



PwC Network

Climate-related disclosures report

October 2022

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We are seeing the impacts of climate change all around us. The devastation caused in many places by the most severe flooding, the most sustained heatwaves and longest droughts experienced in recent history - these are now the stories in our daily news.

That devastation is severely disrupting lives, livelihoods and economies. Governments, businesses and societies need to better understand the risks that we are facing, and need to adapt to the change we know is already unavoidable. But those risks also underline the urgent need for us to work together to accelerate the decarbonisation of our economies in order to reach net zero by 2050 and avoid the worst impacts of climate change.

At PwC, we are working to decarbonise our business and adapt to the impacts of climate change. This means setting clear targets, creating practical plans that achieve real results, and collaborating with other organisations in the broader ecosystem to support the net zero transition.

In this report, you can read about the progress we are making. While we still have a long way to go, we are proud of what we have achieved so far, and remain firmly committed to playing our part in the global transition.



Bob Moritz

Bob Moritz
PwC Global Chairman



Colm Kelly

Colm Kelly
Global Leader
Corporate Sustainability

Executive Summary

Solving climate change together

The science is clear: to avoid the worst impacts of climate change, business, government and society need to work together to transition to a net zero economy by 2050.



We're¹ committed to using the power of our global network to enable this transition to happen. During the last year, we've brought our global strategy [The New Equation](#) to life and delivered on our purpose using the skills and energy of our community of solvers to tackle arguably the most important challenge of our time - climate change.

We've been working across three main pillars:

1. **Transitioning our own business**, sharing our own experience with other businesses and organisations
2. **Supporting our clients** in their transition to a low carbon world
3. **Engaging in the global climate policy debate and advocating for change** – including our focus on reporting and transparency frameworks.

Our progress

We're moving our business forward in many ways to adapt to climate change. Here are the headlines from our major areas of focus in our fiscal year ended 30 June 2022.

Decarbonising our operations and supply chain

We've made a worldwide science-based commitment to reach net zero greenhouse gas (GHG) emissions by 2030.

- **Our total annual emissions have decreased by 37% compared to our FY19 baseline.** We are focused on maintaining this progress as our business adapts after the pandemic.
- This year, **all our territories committed to produce a local net zero action plan.** We've included this in the performance metrics of our Territory Senior Partners in our [21 largest territories](#), to bring accountability at the highest level of our business. These plans now cover 99% of our network baseline emissions.
- **90% of the electricity we use has come from renewable sources². This represents a 41% point increase compared to our FY19 baseline.**

Headlines

Net zero

All our territories committed to produce a local net zero action plan.

90%

of the electricity we use has come from renewable sources.

93,000

We're proud that more than 93,000 PwC people have undertaken ESG training through our Global ESG Academy.

1 In this report, the terms PricewaterhouseCoopers, PwC, our, we and us are used to refer to the PwC network and/or one or more of its member firms, each of which is a separate entity. For more information, see www.pwc.com/structure.

2 PwC sources renewable electricity in line with the RE100 technical criteria



Better understanding our physical exposures

- We've carried out a comprehensive physical risk analysis to understand how severe climate-related weather could affect our operations.
- We'll use this analysis to support decision making at both network and territory levels, as we work to ensure our operations are resilient against the challenges that climate change is already bringing.

Adapting our services

- We've continued to invest heavily in developing and scaling new climate-related services. This is in line with our global strategy and the strong emphasis it places on the Environmental, Social and Governance (ESG) agenda.
- PwC is part of the **Net Zero Financial Service Providers Alliance**, uniting auditors and other financial service providers with the **Glasgow Financial Alliance for Net Zero**. We're continuing to provide our auditors across our global network with access to training, tools and methodologies, so they can confidently assess material climate risk and its potential impact on financial statements during audits.
- Our **Global ESG Academy** is critical to our ESG skills transition programme. The Academy has developed 33 modules of learning, which are available to all our people. We're proud that more than 93,000 PwC people have undertaken ESG training through the Academy. We're also working with our clients to upskill their own people on these topics.

Using our voice to advocate for change

- **COP26:** The UN climate change conference brought together key global stakeholders to agree how to limit global GHG emissions. We joined the [Business Ambition for 1.5](#) and [Race to Zero](#) campaigns to rally support before the conference and as an urgent call to action. We played a part in the discussions and activities that took place.
- We're continuing our advocacy and support for **globally aligned sustainability reporting standards**. Our leaders continue to support this development. It's a critical step for business and capital markets to measure and understand progress towards net zero commitments.



- We continue to make contributions across the wider climate policy agenda through our strategic global partnerships and alliances, for example, the World Economic Forum (WEF) and the World Business Council for Sustainable Development (WBCSD).

As we make progress on our approach, we learn, share, innovate and take responsibility to act. We strongly believe we need to work together with other businesses, organisations and governments to be successful in addressing climate change.

Our climate-related disclosures

We know it's important to build trust with our stakeholders and we're committed to enhancing our own reporting to help build that trust. This year we've enhanced our disclosures to share more insights than ever before.





This report is a new addition to our reporting and brings together all our climate-related disclosures in one report. It focuses on the changes we're making to be a sustainable business in a net zero world, and the contributions we're making to the broader climate policy agenda. It covers our commitments, progress and transition plans towards our [Net Zero](#) by 2030 ambition. It also covers how we're identifying, assessing and addressing climate-related risks and opportunities for our business.

Through this report we have sought to gather our network level climate disclosures, including our response to the TCFD recommendations and our annual GHG reporting in order to provide a more comprehensive view of our climate-related activity.

Our support for the TCFD

We've supported the TCFD since it launched its recommendations in 2017 and have been members of the Task force since 2016. We've provided data and analytics using AI for the annual TCFD Status Reports, and we sit on its Metrics and Targets working group.

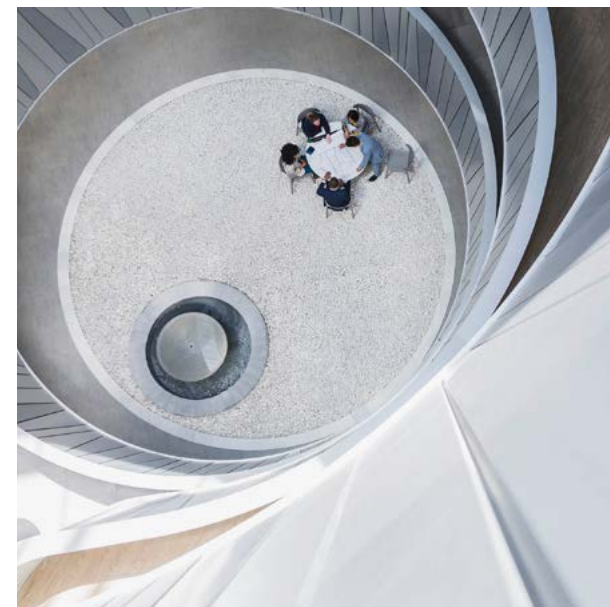
As part of our contribution to improving TCFD market capacity, we've supported the WBCSD Preparers Forum, which has produced guidance for six sectors. We've supported three key projects – the Energy System Reference Scenarios project to improve the consistency and compatibility of climate scenarios, the recent [Demystifying Scenarios report](#) and we're now working on TCFD Readiness and Food & Land Use Reference Scenarios.

We support broader adoption of TCFD reporting by more businesses. The framework helps business leaders to spot, assess and deal with the risks and opportunities from climate change. The positive outcomes this will deliver will accelerate the overall transition to the net zero future we all need to achieve.

An overview of this report

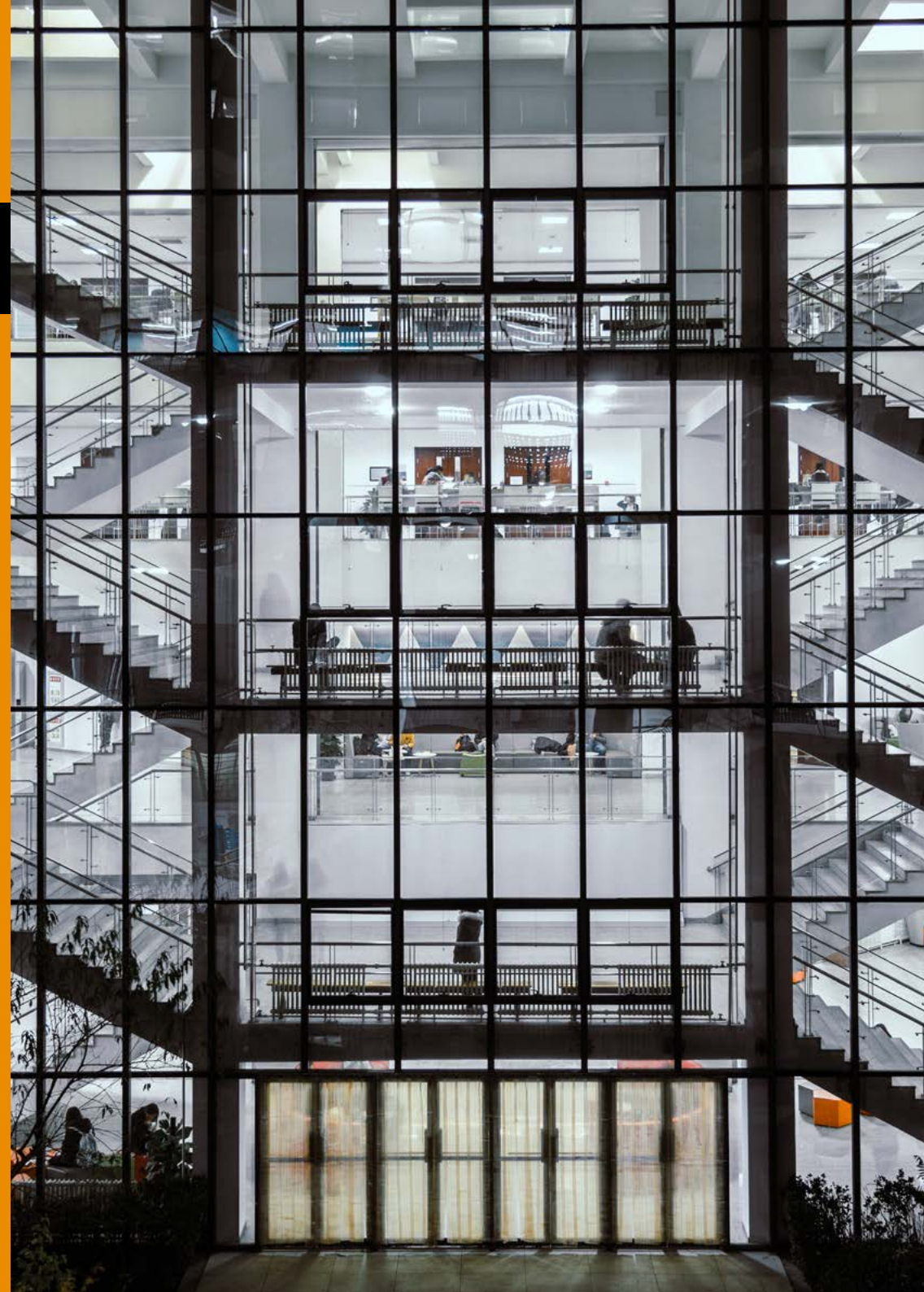
We've used TCFD's framework to present our climate-related disclosures in this report.

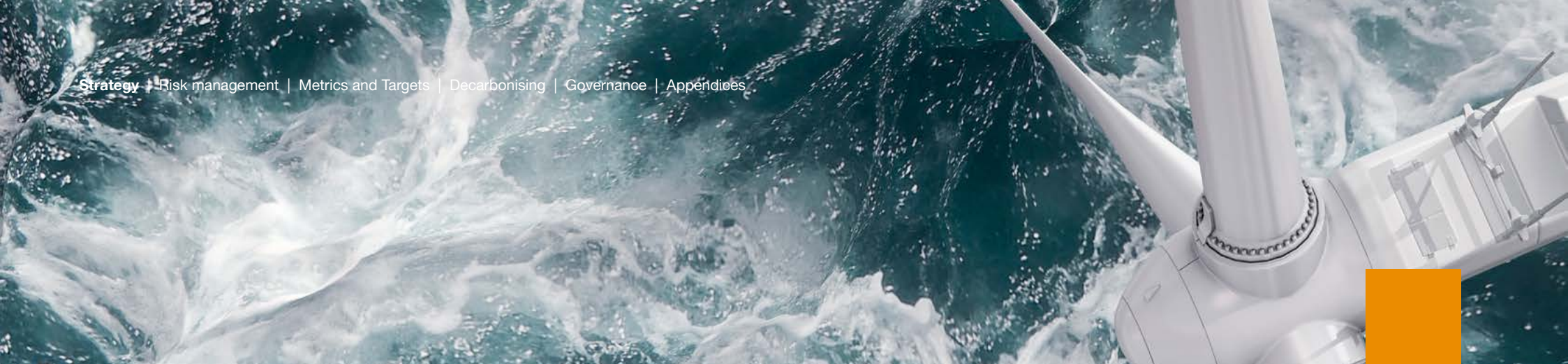
Section	Contents
Strategy	An overview of our strategic risks and opportunities arising from climate change, and the progress we have made in our main areas of business response. Contains details on our change programmes, including how we're adapting our client services, how we're transforming the skills of our people, how we're assessing our operational exposure to climate-related extreme weather events.
Risk management	An overview of our network Enterprise Risk Management (ERM) framework and its processes, its application to our member firms and a description of how those processes apply to climate-related risks.
Metrics & targets	An overview of the key metrics and targets we're using as a business to manage our transition to a low carbon world, including our science-based targets that underpin our global net zero commitment and our progress towards those.
Decarbonising our own operations and supply chain	Contains full details on our Net Zero by 2030 commitment, our network-wide programme to decarbonise our business model and operationalise change across our member firms. Includes examples of the ways our firms are changing delivery models to incentivise behaviour and drive emissions reductions in line with local net zero implementation plans.
Governance	An overview of our governance structure, the roles of the different bodies within it and the parts they play in managing or overseeing our responses to climate-related matters.
Appendices	More detail on: <ol style="list-style-type: none"> 1. Our climate scenario analysis: Methodology and approach 2. Strategic risks & opportunities: Detailed update, including progress across all business responses 3. Policy and advocacy 4. Operations & supply chain: Our GHG data disclosure and methodology.



Strategy

An overview of our strategic risks and opportunities arising from climate change, and the progress we have made in our main areas of business response.





It's been a challenging year with conflict, the pandemic, rising costs and extreme weather events. During all of this, we haven't wavered from our focus on the challenges of climate change.

We launched our global strategy, [The New Equation](#), in June 2021, in response to what clients and other stakeholders told us they needed the most: help building trust and delivering sustained outcomes. Climate change and the broader Environmental, Social and Governance (ESG) agenda were placed at the heart of our strategy. We believe businesses must take responsibility for the impact they have on society, including their role in the climate crisis. Businesses must make a positive contribution toward decarbonising our economies.

One of the most important roles we can play is to help our clients understand and navigate these climate-related challenges. Our strategic investment plan includes a significant and core focus on growing and scaling our capabilities in climate specialties, to support our clients in their efforts to decarbonise, transition and build resilience. We've already delivered many projects across our network over the year, and you can read more about them in our [Global Annual Review for FY22](#).

In terms of our own business, we've reached some key milestones in our decarbonisation journey. Every member firm committed to produce a plan to decarbonise their business. These plans now cover 99% of our network emissions. We have reduced our total emissions by 37% since our FY19 baseline year and we're already achieving a 66% reduction in our scope 1 & 2 emissions against our baseline year.

We've made good progress, but we know there's a long way to go and we still need to deliver many critical elements. In this section, we share some insights into what we've done so far as part of our transition.

37%

decrease in our total emissions compared to our FY19 baseline.

Our climate scenario analysis

Our climate scenario analysis identifies the impacts of climate change on our business and the strategic risks and opportunities, so we can plan and respond across our network. You can see the full details of our methodology and approach, specific scenarios applied and our impacts framework in [appendix 1](#).

These are the major strategic implications for our business arising from that scenario analysis:

Paris-aligned scenario (well below 2°C)

This scenario drives a greater level of transition impacts given the dominance of policy changes and disruption as the economy transitions to a low carbon world.

- Disruption in sectors with high levels of transition risk with implications for our portfolio
- Disruption in geographies with high levels of transition risk with implications for our portfolio and for those regions

Both scenarios

There are a number of risks and opportunities which will arise regardless of the climate scenario.

- The need to adapt our core services to embed consideration of climate related matters
- The development and scaling of new and emerging climate services to support clients
- Continued ability to attract and retain talent
- Brand/reputational impact arising from our contribution to the climate agenda

No mitigation scenario (>4°C)

This scenario drives a greater level of physical impacts given the dominance of climate and weather related events which would likely take place.

- The need to plan for the impact of potential acute and chronic climate events on our office network, people and operations (including our key suppliers)
- The portfolio impact of potential acute and chronic climate events in higher risk geographies
- Global or regional economic disruption arising from the impact on sectors with supply chains that are heavily concentrated in areas of high physical risk

You can read the full details of our analysis in [appendix 2](#). This includes detail on all strategic risks and opportunities and our business responses.



Enabling the transition to a low carbon world: Our major areas of focus

We've focused on some key strategic business responses. These will support our own transition and the transition of our clients and the broader market.

Decarbonising our operations and supply chain

In September 2020 we announced a worldwide commitment to reach **net zero GHG emissions by 2030**. Our net zero commitment is underpinned by a science-based target in line with a 1.5 degree scenario to prevent the worst impacts of climate change, as set out in the Paris Agreement. In July 2021, our emission reduction targets were independently validated by the Science Based Targets initiative (SBTi).

Our major areas of progress this year include:

- **Operational emissions reductions** by sourcing 100% renewable electricity in our [21 largest territories](#) with 90% of our electricity across the network now coming from renewable sources.
- **Enhanced reporting**, extending our data collection and GHG emissions disclosures to include all member firms across our network. We've also expanded our boundary and scope to include all of our operations and indirect supply chain (business travel and purchased goods and services), in line with our science-based targets.
- We're beginning to **use data insights at a local level** in some territories, such as adding a carbon lens to understand more about how we travel and our supply chain.
- Every member firm committed to produce a local **net zero implementation plan**, identifying the major sources of their carbon emissions and initial activities to reduce them in line with our global commitment. Provision of this plan was embedded into the performance metrics of the Territory Senior Partners of our [21 largest territories](#), ensuring accountability at the highest level within our business.

You can read the full details in our [Decarbonising our operations and supply chain](#) section.



PwC's commitment

Clients

PwC will work with its clients to support their efforts to make a net zero future a reality for all. Building on existing client work in sustainability and net zero transformation.

Climate agenda

PwC will continue its long-standing programme of research and collaboration with business, policy makers, and NGOs to accelerate the transition to a net zero economy.



Clients

Helping clients transition to a net zero future



Operations

50% GHG reduction, 100% renewable electricity

Net Zero
2030



Climate agenda

Collaborating with business, policy makers and NGOs



Supply chain

50% of suppliers to set science based targets by FY25

Operations

PwC will reduce its emissions in line with a 1.5 degree climate scenario, including a 50% absolute reduction in scope 1 and 2 emissions and a 50% absolute reduction in business travel emissions from a FY19 baseline by FY30. In addition, PwC will accelerate its transition to 100% renewable electricity and to mitigate its impacts today, PwC will continue to offset its emissions through high-quality carbon credits.

Supply chain

PwC will engage with key suppliers, encouraging and supporting them to achieve net zero. We commit that 50% of our global purchased goods and services suppliers by emissions will have set their own science-based targets to reduce their own climate impact by FY25.

Using FY19 levels as a base year, we will regularly and transparently report on progress against our network wide net zero targets.

Our commitment covers our entire network of member firms in 152 countries.

