Aviva's ClimateWise Response 2022

Aviva has reported on climate change in our Annual Report and Accounts since 2004. Our response sets out how Aviva incorporates climate-related risks and opportunities into our governance, strategy, risk management, metrics and targets. Aviva's ClimateWise response is based around our most recent Climate-related Financial Disclosure (TCFD), Climate Transition Plan and Sustainability Report which were all published in March 2022. These documents, as well as other relevant sources, are referenced throughout this response and provide supporting evidence for the content.

"At the most basic level, we have chosen to act in the face of the climate crisis because we live on this planet, just like everyone else. We want to push ourselves, and others, to take concrete steps towards a fairer society and a more sustainable world."

Amanda Blanc, Aviva Group Chief Executive Officer

Principle 1- Be Accountable

- Ensure that the organisation's board is working to incorporate the Principles into business strategy and has oversight of climate risks and opportunities.

TCFD 2021- Governance Section (pages 14-19)

People Tackling Climate Change Together (page 12)

Climate Transition Plan- Governance and Roadmap (page 34)

Climate-related issues are a top priority for our board which is demonstrated through their direct input to our ambition, strategy, and execution. The Board provides leadership of Aviva within a framework of prudent and effective controls which enables climate-related risks and opportunities to be assessed and managed.

The Risk Committee assists the Board in its oversight of climate-related risks and opportunities by assessing the effectiveness of our risk management framework, strategy, risk appetite, risk profile and compliance with prudential regulatory requirements. Supported by Aviva's Sustainability Ambition Steering Group, The Customer, Conduct and Reputation Committee (CCRC) takes responsibility for items such as reviewing progress against our climate goals, resolving escalated ESG concerns with customers/clients and approving climate policies. The Group Audit Committee supports the work of the Customer, Conduct and Reputation Committee in the oversight of climate and related non-financial reporting. The Remuneration Committee assists the Board in its oversight of remuneration including the consideration of climate-related metrics such as the percentage reduction in carbon intensity of shareholder assets. The Group Executive Committee together with the Board, sets our strategy, values and shapes our culture.

One example of the board working to implement the principles and having direct oversight of climate risks and opportunities in 2021 is their approval of our 2022-2024 business plan which details our climate metrics, targets and mitigation actions. The board refined key details, including target milestones and our climate risk appetite, to ensure that this adequately joined up to our top line strategy. Another example was the CCRC deciding that Aviva should create and publish a Climate Transition Plan to publicly outline our path and actions to reach Net Zero by 2040. A final example, though there are several others, is the Remuneration

Committee's decision to establish (and increase for 2022) a climate-related metric linked to board, executive and senior management compensation through our Long-Term Incentive Plan (LTIP).

In support of the above, all our board received tailored climate training in 2021. This equips them to give appropriate direction to the company and ensures challenge, guidance and support are given to the executives. The training included the following modules: introduction to Greenhouse Gas accounting – scopes 1, 2 and 3, measuring scope 3 category 15, the financial impacts of pursuing our Net Zero ambition for investments and climate and sustainability metrics: the role of finance.

- In last year's ClimateWise response, we mentioned exploring how to cascade the recognition of performance against our climate metrics for all employees. In support of this, in 2021 we actively encouraged employees to utilise our rewards platform 'WOW' to recognise climate positive behaviour and managing climate-related issues. We updated one of the categories of recognition to include the wording '…We understand the impact we have on the world and take seriously the responsibility that brings with it. We will play our part in tackling the climate crisis. We commit to a better tomorrow.' We communicated this recently in our 'People Tackling Climate Change Together' document which seeks to empower our people to act on climate change. Furthermore, as part of our Essential Learning, 20,995 employees completed mandatory climate training to learn about the implications of climate change on our planet and business. We envisage providing similar training at least annually. Going forward, we are looking to how we can make professional qualifications on sustainability more accessible for our colleagues. Describe management's (below board-level responsibility) role in assessing and managing climate-related issues.

TCFD 2021- Governance Section (pages 14-19) and Climate Scenario Analysis (page 76)

Sustainability Report 2021- Independent Reasonable Assurance Report (page 30)

Climate Transition Plan- Embedding Climate Risk (page 38)

As referenced above, the board is supported by a number of management groups in assessing and managing climate-related issues. One example of this is the Aviva Sustainability Ambition Steering Group which is responsible for implementing the Aviva Sustainability Ambition across the Group with a focus on Climate Action, Sustainable Business, and Stronger Communities. The members of the Executive Committee have responsibility for their areas of the business. For example, Aviva's Group Chief Operations Officer is responsible for overseeing the management of the Operational element - operations, procurement and IT of our Net Zero target set for 2030. Each of the Market CEOs is responsible for overseeing the management of climate-related impact for their businesses, including the development and implementation of market-level Climate Change plans.

Our Chief Brand and Corporate Affairs Officer, who sits on the Executive Committee, is responsible for sustainability including climate-related issues. He sponsors and chairs the Aviva Sustainability Steering Group where high-risk ESG cases are escalated for further review.

We continue to review our group level climate risk preference, which has been translated into an overall climate risk appetite, metrics and targets. Again, this year climate change has been included in the business planning process. Also, this year for the first time we received reasonable assurance from PWC on a selection of climate-related metrics included in our reporting suite.

Last year, we reported that we were looking to include sovereign bonds in our climate metrics and working in the Net-Zero Asset Owner Alliance (NZAOA) Monitoring, Reporting and Verification (MRV) track on the most appropriate methodology to baseline and set performance targets against. We have made great progress on this; we have defined our sovereign debt strategy in line with our Net Zero ambition, and actively work with the NZAOA to ensure consistency in approaches to sovereign debt across our industry.

The NZAOA has highlighted the challenge with data quality for sovereign debt. However, we have seen positive engagement from some nations, without reliance on high quality data, demonstrating that positive outcomes can be achieved through direct engagement, while we push for data quality to be continually improved. The NZAOA's sovereign bond report has been out for consultation, and we intend to mirror their recommendations in our future strategy. Our Portfolio Warming Potential now includes sovereign bonds and the NZAOA methodology is being finalised for inclusion in 2022 reporting.

We also mentioned our participation in the Bank of England's Biennial Climate Exploratory Scenarios. The Bank specified three exploratory stress scenarios (two transition focused and one of rising temperatures) which Aviva has completed at a Group level. This exercise uses an extended 30-year modelling horizon and focuses on investment counterparty analysis and General Insurance property risk. We have now submitted our response to both phases 1 and 2 to the Bank and shared the results with senior management and boards at both Group and Business Unit level. The exercises have been important in further developing the sophistication of our climate risk modelling and internal expertise. We have incorporated relevant elements (e.g. more granular General Insurance physical risk modelling) into our Climate Value-at-Risk Measure. Our future plans on this include further developing our next TCFD response to incorporate the CBES Phase 2 recommendations.

