to work with those companies seeking to innovate and provide leadership on climate – such as our UK motor accident repair centre company Solus, that has also committed to becoming Net Zero by 2040.

²⁹ Driven by the ongoing conversations with NZIA and PCAF

3.6 Governance and roadmap

The governance we've set up for climate-related topics allows the Boards, management committees and senior management to integrate climate-related risks and opportunities into strategy, decision making and business processes.

The overseeing and steering of the Climate Transition Plan are performed by our Aviva Sustainability Ambition (ASA) Steering Committee to ensure executive accountability and senior supervision on the delivery of the Climate Transition Plan. The ASA Steering Committee is composed of executive members from all the involved functions and has delegated authority from the Executive Committee to lead Aviva's Climate Transition Plan. It provides oversight and challenge in meeting our key Net Zero objectives, as well as quarterly updates to the CEO and Board Customer, Conduct and Reputation Committee.

The effort required to become a Net Zero company by 2040 is cross-functional, involving different parts of our organisation on two main tasks. On one hand, we need to finalise the setup of the Net Zero programme (e.g. ensuring all required methodologies for emissions calculations are in place or expanding data coverage) and on the other we have to execute the different levers identified to ensure emission reduction and monitor their impact.

To this end, we recently set up a Climate Action Working Group responsible for the finalisation of the Net Zero programme setup, plan execution and monitoring of foreseen levers.

The Climate Action Working Group will coordinate the activities of four functional workstreams: investments, operations (including internal operations and supply chain), insurance (including underwriting and claims management) and risk management, ensuring we meet the challenging roadmap ahead of us.

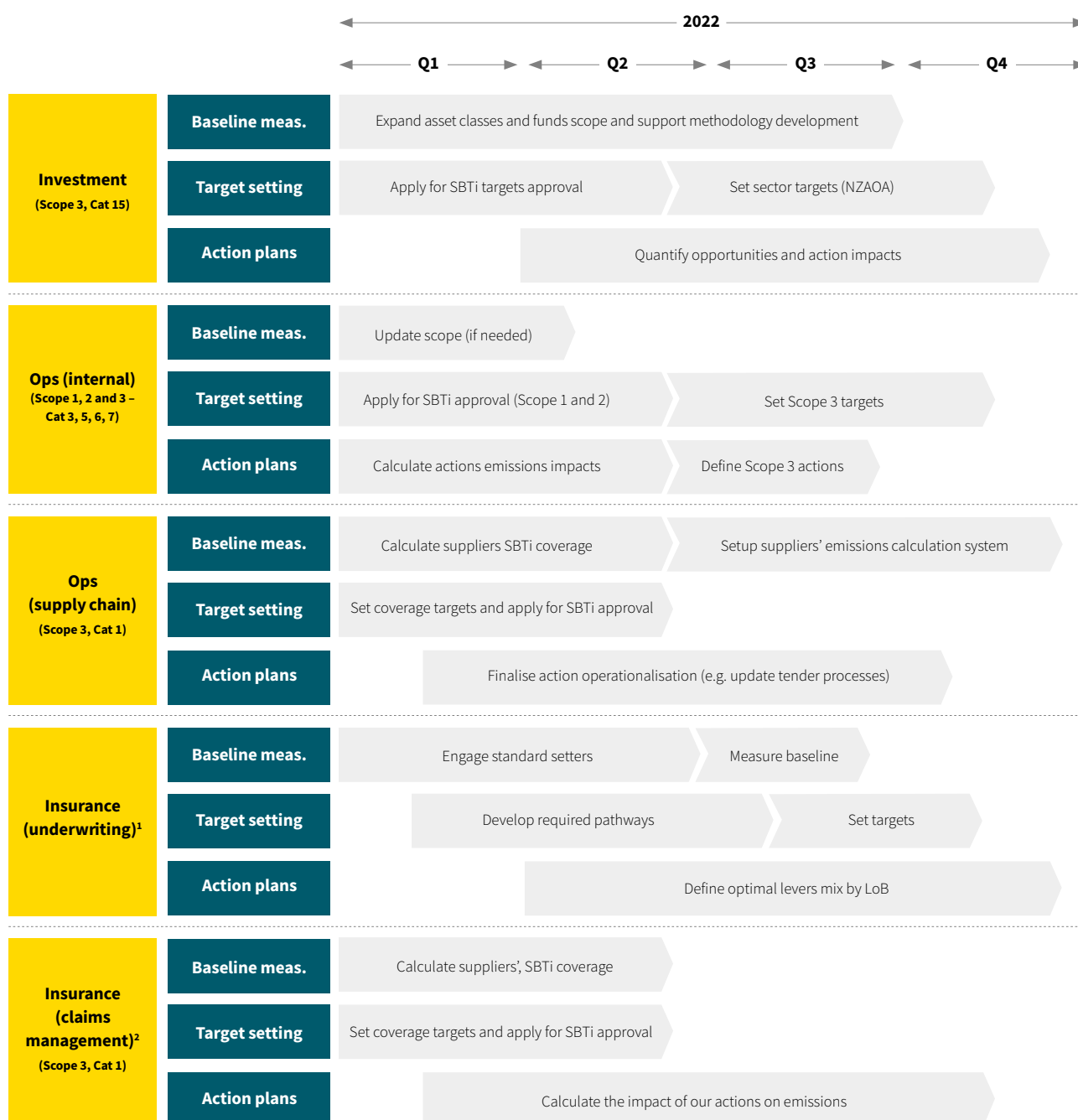
We'll continuously monitor progress in the delivery of the plan, envisaging a proper escalation mechanism in case of deviations with respect to defined interim targets. And we'll report on our performance annually in our Sustainability and Climate-related Financial Disclosure Reports as well as via third party platforms like CDP. Additionally, senior management's Long Term Incentive Plans embed targets aligned to the delivery and performance of our Net Zero Pledge; currently we have included a climate metric focusing on the carbon intensity of our Equity and Corporate Debt asset classes for the shareholder and participating (With Profits) portfolios.