Assessing our physical risk exposure

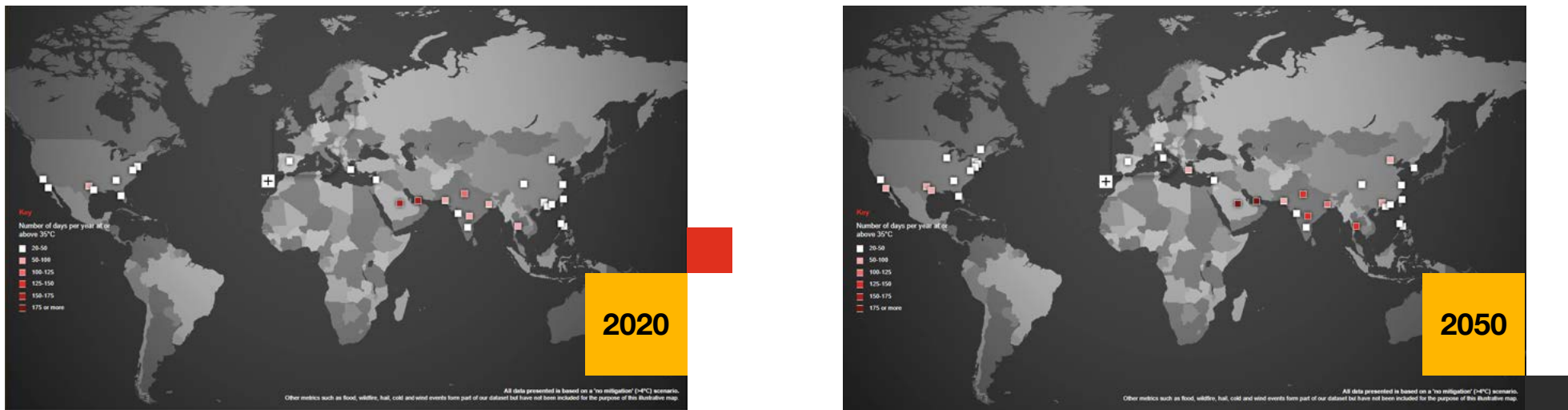
It's clear that weather related events which have the potential to disrupt our business will continue to occur with increasing frequency and severity over the coming years and decades. It is important to make sure that we have a good understanding of how, when and where these events may be of greatest significance to our business. This will best inform how we plan to respond and how we use the analysis to inform strategic business decisions.

Our methodology for undertaking this assessment is summarised below, and is underpinned by a detailed analysis of data related to various climate hazards for each of our office locations.



Our approach to physical risk analysis	
1	Identify key physical locations in the value chain. For PwC, this is mainly our office locations.
2	Overlay climate hazards based on defined climate scenarios, to understand how those hazards might apply to the key locations identified (see maps below).
3	Decide which locations need further analysis based on a business assessment, including: <ul style="list-style-type: none"> ■ How relevant is the hazard to the nature of our business? ■ What potential is there to mitigate the hazard, either by ourselves or in collaboration with others (e.g. governments, cities, other businesses)?
4	Using the analysis, decide which locations may be materially vulnerable and need more attention and response.
5	Identify business decisions that will be needed, including mitigation measures, recovery plans, alternate locations for certain functions or activities, and develop action plans to address these.

These illustrative maps show PwC office locations with more than 1,000 employees and how the hazard profile for heat is expected to change between 2020 and 2050 for these locations under a ‘no mitigation’ >4°C scenario (SSP5-8.5³).



Data source: Jupiter ClimateScore™ Global, 2022

Heat refers to the number of days per year with temperatures at or above 35°C. Alternative heat metrics are used across different sources. For example, maximum daily temperature, heat wave frequencies or number of days per year with temperatures >50°C. Our map uses a metric based on days per year with temperatures at or above 35°C.

It is critical to understand that climate hazard data does not fully assess the level of risk for particular locations. The data only represents the potential severity level of a hazard for a location. It does not reflect the vulnerability of that location to the hazard. The data therefore does not constitute a business risk assessment.

3 SSP stands for Shared Socioeconomic Pathways



There are some important observations to note when interpreting the underlying hazard data:

- **The definition of each hazard is very specific.** For example, the definition of extreme heat within our analysis refers to the number of days per year where temperatures exceed 35°C. However, other analyses may measure heat with respect to heat wave frequencies, or a higher temperature boundary.
- **The data is specific to the particular location** (in this case the relevant PwC office), and is not necessarily representative of conditions expected for the broader region.
- **The relevance of a hazard to the particular business activity must be carefully considered.** For example a drought metric may be more relevant for an agricultural business than a transportation business.
- **The hazard data does not reflect adaptation plans or potential.** For example a high flood metric will be more relevant for areas which do not have current or future plans for flood defences.
- **The data doesn't reflect what may happen when hazards combine** (e.g. where heat, drought and wildfire occur in combination).

Bearing these observations in mind, we have prepared an interactive dashboard which can be accessed [here](#). This dashboard shows a representative sample of some (but not all) climate hazards and illustrates in each case how they are expected to evolve up to 2050 for each of our office locations of more than 1,000 employees. It is not intended to be a comprehensive analysis for all hazards for all of our locations.

The aim is to understand material risks for the whole of our business, and decide what we need to do. That's why we're using a much larger dataset based on all hazards and for all PwC offices worldwide. We'll use this analysis for risk assessments and strategic business decisions at network level and by individual territories.

Adapting our services

What's become increasingly clear over the last few years is that we need to embed consideration of climate change into all our work. That's why we've put ESG and climate change at the heart of our global strategy, [The New Equation](#).

Our scenario analysis also identified a market need. It showed that under all climate scenarios it would be strategically important for us to **adapt our core services** and develop and scale **new climate-related services**. We've already made a number of important investments into ESG to adapt to this increasing demand.

Adapting our core services

We're adapting our core services to embed consideration of climate change in many ways, from including climate risk in due diligence processes in deals, to considering green incentives and supply chain reengineering in our tax services.

One of the most significant collaborations we're involved in is in respect of our audit business. We're proud to be a member of the [Net Zero Financial Service Providers Alliance](#), uniting auditors and other financial service providers with the [Glasgow Financial Alliance for Net Zero \(GFANZ\)](#).

It's our responsibility as auditors to obtain reasonable assurance that financial statements as a whole are free from material misstatement. To do this, we need to identify and assess risks of material misstatement - which can include risks related to climate. **That's why we are accelerating our ongoing efforts to upskill our auditors** to evaluate a company's climate-related risks and assess whether these risks could lead to material misstatement in financial disclosures. This is part of our wider effort to upskill our people across all specialties to build consideration of climate risk into all our work.

We've also continued to embed consideration of climate into our other core services. We have launched our global **ESG Reporting Integrated Solution**, which brings our community of solvers together, using their different ESG skills and experience. This includes expertise with financial reporting, from sustainability advisors and reporting strategists to data, controls and processing specialists - all helping our clients to report what matters.



Developing new climate-related services

Helping our clients manage their transition to a low carbon future is a key way in which PwC can have the greatest impact within the global transition, and is central to our New Equation strategy.

At the network level we're making significant investments to expand our specialised climate services. We're **digitising the delivery of our climate advice** with a suite of market-leading tools in multiple technology stacks. From benchmarking and baselining, to decarbonisation strategy, roadmaps, implementation and reporting. Our digital solutions work hand-in-hand with teams of experts, so we can give our clients the latest thinking and approach to decarbonisation and climate risk.

We understand too that our clients often need collaboration across specialisms, platforms and technologies. So we're working with our global technology alliance partners and specialist technology providers to help our clients develop, implement, and enhance their climate and ESG strategies.

We also launched a **Climate Integrated Solution** this year. It's a global collaboration with contributions from our climate experts around the network and provides a framework and toolkits for delivering climate-related services. It helps all our teams raise climate issues with our clients, sharing best practice and driving a consistent approach across our network.

If you'd like to know more about the work we're doing on climate transitions, you can take a look at the case studies in our [Global Annual Review](#). You can also read more about our services in Climate and other areas of ESG [here](#).

Transitioning the skills of our people: PwC's Global ESG Academy

An important part of our new strategy, [The New Equation](#), is **our commitment to give all our people the opportunity to upskill on climate and ESG matters**, to allow consideration of climate challenges in their work. That's why we founded a **Global ESG Academy**.

PwC US & Workviva use data-driven & tech-enabled approach to support net zero ambitions

PwC US worked with Fortune 500 energy technology company Baker Hughes to develop an ESG reporting system with information governance, designed to improve their ability to transparently and accurately show progress on their net zero commitment. By working with Workviva to deploy leading edge technology tools PwC US was able to support Baker Hughes develop a more accurate and reliable emissions accounting structure. [Read more.](#)

We've designed a curriculum for different roles and grades and started our first wave of learning in 2021. The Academy is the basis of our **ESG skills transformation programme**. We've continued to add new learning elements and the Academy now offers 33 modules, with more planned. Topics include:

- ESG essentials
- Net zero strategy and planning
- Climate risk and resilience
- TCFD reporting
- ESG reporting frameworks and standards

Additional modules are focused on industry-specific challenges, others are tailor-made for our lines of service, such as tax and legal services.

All materials are available centrally, so all our member firms can access the curriculum - helping to upskill our people all over the world. **More than 93,000 of our people have completed some upskilling from the ESG Academy, and this is supplemented by additional learning in many territories.** This is a huge skills transformation programme, which we'll continue to embed across our network. We're also working with our clients to upskill their own people on these topics.

PwC leaders are using completion metrics from the ESG Academy modules to understand the adoption of learning across our communities worldwide, both for the network as a whole and individual territories. You can read more about our skills programme in the [Metrics and targets section](#) and how our leaders are tracking the rate of upskilling.

We're planning new releases of upskilling content during our 2023 fiscal year, including advanced climate modules, further modules for our tax and assurance lines of service, and a focus on putting what we're learning into practice.

Understanding and being aware of climate change is essential for all our people. Being able to discuss it with our clients is a business imperative.

PwC Australia certification as a Carbon Literate Organisation

PwC Australia began a journey to become a Carbon Literate Organisation through the Carbon Literacy Project, a global not-for-profit organisation specialising in climate action training. PwC Australia is one of the first employers in Australia - and the first professional services firm anywhere in the world - to have achieved the bronze level certification. PwC Australia is focussed on building the individual and collective climate knowledge of its people as a critical step towards achieving our net zero by 2030 commitment.



Using our voice to advocate for change

We're also helping to shape and accelerate the global climate policy agenda for a just transition to a net zero world.

- We work through collaborative alliances like [The Glasgow Financial Alliance for Net Zero](#).
- We're using our memberships, for instance with the WEF and the WBCSD.
- We're taking part in multi-stakeholder forums, such as COP26 and the Global Solutions Initiative.
- We are helping to build the systems and frameworks that will deliver the trusted information needed to underpin the transition to a net zero world.
- We provide our skills and climate expertise to help shape strategic initiatives and discussions. We contribute research and thinking to help a broader understanding of climate change, how to adapt and build resilience.

You can read more about our policy and advocacy work in [appendix 3](#).

Engaging our people

We see our climate journey as a chance to mobilise our 327,000 strong community of solvers to take action. We can have a huge impact, if we encourage and promote sustainable behaviours at work and beyond.

Our people are at the heart of our conversations with our clients on engagement planning and delivery models. They will be critical in driving low carbon delivery to decouple our growth and emissions, and meet the needs and expectations in different markets. Our people can also be a powerful catalyst for change beyond PwC, as individuals and through their communities.

Our member firms are encouraging our people to take action in many ways - through sustainable behaviour campaigns, upskilling on climate-related issues, and creating and supporting the work of green teams.

ENGAGING OUR PEOPLE

Count Us In

On World Earth Day 2021 PwC joined forces with Count Us In, a global initiative aiming to inspire a billion people to significantly reduce their carbon impacts. Partners and staff were asked to make personal pledges to reduce their impact on the environment. They chose from 21 steps (recognised as the most effective ways to reduce personal carbon emissions). The platform tracks the estimated carbon savings from our collective efforts which contributes towards Count Us In's global mission to inspire 1 billion people to significantly reduce their carbon footprint by 2030.

Initially adopted by PwC UK, since the launch of the initiative in April 2021, more than 50 PwC member firms have participated in the programme. We have surpassed the goal of 10,000 pledges from individuals across the network and will continue to leverage this powerful platform in the next year as a call to action to build pride among our people to drive behaviour change.

PwC China Green Week

Each year PwC China delivers Green Week, a firm-wide campaign to raise awareness and engage its

people in sustainability issues. Green Week 2022 was designed to enable people to gain a deeper understanding of their individual impact on PwC's net zero commitment, and global climate change as an issue more broadly. This was achieved through the release of a series of digital assets, including an interactive personal carbon calculator and daily online communications with information on sustainable lifestyle choices. This year we added a new business travel emissions dashboard to provide transparent and timely data about our net zero progress. Staff also received an individual air travel carbon report to drive awareness and ownership of their own contribution to the firm's footprint.

Engaging PwC US' people through the Environmental Inclusion Network

PwC US has long helped its people to donate their time, money and expertise to issues they are passionate about, including the environment. This includes Skills for Society, which gives our people the opportunity to use up to 40 hours of paid work time to act on these issues.

In FY22, PwC US launched the Environmental Inclusion Network (EnvIN) which has grown to more than 2,500 members from almost 70 offices. The EnvIN has already held over 30 in-person and virtual events, including tree planting, coastal cleanups, educational sessions and scopeathons. Scopeathons bring various partners together to agree a common definition of a problem and to collaborate on a solution. The two half day environmental scopeathons gave 138 PwC staff the chance to work with 75 non-profit leaders from 25 organisations from across the US & Mexico, to apply their skills to the Non-Profit Organisation's challenges. The EnvIN also collaborated with PwC US' Black Inclusion Network to host an environmental justice webinar during Black History Month.

Finally, the firm's Environmental Cause Portfolio makes it easy for staff to donate to organisations tackling environmental issues such as environmental literacy, forestry, climate change, marine pollution, wildlife conservation, and environmental justice. These organisations were chosen based on their work with underserved communities, record of impact, financial transparency and strong governance.

Risk management

An overview of our network Enterprise Risk Management (ERM) framework and the processes within it, its application to our member firms and a description of how those processes apply to climate-related risks.



Climate-related risks are embedded within our overall Enterprise Risk Management (ERM) framework and any risks identified are subject to the same process and managed in line with all other risks.

PwC network member firms agree to abide by certain standards - our network standards - which cover a number of areas including ERM. The network ERM standard requires each member firm to establish an ERM programme and integrate this within its business operations. The ERM programme must also have roles and responsibilities for identification, prioritisation and mitigation of enterprise-level risks. The ERM programme identifies the most significant risks that could impact the member firm, using the Key Network Risks (KNRs) as a major input (which include climate, see below).

For every risk identified, each member firm is required to assess the probability of the risk occurring, its potential impact and whether the risk is operational, forward looking or emerging and then develop an appropriate response.

Materiality is determined by individual member firms for the purpose of their risk assessment. KNRs are identified as risks which have the potential to either:

- undermine the achievement of the network strategy and business objectives, or
- fundamentally damage the network and compromise its future.

The current Key Network Risks include the following climate-related matters:

- **Black and green swan events:** Failure to prepare for environmental events with network-wide implications in terms of immediate/disaster response, reputational damage and potential macroeconomic impact such as regulatory change, environmental events or macroeconomic disruption created by events such as a pandemic.
- **Climate:** Failure to review and consider the impact of climate change on the network and to prepare for its implications, including (i) the impact of physical risks and related disruption; (ii) the impact of transitional risks on certain clients, sectors, economies and on our services; and (iii) failure to meet network commitments related to climate.





The inclusion of climate as a KNR not only reflects the importance the network places on the need to manage climate related risk, but also effectively embeds its consideration into the ERM processes of all member firms. All member firms are required to perform an annual review to identify, assess and manage all risks in line with the network standards.

Each year every member firm completes a self assessment of its compliance with network standards and related policies and procedures and confirms whether it is in compliance with the standards, including those relating to ERM. The member firm supports its self-assessment with appropriate evidence.

Each self-assessment is independently evaluated by a core team of specialists and feedback is provided to the member firm, where appropriate.

For further detail on our risk management framework and processes please see [here](#).

Our Global Corporate Sustainability Team has undertaken a climate risk identification exercise to highlight areas of potential risk. This includes risks either to our physical infrastructure (offices) or transitional risks arising in economically important geographies or sectors. The results of that exercise are contained within [appendix 2](#), along with an update on our various business responses.

Metrics and targets

An overview of the key metrics and targets we're using as a business to manage our transition to a low carbon world.



As we transition our business for a net zero future, we develop key performance and business indicators to monitor our progress in the major areas of work involved. Our primary metrics monitor progress on our Net Zero by 2030 commitment. But we've also introduced metrics this year to monitor other major programmes.

We'll continue to add metrics and targets for other key programmes to monitor our response to risks and opportunities across our network.

Net Zero by 2030

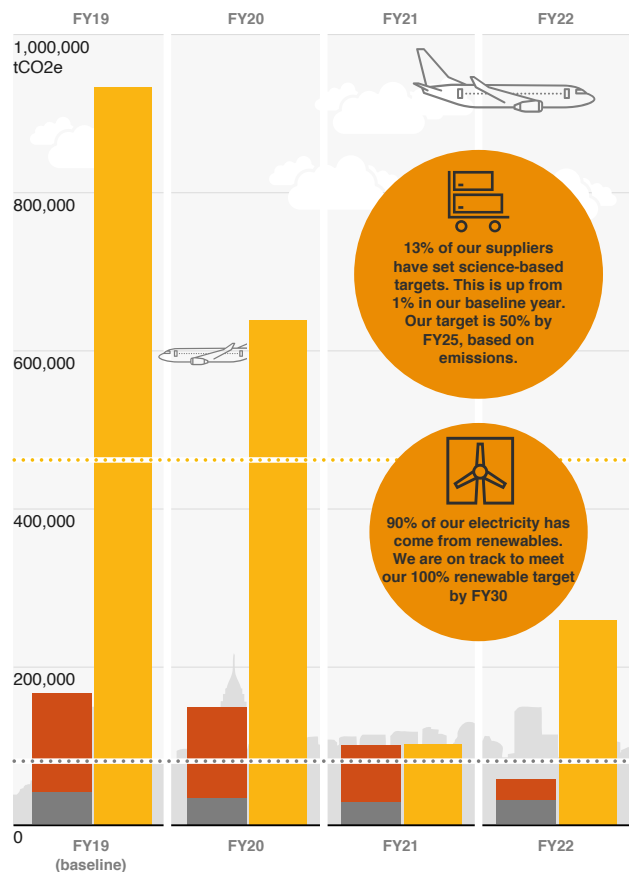
Part of our global strategy, [The New Equation](#), is to make our business **net zero by 2030**. Our emission reduction targets have been validated by the Science Based Targets initiative (SBTi) and are in line with a 1.5 degree climate scenario, which aligns to SBTi's highest ambition level. We will:

- Reduce scope 1 and 2 absolute emissions by 50% from a FY19 base by FY30
- Reduce absolute business travel emissions by 50% from a FY19 base by FY30
- Transition to 100% renewable electricity in all territories by FY30
- Commit that 50% of our purchased goods and services suppliers (by emissions) across our network have set science-based targets to reduce their own climate impact by FY25
- Continue to counterbalance our emissions through high-quality carbon credits, transitioning our carbon offset portfolio to 100% carbon removals from FY30.



Progress on 2030 GHG emissions reduction targets

Scope 1 +2 ■ ■ Scope 3 ■ business travel
 Scope 1+2 target: 50% absolute reduction by FY30
 Scope 3 target: 50% absolute reduction in business travel emissions by FY30



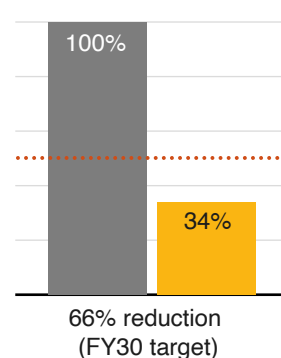
This summary shows our progress so far. Key highlights include achieving a 66% reduction in our scope 1 and 2 emissions in absolute terms (exceeding our target) and reducing our absolute business travel emissions by 72% compared to our FY19 baseline year. We are also now sourcing 90% renewable electricity across our network operations. You can see more detail in the [Decarbonising our operations](#) section later in this report.

