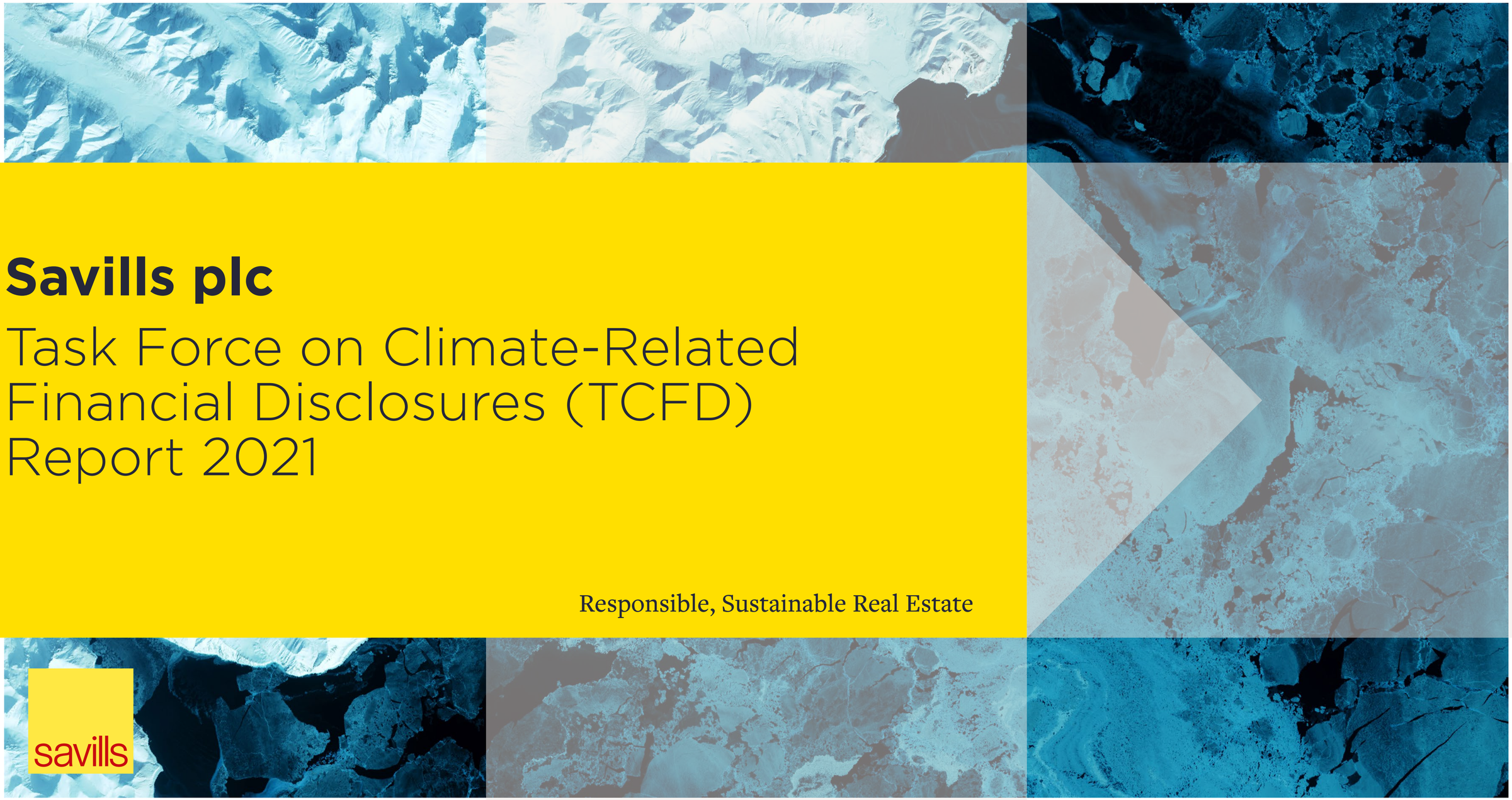

Savills plc

Task Force on Climate-Related Financial Disclosures (TCFD) Report 2021

Responsible, Sustainable Real Estate

savills

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What is TCFD?

In 2017, the Task Force for Climate-Related Financial Disclosures ("TCFD") released climate-related financial disclosure recommendations designed to help companies provide better information to support informed capital allocation.

The disclosure recommendations are structured around four thematic areas that represent core elements of how organisation's operate: governance, strategy, risk management, and metrics and targets.

The Financial Stability Board established the TCFD to develop recommendations for more effective climate-related disclosures that could enable stakeholders to understand better both exposures and opportunities relating to climate risks and the transition to the green economy.