Principle 2- Incorporate climate-related issues into our strategies and investments

- Evaluate the implications of climate change for business performance (including investments) and key stakeholders
- Measure and disclose the implications of climate-related issues for business performance (including investments) and key stakeholders

TCFD 2021- Our Climate Scenario Analysis (pages 23-25)

Climate Transition Plan

Annual Report 2021- Renumeration (page 2.40)

These two subprinciples are strongly interlinked and addressed together in our external reporting; therefore, it makes sense to address them in tandem rather than to repeat the content across both sections.

Our Net Zero Ambition, announced in March 2021, was strongly informed by the work that we had previously carried out in responding to our TCFD. Our TCFD evaluates and measures the potential implications of climate change for business performance. One of the inputs into our climate risk assessment process is the scenario analysis performed through our Climate Value-at-Risk (VaR) measure. This measure enables the potential financial impacts of future climate-related risks and opportunities to be assessed in different Intergovernmental Panel on Climate Change (IPCC) scenarios and in a blended aggregate scenario, as well as providing an indication of the resilience of our strategy. Each scenario describes a potential trajectory for future levels of greenhouse gases and other air pollutants. These can be mapped to likely temperature rises by 2100 and the levels of economy-wide mitigations required: 1.5°C (aggressive mitigation), 2°C (strong mitigation), 3°C (some mitigation) and 4°C (no further mitigation).

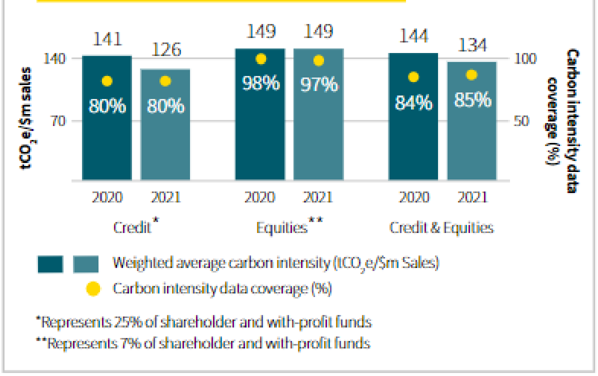
The full detail on this can be found in our TCFD as referenced above- to summarise, in all scenarios the impact on insurance liabilities is more limited than on investment returns. However, there is potential for some impact on the Life and Pensions business as a result of changes in mortality rates in different scenarios either from physical effects such as more extreme hot and cold weather or transition effects related to changes in pollution levels. The impact on General Insurance liabilities is relatively limited because of the short-term nature of the business and the ability to re-price annually, plus the mitigation provided by our reinsurance programme. However, the physical effects of climate change will result in more risks and perils becoming either uninsurable or unaffordable over the longer term.

In addition to our TCFD, this year we published our Climate Transition Plan which further describes how we have evaluated and measured the implications of climate change on business performance across investments, operations, underwriting and claims management. The following content references some of the key messages, however, we advise readers to review this in full.

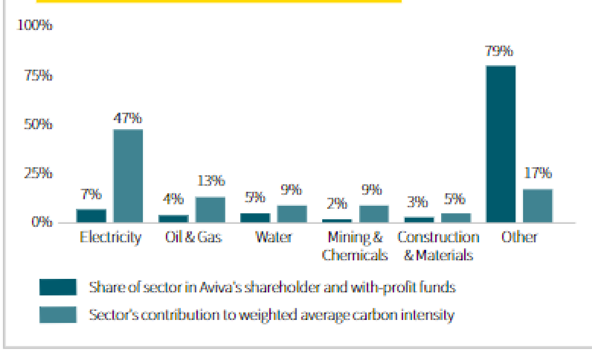
The main metric we use to assess our portfolio performance for our Net Zero commitments is carbon intensity by revenue. To enhance the baseline intensity measurement of our portfolio emissions, we also employ other supporting metrics (e.g. portfolio warming potential and amount of investments in green assets). These allow us to assess the level of alignment of our investments with global or national targets on climate change mitigation

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

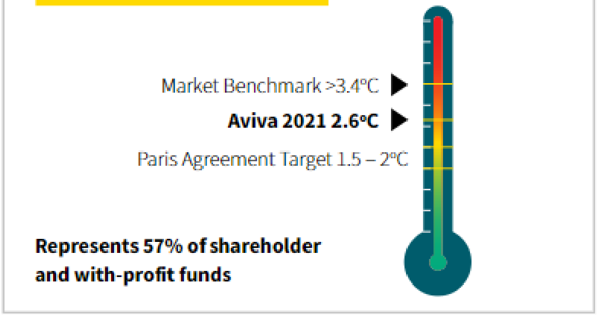
Weighted average of carbon intensity[1]



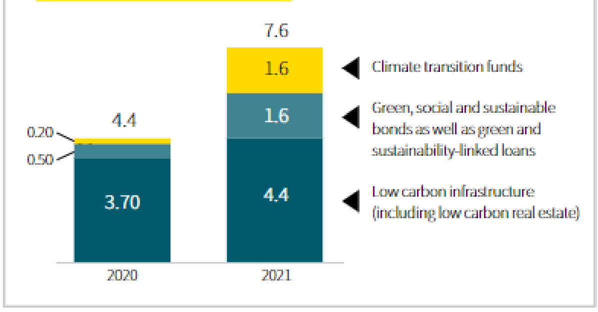
Exposure to carbon intensive sectors (shareholders and with-profit funds)[1]



Portfolio warming potential[2]



Green assets investment



Since 2010, we have reduced our internal operational emissions by 81%. 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. Using a science-based approach, we are 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.

As referenced in last year's report, at the beginning of 2021 we endeavoured to understand the potential scope of what a Net Zero Insurer would look like and hoped to publish this research. Within the Climate Transition Plan (section 3.4 Insurance – General Insurance Underwriting) we discuss our findings, including what is necessary to effectively measure the emissions of underwriting portfolios.

Evaluation and measurement of our claims management process is considered as part of our supply chain. For this reason, the approach we will apply to our claims management process mirrors the one we have across our supply chain and will be submitted to The Science-Based Targes Initiative (SBTi) as a single target for formal approval. 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).

Regarding how climate-related metrics are incorporated into remuneration, our carbon targets are factored into the LTIP. Percentage reduction in the carbon intensity of shareholders' assets represented 5% of the total LTIP in 2021 and will increase to 7.5% in 2022. The board, executive committee and senior management are eligible for the LTIP as refenced on page 2.40 of the annual report.