How we are doing now compared to our baseline year

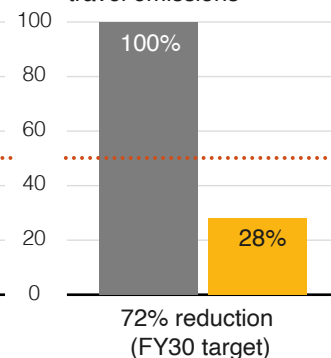
■ FY19 baseline ■ FY22 ⋯ Target

Going down

Scope 1 & 2 emissions

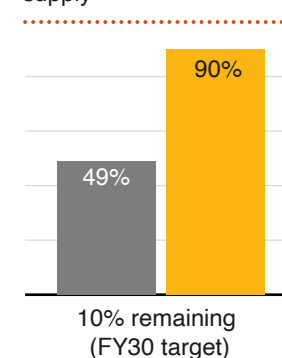


Scope 3 business travel emissions

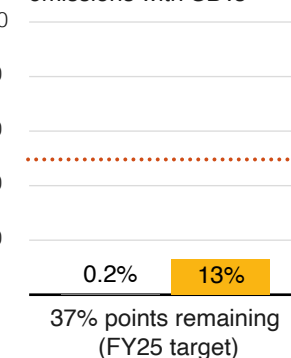


On the up

Renewable electricity supply



Suppliers of purchased goods and services by emissions with SBTs



PwC's ESG Academy

A key pillar of our transition is our commitment to upskill all our people on ESG issues, including climate change. With such a universal topic that crosses sectors, geographies and products, all businesses will be impacted in some way. All of our people will need a baseline knowledge and competency of climate change to provide value to our clients.

The ESG Academy is the centre of our global skills transformation programme. We're monitoring who completes this learning at the network level. These metrics help our local leaders understand what capabilities they have in their teams, and decide what other skills they might need.

Key metrics for our fiscal year 2022 include:

- 33 learning modules released to the network
- More than 93,000 people have completed at least one learning module - this is nearly 30% of our global staff population.

The data is used in various ways to support leadership decision making and to allow a network-level view of progress of our skills programme. This includes:

- Learning by the grade/role level of the learner
- Location (country) of the learner
- Topic and module breakdowns of the learning undertaken

The data only includes learning through our Global Academy. It doesn't include the supplemental learning territories have undertaken with their own content. This is therefore a conservative view of the learning that has been undertaken.

Adoption of the upskilling programme and learning progress will continue to be monitored as part of the strategic transition programme.

33

learning modules
released to the
network

93,000

people have completed
at least one learning
module - this is nearly
30% of our global
staff population

Decarbonising our operations and supply chain



Our approach to deliver net zero in our operations and supply chain is based on the carbon mitigation hierarchy:

- 1. Avoid** - eliminate our impact through design (evolve business strategy and operating model)
- 2. Minimise** - reduce impacts that cannot be avoided through doing what we do more efficiently and replace high carbon energy sources with low carbon ones
- 3. Compensate** - offset emissions that are not eliminated by the above to mitigate our impact today

We're using the following framework to put this into practice. It has measurable, actionable objectives, with goals underpinned by our independently validated Science Based Targets (SBTs).



	Measuring and disclosing impact	Using FY19 levels as a base year, PwC will regularly and transparently report on progress against its commitments, enhancing its Greenhouse Gas (GHG) emissions reporting to align with our network wide net zero targets.
	Reducing direct emissions	Reduce absolute scope 1 and 2 emissions by 50% from a FY19 baseline by FY30.
	Switching to renewables	To accelerate our transition to 100% renewable electricity by FY30.
	Managing business travel impact	Reduce absolute business travel emissions by 50% from a FY19 baseline by FY30.
	Engaging suppliers	Commit that 50% of our purchased goods and services suppliers (by emissions) have set science-based targets to reduce their own climate impact by FY25.
	Offsetting emissions	Continue to offset our emissions through high-quality carbon credits, transitioning our carbon offset portfolio to 100% carbon removals from FY30.



Our commitment to reach net zero by 2030 is at the core of [our strategy](#) and extends to all our network. Our global targets are cascaded to our territories and supported by an overall framework for action.

Territory Senior Partners (TSPs) are accountable for local progress to net zero. They've appointed **Net Zero Leaders** to deliver multi-year implementation plans. The **Global Corporate Sustainability (GCS)** Team supports our member firms. It participates in workstreams in key strategic areas, provides guidance and best practice, and coordinates measurement and disclosures on behalf of the network. The GCS team reports into the **GCS Leadership Team** on the overall objectives, progress and impact of our net zero programme.

We put mobilisation plans in place during our fiscal year 2021. Territories committed to model an emissions pathway to fiscal year 2030 and to identify a first set of activities they'll deliver over the next three years to fiscal year 2025. This will help achieve emissions reductions in line with our targets.

Completing a local plan was a key performance indicator for [TSPs in our 21 largest territories](#). This makes sure there's accountability at the most senior levels of our business. The implementation plans give a full view of progress we expect across the network, and we'll continue to collaborate across territories to share learning and track our progress.

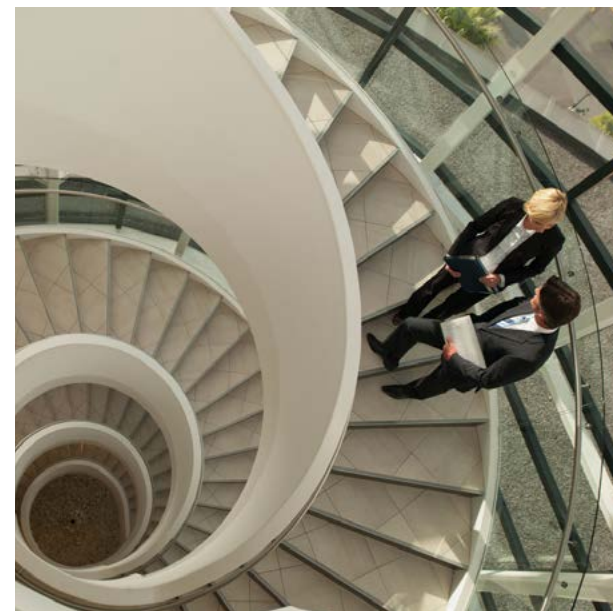
How and what we measure

Robust data collection and the insights they generate help us to understand our key areas of impact and opportunities to reduce our emissions. Our largest territories have reported and assured their GHG emissions data for more than 10 years. Since making our Net Zero by 2030 commitment, we have improved the systems and evolved the guidance we share with territories to support the expansion of our network reporting to include all member firms. We've increased the scope of our reporting to include a more comprehensive view of our material indirect (scope 3) emissions.

As a result, our network level reporting now covers the following data across all our territories:

- **Scope 1:** stationary and mobile combustion of fuels in buildings and owned or controlled transport (including biofuels)
- **Scope 2:** indirect GHG emissions from the generation of purchased electricity and heat
- **Scope 3:** category 1 purchased goods and services (including GHG protocol category 2 - capital goods) and category 6 business travel (including air travel by class with radiative forcing, hotel stays, vehicle rentals, expensed fuel, taxi and train travel).

At a local level, our member firms can choose to include additional, less material scope 3 emissions sources.

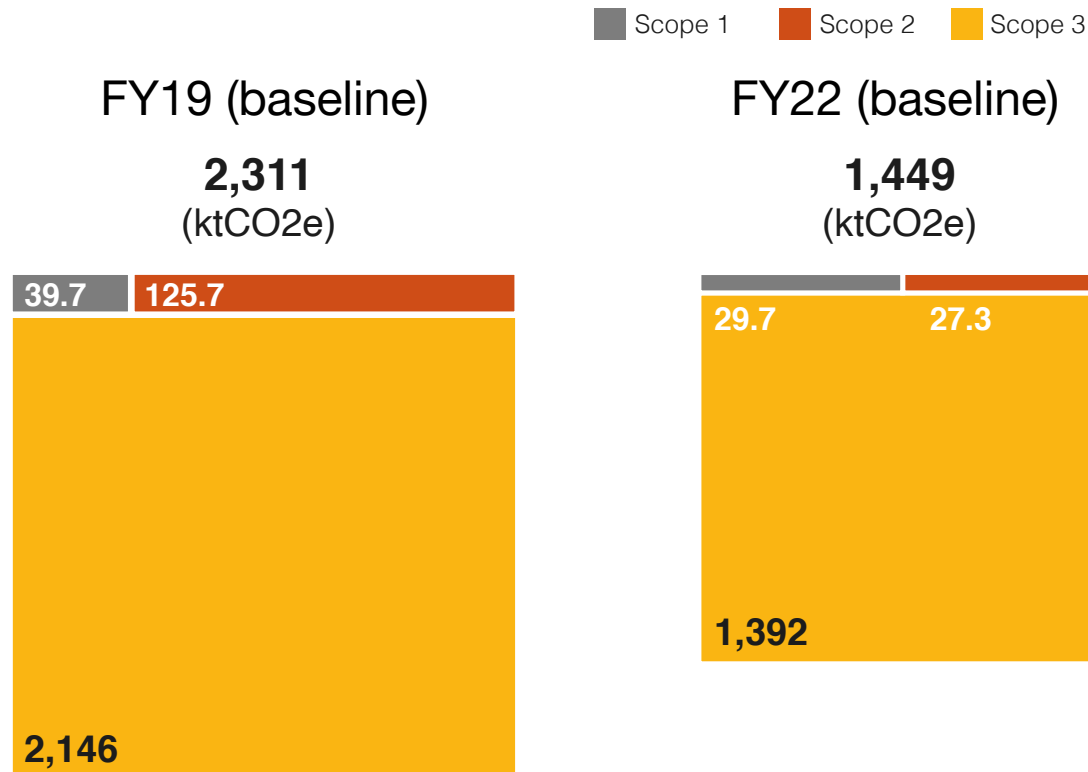


Below you can see more detail of our baseline and emissions from our fiscal year 2022. For comprehensive disclosures on our data and methodologies, see [appendix 4](#).

Total GHG emissions

We've seen a 37% decrease in our total emissions compared to our FY19 baseline. As the restrictions that were introduced during the pandemic begin to ease around the world, we've seen a slight increase in our year-on-year emissions. We have also seen a reduction in our gross emissions by revenue intensity (49%) and by headcount intensity (51%), compared to our baseline year.

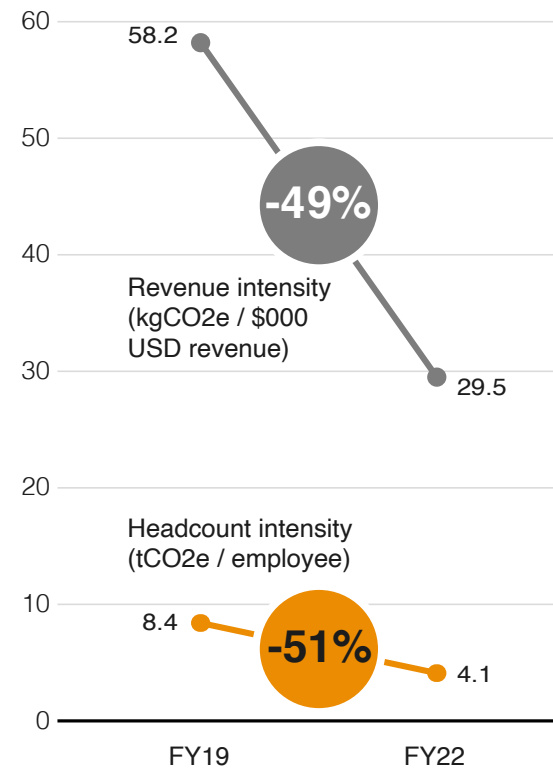
Total GHG emissions¹



1. Scope 3 includes business travel and purchased goods and services. For more detailed emissions data, see appendix 4 (p72).

Note: Individual figures may not equate exactly to the total numbers above due to rounding

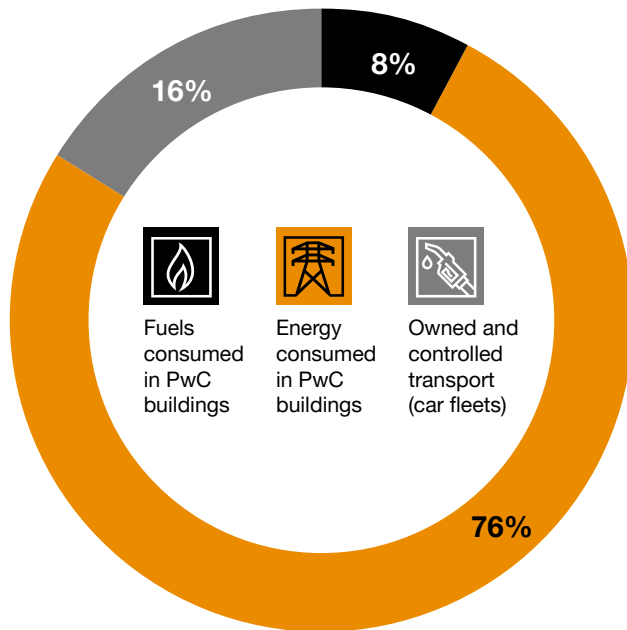
Gross emissions intensity



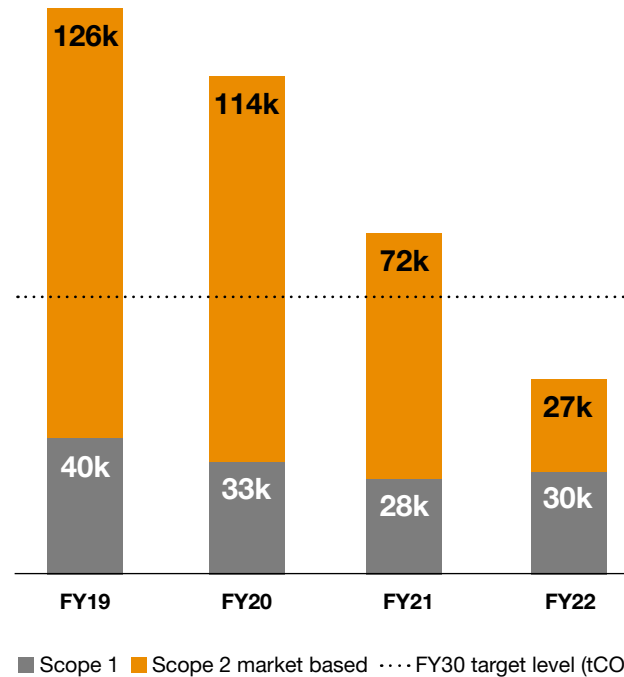
Scope 1 & 2 emissions from our operations

KPI	Target	FY19 baseline	FY22 performance	Progress to date
Scope 1 & 2 (tCO2e)	50% absolute reduction by FY30	165,338	56,997	66% reduction
% Renewable electricity ²	100% by FY30	49%	90%	41% points increase

An overview of our scope 1&2 baseline by sources.

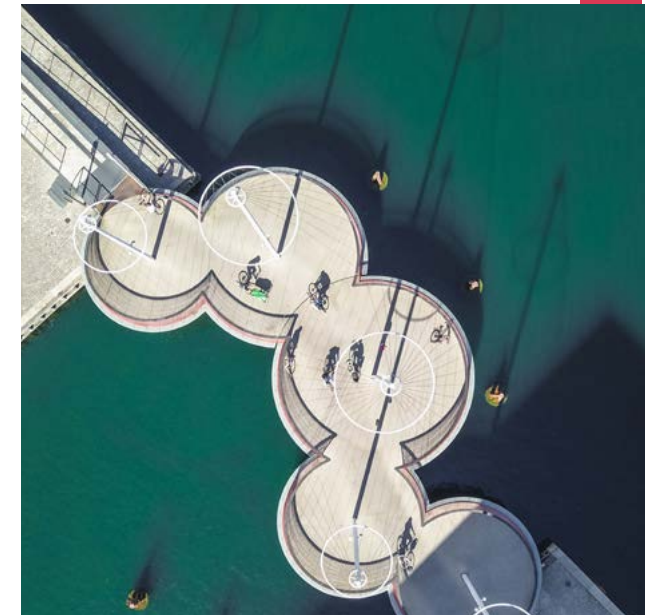


An overview of our scope 1&2 baseline emissions vs our targets (FY19 - FY22).



(tCO2e) values have been rounded to the nearest 1,000

2. This year the scope of our renewable electricity reporting has increased from our [21 largest territories](#) to network wide.



[For more information, see our net zero scorecard](#)

Given the nature of our business, the majority (76%) of our scope 1 and 2 emissions in our baseline year came from electricity and heating for our 695 offices worldwide. We saw only a small reduction in energy use due to COVID-19, as many of our offices stayed open even in a limited way. Since 2019 we've reduced emissions by 66%, achieving our target to reduce scope 1 and 2 emissions by 50%. This is well ahead of our 2030 goal year. We've avoided and reduced these emissions in various ways, including moving to renewable electricity. In our fiscal year 2019, 49% of purchased electricity was from renewable sources and this has now increased to 90% in our fiscal year 2022.

Avoiding and reducing emissions through operational efficiency

We lease many of our offices, so our biggest opportunity to reduce office-based emissions often comes through embedding environmental considerations into new lease agreements.

COVID-19 has accelerated changes in the way we work, including spending more time split between the office and home as part of new hybrid working models. More than half our territories are exploring ways to consolidate their office space in the years ahead. Many plan to add efficiency requirements in their lease negotiations or move to certified green buildings.

[For more information, see our net zero scorecard.](#)

66%

decrease in our scope
1 & 2 emissions
compared to our FY19
baseline.

REDUCING SCOPE 1 & 2 EMISSIONS ACROSS OUR NETWORK

PwC UK's decade of action to reduce office based emissions

PwC UK set their first carbon emissions targets in 2007 and have reduced the GHG emissions associated with their buildings' energy consumption by 96% in absolute terms, and energy consumption by 61%. They've done this through office consolidation, refreshing real estate, implementing technology and new initiatives such as changing building operating temperatures and cleaning schedules. Find out more here.

PwC Australia's focus on reducing scope 1 & 2 emissions

Over the last several years, PwC Australia has focused on embedding energy efficiency, energy transition and sustainable design principles into its real estate strategy. In FY22, all seven major offices in Australia achieved a National Australian Built Environment Rating System (NABERS) rating of "Excellent" (5+ stars) or above. In FY22, PwC Australia also achieved its goal to transition to 100% renewable electricity in its Australian offices, in line with our global membership of RE100. As part of this transition, PwC Australia also offered its people discounts on renewable electricity for their home usage.

PwC US' LEED certified office footprint

PwC US was the first professional services firm in the US to offer employees the option to work virtually and live anywhere in the continental US. Yet, offices are symbols of the firm's purpose, brand and culture; and a key part of how we present ourselves to our people, clients and the world. That's why PwC US is working hard to make their offices models of sustainability. 76% of its office space has LEED-certified interiors – which means they address carbon, energy, water, waste, transportation, materials, health and indoor environmental quality. In addition, 81% of its office space is located in LEED-certified buildings.



Switching to low or no carbon energy sources

We've been a member of [RE100](#) – a group of businesses committed to 100% renewable electricity - since 2018. This is when the PwC network committed to transition all our operations to renewable electricity by 2030. We also committed our largest firms to source 100% renewable electricity by FY22. We're pleased to report that we've achieved this milestone, and we're making progress among our smaller firms too.

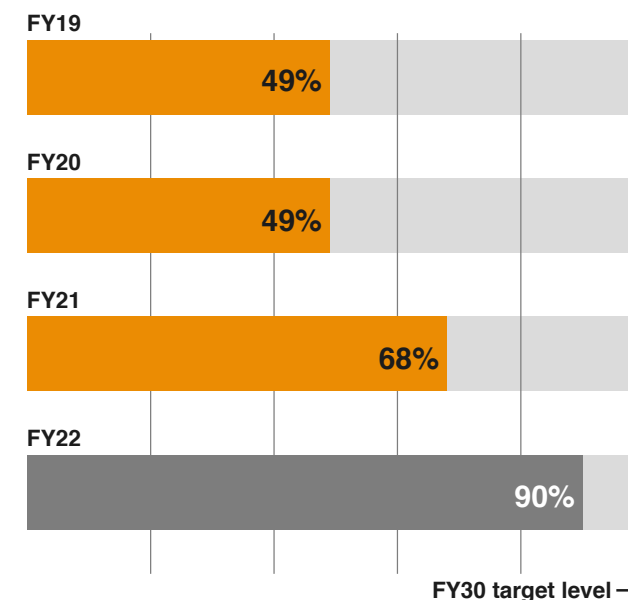
We're now using renewable electricity in 76 countries. We're making the most progress where renewable electricity products are available. But in some markets they're not, so we're exploring how we can accelerate our transition despite these challenges.

A number of our territories are also exploring other renewable electricity pathways beyond buying Energy Attribute Certificates or green electricity products, including generating renewable energy onsite or entering into Power Purchase Agreements (PPAs).