Our Disclosures

Savills plc is focused on climate-related risks and working together with its clients, suppliers and the local communities on which its operations impact to deliver a more sustainable future. We are pleased to confirm that within our Report and Accounts, we have included climate-related financial disclosures consistent with the four recommendations and the eleven recommended disclosures set out in Figure 4 of Section C of the June 2017 report entitled Recommendations of the Task Force on Climate-related Financial Disclosures, and the 2021 supplemental guidance entitled Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures. This document provides supplementary detail into the considerations we took during this process.

Governance

The Board is responsible overall for managing climate-related risks and realising opportunities, as detailed in the Governance section of Report and Accounts. The Board is supported in this respect by the Group Executive Board, which is responsible for implementing climate-related risk management plans, and the Risk and ESG Committees, which are responsible for overseeing climate risk assessment and other aspects of Savills sustainability agenda. The Group's TCFD Working Group, which is supported by WillisTowersWatson ("WTW"), assists each region to effectively assess climate-related risk and to develop the action plans required to address climate risks and realise opportunities specific to their business. Regional ESG Groups (in UK, EMEA, Asia Pacific and North America) and Savills Investment Management ("Savills IM") have been established to develop and manage programmes in those businesses within the Group's overall TCFD framework.

Identifying and Assessing Climate Related Risks and Opportunities

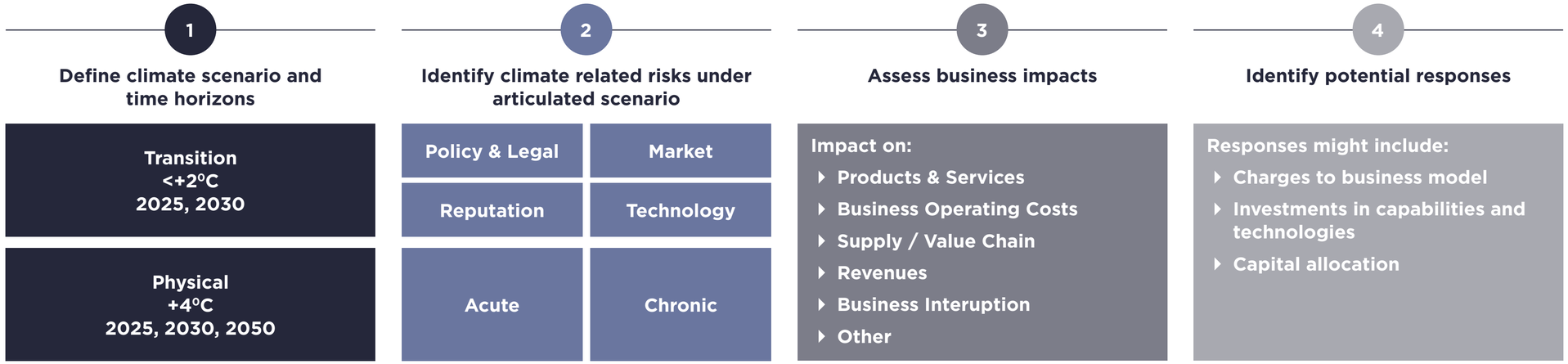
> Decarbonising the real estate sector is an urgent and pressing need; a challenge that COP26 highlighted. Consequently, ESG considerations are increasingly defining both investor and occupier decisions.

Nicholas Ferguson CBE
Chairman Savills plc

In 2021 Savills conducted a climate-risk assessment with the assistance of specialist advice from WTW, which included undertaking scenario analysis to inform our approach for managing climate-related risks and opportunities. Scenario analysis is recommended by the TCFD to help organisations identify and assess potential implications of climate-related risks on business performance against a range potential future states of the world. Scenarios are not intended to be predictions of the future, rather they are a tool to enable companies to assess exposure and develop flexible plans that are resilient to climate change.

In accordance with Savills risk management approach, the process for identifying and assessing climate risk combines a bottom-up approach via engagement with each region and a top-down approach of strategic review of the risks and opportunities.

First, climate scenarios and time horizons for assessment were selected, based on a review of publicly available data, to identify those most appropriate for the risk assessment. Second, the TCFD Working Group reviewed industry and TCFD publications, emerging regulatory requirements and engaged with representative working groups across the regions, including strategy, risk management, finance and Savills Earth to identify the potential risks and opportunities to the business under each scenario. Physical risks assessed include acute and chronic risks, whilst transition risks include policy and legal, market, reputation and technology risks.