For certain areas of our business, we build climate (and broader ESG) considerations into performance and pay criteria. For example, in investments we integrate ESG factors as part of the pay criteria, including for our investment desk heads. Through our Global Reward Framework, all investment employees should support responsible investment and integrate ESG considerations into their investment processes, including the consideration of sustainability risk. ESG metrics and research are embedded in the investment process and form part of the investment scorecard and annual risk attestation.

In the coming months we'll be focusing on the finalisation of our Climate Action programme setup on investment, operations (both internal and supply chain) and insurance.



Figure 17: High-level roadmap for the finalisation of our approach



¹ Designated Scope 3 category yet to be confirmed ² Supply chain

In performing these activities, we will undoubtedly benefit from the evolution of methodologies driven by international alliances as well as the general advancement pushed by the global effort in fighting climate change. We'll update the market on our progress and aim at publishing a new version of our Climate Transition Plan in the future.

How we embed Climate Risk into our Enterprise Risk Management

The Global Risks Report of the World Economic Forum in 2022 highlighted that the three most severe risks on a global scale over the next 10 years are related to climate change (i.e. climate action failure, extreme weather and biodiversity loss).

We manage the financial risks arising from climate change in line with Prudential Regulation Authority's expectations by incorporating these risks into our existing risk management framework. This Framework sets out how we identify, measure, monitor, manage and report on the risks to which our business is, or could be, exposed to (including climate-related risks).

We updated our risk policies (including our Risk Management and risk appetite frameworks as well as our Own Risk and Solvency Assessment (ORSA) policy), relevant business standards (such as asset liability management, strategy and sustainability), guidance, and instructions to reflect climate-related risks, opportunities and implications on multiple parts of our business.

We consider all climate-related risks, transition, physical and litigation, and use our risk identification process to identify potential exposure to these risks via the associated physical and transition transmission channels (e.g. new climate policies or increases in average temperatures). We then conduct exposure analysis to understand how these risks will impact our most material exposures.

We consider climate change to be a significant risk to our strategy and business model and its impacts are already being felt.

Therefore, we're acting now through our Sustainability Ambition to mitigate and manage its impacts both today and in the future. Through these actions, we continue to build resilience to climate-related transition, physical and liability risks.

In 2021, our Board approved our new climate risk appetite (including statement, metrics and thresholds) recognising: "We have a low appetite for climate-related risks which could have a material negative impact upon our balance sheet and business model as well as our customers and wider society. We actively seek to reduce our exposure over time to the downside risks arising from the transition to a low carbon economy. We seek to identify and support solutions that will drive a transition to a low carbon, climate-resilient economy. We seek to limit our net exposure to the more acute and chronic physical risks that will occur in the event the Paris Agreement target is not met. We actively avoid material exposure to climate litigation risks." The climate risk appetite, its metrics and associated thresholds are set by the Board. When the overall appetite is breached the Board is notified and the breach is discussed at the next sub-committee or board meeting as relevant. We monitor our climate metrics against these thresholds and targets on a quarterly basis.





To adequately identify, measure, monitor, manage and report climate-related risks we use a number of metrics. For transition risk, the metrics we use to assess our exposure are the weighted average carbon intensity (WACI) of our investees and the amount of investments we make in green assets as well as portfolio warming potential and climate value at risk (climate VaR).

We employ scenario analysis to inform strategy setting and risk assessment. We developed the climate VaR measure in conjunction with the UNEP FI investor pilot project and were awarded the Climate Risk Initiative of the Year 2018 – and we continue developing this measure.