- Incorporate the material outcomes of climate risk scenarios into business (and investment) decision making

The actions we are taking to achieve our Net Zero commitment and reduce our investment exposure to carbon intensive sectors over time should lead to a reduction in the warming potential of Aviva's shareholder funds. 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: direct equity and corporate bonds which we own as part of our shareholder funds and the investment in direct real estate where we have direct management control. 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.

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.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 are 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 will 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.

The materiality and horizons over which climate-related risks and opportunities affect our business depend on the specific insurance products, geographies and investments being considered. For example, our General Insurance business considers risks in the underwriting and pricing processes and in setting the reinsurance strategy, based on a relatively short time horizon (one to three years). Aviva recognises that the increased severity and frequency of weather- related losses have the potential to negatively affect our profitability. Consequently, large catastrophic losses are already explicitly considered in our economic capital modelling to ensure resilience to such catastrophic scenarios. In contrast, when developing our new product strategy and updating Aviva's overall business plan, the impact of these risks and opportunities is considered over a medium time horizon (three to five years). With respect to life and pensions, in areas such as setting premium rates and reserves for annuities in payment as well as our investment strategy to back those liabilities, the impact of these risks and opportunities needs to be considered over a much longer time horizon (five years plus).

Principle 3- Lead in the identification, understanding and management of climate risk

- Ensure processes for identifying, assessing and managing climate-related risks and opportunities are integrated within the organisation (including investments).

TCFD 2021- Decarbonising our investment portfolio (page 34)

Climate Transition Plan- Net Zero for all three scopes by 2040 (page 9)

Annual Report 2021- Our risks and risk management (pages 1.60-1.65)

Aviva ESG baseline underwriting statement

Aviva Biodiversity Policy

We have incorporated the management of climate-related risks into our engagement with the companies and governments (central banks) that we invest in – Aviva Investors Company Chair letter

Rigorous and consistent risk management is embedded across Aviva through our risk management framework. Aviva's risk management framework sets out how we identify, measure, monitor, manage and report on the risks to which our business is, or could be, exposed to, which specifically includes climate-related risks. Our process for identifying potential exposure to climate-related risks is via the associated physical and transition transmission channels (for example new climate policies and legislation or increases in average temperatures and abnormal changes to weather conditions). We ensure this is integrated by having dedicated teams that look out for these developments and remain vigilant of the external landscape. Once identified, we then conduct exposure analysis to understand how these risks will impact our most material exposures. We map emerging risks and trends on our emerging risk spectrum according to the nature and size of their impact, and proximity of them occurring. This provides us with the overall materiality which dictates the prioritisation for management action and reporting necessary.

In 2020, we updated our business standards to integrate climate-related risks across all risk and control management activities. We also incorporated climate metrics, targets and operating risk limits for the first time in our business plan, to facilitate risk-based decision making. In doing so, we have taken into consideration the fact that climate-related risks and opportunities do not always easily align with existing risk management processes. In 2021, we published our Aviva's Sustainability Ambition which has been reflected in our business plan. It has also been reflected in our risk management and risk appetite frameworks to ensure our climate risk appetite (supported by a dashboard of metrics) is aligned with our Sustainability Ambition, Senior Management LTIP and our external commitments.

The above measures allow Aviva to identify, assess, manage and report on the climate-related risks to which our business is, or could be, exposed to and ensure climate-related risks and opportunities are embedded in our day-to-day decision making in line with our risk management and risk appetite frameworks.

In last year's report, we referenced our Climate Escalation Programme which involves engaging the 30 systemically important carbon emitters in the oil and gas, metals and mining, and utilities sectors which currently produce 30% of global scope 3 emissions. This year we developed the evaluation methodology, undertook a baseline assessment, initiated targeted engagement, and completed a year-end review of progress. To date, we have undertaken 122 individual company engagements, recorded 95 positive changes linked to our engagement asks, and placed 16 of the 30 companies on a watchlist for potential escalation in 2022. In January 2022, Aviva Investors announced it intends to vote against the election of directors at companies where their commitments on climate change, biodiversity and human rights fall short of its expectations.

We also recognise the interlinked nature of climate and biodiversity risk. At COP26 in October 2021, we signed up to the Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation. We have 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.

- Support and undertake research and development to inform current business strategies (including investments) on adapting to and mitigating climate-related issues.

Responsible Investment Annual Review 2021-Promoting well-functioning markets (pages 40-49)

Climate Transition Plan- Using our influence to help deliver Net Zero (page 40)

Pension Fund Carbon Savings Research: A Summary of the Approach

In support of our target to encourage UK pension customers to put more than 20% of new savings into sustainable impact funds or Net Zero aligned funds by the end of 2022, we undertook research in collaboration with Route 2 and Make My Money Matter. We provided the research behind the carbon intensity of investments compared to other lifestyle choices. This showed that choosing a sustainability fund to invest in is 21 times better than making a number of carbon reducing lifestyle choices combined. We 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, and we are developing and launching products to help achieve this. 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.

Regarding investments, it is incumbent upon us to look ahead to identify potential market-wide and systemic risks through research and seek to mitigate these risks through engagement. This will involve exercising our rights and responsibilities over the assets we hold. It will also involve calling out such risks and supporting policymakers to bring about the necessary policy changes to transform our financial system, enabling it to serve the needs of the present without prejudicing those of generations to come. Last year, we internally produced over 350 ESG research reports to support liquid market integration.

One area of this research is macroeconomic research. Aviva Investors compiles a House View on a quarterly basis, representing our best collective judgement on the current and future investment environment – covering risks, themes, and the global market outlook. It considers economic, geopolitical, and ESG-related risks alike. One of the key themes in the House View 2022 Outlook, published in December, was climate change policy. The process by which the House View is constructed is a collaborative one – drawing on insight from investment professionals and analysts from across the business. We hold a House View Forum biannually at which the main issues and arguments are introduced, discussed, and debated. For example, deep dive sessions in advance of the latest forum centred on risks and opportunities related to climate change.

Another example is thematic research. The identification of long-term, systemic sustainability risks such as climate change, biodiversity loss and inequality is further supported by our sustainable outcomes team, which expanded in 2021, having been set up in 2020 and is responsible for top-down and impact-orientated thematic research. The team monitors regulatory, scientific, commercial, and technological developments across three main pillars – people, earth and climate – and produces research that is accessible to all investment teams. The research focuses not only on improving our understanding of the risks to investments, but also takes an impact approach, outlining the negative and positive impacts companies have on the world around them. We do this because we believe risk and impact are closely linked – increased negative impact is likely to increase the risk to our investments. For example, we have identified biodiversity loss as a risk, having seen an almost 70 per cent reduction in certain species groups since 1970.