Fuel for car fleets is another key source of our remaining scope 1 and 2 emissions. Car fleets accounted for 16% of our scope 1 & 2 emissions in FY19. Nearly all our firms with car fleet arrangements are planning to transition to more sustainable vehicles or fuels by 2030.

As we've noted, we've now met our science-based target to reduce our scope 1 and 2 emissions well ahead of our 2030 goal. We expect to maintain this progress and will continue to reduce our emissions while accounting for the growth of our business. We'll achieve these ongoing reductions differently in different territories, depending on the local context.

Progress towards our renewable electricity target (%)



76 countries

We're now using renewable electricity in 76 countries. We're making the most progress where renewable electricity products are available.

We have reached our milestone to source 100% renewable electricity in our largest firms by FY22 and we are now sourcing 90% renewable electricity across our network, up from 49% in our FY19 baseline year.



Onsite renewable electricity generation

Several PwC offices are in buildings designed for sustainability, including onsite renewable energy sources. Others are exploring installing onsite renewables to increase capacity and meet some of their electricity demand.

PwC Luxembourg's office lease ends in 2027 and this has offered an opportunity to build sustainability into the requirements for its new headquarters, including generating renewable electricity onsite. The firm has found new headquarters, with 450 kWc of solar panels on the roof and a 31% expected reduction in electricity.

PwC Malta has installed a PV system capable of generating 91.45 kWp per annum. An estimated 110 MWh can be generated annually, equivalent to around 13% of PwC Malta's current electrical demand. The firm is also scoping a second installation on the main office building, which is planned to be twice the size.

PwC Cyprus has installed solar panels on its two main buildings with a total capacity of 97 kW, which will cover around 10% of their annual electricity needs.

PwC Netherlands transitioning to fossil free car fleet by 2025

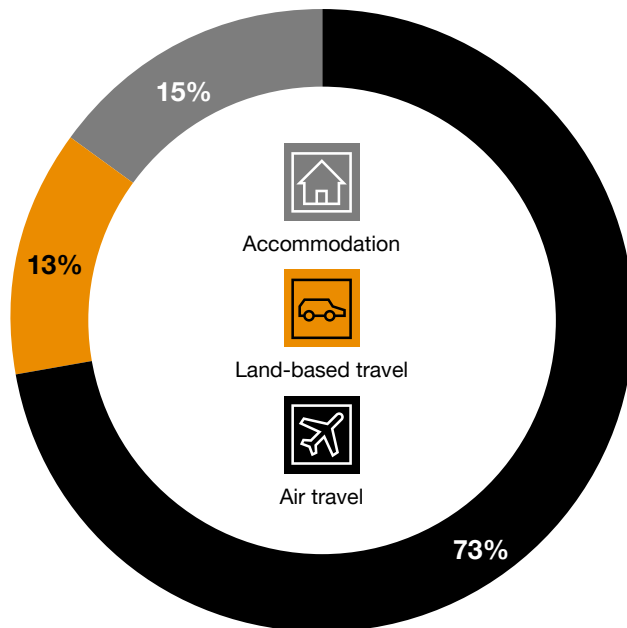
PwC Netherlands is one of a handful of PwC firms with a large fleet of company cars. This fleet contributes a significant portion of the firm's scope 1 emissions and the firm has set a goal of having no fossil fuel leased cars by 2025. It's incentivising staff to shift to fully electric vehicles and shortening the lease terms for fossil fuel lease cars. The firm has moved more than 60% of its car fleet to fully electric vehicles.



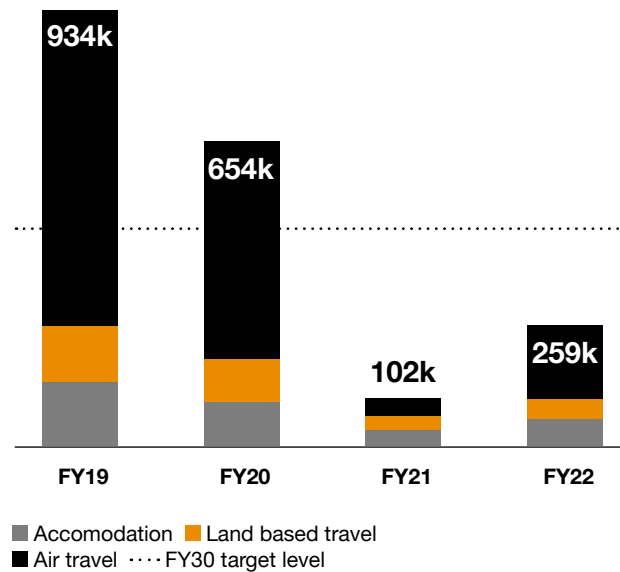
Scope 3 business travel

KPI	target	FY19 baseline	FY22 performance	Progress to date*
Scope 3 business travel (tCO2e)	50% absolute reduction by FY30	933,961	258,866	72% reduction

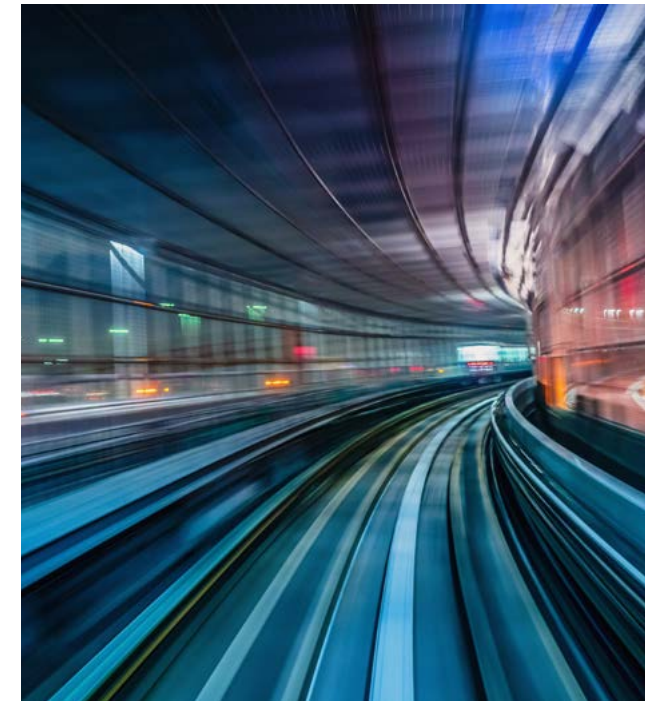
An overview of our scope 3 business travel baseline sources



An overview of our scope 3 business travel baseline emissions vs our targets (FY19 - FY22)



(tCO2e) values have been rounded to the nearest 1,000



*Due to the ongoing impact of travel restrictions, we've experienced significant business travel emissions reductions and exceeded our absolute reduction target. However, we expect emissions to increase in the coming years as travel restrictions ease.

[For more information, see our net zero scorecard.](#)



Our business travel emissions accounted for 40% of our total footprint in our 2019 fiscal year (FY19). Air travel was the greatest contributor (29% of overall emissions).

Reducing our absolute business travel emissions by 50% is, therefore, a key focus to reach net zero. An absolute target means that we'll reduce our emissions even as our business grows. The COVID-19 pandemic led to a dramatic reduction in travel emissions over the last three financial years and showed the potential of virtual services. But we need to do more work to learn from the pandemic and see how we can continue to evolve our operating models and the way we deliver services to our clients.

Reducing our business travel emissions

In our 2022 fiscal year (FY22) we expanded our scope 3 network level reporting to all business related travel, including air travel by class, hotel stays, vehicle rentals, expensed fuel, taxi and train travel. This gave us a wider picture of our business travel and helped planning at a territory level.

Collecting comprehensive and quality data is key to identifying the most effective strategies to reduce travel emissions long term. Some territories are improving data granularity and better understanding patterns of behaviour i.e. why our people travel. Many of our firms have made significant progress, building bespoke dashboards and insight tools, to help decision-making, local strategies and how we engage with clients. We'll continue this work across our network, and expect more data from our suppliers to encourage and account for lower emissions travel in the future.

72%

business travel
emissions reduction
compared to FY19
baseline

SMART TRAVEL ACROSS THE NETWORK



Environmental Footprint Insights App

Mobility is the most significant source of emissions for PwC. To encourage more sustainable individual travel behaviours, a crucial first step is to provide insights into carbon emissions at different levels: management, employees and project teams. Developed by PwC Netherlands, the Environmental Insights app is a carbon dashboard to encourage sustainable business travel behaviour among employees and to monitor the carbon footprint of companies and employees. The app allows teams to set and track a carbon budget for a client engagement. It has now been adopted by a number of our territories to help them reduce their own travel impacts. [Find out more here.](#)

PwC China - replacing frequent travel routes with low carbon alternatives

By looking closely at its air travel data, PwC China found that its most frequent travel route - Beijing to Shanghai - made up almost 10% of total air travel emissions in FY19. Total travel time on the fastest trains can be comparable to flying and emissions from the high speed rail are 96% lower based on distance. To promote sustainable travel, PwC China offers all employees access to first class rail tickets and reinvests the cost savings.

PwC US - tools to support travel planning

In FY22, PwC US created an air travel dashboard to analyse and report on all aspects of the firm's air travel, including travel for individual clients. This dashboard complements a tool that helps staff compare GHG emissions, cost and travel time between different individual and group itineraries and decide which is the best travel option. This helps our teams plan and manage their travel effectively as they deliver services to our clients.

Our business travel emissions in FY22 were 72% below our FY19 baseline year emissions, and demonstrated a 1.6 fold increase from last year. This reflects the easing of travel restrictions that were put in place during the COVID-19 pandemic. We expect our post-pandemic “bounceback” will peak and then decrease in a linear way towards our 2030 target.

Some of our territories have created strategies to move to a model that prioritises delivering services virtually, using a cap on carbon or carbon budgets to sustain our recent gains. However, most of our territories are still in the very early stages of identifying what they can do to reduce travel emissions. We expect our overall pathway may change over the coming years as we set, test and embed new approaches.

We’re also exploring new “mobility” strategies, internal carbon pricing and virtual working models. At a network level, business travel can help us to stay connected across firms. We’ve created some network travel principles to embed climate considerations into internal event planning. Most of our business travel is associated with services for our clients. It’s therefore important that we also engage our clients on low carbon delivery options.

Decarbonising air travel

Our progress will also be affected by the decarbonisation of the airline industry. Our airline partners are looking to decarbonise and are increasingly using Sustainable Aviation Fuel (SAF), which can reduce the climate impact of air travel by 30-60%. Some of our territories have bought SAF to benefit our business and help develop the SAF market.

We’ve signed up to the WEF’s [Clean Skies for Tomorrow Coalition](#) – its aim is to make at least 10% of the world’s jet fuel supply sustainable by 2030. We’ve also joined the [First Movers Coalition](#) which commits us to buying at least 5% SAF from 2030 and helping to develop SAF certificates to measure and report their impact.

In addition to changes in the airline industry, our net zero pathway will be impacted by broader changes to infrastructure that enable the transition to more sustainable modes of travel such as train or electric vehicles, where current progress and plans vary considerably among countries.

Accelerating the adoption of Sustainable Aviation Fuel

In 2022 **PwC Netherlands** was the first large organisation to get its staff to fly entirely with Sustainable Aviation Fuel (SAF).

[Find out more here.](#)

PwC China is one of the first eight customers in the Cathay Pacific Sustainable Aviation Fuel (SAF) programme. This helps to reduce PwC China’s carbon impact from business travel. The programme uses SAF on Cathay Pacific flights from Hong Kong International Airport. [Find out more here.](#)

PwC US signed SAF purchase agreements with four major US airlines, which are important suppliers and clients of the firm. This is to reduce the environmental impact of travel and support the broader transition towards more sustainable aviation. The firm plans to increase its SAF purchases in FY23 and is looking at other ways to support the nascent SAF industry and the journey to more sustainable travel.

Scope 3 supply chain

KPI	Target	FY19 baseline	FY22 performance	Progress to date*
% of suppliers or purchased goods and services with SBTs (by emissions)	50% by emissions by FY25	0.2%	13%	13% points

*Purchased goods and services in this context includes both greenhouse gas emissions (GHG) Protocol category 1 purchased foods and services and category 2 capital goods

The vast majority of our baseline carbon footprint comes from indirect emissions from our suppliers (scope 2 and 3). We've set an absolute emissions target to reduce our energy and business travel emissions, which we plan to reach by changing our operations.

The largest emissions source after business travel is the rest of our supply chain - purchased goods and services*. By engaging with our key suppliers, encouraging them to take action too, we aim to amplify our impact in the market to accelerate the broader transition to a net zero economy.

This year we've developed and rolled out ways to measure supply chain emissions across all our network firms. These emissions vary each year but in most markets, three areas - technology, professional services, real estate and facilities management - usually make up more than half of our spend and emissions. We've collected financial data across all procurement categories, to understand the size and nature of our global supply chain. We've also developed and shared guidance on how to measure supplier engagement strategies.

Our supply chain has a local and global element. Dealing with purchased goods and services emissions therefore needs a two-pronged approach. We've enhanced our network supplier questionnaire and due diligence processes to reflect climate and other sustainability considerations.

We'll continue to encourage our suppliers to set their own science-based targets, particularly suppliers who have large, multi-year contracts with us. We'll also keep upskilling our own procurement teams and suppliers and identify opportunities to decarbonise and embed climate considerations into our procurement processes. We'll keep enhancing our data collection and measurement to reflect low-carbon procurement choices in our reporting to demonstrate progress towards emissions reductions as well as our engagement target. This is a significant challenge because robust, verifiable product or supplier specific emissions data is often not available.

PwC UK Supplier Sustainability Forum

PwC UK holds an annual supplier forum as part of their long-standing [supply chain sustainability programme](#). The 2021 supplier forum looked at how to transform business and move from net zero ambition to action. It covered some of the key building blocks of net zero transformation: ambition, strategy and supply chains, with a particular focus on the growing area of climate technology. This exchange promoted sharing best practices and allowed innovative suppliers to share their ideas. [Find out more here.](#)

Beyond value chain mitigation

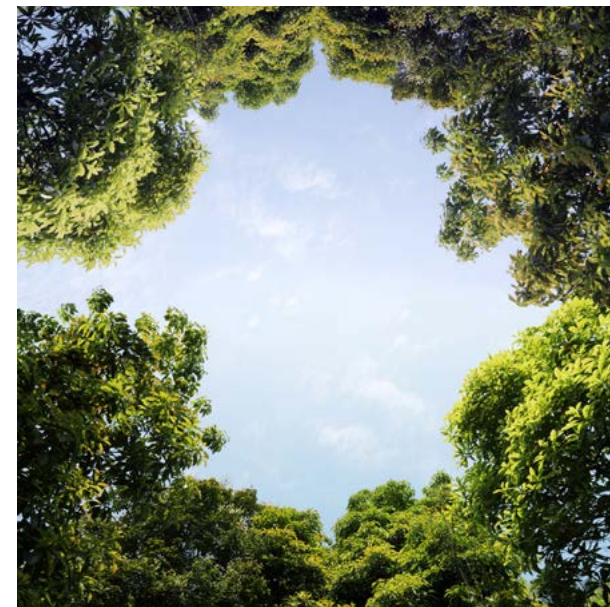
FY22 KPI	Target (FY22 Emissions Volume within scope to offset)	FY22 emissions volume offset*
To offset scope 1, 2 and air travel emissions from our 21 largest territories	182,018 tCO2e	270,585 tCO2e

*Some territories chose to offset emissions from additional scope 3 sources, some other member firms also chose to offset emissions - resulting in a volume of emissions to offset greater than the target emissions volume shown above.

To counterbalance emissions we have not yet reduced, we purchase high-quality carbon credits in the voluntary carbon market. Since 2018, our [21 largest territories](#) have offset at least air travel emissions, our largest source. From next financial year (FY23) we'll offset energy and mobility emissions (scope 1, 2 and 3 business travel) in all markets. From FY30, we will transition our portfolio to carbon removals.

The PwC network runs a global carbon credit purchase process for our member firms. This offers a range of credits in terms of project type and location, which meet our minimum quality criteria. You can find more information about our approach and quality criteria in [appendix 4](#). Member firms make their own choice for their local portfolios based on their priorities and preferences.

In FY22, 65% of our credits were from Natural Climate Solutions – conservation, restoration or land management projects that increase carbon storage or avoid GHG emissions in landscapes and wetlands. The rest of our credits are from Technology Based Solutions, which support emissions reductions through energy efficiency and clean energy in local communities and sustainable infrastructure. You can find detailed descriptions of these projects in our carbon offset explorer tool [here](#), and you can find more details about our portfolio in [appendix 4](#).



SOME OF OUR FY22 PORTFOLIO'S PROJECTS



Rimba Raya REDD+ Indonesia (CCB, VCS)

The Rimba Raya Biodiversity project in Indonesia preserves carbon-dense tropical forest peat swamp, working closely with the 2,000 households living in the local area. The initiative helps to stop the deforestation of roughly 65,000 hectares of forest, which was originally at risk of development to palm oil plantations. By conserving the forest the project also protects the habitat of the endangered Orangutan. Over the last five years, 50 orangutans have been rehabilitated and released back into the wild. Find out more [here](#).



Acre Amazon REDD+ (CCB, VCS), Brazil

We continued to support the Acre Amazonian Rainforest REDD+ (CCB, VCS) project in Brazil. Comprising three initiatives, the Acre Amazonian Rainforest Conservation Project focuses on preventing deforestation across 105,000 hectares of pristine Amazonian rainforest, protecting some of the most biodiverse species and habitats in the world. Find out more [here](#).



Teak afforestation (VCS), Mexico

The goal of this project is to create plantations that produce high-value, long-lived timber products as well as withdrawing large amounts of carbon dioxide from neighbouring cattle farms. This contributes to climate change mitigation while, at the same time, meeting a growing demand for quality wood products from responsibly managed forest plantations. Find out more [here](#).



Gyapa efficient cookstoves (GS), Ghana

This project introduces the Gyapa, an efficient cook stove, to families in Ghana. The Gyapa uses 50% less fuel, and helps to reduce exposure to toxic fumes, reduces emissions, protects Ghana's tree cover and saves families money. A key outcome of the project is job creation as the stoves are made locally.

We know that the voluntary carbon market is rapidly changing, so over the last 12 months we've been reviewing our approach to the purchase of carbon credits. We want to make sure that our portfolio continues to support quality projects that deliver real and verified outcomes. We also want to maximise our impact through our beyond value chain mitigation – to support nature and local communities.

In 2021 we joined the [LEAF Coalition](#), a public-private effort seeking to halt deforestation by funding tropical forest protection. Protecting tropical forests is critical to achieving the goals of the Paris Agreement to achieve global net zero by 2050 and benefits biodiversity and local communities. Jurisdictional REDD (JREDD) credits purchased through the LEAF Coalition will help us to mitigate our impact and support the expansion of the voluntary carbon market.

Our short-term focus is to support projects that reduce and avoid emissions, while protecting existing carbon sinks in line with our objective to accelerate decarbonisation, before transitioning to removals by FY30.

Adaptation and resilience in remote communities impacted by climate change

The PwC India Foundation is working with rural communities impacted by climate change to empower and build resilience amongst vulnerable communities. As water supply from Ladakh's high-altitude glaciers becomes increasingly unreliable with droughts in spring and flash floods in autumn, the PwC India Foundation is helping communities in the region to access water. The project funds the development of 'ice stupas' or artificial glaciers, which supply communities with more consistent water throughout the year.

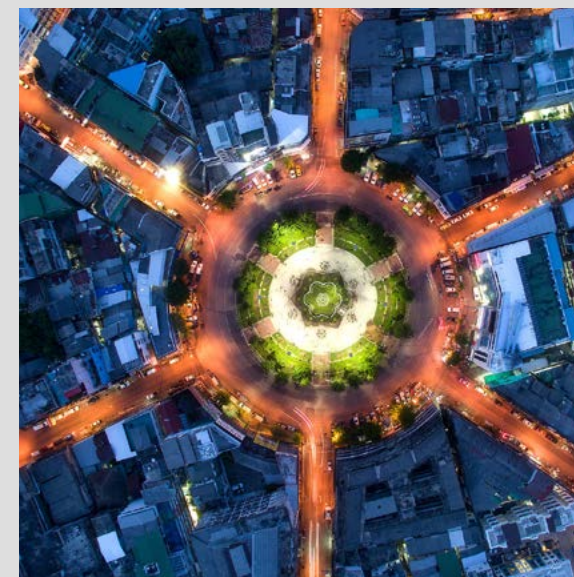
[Find out more here.](#)

Food and livelihood security is a huge concern for communities after Super-cyclone Amphan devastated coastal rural West Bengal in 2020. The PwC India Foundation joined forces with a local NGO to promote resilient farming practices and aquaculture. Float farms ensure that produce isn't destroyed if there's a flood or cyclone. So far nearly 600 households have taken part in training, helping to future proof their livelihoods against the impacts of climate change. The beneficiaries of this project are mainly women. Currently in its second year, the focus has been on supply chain creation and selling the produce on a large scale.