Climate VaR includes the financial impact of transition risks and opportunities. This covers the projected costs of policy action related to limiting greenhouse gas emissions and projected profits from green revenues arising from developing new technologies and patents. The impact of transition risk is based on a range of socioeconomic pathways and output from several integrated assessment models. The climate VaR captures the financial impact of physical risks from extreme weather (e.g. flood, windstorm and tropical cyclones) and chronic effects (e.g. heat and cold, intensity of rainfall, rising sea levels and temperature), although we recognise that the most extreme physical effects will only be felt in the second half of the century. We also recognise there is a growing trend in climate-related litigation and have assessed its potential exposure accordingly.

Climate VaR also allows us to assess business impacts of both transition and physical risks in four Intergovernmental Panel on Climate Change (IPCC) scenarios, with each scenario describing a potential trajectory for future levels of greenhouse gases and other air pollutants. These can be mapped to likely temperature rises by 2100 and levels of economy-wide mitigations consistent with a 1.5°C (aggressive mitigation), 2°C (strong mitigation), 3°C (some mitigation) and 4°C (business as usual) increase. We also aggregate these outputs to determine the overall impact across all scenarios by assigning relative likelihoods to each scenario.

The magnitude of transition risks is higher in the scenarios that most limit the temperature rise as the costs to ensure the transition will be more material in those scenarios. The effects of the transition are assessed on both sides of the balance sheet (investments and insurance liabilities). On investments the main drivers of the impacts are the costs that companies will incur in reducing emissions but also the revenues generated from transition opportunities for certain companies. For life insurance liabilities we assess the impact of the potential reduction in mortality rates resulting from less air pollution.

While recognising the limitations of the Climate VaR and other metrics used (e.g. scope of coverage, data availability and extended time horizons as well as the uncertainty associated with some of the underlying assumptions), we believe they are still valuable in supporting our governance, strategy and risk management.

To enable the Board to oversee climate-related risks within the overall business strategy, we incorporate these risks into our business plan and have developed quarterly reporting for our Group and local Board and Risk Committees to facilitate a better understanding of the associated impacts, and monitor these risks in line with our risk appetite and risk profile.

Finally, Aviva was one of ten large insurers in the UK market that took part in the Bank of England climate-specific stress test, the 'Climate Biennial Exploratory Scenario' (CBES) exercise, to test the resilience of the insurance and banking industries to the physical and transition risks from climate change – and was the only insurer to submit a response in respect of both the life and general insurance business.

More details on our climate-related risk management can be found in our TCFD report.³⁰

Figure 18: Aviva's climate risk preferences

Risk type	Preference	Rationale
Transition risks	Avoid	We seek to reduce the impact on our business that is likely to arise from the extensive policy, technology and market changes resulting from the transition to a low carbon economy. Depending on the nature, speed and focus of these changes, transition risks may pose varying levels of financial and reputational risks
Physical risks	Accept	We seek to limit, or where appropriate reduce, our investment and net underwriting exposure to the more acute and chronic physical effects of climate change, while recognising that we have capabilities to manage these risks, support adaptation and build resilience
Litigation risks	Avoid	We are averse to climate litigation risks that could arise from parties that have suffered loss and damage from climate change and seek to recover losses from Aviva if they consider that investment or underwriting activities have contributed to that loss

³⁰ <https://www.aviva.com/sustainability/reporting/climate-related-financial-disclosure/>

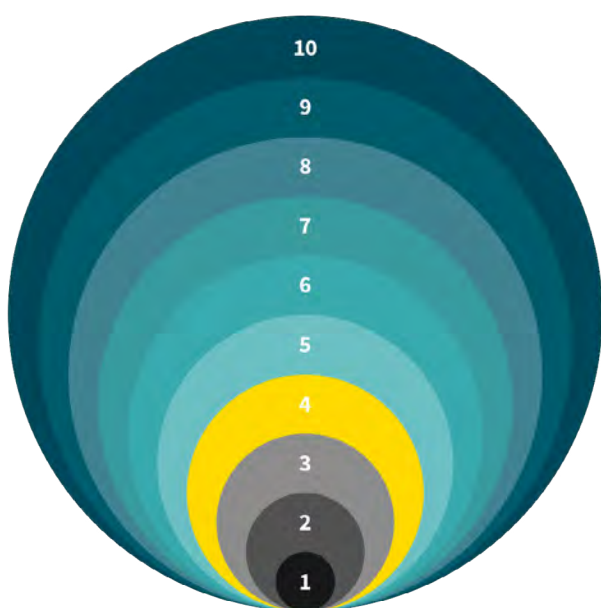
Using our influence to help deliver Net Zero

A single company or even a group of companies cannot make the world Net Zero. This will take action from governments, regulators and other actors who help shape global economies and financial markets. We also need to bring our customers along with us, and make sure that our actions reflect their interests and values so that we have a just transition to Net Zero.

At Aviva we're fully aware that our role in fighting climate change goes beyond tackling the emissions of our own investments, operations and underwriting portfolio, therefore we are relentlessly campaigning for systems-level change so that the whole financial system works towards a sustainable future. We're using our influence as a large financial institution to push for positive change that will deliver a more secure and stable future for our customers and their families.