Principle 4- Reduce the environmental impact of our business

- Encourage our suppliers to improve the environmental sustainability of their products and services and understand the implications these have on our business

Third-Party Business Code of Behaviour

Climate Transition Plan- Supply chain and Claims Management (pages 25 and 33)

TCFD 2021- Decarbonising our operations and supply chain (pages 47-49)

We discuss our expectations of suppliers regarding the environment in our Third-Party Business Code of Behaviour which is applicable across the Group. We are increasingly looking to collaborate and work with organisations who have a shared ambition to reduce our environmental impact globally, and particularly those who have enshrined this commitment through external benchmarks such as Science-Based Targets.

To achieve our operations Net Zero by 2030 goal, we need to 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 are using a two-phased approach to achieve this: in the short term we have focused 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. We see this as the best engagement approach 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.

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 apply to our claims management process mirrors the one we have across our supply chain and will be submitted to the SBTi as a single target for formal approval. Starting from 2025, we will 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 will 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 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.

We plan to directly engage with all 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 will do this by including carbon management clauses in our contracts and consider supplier emissions in our tender process. We plan to hold a Summit in November 2022 in which we will engage the top 80% of our supply base by cost. Finally, we will employ retendering as an ultimate lever to tilt our spend towards suppliers adequately decarbonising their way to do business.

- Disclose our Scope 1 and Scope 2 GHG emissions and Scope 3 GHG emissions using a globally recognised standard

Sustainability Report 2021 - Climate Data (pages 37-43)

Annual Report 2021 - Our Sustainability Ambition (page 1.19)

We have measured our operational carbon emissions since 2004. We had a long-term reduction target of 70% by 2030 and we are committed to using 100% renewable electricity by 2025 (aligned to the RE100 commitment). Our ambition over time is that our business operations should have positive climate impact. We have already achieved our 2030 operational target by reducing our emissions by 81% at the end of 2021. We are underway to achieving our renewable electricity target with 81% of electricity used by our global operations being from renewable resources. Aviva has been carbon neutral in respect of our operations since 2006 through the purchase and retirement of carbon offsets from the voluntary carbon market.

Streamlined Energy and Carbon Reporting (SECR) data

	2021[1]			2020		
	Offshore	UK	Total	Restated[2] Offshore	UK	Restated[2] Total
Emissions[3]						
Scope 1 (tCO_2e)	**1,760**	**8,870**	**10,630**	3,352	8,386	11,738
Scope 2 (tCO_2e)	**5,640**	**—**	**5,640**	8,610	8,269	16,879
Scope 3 (tCO_2e)	**2,944**	**1,072**	**4,016**	3,078	1,910	4,988
Total emissions (tCO_2e)	**10,344**	**9,942**	**20,286**	15,040	18,565	33,605
Carbon offsets[4] (tCO_2e)	**(10,344)**	**(9,942)**	**(20,286)**	(15,040)	(18,565)	(33,605)
Total net emissions	**—**	**—**	**—**	—	—	—
Location-based						
Scope 1 location-based (tCO_2e)	**1,760**	**8,870**	**10,630**	3,352	8,386	11,738
Scope 2 location-based (tCO_2e)	**7,155**	**5,912**	**13,067**	8,610	8,269	16,879
Total Scope 1 and 2 location-based (tCO_2e)	**8,915**	**14,782**	**23,697**	11,962	16,655	28,617
Scope 3 (tCO_2e)	**2,944**	**1,072**	**4,016**	3,078	1,910	4,988
Total location-based (tCO_2e)	**11,859**	**15,854**	**27,713**	15,040	18,565	33,605
Market based						
Scope 2 market-based (tCO_2e)	**5,640**	**—**	**5,640**	6,901	—	6,901
Energy consumption						
Energy consumption (MWh)[5]	**28,292**	**65,547**	**93,839**	43,352	73,811	117,163
Intensity ratios						
Scope 1 and 2 - location-based emissions (tCO_2e) / £ million GWP	**0.62**	**0.97**	**0.80**	0.83	1.14	0.98
Total location-based emissions (tCO_2e) / £ million GWP	**0.83**	**1.04**	**0.94**	1.04	1.27	1.16
Total location-based emissions (tCO_2e) / employee	**0.73**	**1.02**	**0.87**	0.88	1.18	1.02

The table above fulfils the requirements of the UK Streamlined Energy and Carbon Reporting (SECR) framework, including our operational energy and carbon emissions. Aviva UK uses the Department for Environment, Food and Rural Affairs (DEFRA) methodology for carbon reporting and non-UK markets use emission factors from the International Energy Agency (IEA). For the first time this year, we had this data reasonably assured by PWC.

Our operational global greenhouse gas emissions data boundaries show the scope of the data we monitor and the emissions we offset. We report on Greenhouse Gas (GHG) emission sources on a carbon dioxide emissions equivalents basis (CO_2e) in respect of Aviva's Group-wide operations, as required under the Companies Act 2006 (Strategic report and Directors' reports) 2013 Regulations. We also refer to the GHG Protocol Corporate Accounting and Reporting Standard, and emission factors from the UK Government's GHG Conversion Factors for Company Reporting 2019. Please review our Sustainability Report for more detail on this.

Quantifying the impact of climate change is an emerging practice, with inherent uncertainty in the quality of available data. It is challenging to obtain consistent asset data across our entire portfolio and quantify the impact of carbon emissions from our Scope 3 category financial investments. We have already made several methodology improvements this year but aim to continue to enhance our capabilities in line with industry developments and standards in 2022 and beyond.

- Measure and seek to reduce the environmental impacts of the internal operations and physical assets under our control

Sustainability Report 2021 - Climate Action and Data (pages 7, 11-17 and 37-43)

As mentioned above, we have already achieved our long-term operational carbon reduction target of 70% by 2030 with a current reduction rate of 81% against our 2010 baseline. Other targets we currently have underway to achieve by 2025 include: 100% renewable electricity, £6 billion to be invested in green assets and a 25% reduction in the carbon intensity of all assets (to be followed by a 60% reduction by 2030). We discuss the full detail around this, including methodologies and rationale, as well as disclosing our full target suite alongside progress year on year in our Sustainability Report. The below tables have been lifted from the report as examples.