[Find out more here.](#)

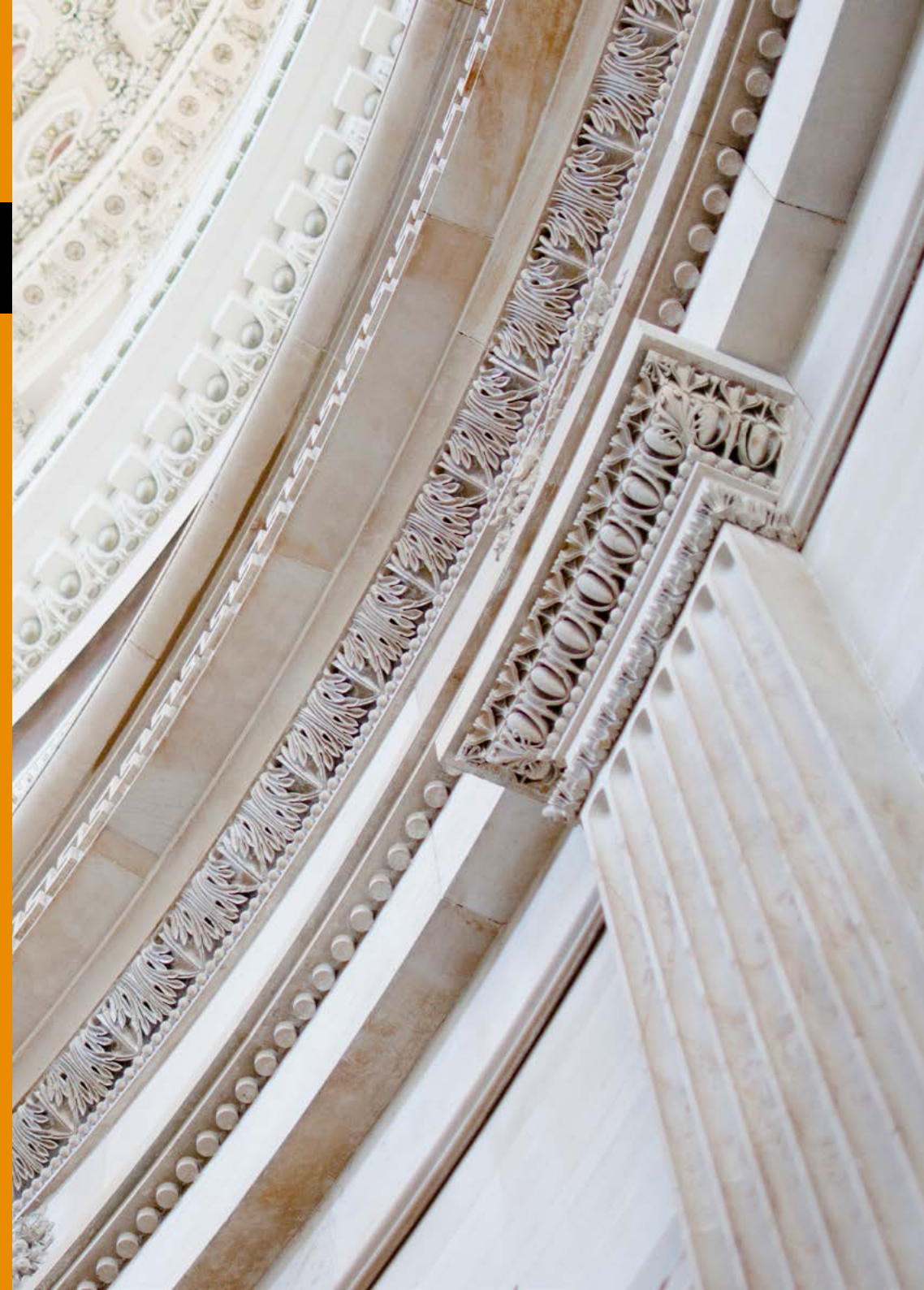
Bringing equitable access to green spaces in urban communities

On Earth Day 2022, PwC US worked with the Arbour Day Foundation to plant trees in predominantly diverse and underserved neighbourhoods with limited access to green spaces in Chicago, Detroit and New York. This initiative helps increase canopy cover to combat the urban heat island effect, flood risk, erosion, traffic noise and poor air quality. It also provides green spaces and shade for residents, making the city more resilient, healthy and livable. 50 PwC volunteers joined more than 100 community members to plant the trees.



Governance

An overview of our governance structure, the roles of the different bodies within it and the parts they play in managing or overseeing our responses to climate-related matters.





Our governance structure is a key mechanism in enabling our climate-related strategic priorities.

Executive leadership

The Network Leadership Team (NLT) sets the overall strategy for the PwC network and the standards to which member firms agree to adhere. The NLT is made up of the Global Chairman of the PwC network and the Territory Senior Partners of the member firms in China, the UK, and the US, plus a fifth member appointed by the Global Board (currently the Chair of PwC Europe).

The **Global Leadership Team (GLT)** is appointed by, and reports to, the NLT. Its members are responsible for leading teams drawn from PwC member firms to coordinate and lead PwC's activities across all areas of the business, including our lines of service, and network functional teams.

The NLT provides strategic direction (including in the area of Enterprise Risk Management (ERM)). The Chief Risk Officer (CRO) is a member of the GLT and is responsible for network risk management, including ERM. The **Network Risk Council** provides strategic direction and advice for the network risk management strategy, including consideration of strategic risks and input to the network ERM programme.

The Network Risk Council is composed of the Global Markets leader; CRO; Global Chief Administrative Officer; Global Chief Information Technology Officer; Global General Counsel; Chief Ethics and Compliance Officer; Global Clients and Industries leader; Global Corporate Sustainability leader; and the Global Security leader.

Governance of our climate strategy

At network level

Management and oversight of our climate agenda, including our net zero programme and how we are transitioning our business to be sustainable in a low carbon economy is provided by the NLT. It makes sure there is business ownership and accountability.

Our Global Net Zero Leadership Team was replaced in April 2022 by a newly formed **Global Corporate Sustainability Leadership Team** as the primary management body relating to our corporate sustainability agenda. It is led by our Global Corporate Sustainability Leader and brings together leaders from our largest

territories, representatives of our regions and subject matter experts to review our corporate sustainability objectives, progress and impact. Its remit covers the network's global environmental and community ambitions.

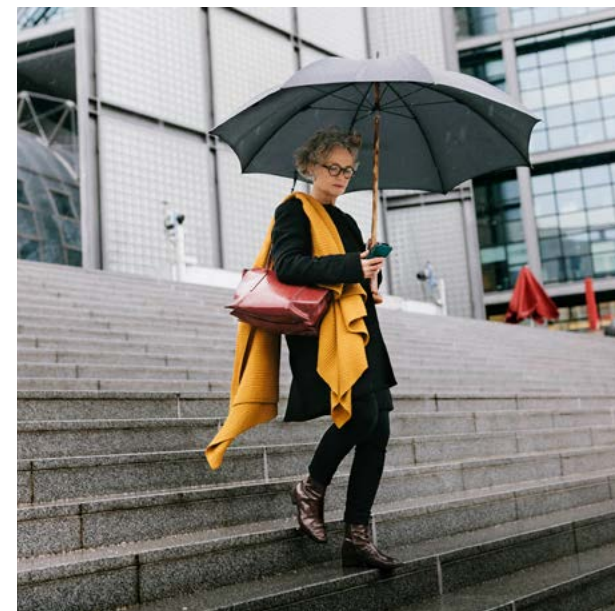
The Global Corporate Sustainability Leadership Team monitors progress towards our net zero commitment, including our science based targets, as well as our broader business transition to adapt to the risks and opportunities that climate change will bring for our business. It reports to the NLT and Global Board (or one or more of its committees) periodically.

In addition this year, a new **Climate Steering Committee** was established. The Committee is responsible for alignment in our climate policy positioning across the network, as well as connecting that positioning between our market services and our own corporate sustainability agenda. It is an important addition to our governance mechanisms for managing our strategic risks, opportunities and business responses to the climate agenda. The Committee is chaired by the Global Corporate Sustainability Leader, and is composed of the Global Corporate Affairs and Communications Leader, our Global Climate Leader and our Global Chief Marketing Officer. The Committee will report periodically to our Global Markets Leader, who is a member of the GLT.

Our Global Corporate Sustainability Leader has reported once to the NLT, once to the GLT, three times to the Strategy Board and six times to the Global Markets Leadership Team in the last 12 months, on our targets and approach to decarbonise our business, and how we're responding to climate change risks and opportunities for our business. In addition, the Global Corporate Sustainability Leader meets with the Global Markets Leader at least monthly, as well as on an ad hoc basis as needed.

At territory level

The Territory Senior Partner of each member firm has appointed a **Net Zero Business Leader** who is responsible for defining and implementing the net zero plan in their territory, and also provides updates to our Global Corporate Sustainability Team.





PwC’s Global Board

The Board of PricewaterhouseCoopers International Limited (PwCIL) is responsible for the governance of PwCIL and the PwC network, oversight of the NLT, and approval of network standards.

The Board currently has four standing committees: the Governance Committee, Markets Committee, Operations Committee and Risk Committee. Each of these have an important role to play in governing PwC’s response to the risks and opportunities posed by climate change.

PwCIL Board	
Governance Committee	With oversight of all network governance and leadership matters, the Governance Committee is responsible for approving the NLT’s annual plans and overseeing the performance of the NLT, who set the overall strategy for the PwC network.
Markets Committee	<p>The Markets Committee provides governance over our markets, portfolio of services, brand positioning and corporate sustainability and public interest matters. It therefore oversees the development of new services (such as ESG and climate-related services), as well as the evolution of our core businesses to reflect changing markets and client needs.</p> <p>With remit over public interest matters and corporate sustainability, the Markets Committee will have oversight of our own net zero transformation to decarbonise our business in line with our net zero commitment.</p>
Operations Committee	<p>The areas of focus of the Operations Committee include finance and network investments, operational matters (including the oversight of how our operations are transformed to meet our net zero commitment), network performance, people, technology strategy and data protection.</p> <p>This includes providing oversight of global security matters and the safety of our people. This is an area currently under review as we adapt our business operations to plan for and mitigate the physical risks that we expect will increase as a result of more frequent extreme weather events.</p>
Risk Committee	<p>The areas of focus for the Risk Committee include enterprise-wide risk management and legal matters, as well as adherence to network standards, ethics and compliance, and policies.</p> <p>The Board of PwCIL provides oversight, review and approval of the network ERM approach and focus. The Risk Committee is responsible for the monitoring of all key risks and responses.</p> <p>The PwC network and member firms adopt a rigorous approach to ERM. The risks with the highest potential impact for the PwC network are identified on an annual basis. These KNRs and their related significant mitigation plans are reviewed by the Global Board and specifically its Risk Committee. See Risk management for further information relating to our current KNRs.</p>



Business transition: Leadership engagement

Identifying, assessing and taking steps to address climate-related risks and opportunities across the entire spectrum of a business' operations is a complex process. In order to support an effective transition and to build the resilience levels needed, almost all aspects of a business will need to make some element of change - from risk management, products, markets and real estate strategy, through to the finance and human capital teams. That level of change within an organisation dictates the need for a strong engagement and communications programme in order for that scale of transformation to be successful.

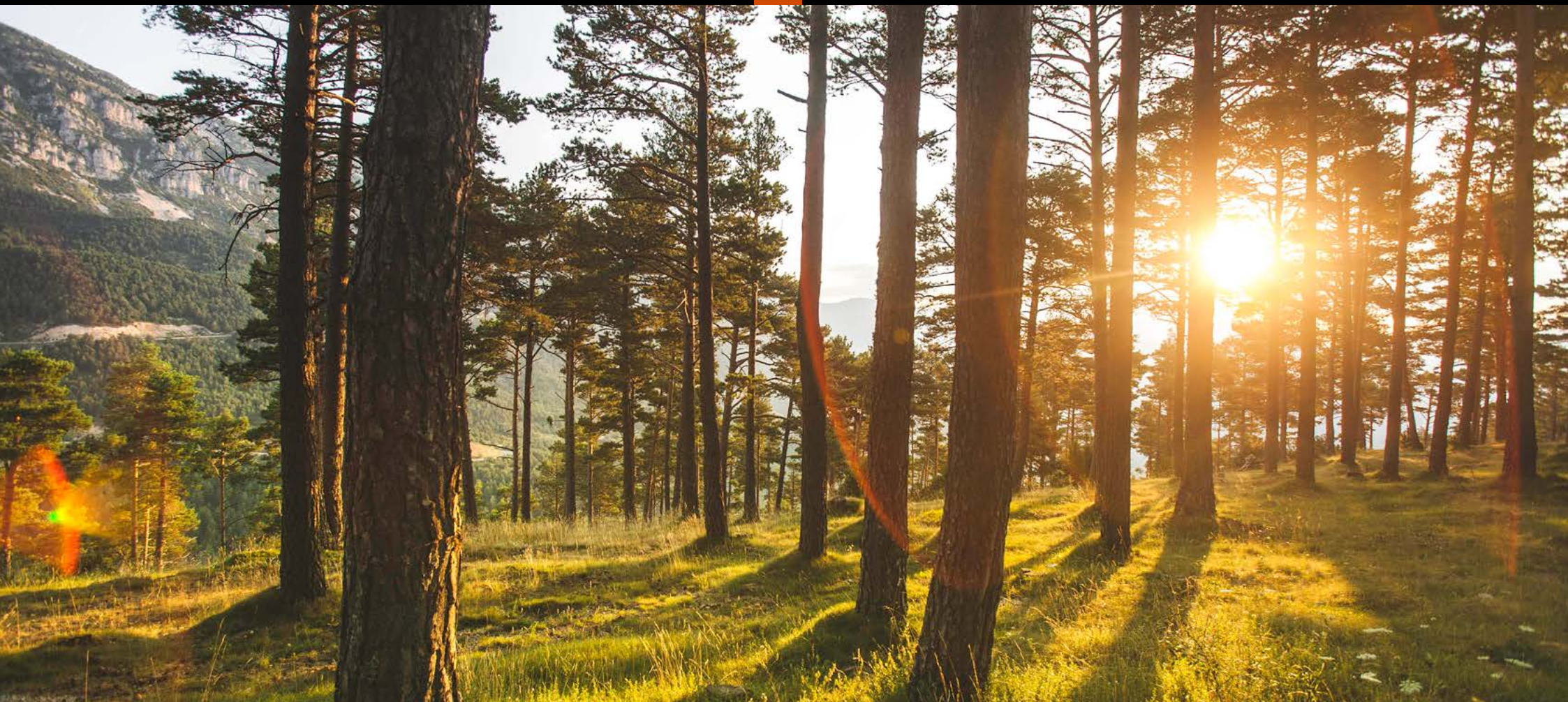
PwC, recognising the importance of leadership to the delivery of our commitment and ambition, has therefore designed a process of stakeholder engagement and communications to support the wider change management programme. In order to build the level of awareness of the impact which climate change will have on us and the strategic relevance for our various leadership groups, our Global Corporate Sustainability Leader has met with the NLT, GLT and Global Markets Leadership Team as described above. In addition, other relevant stakeholders addressed during the period include:

- Our Chief Risk Officer and the Global Risk & Quality Team
- The Chief Operating Officers of our NLT territories
- The CFOs of 8 of our largest territories, including all the NLT territories
- A number of other senior leadership figures across the business.

This programme of engagement allows appropriate planning and actions to be put in place, and will be key to enabling an effective and successful transition across the breadth and depth of our business. Our plans and actions will iterate over time as we adapt to the changing market circumstances, and as we know more about the likely trajectory of the broader global transition.



Appendices



Appendix 1 – Climate scenario analysis: Methodology and approach

An overview of our approach

In order to assess the impacts of climate change on a business, the TCFD recommends undertaking scenario analysis as a way of testing the business under different climate scenarios, including a 2°C or lower scenario.

Climate scenarios

In order to frame our assessment of how climate-related risks and opportunities are likely to impact our business, our Global Corporate Sustainability team undertook a review to scan the matrix of our business – across geographies and sectors – to identify those areas of most significant risk or opportunity.

We selected two climate scenarios for the purpose of our assessment

- 1) a Paris-aligned scenario (well below 2°C) and
- 2) a no mitigation scenario (>4°C).

What is a 'climate scenario'?

Climate scenarios are hypothetical future states under different levels of global warming and states of transition to a low carbon world. They provide a forward looking view into how different types of climate-related risks and opportunities may impact an organisation. There are a number of scenarios which have been developed by central scientific organisations or large businesses which are publicly available and widely used within TCFD scenario analysis.

First, in our Paris-aligned scenario, we assessed transition risks by using a scenario where the rise in global temperatures is limited to an average of well below 2°C above pre-industrial levels. Second, in our no mitigation scenario we assessed physical risks by selecting a stressed physical scenario which assumes limited policy changes are implemented to curb the current volume of emissions, resulting in an increase of >4°C in average global temperatures.

We acknowledge physical risks will be present in a well below 2°C scenario, but we have not analysed those impacts at this time, instead focusing on the more severe position.

We intend to periodically review the relevance of the scenarios we choose to apply in our analysis and refine as needed. This will likely see the inclusion of a 1.5°C Paris-aligned scenario in future years, reflecting our own ambition to reach net zero by 2030. However, much will depend on the path and progress being made across the world in overall terms.

Scenario	Paris-aligned scenario (well below 2°C)	No mitigation scenario (>4°C)
Rationale	We selected this scenario to assess the transition impacts for us in an economy shifting to a low carbon world. It reflects actions needed by the energy sector to limit global warming to under 2°C, and integrates three energy-related UN Sustainable Development Goals (SDGs): address climate change, achieve universal energy access, and improve air quality.	We selected this scenario to assess our physical risk under a high emissions scenario, consistent with a future with limited policy changes to reduce emissions.
Underlying model	International Energy Agency’s Sustainable Development Scenario	IPCC Shared Socioeconomic Pathways 5-8.5
Used to analyse	Transition impacts	Physical impacts
Assumptions	Transition features: <ul style="list-style-type: none"> ■ Carbon price introduced (up to US\$140/tCO₂ by 2040) ■ Fossil fuel subsidies phased out by 2050 in net-importers and by 2035 in net-exporters ■ Expanded support for deployment of Carbon Capture and Storage (CCS), increased generation from renewables and nuclear 	Physical features: <ul style="list-style-type: none"> ■ Global emissions continue to rise as a result of high carbon intensity of the energy system ■ Global mean sea level rise of 0.63–1.01 m (likely range) by 2100 relative to the 1995–2014 average ■ Very high frequency and intensity of heat waves and extreme precipitation events



Our methodology framework

We know that the risks and opportunities posed by climate change will impact our business on different levels. Some impacts will directly affect our own infrastructure and operations, others will arise through our client base.

The different levels of impact are of strategic significance because the way in which we understand and then respond to the matters varies depending on which category they fall into. It also allows us to organise our business responses at the appropriate levels within our organisation.

The framework (see below) starts where we have most control or influence (Direct), as well as the greatest scope to take actions to reduce risks or pursue opportunities. Our level of control and ability to reduce risk changes as you move down the categories (Portfolio and Broader market). We'll need to work

proactively with other stakeholders to make sure we're making progress for our business and tackling the broader climate challenge.

As a global network of firms, we offer many services and are broadly diversified across sectors and geographies. We've used an approach to assessing our risks and opportunities, which draws upon the methodologies we apply in our work with financial services clients. They have similar cross-sector portfolios and are exposed to risk through their own operations and also through their portfolio of clients and investments.

Even though this methodology is drawn from how we work with financial services clients, the logic and framework can be applied to most businesses to different degrees – whatever the sector.