And we'll make sure to leverage our influence potential at its fullest, exerting it in multiple ways and reflecting the different relationships we hold with our key stakeholders. We use the concept of 'spheres of influence' to illustrate this. On the following pages we provide more detail of our calls to action for our key stakeholders.

Figure 19: Spheres of influence diagram



10. Planetary boundary – We are advocating for planetary considerations within regulation and financial markets.

9. Civil society – Advocating for change will gather attention, civil society can demand more from governments and policy setters to implement change.

8. International financial architecture – Advocate for systemic rewiring of the IFA to provide specific mandates to all regulators and standard setters to play their role in creating and stewarding an international financial transition plan for Net Zero.

7. Sovereign debt – We work with sovereigns to encourage participation in international alliances such as the NGFS.

6. IFI Issuers – Aviva can partner with issuers to provide multilateral development funding for climate action projects.

5. Real asset and infrastructure – As an investor in and insurer of infrastructure we can support green innovation as well as excluding fossil fuel projects from our investments and insurance boundaries.

4. Investee companies – We can use our influence as shareholders to vote for climate action. As a major insurer we can choose which activities we insure and influence our peers to follow suit.

3. Influence on our peers – Within the alliances we operate we can collaborate and seek to influence companies we invest in and policy decisions.

2. Our business and its influence – Aviva can influence the suppliers and use our purchasing power.

1. Our customers, clients and end beneficiaries – We provide products and services to renewable projects and low carbon products like electric vehicles. We can use exclusion lists and choose not to work with carbon emitters who are not transitioning.

5.1 Sphere 1: Our customers

It's becoming increasingly clear that people want more from the companies they buy from, engage with and invest in. For financial services firms – banks, insurers, investment managers and the rest of the ecosystem – this means understanding that their customers' motivations are often not purely financial. On some level, many people now understand that they cannot afford to throw away their futures, or their children's.

We therefore believe it is our duty to make it easy for customers to make climate-friendly choices and support people and society as the economy changes – as set out in the Investment subsection of section 3 'How we intend to deliver on our pledges' – and we're developing and launching products to help achieve this.

We'll also continue to support campaigns aimed at reaching and influencing customers more broadly, for example the Make My Money Matter campaign (in which we have provided the research behind the carbon intensity of investments compared to other lifestyle choices) that aims to awaken the many pension and investment savers to the real-world influence they can have via their money. Equally, the Tumelo app, which we have supported since its early stages, and the ESG Profiling tool offer the potential of visibility of and influence over the investments that make up their pension to the millions of ordinary everyday savers in ISAs, workplace pensions and broader investment vehicles.

Our engagement with civil society, covered under Sphere 5 below, also helps us connect to and influence our customers.



5.2 Sphere 3: Our peers and the broader financial services ecosystem

As a large financial institution, Aviva has a broad network of relationships with our peers and others in financial services, for example with other insurers, asset owners and asset managers, as well as banks, credit rating agencies and consultants. We'll make sure to leverage this sphere of our influence to embed best practice, such as science-based Net Zero principles, into standard practice throughout the financial system and those who interact with it commercially, for example through:

- Joining and/or leading relevant sectoral initiatives for Net Zero, e.g. IPCF, GFANZ, NZAOA, NZAM, NZIA. This includes development of industry codes of conduct and best practice. Various organisations have sought to define sustainability criteria in recent years, including the UK Investment Association (IA), the British Standards Institution (BSI) and the International Organization of Securities Commissions (IOSCO). Aviva has proactively engaged with these organisations, including having sponsored the BSI work and chaired the IA committee that led to publication of the IA responsible investment framework
- Bringing together networks of actors across the financial system to address targeted issues. For example, our CEO leads the Women in Finance Climate Action Group, a group of women leaders from across the private finance system – business leaders, policymakers, regulators, NGOs and industry groups – who are seeking to improve gender equality when designing, delivering and accessing climate finance
- Partnering with leading investment consultants to work together on questions to help understand the quality and effectiveness of asset owner and asset managers' government engagement efforts
- Making clear our expectations on Net Zero with relevant suppliers and investee companies (see Investment and Supply Chain subsection of section 3 'How we intend to deliver on our pledges'). This could include testing model clauses that specify the expectations of all contractual parties to commit to Net Zero outcomes or alliances and producing and delivering upon their own credible transition plans on an ongoing basis as a term of the contract

We'll explore how to achieve the above mentioned outcomes during 2022, and also actively encourage others to do the same to create momentum for transition within the industry and a self-reinforcing network of committed institutions.

5.3 Spheres 3, 7 and 9: Governments

Governments, regulators and other public bodies hold multiple levers which enable them to set the national economies on the path to Net Zero. Currently, we don't see all of these bodies acting in harmony to deliver the best results and we intend to give our contribution to drive change.