Climate Action

Priorities	Delivered in 2021	Target for 2022	2023 and beyond
Net Zero company by 2040[1] • Net Zero in operations and supply chain by 2030 • Reducing the carbon in our investments by 25% before 2025, and 60% by 2030	Announced Net Zero by 2040 target including investment, underwriting and operations	Publish a Climate Transition Plan	
	Piloted an Insurance Net Zero methodology	Stop underwriting fossil fuel companies	Divest from companies which make more than 5% of their revenue from coal, unless they have signed up to Science Based Targets
		8% reduction in Scope 1 and 2 operational carbon emissions, and engage with our supply chain on their carbon emissions	100% renewable electricity used in our operation by 2025
		Become a top 3 London Market Renewable Energy Insurer	Reduce the carbon intensity of all assets by 25% by 2025
		Invest £10 billion auto-enrolment assets in low carbon strategies	£6 billion invested in green assets by 2025
	Launched a UK employee electric vehicle salary sacrifice scheme	Company vehicles to be fully electric by 2025	
	UK Aviva Staff Pension Scheme Trustee set a 2040 Net Zero ambition with an ESG default		
Helping customers with ESG choices including climate-friendly funds, products and services	Expanded our Sustainable Outcomes Funds Range linked to the SDGs	Enhance customer and adviser facing tools to make ESG choices simpler and easier	
Protecting biodiversity by applying these principles in our new biodiversity policy	Published Biodiversity Policy	Launch Aviva carbon sequestration partnership	Sequestration partnership increases rate of carbon removals

Climate data

KPIs	Assurance	2021	2020	2019	Change between 2020 and 2021	2021 target	Met target	2022 target	Notes	SDG Mapping
Investment in green assets (in £ billions - cumulative)	AS	7.6	4.4	3.6	73%	N/A	N/A	N/A	Of the £7.6 billion in green assets invested by 31 December 2021: £4.4 billion is in low carbon infrastructure, £1.6 billion in green, social and sustainability bonds, and green and sustainability-linked loans and £1.6 billion in climate transition funds.	7 11 12 13
Weighted average carbon intensity (tCO_2e/$m sales) of credit and equities in Aviva's shareholder and with-profit funds	AS	134	144	160	(7)%	N/A	N/A	N/A	By 2025, we will cut the carbon intensity of our investments by 25%, and by 2030 we will cut carbon intensity by 60% using a 2019 baseline.	7 11 12 13
Reduction in CO_2e against 2010 baseline	AS	81%	76%	66%	5%	5pp reduction in 2021 and Net Zero by 2030	Yes	5pp reduction in 2022	COVID-19 continues to impact on our operations with majority of staff working from home during 2021. Through a combination of reduced office occupancy as a result of COVID-19 restrictions and implementing energy conservation measures across core UK, Ireland and Canadian offices we have continued to reduce our operational emissions.	7 11 12 13
Net Zero for Scope 1 and 2 operational by 2030 (8% reduction per annum)		11%	New for 2021			N/A	N/A	8% reduction per annum		7 11 12 13
Operational carbon emissions (tonnes CO_2e) - absolute	AS	27,713	33,605	50,755	(18)%	5pp reduction in 2021 and Net Zero by 2030	Yes	5pp reduction in 2022		7 11 12 13

- Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate informed choices outside work

TCFD 2021- Climate Training (page 19)

People Tackling Climate Change Together (page 12)

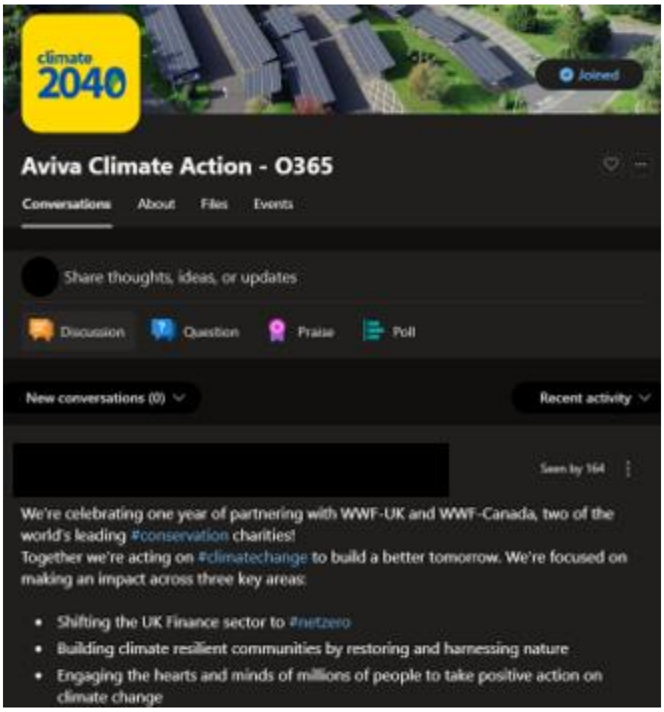
Sustainability Report 2021- Aviva Community Fund (page 21) and Climate data (page 39)

In 2021, we created a range of online climate training modules so that everyone in the business has the tools to play their role in meeting our commitments and the knowledge to make climate informed choices. One of these modules has been made mandatory so that all employees have at least a baseline understanding of the climate emergency and our commitments in this space. Last year, 20,995 employees completed the mandatory climate training as part of our essential learning (94% of total headcount as quoted in Annual Report- page 1.48). We envisage providing similar training at least annually. We also developed climate training available on request to all Aviva employees via the Aviva University. More in-depth training has been deployed to those who hold direct responsibilities to identify, manage, measure and report climate-related risks and opportunities.

As referenced in Principle 1, we recently released our 'People Tackling Climate Change Together' document which seeks to empower our people to act on climate change. The document highlights how our people can take action at the office, at home, through travel, through reward and performance and specifically related to how they perform their roles. It also describes how to get involved with Aviva initiatives, such as volunteering, and describes the learning and development resources we have available. We plan to refresh this regularly and use it as an engagement tool.

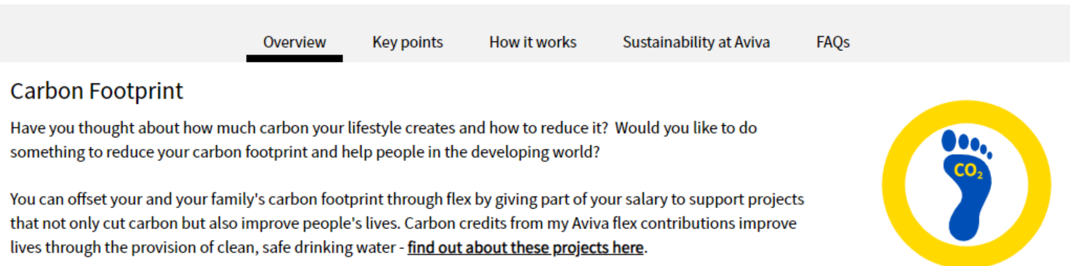
As mentioned in last year's report, The Aviva Community Fund (ACF) in the UK includes the opportunity for our people to choose which projects to support with funding, many of which have a specific climate focus. Aviva employees distribute £250,000 of Aviva funding every quarter, through our voucher scheme. Our people review fundraising pages, donating the funds they are given to back the causes that resonate most with them. In 2021, we aligned the strategy for ACF so that all projects are now focused on either Climate Action: promoting healthy, thriving communities by preventing, preparing for, and protecting against the impacts of climate change, or Financial Well-being: helping people take control of their wellbeing by giving them the tools to be more financially independent and ready for anything. A great example of ACF in action is the Plastic@Bay project. Plastic@Bay raised £5,000 to develop machines that will recycle ocean plastic picked up from local beaches and give it a second life. In Q4 2021, in addition to the usual £250,000 we donate to community causes across the UK, we gave away an extra £150,000 to those leading the way on climate action, by matching each donation up to the value of £50. This was to mark Aviva aiming to become a Net Zero company by 2040, and COP26 coming up.