Category	Impact level	Illustrative business response
1. Direct	Climate-related outcomes that directly affect PwC operations, services or people	<ul style="list-style-type: none"> ■ Improvements to offices to increase energy efficiency or protect against increase in extreme weather ■ Changes to core services to include consideration of climate-related matters
2. Portfolio	Climate-related outcomes impacting PwC clients or our key suppliers	<ul style="list-style-type: none"> ■ Manage our overall client portfolio by identifying and working with sectors and regions which are likely to be most impacted by climate risk. ■ Manage opportunities in emerging clients and sectors that are likely to grow quickly during a transition
3. Broader market	Climate-related outcomes which create regional economic and social disruption triggered by acute and chronic climate events or transitional activities, including large scale supply chain disruption and adaptation	<ul style="list-style-type: none"> ■ Work with clients, governments and policy makers to help anticipate, plan and respond to effects of climate change in the more severely impacted regions, and support planning for orderly transitions

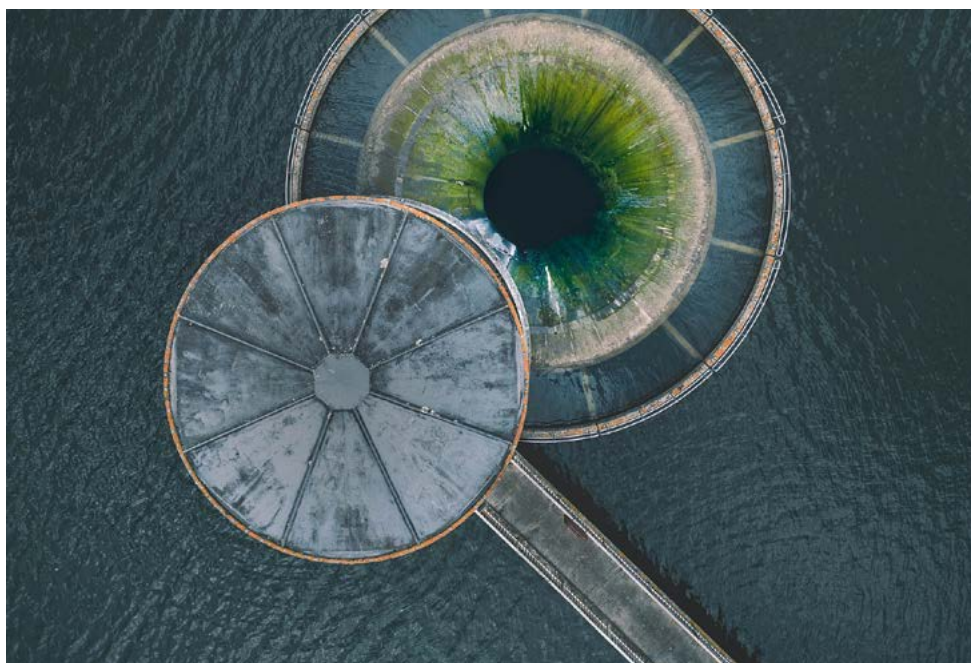
Time horizons

We've defined three time horizons for our analysis and used them to categorise risks and opportunities.

**Short term =
0-5 years**

**Mid term =
5-10 years**

**Long term =
10+ years**



PwC's climate risk analysis tools

To produce our analysis, we've sought to test and interrogate our business through a number of different lenses for which we have used our own suite of digital tools.

These have been developed in-house by our specialist teams for application in our work supporting clients with their climate risk analyses and/or their TCFD disclosures.



PwC's Climate Risk Assessment tool

The Climate Risk Assessment tool is built around a robust methodology that assesses physical climate risk exposure, under different scenarios, for use across current and future portfolios of sites, assets or investments.



PwC's Value Chain Carbon tool

The Value Chain Carbon tool calculates the value chain carbon emissions of an organisation, or across a portfolio of companies or other investments.

The calculation approach is aligned with the GHG protocol and produces results mapped to scope 2 and scope 3 categories.



PwC's Climate Excellence tool

The Climate Excellence tool for climate scenario analyses supports investors and companies in making their portfolios fit for the risks and opportunities of climate change. This enables businesses to realise increases in value, adequately manage risks, and set up a long-term sustainability strategy and compliant reporting.

The results of our analysis can be found in appendix 2 [Strategic risks and opportunities: Detailed information](#)

Appendix 2 – Strategic risks and opportunities: Detailed information

Risks and opportunities: Detailed findings

The table in the following pages contains a full summary of the most significant impacts arising from climate change for our network, based on the selected scenarios and in the timeframes described in [appendix 1](#).

We chose these scenarios to assess our business against two very different climate outcomes. We've used the first to assess the transition impacts on our business. This scenario reflects alignment with the goals of the Paris Agreement, with the rise in global temperatures limited to an average of well below 2°C above pre-industrial levels.

We used the second to assess the physical impacts. This is a stressed scenario which assumes that governments introduce limited policies to curb the current volume of emissions, resulting in an increase of >4°C in average global temperatures.

We've included some quantifications to illustrate the potential impact on our business. The values are subject to many variables and assumptions and so should not be taken as our estimate of the likely impact. We haven't assessed the probability of any of the outcomes discussed.

We will continue to refine our analysis to reflect the best available climate science and to factor in actual progress being made in overall terms.

Risk opportunity	Time horizon	Business impact	Category	Business response
Physical impacts: Impacts arising from climate or weather related events				
<p>Physical risks to network office infrastructure arising from acute and chronic climate events</p>	<p>Short, mid and long term</p>	<p>Risk</p> <p>Member firms in the network, and our shared data and delivery centres, will be exposed at various levels to increasing levels of extreme weather and the related disruption to our people, operations and business.</p> <p>The highest levels of exposure will occur in the >4°C scenario. However, we are already seeing extreme weather have an impact today. As such we see this as a short, medium and long term risk that would increase in severity over time if no mitigating actions are taken. Impacts will include disruption to the delivery of client services; negative impacts on our people; property damage; increased costs and lost revenue.</p> <p>In extreme circumstances some offices may need complete relocation – with related costs of disruption to avoid a wider impact on our ability to deliver services across the network, and on our people.</p>	<p>Direct</p> <p>Direct impact on PwC operations, services or</p>	<p>Remote working should reduce the effects of an acute short-term disruption to our service delivery in the short to mid-term. Although in some cases our people’s homes would also be affected making remote working difficult. If just one of our offices is affected, the physical risks would not have a material financial impact on our whole network. However, the local impact of acute events could be highly disruptive for our people and clients and therefore material on a local or regional level.</p> <p>On an aggregate basis, it’s possible that whole regions may come under severe stress from climate change and related impacts, causing significant disruption.</p> <p>We’ve recently carried out a detailed physical risk analysis to determine exposure levels to climate-related hazards across important strategic or economic areas of our network. We’ve added this to leadership agendas, and we’re in the process of developing our strategic responses to the findings.</p> <p>As a business we have already taken steps to start planning for these outcomes at a local level, including:</p> <p>1. ‘Climate’ Key Network Risk being adopted by member firms into their local ERM frameworks and processes</p> <p>Last year, ‘Climate’ was added to our network risk management framework. The recognition and inclusion of this as a Key Network Risk has driven greater levels of awareness and discussion within local leadership teams. Member firms have begun the process of building understanding of climate risk into their local ERM frameworks.</p>



Risk opportunity	Time horizon	Business impact	Category	Business response
Physical impacts: Impacts arising from climate or weather related events				
				<p>2. Global security and business continuity planning</p> <p>We're supporting member firms to better understand potential climate threats and build resilience. Our Global Security team has issued guidance on understanding the potential impacts of extreme weather and how to best prepare for it. This is so local business continuity plans can be updated. The Global Security team will also provide planning support to member firms that seem to be more at risk from extreme weather events.</p> <p>The Global Security team has dedicated resources to the impacts of climate change and how our local business continuity teams can better understand, assess and manage risks as proactively as possible. This team also provides our member firms with intelligence reports describing trends, forecasts, and other important planning information.</p> <p>3. Real estate strategy</p> <p>Many of our local real estate teams already take climate-related issues into account when they're deciding new office locations. This includes energy efficiency measures and the ability to withstand increased levels of acute and chronic climate events.</p> <p>For network-level real estate, we now factor physical risks facing a location into our strategic decision-making process</p>
<p>Impact of climate events (acute and chronic) in higher risk geographies</p>	<p>Mid to long term</p>	<p>Risk</p> <p>Country or regional economic disruption brought on by climate-related events could impact our business through our client base and have wider implications for economic, social and political stability. We're already seeing events like this, but they would become more frequent and severe in a >4°C scenario.</p> <p>It's very difficult to estimate the economic impacts of this type of disruption. But we expect they could be far ranging and cause widespread, even global, economic stress. If our revenue base were challenged between 5-10%, that could mean a loss of revenue in the range of US\$2.5bn – US\$5bn.</p>	<p>Portfolio</p> <p>Impact via our client base and</p> <p>Broader market</p> <p>Broader economic or societal</p>	<p>Portfolio impact: As we work with our clients locally and regionally we will provide our expertise and input to support them with their strategic planning, to respond and adapt to climate-related risks and related developments (within relevant independence requirements).</p> <p>Focus is needed to plan for the impact of possible large-scale disruption in important economic regions for our business, working with local leadership teams to define how we need to respond. The physical risk analysis undertaken in the period is one of the key inputs required to support this planning.</p>



Risk opportunity	Time horizon	Business impact	Category	Business response
Physical impacts: Impacts arising from climate or weather related events				
				<p>Broader market impact: This type of event also presents much wider societal and economic risks. These could include large scale alterations to migration patterns within and between regions. We expect to work with multiple stakeholders, governments, clients and policy makers to plan for and reduce these risks as much as possible – to build resilience and minimise negative impacts.</p> <p>We know we cannot own or fix these problems ourselves. But as part of the broader ecosystem it's important that we contribute our expertise and resources to find solutions in collaboration with other stakeholders.</p>
<p>Extreme weather events causing major disruption to sectors with significant supply chain concentration in areas of heightened risk</p>	Mid to long term	<p>Risk</p> <p>Global or regional economic disruption caused by events of this nature could impact several areas of the business, across local regions and sectors whose supply chains are concentrated or heavily reliant on those geographic regions. Whilst events of this nature already occur, and our assumption is they would increase in a well below 2°C scenario, the effects would be more extreme in a >4°C scenario.</p>	<p>Broader market</p> <p>Broader economic or societal impact</p>	<p>This type of event presents much broader societal and economic risks. We expect to work with multiple stakeholders, governments, clients and policy makers to plan to reduce these risks as much as possible – to build resilience, and to minimise negative impacts.</p>
<p>Impact on business travel from extreme weather events</p>	Mid to long term	<p>Risk</p> <p>As the impacts of climate change get worse (particularly in a >4°C scenario) we would expect to face increased disruption to business travel. This could result in delays in the delivery of our client services. For example, if half our client-facing professionals experienced disruption delaying them by a day, losing that time we spend with clients could impact revenue by approximately US\$97m p.a.</p>	<p>Direct</p> <p>Direct impact on PwC operations, services or people</p>	<p>Operationalising our net zero commitment</p> <p>An important part of our net zero commitment is to reduce emissions from business travel by 50% in absolute terms by 2030 (aligned with a 1.5°C climate scenario).</p> <p>Our plans to achieve our science-based targets are being driven on a local basis by our Net Zero Business Leaders from each member firm, working with their local leadership teams to implement change. You can find further details about our net zero journey here.</p> <p>Digital transformation</p> <p>We have embraced the more flexible working patterns which emerged as a result of COVID-19 to preserve the benefits of virtual working. We continue to review our hybrid working arrangements to balance the increased flexibility for our people with the importance of getting teams together to work with our clients. We've made significant investments in our own digital transformation journey enabling us to deliver more of our services virtually, reducing the need for travel.</p> <p>Risks as a consequence of climate-related disruption to our business travel are substantially mitigated by these initiatives.</p>

Risk opportunity	Time horizon	Business impact	Category	Business response
Transition impacts: Impacts arising from the process of adjusting to a low carbon economy				
Exposure to particular sectors with highest levels of transition risk	Mid term	<p>Risk and opportunity</p> <p>We expect more transition impacts (risks and opportunities) in the well below 2°C scenario. In general, we assume disruption from the transition would be limited under higher temperature scenarios due to the lack of policy action – but physical risks are likely to be higher. Sectors which are more carbon intensive are likely to come under increasing pressure from investors, banks, governments and other stakeholders to transform to reduce carbon from operations and supply chains. This may place strain on some businesses or sectors, especially where progress is not being made at sufficient pace and scale. We'll need to carefully manage any resulting risks and exposures in our portfolio.</p> <p>However, we also expect that those sectors with high levels of transitional disruption may need greater support to help them navigate the transformation process, giving rise to opportunity for our business.</p> <p>There will also be opportunities to support increased activity in businesses and sectors which are focused on alternatives to carbon intensive operations and activities.</p>	Portfolio Impact via our client base	Portfolio monitoring and management The portfolio nature of our business offers risks and opportunities. We need to manage the portfolio at both a global and territory level to identify sectors and clients which are most likely to be affected. This allows us to manage risks and pursue opportunities. We'll do this in line with our commitment to working towards a just transition.
Exposure to particular geographies with highest levels of transition risk	Mid to long term	<p>Risk and opportunity</p> <p>Transition impacts (risks and opportunities) are likely to be more prevalent in the well below 2°C scenario.</p> <p>It's clear that certain countries/regions will progress their transition to a low carbon economy ahead of others. As countries transition, businesses operating within those economies (particularly those which are carbon intensive) will face potential disruption and increasing levels of complexity from evolving domestic regulation and other policies (e.g. carbon pricing).</p> <p>This will create both risks and opportunities in our portfolio in these regions. Some clients and sectors will need greater levels of support, others will be challenged (which may create risks). And there may be broader economic implications, which will impact our business overall.</p>	Portfolio Impact via our client base and Broader market Broader economic or societal impact	<p>Different countries will transition at different speeds. We will need to help our clients as they navigate the complexity that will bring (portfolio level). We'll also need to contribute to transition efforts by working with governments and respecting the need for a just transition, to create as orderly a transition as possible (broader market level).</p> <p>Focus will be needed to plan for the impact of possible large-scale disruption on our network in important economic regions to mitigate risks and pursue opportunities.</p> <p>We expect that global and local leadership will collaborate to better understand, anticipate and respond to the levels of disruption which may take place within their market.</p>

Risk opportunity	Time horizon	Business impact	Category	Business response
<p>The adaptation of our core services to embed consideration of climate change</p>	<p>All</p>	<p>Risk and opportunity</p> <p>Under all climate scenarios it's clear we need to adapt our core service propositions to embed climate considerations in our work. This is both a risk, in terms of a potential failure to do so, and an opportunity to ensure our services are both relevant and impactful from a market perspective.</p> <p>We could suffer reputational damage and financial loss from failing to adapt our core services. If the level of quality of our services is seen to be harmed, reputational damage could lead to loss of market share to competitors, leading to a reduction in revenue. Each 1% reduction in global revenue is worth approximately US\$500m. But if we act and fill this need, we could see an increase in demand for our services and rise in revenue. This would allow us to continue to make further strategic investments.</p>	<p>Direct</p> <p>Direct impact on PwC operations, services or people</p>	<p>As part of our global strategy we made some important investments. These include establishing our global ESG platform, which is embedding climate capabilities into our core businesses. This lets us respond to market demand, as our clients work to better understand the implications of climate change on their businesses. Our climate specialists continue to collaborate closely with our lines of service to develop and evolve our core propositions to include a climate lens. This includes Task Force on Climate-related Financial Disclosures (TCFD) in Reporting services, carbon taxes and green incentives within Tax services, climate in Deals, embedding climate in our audit methodologies and processes, and transformation programmes in Consulting. This year, we've launched our Climate Integrated Solution, so all our teams can raise climate issues with our clients. This drives a consistent approach across our network and shares best practice.</p> <p>This process of adapting our services will also partly be driven by response to updated regulatory frameworks which govern our profession (e.g. as a provider of regulated assurance services).</p> <p>PwC is a member of the Net Zero Financial Service Providers Alliance, uniting auditors and other providers with the Glasgow Financial Alliance for Net Zero: a global coalition of 450+ leading financial institutions (assets > \$130tn) committed to accelerating the decarbonisation of the economy.</p> <p>For us, this means a commitment to plan and perform audits in accordance with professional standards and related guidance issued by standard setters, including as they relate to climate-related matters, and to discharging obligations under professional standards as external auditors with quality, integrity, and independence.</p>



Risk opportunity	Time horizon	Business impact	Category	Business response
<p>The adaptation of our core services to embed consideration of climate change</p>				<p>Global ESG Academy</p> <p>One of the key pillars of our global strategy is our commitment to upskill all our people on Environmental, Social and Governance (ESG) topics, including climate change. These issues cross all sectors, geographies and products, and all businesses will be affected in some way. All our people will need at least a baseline knowledge and competency of climate change to provide value to our clients, whatever service we're delivering.</p> <p>The ESG Academy is the centre of our global skills transformation programme. Our Academy provides tailored learning for all grades and specialists. The programme underpins our ability to pursue nearly all the opportunities we've identified in our climate scenario analysis. In this fiscal year FY22, we've reached some key milestones across the network:</p> <ul style="list-style-type: none"> • We now have 33 modules in the Academy programme • More than 93,000 individuals have completed at least one module and this is supplemented by additional learning in some of our territories.
<p>Development and scaling of specific climate-related services</p>	<p>Short, mid and long term</p>	<p>Risk and opportunity</p> <p>With substantial market growth attracting many new entrants and vertical and horizontal competition, there is a risk PwC could lose market share if we fail to be agile in adapting to the market demand.</p> <p>However, there's a revenue growth opportunity for our business in all climate scenarios. Clients need to understand, respond to and report against the implications of climate on their businesses and meet regulatory requirements related to climate.</p>	<p>Direct</p> <p>Direct impact on PwC operations, services or people</p>	<p>Investment in new and emerging services</p> <p>Our ESG platform (see above) is tasked with developing and scaling our capabilities in climate and broader ESG services. This means we can respond to market demand and our clients' needs. Our network of climate specialists has grown substantially during this fiscal year, with investment across all our major regions.</p> <p>This network of climate specialists continues to develop and scale new services, with a focus on providing consistent tools and methodologies for services we deliver through our new Climate Integrated Solution. This helps our clients to better understand the impact of climate on their business, how they'll transition to low carbon business models, report and give transparency to stakeholders, and how they'll meet emerging regulatory standards and requirements.</p> <p>Global ESG Academy</p> <p>As detailed above, the ESG Academy curriculum provides for all levels of knowledge and specialisms. It includes advanced climate modules, to scale our ability across net zero transformation, climate reporting (such as TCFD), broader reporting requirements related to ESG and the broader strategic implications of climate change.</p>



Risk opportunity	Time horizon	Business impact	Category	Business response
<p>Attracting and retaining talent</p>	<p>Short, mid and long term</p>	<p>Our response to the global climate challenge will either improve our reputation, or could potentially damage it. This will impact our ability to attract and retain talent. As a people-based service organisation, being able to attract key talent is critical to our ability to serve our clients. Risk exists under both scenarios.</p>	<p>Direct Direct impact on PwC operations, services or people</p>	<p>Engaging with our people across a range of climate related areas will be key, including:</p> <ul style="list-style-type: none"> • Evolving the services we offer clients • Giving the opportunity to all our people to upskill on ESG matters, including the impacts of climate change • Making wider contributions via policy discussions, research and analysis • Evolving how we deliver our services to reach net zero by 2030 • Engaging with our suppliers and our people on how they can make a positive difference. <p>We have programmes and initiatives in place to drive our business forward in these areas. However, we also recognise many of our people are very passionate about making a difference in the fight against climate change and we want to engage them on our journey. Collectively we have the power to make a significant positive impact – as individual consumers in our daily lives, with our families and within our networks. The choices we make and our opinions can be a powerful force for change. That’s why we joined the Count Us In initiative as a network last year.</p> <p>Count Us In</p> <p>This is a global project supported by the Race to Zero Programme – encouraging participants to make personal pledges from a range of actions, improving their understanding of the impact of their choices. In the period, individuals across the network collectively made 10,000 pledges to reduce their impact on the environment, with the total now over 13,000 since the launch of the initiative in April 2021.</p>



Risk opportunity	Time horizon	Business impact	Category	Business response
<p>Brand/ reputational risk arising from failure to contribute in a meaningful way to the climate agenda, including failure to meet our net zero commitment or show progress against our targets</p>	<p>Mid term</p>	<p>Risk and opportunity</p> <p>This is also an area of both risk and opportunity for us under all climate scenarios. Our response to the climate agenda and contributions toward finding solutions will either serve to improve our brand and reputation, or potentially damage it, with a corresponding positive or negative impact on our revenues. This includes the risk of being accused of ‘greenwashing’ if we do not follow through on the commitments we make.</p> <p>Every 1% increase or reduction in global revenue is worth approximately US\$500m</p>	<p>Direct</p> <p>Direct impact on PwC operations, services or people</p>	<p>When we created our global strategy, The New Equation, we looked at global trends and the challenges facing business. Climate change was central to the design of our strategy, because it affects all parts of society and the global economy.</p> <p>As part of executing our strategy, we committed to investing in our people, in climate capabilities and technology to broaden and scale our business – to support our clients with new climate services and embed climate change considerations within our core services (see above).</p> <p>Advocacy and policy contributions</p> <p>A fundamental part of our own net zero commitment is advocacy and contributing our expertise to wider policy and sector-based efforts to accelerate the transition to low carbon alternatives and solve transitional challenges. We’re committed to contributing our time and expertise to find solutions to these challenging and complex problems, in line with our purpose. Read further detail about our contributions here.</p> <p>Net zero</p> <p>Delivering on our net zero commitment for our own operations is an important part of how we are responding to this risk. It’s also reflected in a substantive programme to make sure our commitments are met. You can find further details about our net zero journey here.</p>
<p>Energy saving policies and measures implemented across our network of offices</p>	<p>Short and mid term</p>	<p>Opportunity</p> <p>We have an opportunity in all climate scenarios to drive efficiencies in our energy consumption, driving reduction in our GHG emissions.</p> <p>By way of illustration, if we reduced our global electricity consumption by 15-20% by 2030 this could translate into estimated cumulative savings of between US\$47-63 million operational savings between FY22 to FY30. The potential savings would be realised at a local level, as PwC member firms execute their local net zero plans and implement energy efficiency initiatives.</p> <p>This assumes a linear reduction and is based on an average global electricity price of 206.5 USD/MWh .</p>	<p>Direct</p> <p>Direct impact on PwC operations, services or people</p>	<p>A large number of our territories have already implemented some energy-efficiency measures. However there is opportunity and scope to broaden the application of energy-saving measures across the network.</p>



Appendix 3 - Detailed policy and advocacy

We're committed to help shape and accelerate the global climate policy agenda and support the just transition to a net zero world. We're doing this through:

- Collaborative alliances and memberships
- Contributing our skills and climate expertise to strategic initiatives and discussions
- Contributing research and thinking to the broader understanding of climate change.