What we want to see

As global investors, we see the results of this in misaligned market incentives and greater market risks. To address this, we recommend that governments should:³¹

i. Set economy-wide Net Zero targets for 2050 or (ideally) earlier

Leaders must give certainty of ambition, direction and alignment to the Paris Agreement while underpinning bold ambitions with detailed plans.

To accomplish this, governments should:

- Declare Net Zero targets in line with 1.5°C warming by 2050 at the latest, with interim targets for 2025 and/or 2030³²
- Complement Net Zero targets with clear communication to the private sector and consumers, and an economy-wide transition plan³³
- Issue credible and predictable sector-specific policies, targets and transition plans to ensure concrete and effective actions, and institute pathways³⁴ that align the most carbon-intensive sectors with Net Zero
- Develop supportive public policies to address the impact that firms have on the climate and environment.³⁵ This should include phase-out of unabated coal and oil power plants by 2040 at the latest, in line with the science^{36, 37, 38}
- Set phase-out goals for fossil fuels and fossil fuel subsidies in line with the science and ensure that these subsidies are redistributed to support the 'Just Transition' for all
- Set a target for mandatory TCFD-aligned³⁹ risk management, disclosures, and Net Zero transition plans by 2024 at the latest for public and private enterprises, including financial institutions and SMEs.⁴⁰ A phasing-in of requirements will be required in case of SMEs
- Align debt issuance with sustainability goals and create a market for Net Zero-aligned sovereign debt to ensure portfolios line up with Net Zero targets, and to incentivise governments to cut emissions and protect biodiversity.

³¹ The following section draws heavily on the Glasgow Financial Alliance for Net Zero's "<https://assets.bbhub.io/company/sites/63/2021/10/GFANZ-call-to-action.pdf>" Policy Call to Action. Aviva is a member of GFANZ and co-leads the work of the group that drafted the Policy Call, hence the close alignment.

³² Intermediate targets should be commensurate with 'fair-share' of reductions and accelerate progress towards Net Zero. NZBA members, a sub-sector alliance of GFANZ, has committed to setting an intermediate target for "<https://www.unepfi.org/net-zero-banking/>" 2030 or sooner, using robust, science-based guidelines.

³³ Please refer to GFANZ Workstream on Sectoral Pathways on retiring assets responsibly.

³⁴ The Investor Agenda, formed by AIGCC, CDP, Ceres, IGCC, IIGCC, PRI and UNEP FI, have set out a "<https://theinvestoragenda.org/wp-content/uploads/2021/09/2021-Global-Investor-Statement-to-Governments-on-the-Climate-Crisis.pdf>" '2021 Global Investor Statement to Governments on the Climate Crisis' signed by 587 investors representing over \$46 trillion in assets. It urges governments to address gaps in climate ambition, policy action and risk disclosure with urgency. Specifically, it calls upon governments to "outline a pathway with ambitious interim targets including clear decarbonisation roadmaps for each carbon-intensive sector."

³⁵ G7 Finance Ministers and Central Bank Governors Communiqué. More information available here "<https://www.gov.uk/government/publications/g7-finance-ministers-meeting-june-2021-communique/g7-finance-ministers-and-central-bank-governors-communique>"

³⁶ As defined in the <https://www.iea.org/reports/net-zero-by-2050> IEA report, 'Net Zero by 2050: A Roadmap for the Global Energy Sector.' "<https://www.g7uk.org/wp-content/uploads/2021/06/Carbis-Bay-G7-Summit-Communique-PDF-430KB-25-pages-3.pdf>"

³⁷ G7 communiqué recognises that continued global investment in unabated coal power generation must stop.

³⁸ The We Mean Business Coalition – with the core group of BSR, CDP, Ceres, CLG Europe, Climate Group, The B Team and WBCSD – has set out a call to phase out coal-fired power generation by 2030 for advanced economies, and 2040 for other countries. See the rest of the Call to Action here "<https://www.wemeanbusinesscoalition.org/g20-2021/>"

³⁹ Task Force on Climate-Related Financial Disclosures. More information available here "<https://www.fsb-tcfd.org/>"

⁴⁰ Small and Medium-sized Enterprises (SMEs) employ fewer than 250 people. See OECD definition here "<https://data.oecd.org/entrepreneur/enterprises-by-business-size.htm>"



ii. Commit to pricing the externalities of carbon emissions

Pricing the externality of carbon emissions is an essential way to drive the transition and we don't see industry moving fast enough without it. There is a range of ways to do this, and the definition of 'price' is broad. It is the decision of member states to implement an approach appropriate to each jurisdiction, while ensuring coherence between jurisdictions as much as possible.