We have several other ways in which we engage our people with our commitments such as utilising our internal communication tool Yammer (see screenshot below).



We also continue to run our Climate Snap-brief sessions which we aim to host at least twice a year. These are 30-minute Teams calls with 10 minutes on what Aviva is doing about climate change, 10 minutes on what is happening in the public policy space on climate and then the last 10 minutes on Q&A. We have seen great engagement on these calls. We track employee engagement on our sustainability agenda through our annual Voice of Aviva survey using the following question: 'To what extent do you agree that Aviva is a good corporate citizen? (For example, our new sustainability goals focused on working with our communities and being environmentally friendly)'. In 2021, 82% responded to say that they either agree or strongly agree. For the first time last year, we also included the following question: 'What more could Aviva do to help support you to embed sustainability considerations into your actions at work more effectively?' The top responses included: allow more home working to reduce commuting, raise awareness within Aviva/provide information/tips and tricks and more volunteer days/enable me to take more volunteer days (e.g., by reducing workload). This insight is extremely valuable to us as we further our agenda and is a great example of how we are engaging our people in shaping it.

We measure the carbon footprint of home energy use of colleagues when they work from home and include the carbon emissions in our annual reporting. Last year this amounted to 3,051 tonnes CO2 equivalent. We continue to offset our residual operational carbon emissions through the purchase of carbon avoidance credits. We also have the option for colleagues to offset their own personal carbon emissions through Aviva Flex.



Going forward, we will promote our employee flex benefits offering looking to switch the personal offsetting option and introducing the option of using removal credits as well as continuing to offer avoidance credits whilst stressing the need to reduce personal carbon emissions. We are also looking to how we can make professional qualifications on sustainability more accessible for our colleagues.

Principle 5. Inform public policy making

- Promote and actively engage in public debate on climate-related issues and the need for action. Work with policy makers locally, regionally, nationally and internationally to help them develop and maintain an economy that is resilient to climate risk.
- Support and undertake research on climate change to inform our business strategies and help to protect our customers' and stakeholders' interest. Where appropriate, share this research with scientists, society, business, governments and NGOs in order to advance a common interest

Climate Transition Plan - Using our influence to help deliver Net Zero (pages 39-46)

TCFD 2021 - Accountability and Leadership (pages 27-31), Building Future Communities (page 44)

Transition Plans For a Net Zero Future

Aligning the Financial System to Zero

Aviva's response supporting the SEC Climate Disclosure Rule

Gardens being uprooted in favour of driveways and artificial grass, new research reveals

Resource | RISC Authority

These two subprinciples are strongly interlinked as much of our public engagement with policy makers, governments and NGOs is informed by the research we conduct on climate change to inform business strategy. For this reason, we have addressed both together rather than repeating content across both sections.

We have dedicated sections on this in both our Climate Transition Plan and TCFD as we recognise that companies alone cannot make the world Net Zero. Action is needed from governments, regulators and others who help shape global economies and financial markets to accelerate the necessary change. We describe our aims and how we engage 10 key groups including governments, policymakers and wider civil society. The below provides a summary, however, we recommend readers review these sections in full.

As global investors, we see first-hand the results of misaligned market incentives and greater market risks. To address this, we recommend that governments should: set economy wide Net Zero targets for 2050 or (ideally) earlier, commit to pricing the externalities of carbon emissions and create incentives to help people, businesses and communities to go green as countries recover from the pandemic. We have several examples of engagement throughout 2021/2 and plan to continue this at pace.

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 plan to 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 research and 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.

In addition to this, in 2021 we released a joint paper with WWF calling on the government to mandate all UK regulated financial institutions to develop credible transition plans that align with net-zero and the 1.5°C goal of the Paris Agreement from 2023 onwards. The paper included research and expertise guidance from WWF on the actions we must collectively take to achieve the 1.5°C goal. It sets out five recommendations for how the UK government can demonstrate further leadership on green finance and harness the power of the finance sector to drive the transition to Net Zero. This year, we continued our research and engagement on this by producing a second advocacy paper on Aligning the Financial System to Zero. Whilst the Chancellor's announcements at COP26 on Net Zero transition plans were extremely welcome, and in part responded to our original paper, it remains the case that further steps are needed to drive the transition at the pace and scale required to tackle the climate and nature emergencies. In this second paper, we set out what our research leads us to think is currently missing – a whole of economy approach from Government to transition planning, incorporating the public and private sector and delivering on both Net Zero and the protection and enhancement of nature.

Another example of our research, collaboration and pioneering in this space is in new sustainable finance instruments. In May 2021, Aviva and BNP Paribas completed an ESG-linked interest rate swap repack (a contract where parties exchange one set of cashflows for another) with the Associated British Ports (ABP) on a 30-year term. While Aviva Investors provide a number of swaps to corporate and infrastructure clients a year, we have pioneered what is believed to be first institutional swap repack transaction to incorporate sustainability linked KPIs, with more in the pipeline for 2022 and beyond. To ensure the targets in the arrangement were sufficiently ambitious, we engaged with ISS ESG to provide a second-party review. A key pillar of the arrangement, which will drive positive action, is the offering to ABP of discounted hedging rates provided it meets environmental KPIs over the lifetime of the facility. The targets include a 65% reduction in combined Scope 1 and Scope 2 emissions by 2030, compared to the 2014 baseline.

Also, in February 2022 RISC Authority and the Association of British Insurers (ABI) published a White Paper on Insurance Challenges of Massive Timber Construction and a possible way forward. Since its release, there have also been a number of webinars on the subject delivered to a broad range of stakeholder groups and professional bodies in the wider building design and fire safety community. This has been well received. The White Paper has been produced with input from Aviva and several other major UK property insurers to outline some of the main insurance challenges currently surrounding massive timber construction, particularly in relation to fire and water. The paper emphasises the importance of very early insurer engagement with projects and sets out a model for how we can seek to balance the often competing requirements of using sustainable construction materials, ensuring building safety and ensuring structures using massive timber are suitably resilient to damage. Whilst the paper focusses on timber, the principles can equally be translated to other innovative construction products and techniques.