Some of our key alliances include the **World Economic Forum (WEF)**, the **World Business Council for Sustainable Development (WBCSD)** and the Global Solutions Initiative (GSI). Here is an overview of the key contributions we've made over the past year:

Contributing to the climate policy debate:

COP 26: In the lead up to COP26, PwC UK published the [Net Zero Economy Index](#), which assesses the decarbonisation rates of the world's largest economies. This highlights the large challenges we still face, and the need to increase our ambition to decrease emissions to limit global warming to 1.5°C. To rally support for more action, we joined the [Business Ambition for 1.5](#) and

[Race to Zero](#) initiatives. Our Global Chairman Bob Moritz also signed an [open letter](#) to world leaders encouraging policy makers to take decisive action on climate change. This was organised by the World Economic Forum's Alliance of CEO Climate Leaders. During the conference we also participated in panel discussions, and have seconded two of our own people to the [UN Climate Champions](#) on the topics of business engagement and international policy.

Global Solutions Initiative: We're collaborating with the [Global Solutions Initiative](#) and T20 to address long term global issues high on the G20 agenda, including climate action. The Global Solutions Summit 2022's theme was: "Listen to the world: Promoting social well-being within planetary boundaries". We took part in several speaking opportunities discussing building human-centred and sustainable digital governance, policy and social prerequisites for effective climate action, and addressing distributional issues of carbon pricing. This year's Global Solutions Journal included an opinion piece by our Global Corporate Sustainability Leader, Colm Kelly and Global Climate Leader, Emma Cox., Their article - "[The flywheel of progress](#)" looks at why the world isn't decarbonising fast enough and what we can do to change that.

B20: PwC Indonesia is Knowledge Partner to the B20 Energy, Sustainability and Climate Taskforce, part of this year's G20 Indonesia Presidency. Alongside

other stakeholders, we've provided insights and input to policy discussions on the global energy transition. Our policy recommendations focus on reducing the carbon intensity of energy use, achieving a just, orderly and affordable transition, and enhancing consumer access and ability to consume clean, modern energy.

Enhancing transparency and reporting:

Task Force on Climate-related Financial Disclosures (TCFD): TCFD asked WBCSD to work with leading companies in the energy system, to develop a climate scenario analysis approach for businesses. This is designed to help [corporate scenario analysis](#) and disclosures on strategic resilience. We were proud to contribute expertise to this project, and continue to be a member of the task force itself.

World Business Council for Sustainable Development (WBCSD): We're active participants in the [WBCSD CFO network](#) as part of the [Redefining value](#) initiative. The goal is to improve decision-making and external disclosure, so that the financial system can reward the most sustainable companies.

Carbon accounting: We became a signatory to the [Carbon Call](#) in June 2022. The Carbon Call is working to mobilise collective action, and find investment to make the carbon accounting system more reliable and interconnected. As a signatory organisation we'll support the initiative's work and we've committed to continue to report our own greenhouse gas (GHG) emissions in line with best practice. This includes our [CDP disclosure](#), [SBTi requirements](#), RE100 and [UNGC's Communication on Progress](#).

WEF Stakeholder capitalism project: We're contributing to projects which encourage the uptake of commonly accepted reporting standards. These include

the Building the Business Coalition, Community of Practitioners and leading the Investor Outreach (ISSB outreach report).

Sponsored research: We've sponsored research used by standard setters and key players in the reporting ecosystem at this critical stage of standards development. This includes our [PwC's Global Investor Survey](#), which explores the need for a single set of globally-aligned, non-financial reporting standards.

Accelerating decarbonisation:

Net Zero Financial Service Providers Alliance (NZFSPA): We're proud to be a member of the NZFSPA, uniting auditors and other financial service providers with the **Glasgow Financial Alliance for Net Zero (GFANZ)**. GFANZ is a global coalition of more than 450 leading financial institutions with combined assets of more than \$130tn. These institutions are committed to accelerating the decarbonisation of the economy. For us, this means a commitment to:

- Plan and perform audits in accordance with professional standards and related guidance issued by standard setters, including as they relate to climate-related matters
- Discharge obligations under professional standards as external auditors with quality, integrity, and independence.

Carbon pricing: Carbon pricing is a tool that will help governments and businesses transition to a net zero future. We've worked with the World Economic Forum to assess the impacts of [international carbon pricing scenarios](#) on economies and industries. This will help to inform the debate on solutions for reducing carbon emissions.



State of Climate Tech: This year's [report](#) delivered some good news. In 2021, global climate tech investment has skyrocketed to more than USD\$87 billion. However, the investment isn't always going to the areas where it's needed the most. Our research highlighted how investment could potentially be rebalanced to provide better outcomes for investors and the planet.

GFANZ workstreams: We're members of two GFANZ workstreams. The first is looking at the [managed phaseout of high-emitting assets](#) and how to facilitate the early retirement of high-emitting assets as part of a just transition to a net zero world. In addition, we contribute to the [Real-economy Transition Plans Working Group](#), which is exploring how companies can develop and implement credible transition plans in the real economy.

Accelerating sustainable finance: We've contributed to the [Scaling Private Sector Investment initiative](#). This is looking at what's stopping sustainable development projects from being financed quickly and put into place. It's also launching a [Sustainable Markets Initiative Project Development Tool](#) that helps to refine project propositions. We're also supporting the [Terra Carta](#) principles that put Nature, People and Planet at the centre of an organisation's value proposition.

Sustainable aviation fuel: We've joined the World Economic Forum's [First Movers Coalition](#) which is working to decarbonise long distance transport. This is aligned with our existing commitment to the forum's [Clean Skies for Tomorrow Coalition](#). This commits us to replace at least 5% of the conventional jet fuel we use for our air transport with sustainable aviation fuels, by 2030. We also [conducted scenario analysis](#) to understand the cost implications of increasing sustainable fuels in Europe's aviation industry.

Supply chain decarbonisation: We're collaborating with the World Business Council for Sustainable Development (WBCSD) to decarbonise supply chains. We've consulted with eleven multinationals to find ways companies can incentivise supplier decarbonisation and published a report at COP26 - "[Incentives for Supply Chain Decarbonisation](#)". We're continuing to work with WBCSD, facilitating monthly workshops on how to incentivise change. The working group now consists of more than 40 multinationals across a range of sectors.

Supporting scale and integrity in the voluntary carbon market:

We've joined the WBCSD's [Natural Climate Solutions Investment Accelerator](#). This is working to get businesses to increase their use of high-quality carbon credits, sourced from natural sources. This builds on our existing membership of the [Lowering Emissions by Accelerating Forest Finance \(LEAF\) Coalition](#). LEAF is working to halt deforestation in tropical forest countries through results based financial incentives through the sale of carbon credits.

We supported [The Integrity Council for the Voluntary Carbon Market](#), an independent governance body established by the Taskforce for Scaling the Voluntary Carbon Market to make sure the voluntary carbon market accelerates a just transition to 1.5° C.

A full selection of our research and thought leadership can be found on our [website](#).



Appendix 4 – Operations & supply chain: GHG data disclosure and methodology

1. Net zero scorecard

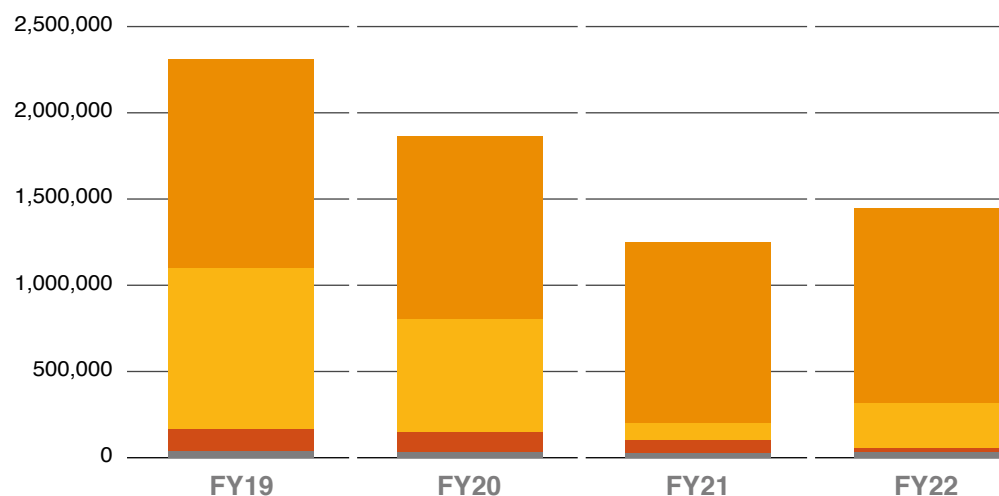
KPI	Target	FY19 baseline	FY22 performance	Progress from baseline year
SCORECARD OF PROGRESS ON TARGETS				
Scope 1 & 2 (tCO2e)	50% absolute reduction by FY30	165,338	56,997	66% reduction (exceeded target)
% renewable electricity	100% by FY30	49%	90%	1.8x (10% from target)
Scope 3 business travel (tCO2e)	50% absolute reduction by FY30	933,961	258,866	72% reduction (exceeded target)
% purchased goods and services suppliers with SBTs	50% by emissions by FY25	0.2%	13%	13% (37% points from target)
OTHER METRICS				
Total gross GHG emissions (tCO2e)		2,310,954	1,449,021	-37%
Gross emissions revenue intensity (kgCO2e / \$000 USD revenue)		58.2	29.5	-49%
Gross emissions per employee (tCO2e / employee)		8.40	4.07	-51%
Gross energy and mobility emissions per employee (tCO2e / employee)		4.00	0.89	-78%
Beyond value chain mitigation: Emissions offset through the purchase of carbon credits (tCO2e)			270,585	

Gross emissions includes all reported emissions in scope 1, scope 2 market based, scope 3 business travel and supply chain (purchased goods and services) emissions; energy and mobility emissions includes scope 1, scope 2 market based and scope 3 business travel emissions.

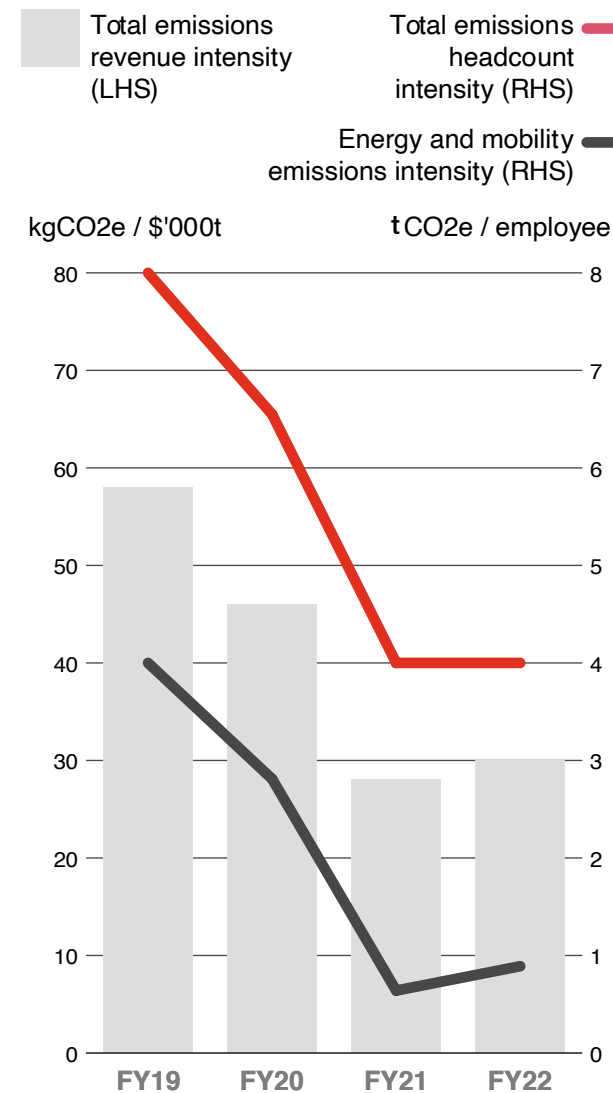
2. Full emissions data

Gross GHG emissions by scope (tCO₂e)

	FY19	FY20	FY21	FY22
Scope 1	39,689	33,225	28,043	29,708
Scope 2	125,649	113,850	71,694	27,289
Scope 3 business travel	933,961	653,654	101,601	258,866
Scope 3 Purchased Goods & Services	1,211,655	1,065,415	1,048,671	1,133,158



Emission intensity



Tonnes of CO ₂ e	FY19' Baseline year	FY20'	FY21'	FY22	Change since baseline year
Scope 1 direct emissions					
GHG emissions from stationary combustion (tCO ₂ e)	13,868	12,968	12,093	11,627	-16%
GHG emissions from mobile combustion (tCO ₂ e)	25,821	20,257	15,950	18,081	-30%
Total scope 1 emissions (tCO₂e)	39,689	33,225	28,043	29,708	-25%
Scope 2 indirect energy emissions					
Energy usage ² (electricity and heating) (MWh)	470,391	433,240	407,215	404,452	-14%
Total scope 2 emissions (market based) (tCO ₂ e)	125,649	113,850	71,694	27,289	-78%
Total scope 2 emissions (location based) (tCO ₂ e)	191,228	168,825	154,660	153,124	-20%
Total scope 1&2 emissions (market based) (tCO₂e)	165,338	147,075	99,737	56,997	-66%
% electricity from renewable sources	49%	49%	68%	90%	84%
Scope 3 other indirect emissions					
GHG emissions from air travel (tCO ₂ e)	677,165	466,559	39,125	159,327	-76%
GHG emissions from land-based travel (tCO ₂ e)	119,593	92,150	29,030	41,966	-65%
GHG emissions from accommodation (tCO ₂ e)	137,203	94,944	33,446	57,573	-58%
Total business travel emissions (tCO₂e)	933,961	653,654	101,601	258,866	-72%
Total purchased goods and services emissions³ (tCO₂e)	1,211,655	1,065,415	1,048,671	1,133,158	-6%
% purchased goods and services suppliers with SBT (by emissions)	0%	4%	6%	13%	13% points
Total Gross GHG Emissions (tCO₂e)	2,310,954	1,866,144	1,250,009	1,449,021	-37%

Emissions intensity metrics					
Gross emissions ⁴ by revenue intensity (kgCO ₂ e / \$000 USD revenue)	58.2	46.0	28.1	29.5	-49%
Gross emissions ⁴ by headcount intensity (tCO ₂ e / employee)	8.40	6.55	3.96	4.07	-51%
Gross energy and mobility emissions ⁴ per employee (scope 1, 2 and scope 3 business travel) (tCO ₂ e / employee)	4.00	2.81	0.64	0.89	-78%
Other					
Value chain mitigation: tonnes of CO ₂ avoided through the purchase and use of sustainable aviation fuel (SAF) (tCO ₂ e)	0	0	32	709	N/A
Beyond value chain mitigation: Emissions offset through the purchase of carbon credits ⁵ (tCO ₂ e)	700,434	500,877	82,888	270,585	N/A
Out of scope emissions: Biogenic emissions (tCO ₂ e)	2,395	1,463	1,680	1,712	-29%

1. The data reported in this financial year includes a recalculation from previous years due to an expanded reporting boundary in line with our science-based targets to include the operations and supply chain of all member firms with the PwC Network.
2. Energy in buildings includes electricity and heating. Reported electricity consumption includes electricity use for the purposes of air conditioning.
3. Purchased goods and services emissions includes the emissions from GHG Protocol scope 3 category 1 and 2 (purchased goods and services and capital goods). Emissions are estimated using the spend-based method. We expect data to be recalculated as we incorporate more accurate supplier-specific emissions data to reflect our lower carbon procurement choices in the future.
4. Gross emissions includes all reported emissions in scope 1, scope 2 market based, scope 3 business travel and supply chain (purchased goods and services) emissions; energy and mobility emissions includes scope 1, scope 2 market based and scope 3 business travel emissions.
5. This refers to the emissions from each financial year which are counterbalanced through the purchase and retirement of carbon credits representing verified emissions reductions or removals. Carbon credits are purchased prospectively and reconciled against reported emissions for each PwC territory.



3. Reporting methodology

PwC structure

PwC is the brand under which the member firms of PricewaterhouseCoopers International Limited (PwCIL) operate and provide professional services. Together, these firms form the PwC network. ‘PwC’ is often used to refer either to individual firms within the PwC network or to several or all of them collectively. In many parts of the world, accounting firms are required by law to be locally owned and independent. Although regulatory attitudes on this issue are changing, PwC member firms do not and cannot currently operate as a corporate multinational. The PwC network is not a global partnership, a single firm, or a multinational corporation. For these reasons, the PwC network consists of firms which are separate legal entities. Further information about the structure of the PwC network is available on our website www.pwc.com/structure. Within this context, this document outlines the approach PwCIL uses when aggregating and reporting network corporate sustainability (CS) information from individual member firms. It also provides an overview of the network standard for CS reporting to which member firms adhere. Network CS information is presented in the [PwC Global Annual Review](#), the [PwC global CS website](#) and in this document.

Organisational Boundary

Our reported Corporate Sustainability (CS) information covers the operations and supply chain of all PwC member firms. Unless otherwise stated, references to the “network” or “PwC” in this document refer to all member firms collectively. Any organisation that trades under the PwC brand or is operationally controlled by an organisation that trades under the PwC brand, is included within the organisational boundary, with one exception: we exclude companies that PwC’s insolvency practices may operationally control for short periods of time through provision of our services.

In certain scenarios where operational control may not be clearly attributable, the following guidance is used by member firms to determine whether PwC has operational control or not:



Offshore operations

Member firms report sustainability impacts for those activities under operational control within their domestic geographical boundary as well as offshore activities.



Joint ventures

All impacts associated with the activities of all joint ventures where PwC has management control of the associated operation are included. Where PwC is not responsible for the management, all impacts from the operations are excluded.



Third-party contractors

Activities of all third-party contractors are included in our operational footprint if the contractors are required to carry out work specified by PwC in accordance with its operating policies, or otherwise are considered as part of our supply chain and included within our purchased goods and services.