Leaders must therefore go beyond the positive language in the July 2021 G20 Finance communiqué to:

- Introduce policies, regulatory approaches and incentives that price the externalities of carbon emissions in line with the science and give clear, credible and specific forward guidance on measures to value carbon and the actual carbon price, to allow businesses to adequately prepare and fund the transition
- Work with e.g. the Network for Greening the Financial System (NGFS) to produce credible and specific forward curves on carbon pricing. Other interventions could include market-based solutions, regulatory standards (e.g. for clean energy in the case of the energy sectors), market regulation (including monetary policy and data standards) and taxes. It's up to each member state to determine the most appropriate solution such that the cost of capital reflects the full cost of carbon
- Reinvest proceeds from direct carbon pricing regimes into a just and green transition through, for example, clean energy research and development, worker retraining and dividends to lower-income households
- Commit to supporting efforts to standardise and scale the Voluntary Carbon Market globally
- Ensure coherence across jurisdictions to prevent double counting of carbon credits
- Commit to supporting an international body to provide guidance on appropriate use of offsets, including quality standards and acceptable offset types (e.g. carbon removals) that would indirectly price carbon as companies implement Net Zero transition mandates.⁴³

⁴³ Article 6 of the Paris Agreement recognises that some parties choose to pursue voluntary co-operation in the implementation of their NDCs to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity.

iii. Create incentives to help people, businesses and communities to go green as countries recover from the pandemic

While unlocking the trillions of dollars of capital needed to fund the green transition, we must also support millions of people and small and medium-sized businesses as they go green. Millions of new jobs must also be created to help companies and nations transition.

To achieve this, G20 governments should work with the private sector and financial institutions to:

- Create incentives for people, businesses and communities to go green as countries recover from the pandemic
- Ensure solutions are affordable, accessible, and well understood – consistent with the principles for a just transition and gender equality – in relation to purchases and services such as buying a car, saving for retirement, buying and/or retrofitting a home, and choosing an energy provider
- Develop a plan to help retrain people in industries that need to transition, and equip new entrants to the workforce with skills required in a sustainable and economically just economy⁴⁴
- Work with farmers and businesses to stop illegal deforestation and provide viable alternatives; promote sustainable regenerative agricultural practices
- Support research and development that will lower the cost of green energy solutions such as green hydrogen and sustainable aviation fuels, and fund sustainable infrastructure.⁴⁵

How we will promote these calls

As an asset owner and asset manager we'll use our influence to promote these aims with governments and regulators around the world, both bilaterally through engaging directly with governments, and by co-ordinating joint action with our peers.

In terms of direct engagement, as long-term investors in debt issued by countries and international financial institutions (IFI) like multilateral development banks, we have a vested interest in their responsible management of climate and other sustainability risks. In 2021, we wrote to the finance ministers and central bank governors in 21 countries to urge them to address climate-related risks, including through joining global coalitions of best practice and collaboration through the Network for Greening the Financial System for central bank governors, and the Coalition of Finance Ministers for Climate Action for finance ministers.

In 2022 we have expanded this programme of engagement to include more countries, and expanded our focus beyond climate to address other thematic sustainability issues and the United Nations Sustainable Development Goals. We'll also write to a number of IFIs to encourage them to commit to delivery of their climate action plans and align themselves to the Paris Agreement and the SDGs.

In terms of joint engagement of governments, Aviva currently co-leads the public policy advocacy workstreams of the NZAOA, the NZIA and the GFANZ.

A strategic opportunity to promote Net Zero financial policy frameworks arises when countries are issuing new debt or refinancing existing debt. At this point, GFANZ members could use the conversations with the Debt Management Offices and their representatives in either central banks or finance ministries to promote Net Zero financial system policy development. To facilitate this, we will offer to help GFANZ develop a systematic approach to sovereign engagement on sustainability issues, building on the policy calls outlined above.

We will also promote Net Zero-aligned policy through the broader industry alliances and groups in which we participate.

⁴⁴ [Education and Training under Article 6](#) – seeks to reduce the impact of climate change by enabling society to be part of the solution.

⁴⁵ Policymakers can leverage suitable recommendations from across the body of climate action work focused on scaling up innovative climate technologies and lowering associated green premiums. [The Mission Possible Partnership](#) and the World Economic Forum's [Financing the Transition](#) initiative are some examples of the industry-led work in this space.

5.4 Sphere 8: International Financial Architecture

In addition to engaging directly with individual governments on Net Zero, we also believe it is essential to influence the multilateral bodies through which governments interact and establish global rules and norms.

This International Financial Architecture (IFA) is the combination of global institutional governance arrangements that uphold the effective functioning of the global monetary and financial systems. The IFA encompasses multilateral organisations such as the World Bank and IMF, as well as global regulatory fora such as IOSCO and international Standard Setters, National Finance Ministries and National Central Banks. Figure 20 below sets out our view of this system.

Harnessing finance requires coherent and co-ordinated systemic change within banking, insurance and investment – across institutions, sectors and regions – and this requires ensuring that all organisations within the IFA are working in harmony with each other, and within the context of a coherent framework.