In terms of research conducted and shared with our customers, we recently put together advice for homeowners who are considering making changes to their outside space. According to our research in July, a quarter (25%) of homeowners in the UK with outside space have turned all or part of their garden into a driveway and a further 17% are planning to make this change. Although government guidance for homeowners was introduced in 2009 to help alleviate the problems caused by replacing front gardens with driveways, it seems awareness of this guidance remains low. Despite being in place for several years, only 14% of homeowners who had made a replacement were aware of the Government guidance on permeable surfaces for front gardens and only 18% sought planning permission when making changes. Aviva has put together further advice on this to spread awareness and education on this important topic. This links to the research we did last year on flooding in our Building Future Communities Report.

Principle 6. Support climate awareness amongst our customers/ clients

- Communicate our beliefs and strategy on climate-related issues to our customers/ clients

Responsible Investment Annual Review 2021-Engagement (pages 81-89)

Aviva powers up renewable energy insurance as it taps into net zero commitments

Taking Climate Action - Aviva plc

Sustainability Report 2021- It takes a transition to electric vehicles (page 16)

As an insurer, our customers and the communities in which we operate are increasingly being impacted by climate change, for example through increased severe weather events and conditions. We regularly see the devastation caused by natural disasters such as floods and earthquakes, and we know the importance of immediate aid as we help our customers recover in the aftermath. We have been supporting communities to rebuild and become more resilient after such events. Alongside this, we are aware that an understanding of risk, education, mitigation, prevention and resilience can dramatically reduce the extent of the losses. As an investor we are also mindful of the opportunity there is to ensure that money is invested effectively to mitigate the impacts of climate change and build community resilience, rather than contribute to it in a negative way.

Regarding investments, Aviva engages clients on climate awareness at an institutional level across all assets and it is augmented by bespoke fund specific engagement programmes which includes equities, corporate and sovereign credit and derivates. We believe that persistent and constructive dialogue is vital to preserve and enhance the value of assets on behalf of our beneficiaries and clients. This is achieved through voicing our support for more sustainable practices and gathering insights to inform investment decisions. For example, we have continued our constructive multi-year dialogue with Hon Hai and BP (as a lead co-ordinating investor) on their climate strategy on a bilateral basis. BP's continued responsiveness to feedback and its leadership's commitment to meaningfully engage and evolve its approach has given us confidence the business can deliver on its commitments related to the Paris Agreement. 2021 saw the company lower its long-term price assumptions to be 'broadly in line with a range of transition paths consistent with the Paris climate goals', a long-standing engagement request; more substantive action to better align executive remuneration with its emissions performance; and the adoption of more robust policy for engagement with trade associations (Aim 6) as part of its updated 20 'Net Zero by 2050 or sooner' aims. We continued our dialogue with Hon Hai around providing a roadmap on how it will achieve Net Zero. We discussed setting SBTi approved targets and improving governance on climate change. We also further encouraged Hon Hai to set a 100% renewables commitment. We believe open dialogue and partnership is crucial to decarbonisation and will continue to engage with companies such as BP over their approach and plans. Hon Hai has continued to improve its disclosure and governance around climate change and their CDP score has improved significantly as a result. Alongside the announcement of its 2021 financial results, BP announced plans to significantly ramp up its energy transition-focused investments over the next several years, along with the unveiling of more extensive and ambitious emissions reduction goals. Highlights of the announcement include increasing the proportion of total capex allocated 'transition growth businesses' to around 50 per cent by 2030, and the introduction of a new Scope 3 goal to achieve net-zero lifecycle emissions from energy products the company sells by 2050.

Regarding insurance, we have multiple groups of customers including direct, brokers, advisers, SMEs, and large corporates. We are engaging all groups on climate awareness and our specific climate goals as this is the only way to achieve Net Zero by 2040 and all of our milestones in between. Several of these engagements include providing tools and support and so will be discussed in more detail in the following section. In terms of communicating our beliefs and strategy on climate, the launch of our climate goals and wider sustainability ambition in March 2021 had a considerable campaign behind it to ensure it reached as many customers and stakeholders as possible. Our Group CEO Amanda Blanc has been very vocal on the climate emergency and Aviva's goal to lead UK financial services with our response.

We are currently working with our broker network to help them understand our climate commitments and what this means for them. We will continue to develop our approach on this and hope to be able to share more specific details in following reports.

In last year's report, we mentioned that we had enhanced our Electric Vehicle (EV) offering by adding the cover of cables in the home, in the car and whilst charging, EV breakdown cover to remove 'range anxiety', and cover for if damaged is caused by an electric surge whilst charging. This is to encourage and support customers transitioning to EVs in line with our climate commitments. This year, we have invested in our in-house repair centre Solus to ensure that 50% of their technicians are qualified to repair electric vehicles in sites all across the UK. We now insure 1 in 8 EVs in the UK. We have also made EVs more accessible and affordable to our people, as we recognise that a large proportion of our people are our customers. Eligible employees can sacrifice a portion of their gross salary before tax and national insurance to pay for an electric vehicle. This can result in savings of up to 40% in monthly vehicle costs. In addition, we are increasing the maximum limit on our Cycle to Work Scheme from £2,000 to £4,000, bringing 98% of electric bicycles into the scheme.

- Inform our customers/clients of climate-related risk and provide support and tools so that they can assess their own levels of risk

Sustainability Articles

Climate Transition Plan - Using our influence to help deliver Net Zero (pages 39-46)