Tenants

The activities of tenants within PwC’s organisational boundaries are not included when tenancy lease agreements release full operational control over the leased space to the tenants and provide sub-metering (or equivalent arrangements) for their own electricity consumption, which enables them to pay for their electricity use.



Common areas leased buildings

Where PwC occupies (but does not own) an entire building, all energy consumed in the common areas and facilities (e.g. lobby, corridors and elevators) is attributable to PwC. Where PwC is one of several tenants, common areas are outside the organisational boundary.



Data centres

All impacts associated with data centres owned and operated by PwC or where member firms either lease a substantial proportion or all of a data centre, i.e. lease the site, a specified number of racks or defined storage space and are determined to have operational control over these facilities, emissions are included in our operational footprint. Data hosting outside these circumstances are considered as part of our supply chain and included within our purchased goods and services.

Scope of Reporting

The table below provides a summary of the emissions sources included reported at the network level.

Greenhouse Gas emissions (tCO2-e)	
Scope 1: Direct emissions	Direct GHG emissions sources included: <ul style="list-style-type: none"> ■ Stationary combustion of fuels including biofuels. ■ Mobile combustion of fuels in owned and controlled transport
Scope 2: Energy indirect emissions	Indirect GHG emissions sources included: <ul style="list-style-type: none"> ■ Generation of purchased electricity (including HCAV) ■ Generation of purchased heat, steam and hot water ■ Generation of electricity used in owned or controlled battery electric vehicles (EVs)
Scope 3: Other indirect emissions	Indirect GHG emissions sources included: <ul style="list-style-type: none"> ■ Category 1 & 2 Supply chain emissions (purchased goods and services*) ■ Category 6: Business travel (air travel, land based travel, accommodation)

*For the purposes of GHG emissions reporting, all upstream supplier emissions are reported as purchased goods and services however these include supplier spend on GHG Protocol Category 2: capital goods.

Reporting Principles and Frameworks

Corporate Sustainability (CS) data is monitored and measured by member firms in line with best practice reporting principles, which are aligned with the Greenhouse Gas Protocol (GHG Protocol) standard. These principles include accuracy, completeness, consistency, context, relevance, stakeholder inclusiveness and transparency. These reporting principles guide us in the application of common reporting standards, particularly where ambiguous situations arise and help us to ensure that our CS reporting is a true and fair representation of our business.

Greenhouse Gas Protocol

Our greenhouse gas emissions are calculated and reported in accordance with the “Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard” (“GHG Protocol”), created by the World Resources Institute and the World Business Council for Sustainable Development. PwC reports scope 2 emissions using both the location and market-based methods in accordance with WRI’s GHG Protocol inclusive of the January 2015 scope 2 Guidance. The market-based method has been designed to better reflect electricity purchasing decisions, including accounting for the impact of green or renewable electricity products on GHG emissions.



1. Using the location-based methodology. The location-based method involves applying a “national grid average” emission factor which is an average that relates to the grid on which electricity consumption occurs based on the geographical location (country).
2. Using the market-based methodology. The market-based method involves using a supplier-specific emissions factor wherever it is available and then applying the relevant “residual mix” emissions factor to any electricity that does not have supplier-specific emissions information.

In October 2011, the “Corporate Value Chain (Scope 3) Accounting and Reporting Standard” (“Scope 3 standard”) was published, to supplement the GHG Protocol. Our network CS reporting includes all upstream and downstream scope 3 emission sources which are material in our baseline year (FY19), and focuses on business travel, which is the most significant source of scope 3 emissions for our business, and purchased goods and services.

Calculating greenhouse gas emissions

PwC has adopted the calculation-based quantification methodology to estimate emissions, as appropriate emission factor guidelines have been released by authoritative sources covering PwC’s reported activities. PwC has adopted the centralised approach to corporate level reporting as outlined in the GHG protocol. Activity data is collected by member firms from key internal and external data sources including, for example, invoices, reports provided by suppliers (such as building managers and travel suppliers) and internally generated consumption reports (such as expenses claimed). PwCIL then gathers and aggregates member firm activity data for each of the included emissions sources centrally to apply a consistent emissions calculation methodology. Total emissions are calculated by

applying the most recent conversion factors published by the UK Department for Business, Energy & Industrial Strategy (BEIS, formerly Defra), the International Energy Agency and the Association of Issuing Bodies (AIB), European Residual Mixes. The emissions factors sources used for network reporting on GHG emissions are shown in the table below. Reported GHG emissions are expressed in both absolute and intensity terms. The intensity ratios used to present the consolidated network data is GHG emissions per employee and per revenue. Aggregated employee data is collected from member firms and is based on the year-end number of employees for each member firm (excluding external contractors).

Each member firm may also develop their own GHG inventory to take account of varying regional priorities and expectations. In doing so, emissions reported separately by member firms may differ from the emissions included in the aggregate network emissions for multiple reasons. These differences may be due to:

- the use of specific emission or other factors for disclosures in the country in which the member firm operates which differ from those used by PwCIL (for example, emissions factors published by local authorities, or the exclusion of radiative forcing associated with aviation, which the PwCIL network reporting includes).
- differences in the inclusion of scope 3 emissions sources that individual member firms choose to include in their own inventory.
- differences due to availability of data at the time the report is prepared.



Emissions conversion factor sources

Local emission factors are used for emission sources with significant variation between markets where available. A carbon dioxide equivalent emission factor is used to include the impact of Kyoto protocol gas emissions, and air travel conversion factors include the effects of radiative forcing.

Emission conversion factors utilised for FY22 reporting are from the following sources:

Scope and source	Calculation methodology	Activity data	Emission factor source
Scope 1 fuels (stationary combustion)	Primary data is used to calculate emissions. Where primary data is not available estimates are used based on extrapolation of available data, proxy data and local statistical data benchmarks.	Fuel consumed (L, kWh, GJ, m3)	2021 BEIS GHG Conversion Factors for Company Reporting
Scope 1 fuels (mobile combustion)		Fuel consumed or distance travelled (L, vehicle km)	2021 BEIS GHG Conversion Factors for Company Reporting
Scope 2 purchased electricity and heating (location based)		Electricity or heat consumed by location (kWh)	2021 v1.3 International Energy Agency (IEA) 2021 BEIS GHG Conversion Factors for Company Reporting
Scope 2 purchased electricity and heating (market based)			Association of Issuing Bodies (AIB), 2020* Renewable electricity is considered to have zero scope 2 emissions and an emission factor of 0 tCO ₂ e/kWh is applied. <small>*For countries where a residual mix is not available, emissions were calculated using grid averages, which may result in double counting the benefits of renewable energy purchases.</small>
Scope 3 business travel: air travel		Distance travelled by short, medium and long haul and fare class (passenger km)	2021 BEIS GHG Conversion Factors for Company Reporting
Scope 3 business travel: land-based travel		Fuel consumed or distance travelled (L, vehicle km)	2021 BEIS GHG Conversion Factors for Company Reporting
Scope 3 business travel: accomodation		Room nights by country (nights)	2021 BEIS GHG Conversion Factors for Company Reporting, derived from
Scope 3 purchased goods and services	The spend-based method is used to estimate emissions from suppliers. The type, economic value, and location of purchase of goods and services is used to calculate the associated emissions.	Supply chain spend by procurement category and country of purchase (local currency, USD\$)	Conversion factors using an environmentally enhanced economic input-output model (EEIO model) built on 49 national and regional supply and use tables covering 164 industries compiled by the EXIOBASE consortium.

Assurance

As a Network of firms, our global performance is based on the aggregated data and performance of PwC member firms. [21 largest territories](#) are required to provide assurance on the data used in our global disclosures. Data representing 21% of emissions was assured by an external third party in FY22.*

Recalculation and voluntary restatement

Our FY22 disclosure includes a recalculation and rebaselining of our emissions due to an expansion of our reporting boundary and scope in line with our Science-Based Targets, set at a network level. The values presented in this report therefore differ from those reported in previous years as these disclosures were limited to the operational and air travel emissions of our [21 largest territories](#).

Each year, Network Corporate Responsibility (CS) information will be restated when discrepancies deemed to be material are identified. In this case, materiality is assessed at the member firm level at the key performance indicator (KPI) level, and not at the aggregate data level. However, we only publish restatements where adjustments to estimation, omissions or miscalculations are deemed to have a ‘material’ impact on the relevant aggregated network CS data previously reported. For this purpose, we have set a KPI materiality threshold level of 5% at the network level to determine what is considered material and therefore what should be restated. If there are multiple changes identified for a number of data points that input into a single KPI, and/or identified by multiple member firms that input into a single KPI, these will be aggregated to determine whether collectively they lead to a change which is 5% over or under the previously reported KPI value.

*The percentage of emissions externally assured was corrected after the initial release of this report.

Restatements of CS information may be due to reasons such as:

- Changes in calculation methods resulting in changes to prior year data.
- Changes in published emissions factors, even when there has been no material change in the underlying consumption or activity data for that KPI
- Discovery of an error or a number of errors which, taken together, are material.
- Updated or new data become available for previous reporting years.
- Organisational changes impacting the firm’s operations – e.g. mergers, acquisitions and divestments.

While the above description is intended to be as accurate as possible, invariably some exceptions to this basis of reporting may occur. None of the known exceptions are considered to materially change the CS information reported.



4. Our Approach to Beyond Value Chain Mitigation

Our commitment

To counterbalance emissions we cannot yet avoid, we purchase high quality carbon credits in the voluntary carbon market. We recognise the important role the voluntary carbon market plays in mobilising private finance to accelerate carbon reductions and the achievement of the Paris Agreement, while also supporting broader sustainable development outcomes.

Since 2018, our largest territories have offset, at a minimum, air travel emissions and from 2023, we will offset scope 1, 2 and scope 3 business travel in all markets. From FY30, we will transition our portfolio to carbon removals.

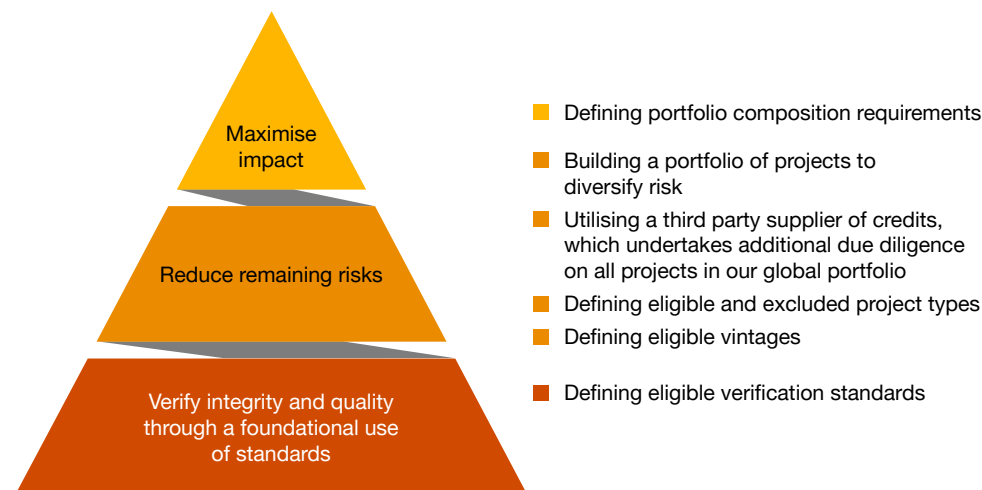
Our approach

As a network, we facilitate a global carbon credit purchase process for our member firms. The network portfolio offers a range of credits in terms of project type and location that must meet our minimum quality criteria. Member firms make independent choices on their local portfolios based on their priorities and preferences and in line with our portfolio composition requirements. Our approach is to forward purchase credits based on our expected emissions and then retire credits in line with actual emissions.

Recognising the rapidly evolving nature of the voluntary carbon market, we are committed to continuous improvement and review of our approach and quality criteria to ensure our portfolio continues to deliver real and genuine emissions reductions as well as sustainable development outcomes that go beyond climate impact.

We are committed to being transparent about our approach and purchases, and reporting on the volume and nature of credits we purchase. We believe transparency will help to improve overall market integrity.

We take a number of steps in order to manage risk and maximise impact, including:



To reduce the risk in our portfolio, we have developed criteria to guide our suppliers and member firms about our quality preferences. These criteria cover eligible standards, project types/methodologies and vintages. Credits which meet these criteria are automatically eligible to be considered for our portfolio. These criteria are designed to help us identify projects which may have significantly higher risk profiles associated with them. This does not mean that projects that do not meet these criteria cannot deliver quality credits. In exceptional circumstances we may consider projects that don't meet these criteria, but our process would then require these projects to be subject to further review and due diligence.

Eligible verification standards	Gold Standard (GS), Verified Carbon Standard (VCS), Climate Action Reserve (CAR), American Carbon Registry (ACR), Carbon Farming Initiative (CFI), Emissions Reduction Fund (ERF), Architecture for REDD+ Transactions (ART)*, Global Carbon Council (GCC), other ICROA endorsed national standards
Eligible project types and methodologies	Community focused energy efficiency, fuel switching, waste heat recovery, afforestation/reforestation, REDD+, sustainable agricultural land management, grassland/rangeland management, improved forest management (IFM), no-till/low-till agriculture, soil carbon, urban forestry, wetland restoration/management, clean/improved cookstove distribution, water purification device distribution, transportation (public), biogas, biomass, biochar, off-grid renewable electricity from geothermal, run-of-river hydro, solar or wind.
Excluded project types and methodologies*	Industrial energy-efficiency, agroforestry, rice cultivation/management, N2O, ozone-depleting substances, coal mine methane, landfill methane, livestock methane, wastewater methane, transportation (private), large hydro, projects with a substantial commercial revenue stream in high or upper-middle income countries (as defined by World Bank lending groups) including grid-connected renewable electricity.
Eligible vintages	<p>Vintage describes the age of a credit based on the year the carbon emissions reduction takes place. We aim to purchase the most recent vintage issued by a project to ensure additionality of our purchase and that we continue to support existing projects. It also ensures that the credits are verified to the latest and most robust standards. Different projects and project types have different verification and issuance cycles. We therefore take the following approach to eligible vintages:</p> <ul style="list-style-type: none"> ■ Technology solutions – Maximum 3 years ■ Natural climate solutions – Maximum 5 years <p>Vintages should be from the latest crediting period of the project</p>

* Exceptions can be applied subject to local market circumstances and additional project due diligence

Additional considerations

- **Price** - we do not use price as a strict criteria, but do consider price in our selection process, understanding that low prices can be an alert to quality or integrity issues. We specify through our contracting that a minimum of 85% of the price we pay for a carbon credit is going to supporting the projects that are driving the mitigation outcomes, and not to intermediaries in the chain. A portion of the cost is to account for the services associated with the procurement process, marketing materials, due diligence activities which are also necessary to ensure the integrity of the credits we purchase.
- **Blended portfolio** - we diversify our impact and we spread risk by purchasing across multiple projects. A blended portfolio also enables our territories to make some targeted higher impact purchases by balancing costs across a

range of projects. Our portfolio composition requirements seek to ensure a balance between impact and cost.

- **Locations** - our territories make purchasing decisions based on local priorities. Some of our territories seek to specifically support local, or regional based projects. At network level, we seek to ensure diversity of projects across our major regions and areas of operations.
- **Independence & Conflicts of Interest** - our purchasing process is conducted in line with our strict independence and conflict of interest requirements.



Our portfolio composition requirements

We recognise that natural climate solutions offer the potential to deliver up to a third of the emissions reductions needed to achieve a 1.5 degree world. In addition, they can deliver benefits to biodiversity, ecosystem services, climate resilience and local communities. In particular, we note the critical need to protect tropical forests and the role that private finance can play. We are committed to at least 50% of our portfolio coming from natural climate solutions (NCS) having exceeded this for the last three years. We anticipate that through our participation in the [LEAF Coalition](#), NCS credits and in particular Jurisdictional REDD (JREDD) credits, will make up a higher proportion of our portfolio over the medium term (through to FY29).

In addition, our composition requirements include guidance to our member firms around volumes and consistency of purchasing decisions, recognising the benefit to projects of sustained and significant financial support over time.



FY22 offsetting disclosure

In FY22, as a network we committed to offsetting scope 1, 2 and scope 3 air travel emissions from our [21 largest territories](#). This represents a total volume of 182,018 tCO₂e. In addition, a number of our largest territories have elected to offset emissions from additional scope 3 sources, while a number of our smaller member firms also elected to offset emissions - resulting in a total volume of emissions to offset and a credit purchase volume greater than this minimum commitment.

We take a forward purchasing approach to carbon credits - meaning that we estimate emissions for the year ahead and purchase carbon credits based on these estimated volumes. At year end, we reconcile estimations to actual emissions and either roll-over unused credits from the prior reporting period or make a top up purchase if required.

Detailed descriptions of the projects can be found in our carbon offset explorer [tool here](#).

Project name	Project ID	Registry and certification/s	Project Type (methodology)	Location	Volume
The Valparaiso Project	VCS 1113	VCS & CCB	REDD+	Brazil	52,704
Fresh Breeze Afforestation Project	VCS 1141	VCS	Afforestation, Reforestation and Revegetation (ARR)	Mexico	29,857
Rimba Raya Biodiversity Reserve Project	VCS 674	VCS & CCB & SDVista	REDD+	Indonesia	21,918
Zhangye City Afforestation Project in Gansu Province	VCS 2370	VCS & CCB	Afforestation, Reforestation and Revegetation (ARR)	China	10,768
Prairie Pothole Avoided Conversion of Grasslands and Shrublands	ACR 222	ACR	Avoided Conversion of Grasslands and Shrublands (ACoGS)	USA	7,500
Kulera Landscape REDD+ Program for Co-Managed Protected Areas	VCS1168	VCS & CCB	REDD+	Malawi	6,927
Carmen del Darien (CDD) REDD+ Project	VCS 1390	VCS & CCB	REDD+	Colombia	5,100
TIST Program in Uganda, VCS 001	VCS 994	VCS & CCB	Afforestation, Reforestation and Revegetation (ARR)	Uganda	2,382
Reforestation of Degraded Forest Reserves in Ghana	VCS 987	VCS	Afforestation, Reforestation and Revegetation (ARR)	Ghana	1,210

Darkwoods Forest Carbon Project	VCS 607	VCS & CCB & SDVista	Improved Forest Management (IFM)	Canada	201
Wind power project in Maharashtra, India - Andhra Lake Phase - I	VCS 1480	VCS	Wind	India	2,000
Energy Efficient Cook Stove Implementation in India	VCS 2336	VCS	Improved Cookstove (ICS)	India	1,439
Longyuan Mulilo De Aar Maanhaarberg Wind Energy Facility	VCS 1949	VCS	Wind	South Africa	5,317
Kitambar Switching Fuel Project	VCS 33	VCS	Renewable Biomass	Brazil	1,401
Sichuan Rural Poor-Household Biogas Development Programme	PoA 2898	Gold Standard	Community based clean energy	China	20,659
Gyapa Improved Cook Stoves in Ghana	GS 407	Gold Standard	Improved cookstoves (ICS)	Ghana	29,148
Integrated Domestic Energy Systems (IDES) for Clean Energy access and clean cooking in rural households in India	GS 7466	Gold Standard	Domestic energy efficiency	India	2,309
Solar Water Heater Program in India	GS 4615	Gold Standard	Community based clean energy	India	1,872
GS1247 Improved Kitchen Regimes Multi-Country POA	GS 1247	Gold Standard	Improved cookstoves (ICS)	Eritrea	11,743

All projects contribute towards host country NDCs

In FY22 the total volume of carbon credits purchased and retired was 214,455 tCO₂e. All emission reductions and removals contributed towards host country NDCs. In addition to credits purchased in FY22, a significant number of credits were rolled over from the purchase during the FY21 reporting period to offset FY22 reported emissions (resulting from greater than normal estimation discrepancies as a result of ongoing COVID-19 impacts on the business and specifically travel).

Over the last 12 months, recognising the rapid shifts and evolution underway in the voluntary carbon market, we have been reviewing our approach to the

purchase of carbon credits. We want to ensure that our portfolio continues to support quality projects that deliver real and verified outcomes as well as consider how we maximise the impact we achieve from our purchasing beyond climate mitigation - for nature and local communities.

While our focus in the short term is therefore on avoided emissions, in FY23 we will continue to investigate other ways that our carbon credit portfolio can contribute to real change, including how we can support building the pipeline of removal credits that will be needed over the longer term and how we contribute to a just transition.



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