To that end, we were pleased that the Green Finance Study Group was revived for the 2021 G20 as a Sustainable Finance Working Group (SFWG), which we had encouraged in our discussions with the Central Bank of Italy as part of their preparations for the Rome G20 meeting, and welcome the publication of their comprehensive Roadmap for sustainable finance.

Figure 20: Global Financial Architecture

Global regulators and governments should rewire the financial system to deliver on the goals of the Paris Agreement.

This is not a completely exhaustive view – but highlights key global organisations due to their mandate.



What we want to see

We are calling on governments to build on this G20 work, and:

i. Green the multilateral and International Financial Architecture to deliver Net Zero.⁴⁶

- Align regulatory frameworks to Net Zero and ensure consistency and coherence across global regulatory frameworks aligned to Net Zero, including disclosures, metrics and methodologies.
- Encourage global coordination between regulators on issues such as central bank climate stress testing⁴⁷ to create a level playing field.
- Provide central banks and finance regulators with specific climate change and Net Zero financial stability mandates, so that they can address climate change across all the activities they currently conduct.
- Direct the G20 Sustainable Finance Working Group to undertake a collaborative review of the work to date on climate change by the bodies that make up the international financial architecture, to identify enhancements for financial stability, Net Zero alignment, climate resilience and wider consideration of impacts on nature^{48, 49}

⁴⁶ Please refer to GFANZ Workstreams on Real Economy and Financial Institution Transition Plans, respectively.

⁴⁷ Other considerations to include would be harmonisation of disclosure requirements, taxonomies, and rating methodologies. With regards to stress testing: The Bank for International Settlements' paper on 'Stress-testing banks for climate change – a comparison of practices', discusses the challenges that emerge when trying to adapt traditional stress tests to banks' climate-related risks including the lack of well-established common practices for banks' climate risk stress testing across countries.

⁴⁸ Includes IMF, FSB, OECD, global standard setters and the multilateral development banks.

⁴⁹ Specifically, the G20 Sustainable Finance Working Group should conduct a stock take of article 2.1.c of the Paris Agreement on international flows of public and private finance and to make specific policy recommendations to Indonesia's 2022 G20 Presidency on how to enhance the international financial architecture to support greater consistency with article 2.1. The review should provide recommendations of how these bodies could better oversee and manage financial flows towards net zero with amendments of their mandates to explicitly direct this, including the creation and stewardship of a Global Finance Transition Strategy. Such a strategy would ensure consistent and predictable regulatory signals to market participants, and co-ordination of action by the international financial regulatory architecture to avoid regulatory market fragmentation as well as seeing the implementation of the Paris commitment to make finance flows consistent with a pathway towards low emissions and climate-resilient development.



ii. Mobilise capital flows to emerging markets and developing countries.

- Develop a network of country mobilisation platforms, supporting the work of Climate Finance Leadership Initiative (CFLI) country pilot platforms,⁵⁰ to bring together governments and policy makers with public and private finance institutions and catalytic initiatives. These platforms would help identify barriers to investment, support the creation of investment-friendly policy frameworks, better co-ordinate financial and technical assistance, and mobilise international and domestic private capital, to support the delivery of ambitious Nationally Determined Contributions (NDCs).
- Support the work of multilateral development banks (MDBs) and development finance institutions to strengthen their private climate finance mobilisation plans to enable increased private sector capital deployment in emerging markets and developing countries. When geared to catalyse private sector investment, MDBs have already demonstrated that they can mobilise twice as much private capital as the public resources they deploy in a project or fund.⁵¹
- Ensure that changes in global financial regulation recognise the unique challenges faced by Emerging Markets and Developing Countries in their transition to Net Zero, and enable the increased mobilisation of public markets and institutional investors to increase the level of finance they deploy to these markets in the future.

How we will promote these aims

Since November 2019, Aviva has been advocating the creation of an International Platform for Climate Finance in coalition with a group of other institutions and stakeholders. We will seek to collaborate with others, including GFANZ and the SFWG, where possible during 2022 to conduct a comprehensive study of leading finance institutions to make a structured and coherent contribution to the debate regarding how to optimally harness the IFA.

We've also included a variant of the above calls in the agreed GFANZ Policy Call to Action, and will look to promote these aims collectively alongside other GFANZ Members.

⁵⁰ Refer to CFLI and their approach here

⁵¹ The recent report, Joint Report on Multilateral Development Banks' Climate Finance 2020, references private funding that was catalysed as a result of public investment

5.5 Sphere 9: Civil society

We also recognise the importance of engaging with civil society – NGOs, academia and other third sector organisations – in order to pursue our shared goal of a Net Zero future. We'll go about this in multiple ways.

Benchmarks

The most forward-thinking NGOs work with the capital markets in three main ways: influencing investors and their stewardship activities, influencing policy makers, and helping individuals have a say in how and what their money is used for. However, civil society is often limited by a lack of an effective mechanism to hold companies to account for investing in and promoting good corporate performance on sustainable development. Consequently, there's not enough pressure on companies, either from investors or society at large, to improve their corporate sustainability performance. One remedy for this is an open-source benchmark of corporate performance.