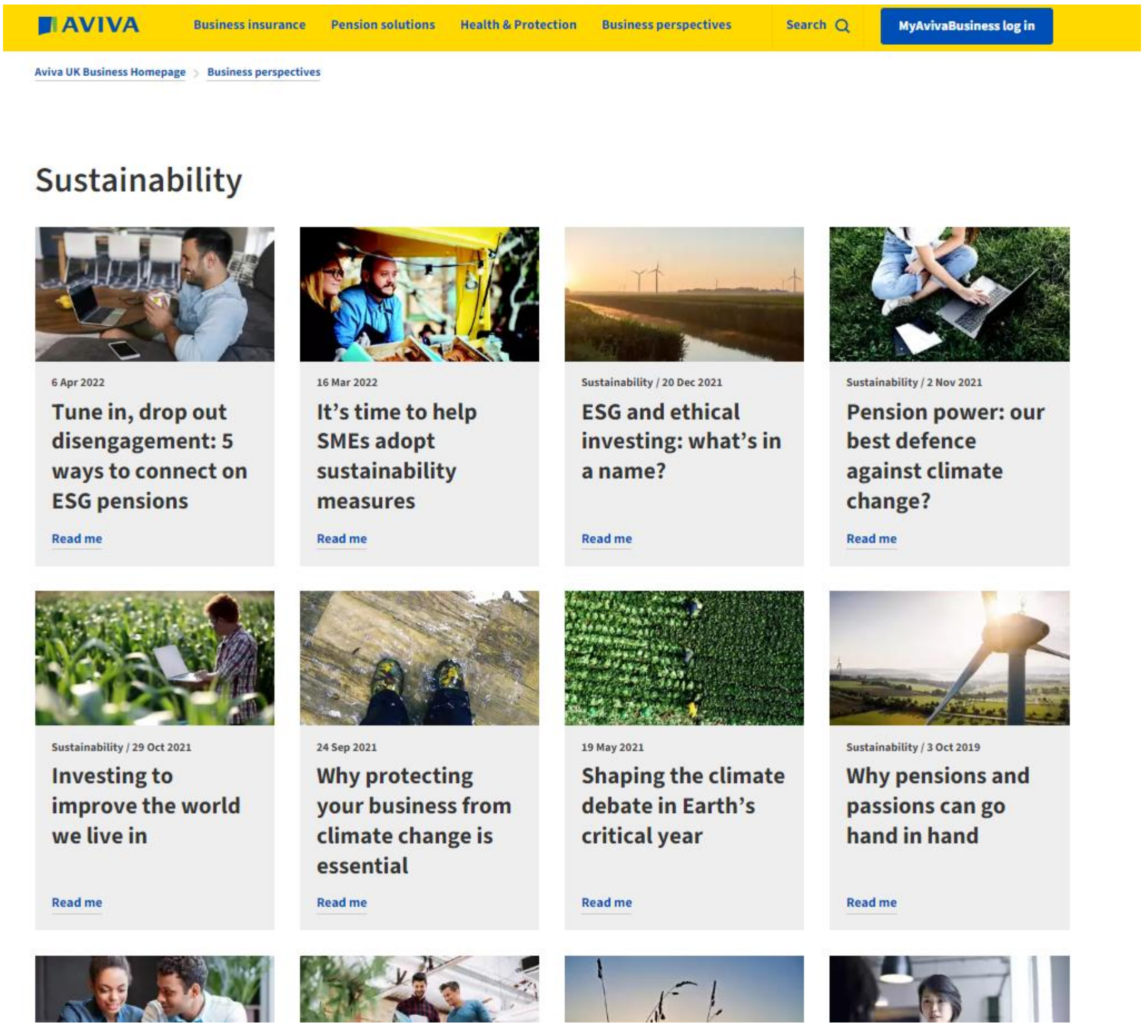
Understanding the power of your pension: Pension fund carbon savings research - Aviva plc

Aviva launches ESG Profiling tool on Adviser Platform - Aviva plc

Aviva Zero

Flood insurance directory | ABI

We provide our customers with information about climate-related risks through articles that we publish on our customer facing webpages. These articles provide practical information to support people to make more informed climate conscious decisions.



The 'using our influence to help deliver Net Zero' section of our Climate Transition Plan discusses the spheres of influence that we aim to engage to drive change. Sphere 1 is our customers, clients and end beneficiaries as it is becoming increasingly clear that people want to see more on this from the companies they buy from, engage with and invest in. We 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.

An example of this in action is the campaign we did with Make My Money Matter off the back of the research we provided, as referenced in Principle 3. The research showed that choosing a sustainability fund to invest in was 21 times more impactful than making a number of carbon reducing lifestyle choices combined. Our campaign therefore aims to awaken the many pension and investment savers to the real-world influence they can have via their money.

As mentioned in last year's report, in early 2021 we launched the ESG Know How platform which provides educational resources to advisers on climate-related risk, as well as on wider ESG issues. In November 2021, we launched the ESG Profiling Tool on our Adviser Platform which offers visibility of and influence over the investments that make up people's pensions to the millions of ordinary everyday savers in ISAs, workplace pensions and broader investment vehicles. The ESG Profiler, which is openly available via the platform, uses data sourced from MSCI and other ESG data providers to measure and review the holdings, where data is available, against 6 ESG preferences. Ratings are then totalled up to fund level and, at a higher level, the whole of a client's portfolio can be assigned an ESG rating. By assessing a fund's ESG credentials, advisers can demonstrate to clients, backed up by quantifiable and independent measures, how they are currently performing against the 6 key ESG preferences.

Regarding general insurance, in February we launched our new carbon-conscious car insurance: Aviva Zero. Customers get all the benefits of our comprehensive car insurance Defaqto five-star rating, easy access to everything customers need online, plus carbon offsetting. We track each vehicle's annual mileage and use this to calculate its carbon footprint. We then offset this by contributing towards buying carbon credits, which support low-carbon projects that benefit people and communities as well as the environment. As described in the previous section, we continue to offer electric car insurance through our general insurance cover covering everything from stolen batteries to damaged charging cables and helping our customers to flip the switch on a better tomorrow. We now insure 1 in 8 electric vehicles in the UK.

Regarding Brokers, we have recently developed and started rolling out a sustainability module into the 'Future Leaders Programme' that we run for our Brokers. Going forward, we will look to develop this work with our intermediaries so that they can also provide better advice to individual and business customers.

Areas where Aviva can help

Education

- **Sharing** our knowledge and experience in **events like the FLP** (first sustainability module delivered 13th July)
- Developing **online content and learning**

Tools

- AI driven assessment and **coaching tools** for your own sustainability journeys
- **Toolkits** for things like CTP's, modern slavery statements etc

Propositions

- Working with you to develop **the right propositions, pricing and narrative** that meets the needs of your clients and their own sustainability ambitions

The ABI and British Insurance Brokers' Association (BIBA) flood insurance directory was set up post Defra/Blanc review so that customers and brokers could see which insurers cover flood. We signed up to that directory earlier this year with provision of flood cover offered by Flood Re.

Principle 7. Enhance reporting

- Submission against the ClimateWise Principles

This document represents Aviva's submission against the ClimateWise Principles. Adam Winslow, UK General Insurance CEO, Aviva plc continues to represent Aviva at the Insurance Advisory Council and Zelda Bentham, Group Head of Sustainability represents Aviva at the ClimateWise Management Committee.

- Public disclosure of the ClimateWise Principles as part of our annual reporting

Our disclosure against the ClimateWise Principles continues to be a vital part of our annual reporting process. This document will be published on our Sustainability pages here.

Aviva's Climate-related Financial Disclosure is published within our 2016 – 2020 Annual Reports and again this year in the 2021 Annual Report & Accounts.

Our latest more detailed responses can also be found below:

Aviva's 2021 Climate related financial disclosure

[Climate Transition Plan]

[Aviva's 2021 Sustainability Report]