This is why Aviva worked with the UN Foundation, BSDC and the Index Initiative to create the World Benchmarking Alliance (WBA), which was launched in 2018. The WBA's mission is to provide everyone with access to information that indicates how companies are contributing to the SDGs. It will do so by developing free and publicly available corporate sustainability benchmarks that rank companies on their sustainability performance and contribution to achieving the SDGs.

The WBA's launch followed a year of international consultations, expert meetings and online surveys, with more than 10,000 stakeholders representing business, civil society, government and consumers themselves

Private-NGO partnerships

Aviva will continue to look to partner with organisations that share our values and will help us achieve our sustainability aims. The future looks collaborative. The most recent NGO partnership we have undertaken is with WWF, an NGO with a rich sustainable finance history. We're partnering with WWF both on direct sustainability projects, and to conduct joint advocacy on climate change, biodiversity and other issues of shared interest.

Education

In order to transition towards integrated capital markets that properly consider long-term sustainable development issues and help secure our common future, we need to ensure there is sufficient knowledge of these challenges among those who will be future leaders in the private and public sector.

One of our key calls for action has been the need to improve financial literacy of the consumers and providers of financial services. How can we make sure the leaders of the future are given the proper knowledge and tools to make capital markets more sustainable? And how do we equip consumers to demand from financial service providers that they are responsible stewards not only of the money that consumers entrust to them, but also of the integrity and sustainability of the system into which that money is deployed?

To that end we'll continue to undertake work to improve financial literacy provision within secondary, higher and postgraduate education. This will include support for the work of Oikos, and their sustainable finance toolkit that is made available to students throughout their global network to help to inspire and educate the sustainable finance leaders of tomorrow.

We'll support academic research to build the body of robust research that will underpin the work of sustainable capital markets, including through the sponsorship of Ph.D. research into sustainable finance at the University of Surrey. And we'll continue to share knowledge and build capacity through webinars and teaching, including our Turning Talk into Action and ESG Know How series for institutional investors and financial advisers respectively, and through sustainable finance modules for our Aviva colleagues through Aviva University.

Appendix

GFANZ list of elements to consider for financial institution plans (I/II)

We believe that all businesses should develop ambitious, consistent transition plans to get us to a low carbon future and prevent the worst impacts of climate change. We are proud to have worked with GFANZ members to develop a set of principles for credible transition plans, which we believe provides clear

guidance on what financial institutions should consider when setting out their roadmap to Net Zero. We have applied these principles to our first release of our Transition Plan, and we will continue to build on and strengthen our approach in future iterations.

	Principles	Sub-themes	Items to be included for a transition plan to be credible
1	Supporting the real economy	a. Clients or investee companies	Engagement and stewardship with clients or investee companies to develop and implement their net-zero transition plan Supporting the mobilization of capital towards major decarbonisation
		b. Government and Industry	Addressing risks and building climate resilience Advocacy for climate and energy policies (such as carbon pricing) aligned with achieving global net zero emissions by 2050 or sooner, and ensure that our government advocacy activity, and where possible that of our clients or investee companies, do not contravene these efforts
2	Targets	Overall ambitions	Engagement with third party players (e.g. exchanges, data and analytics providers, investment consultants) to support the industry to develop and implement net-zero transition plans Declare the overall ambition of the organization's transition plan to achieve net zero by 2050 or sooner Defining medium and longer term emissions reductions targets for scope 1, 2 and 3 emissions, where medium-term should be 2030 or sooner Defining targets to cover a significant majority of scope 3 emissions, including those from carbon-intensive sectors, and scope coverage should increase between each review period
		a. Grounded in science	Alignment of targets with science-based 1.5°C low- or no-overshoot benchmark pathways that achieve net-zero by 2050 Any of use carbon credits (or offsets) to support portfolio emissions reduction targets should refer to emerging industry guidance (e.g. TSVCM's Core Carbon Principles or a comparable standard)
		b. Industry convergence	Science-based decarbonisation scenarios leveraged for defining the transition plan and decarbonisation actions, and update models used in the transition plan to remain aligned with the latest widely accepted scientific standard Adoptation and disclosure of best practice Financed Emissions measurements approaches in line with emerging global standards (i.e. PCAF or caparable standard) Adoptation and disclosure of best practice portfolio alignment metrics in line with emerging global standards (e.g. Portfolio Alignment Team's "Measuring Portfolio Alignment: Technical Supplement" or a comparable standard) Engagement with industry, policy and regulatory bodies to support the development of a harmonised and net-zero aligned global policy framework
		c. Just Transition	Alignment with just transition principles and the UN SDGs, e.g. Declaration of International Support for a Just Transition

**For more information visit
aviva.com/sustainability**

**If you have any questions or feedback,
please contact crteam@aviva.com**