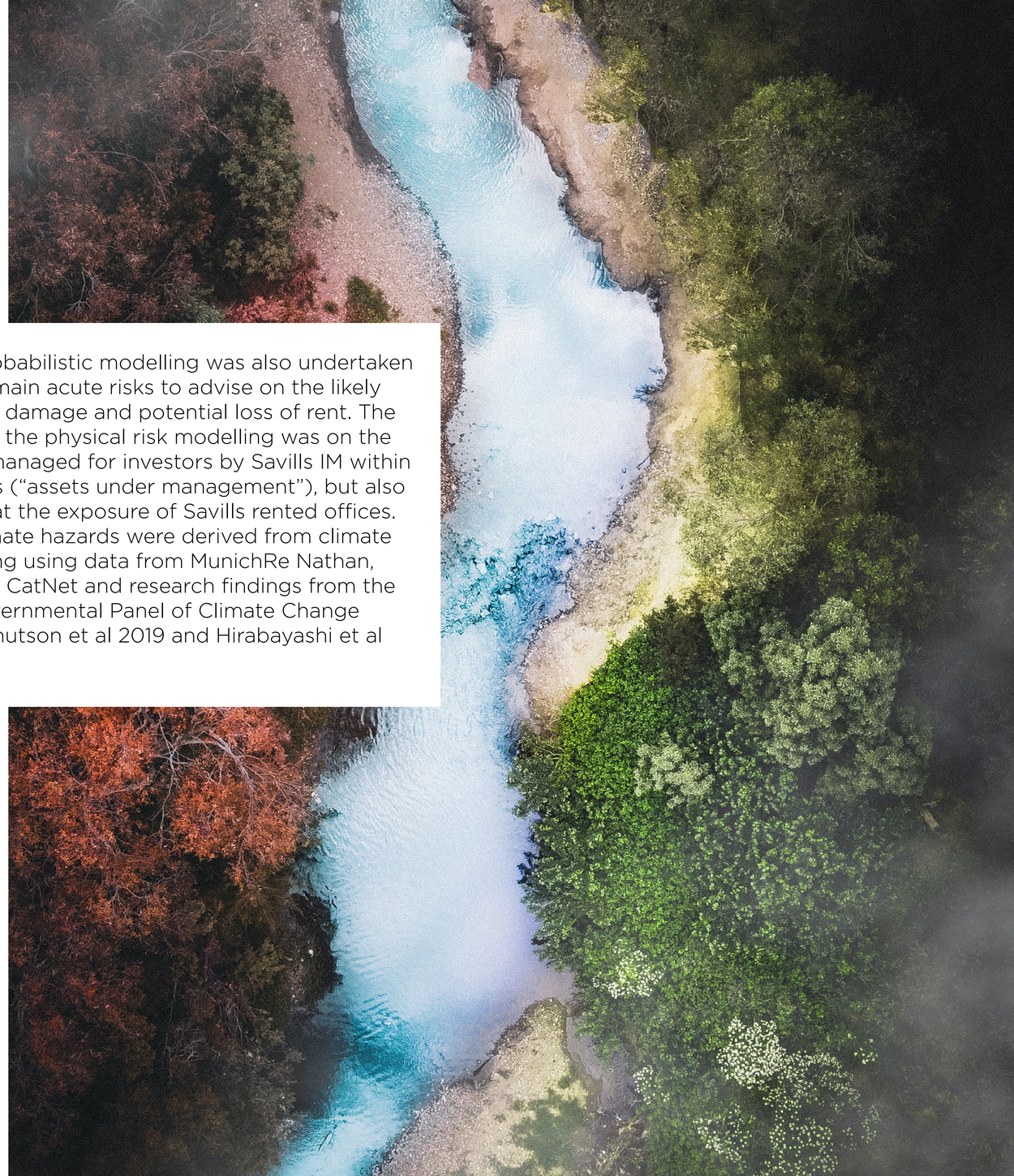
Identifying and Assessing Climate Related Risks and Opportunities

> TCFD has been a beneficial process for the group helping us to identify both our risks and opportunities relating to climate change and ensuring our business plans incorporate both mitigation and action plans sufficiently.

Lizzie Jones
Group Sustainability Director

Workshops were held across Savills four regions and with Savills IM to verify the risks and to qualitatively and, as appropriate, quantitatively assess the potential business impacts to determine the relative significance of the risks and opportunities. In assessing the risks, the impact to the business was considered in terms of Savills services, operating costs and revenues as well as the likelihood of the risk occurring under the identified scenario. The impact and likelihood criteria align with Savills overarching risk scales to enable comparison against other risks. In addition, for each item considered, potential opportunities were discussed. As part of this process, the existing controls and mitigations that Savills has in place were also identified.

The physical risk assessment was informed by an asset-by-asset exposure analysis for acute and chronic climate hazards under selected scenarios. Physical assets were considered as being exposed if they were located in areas where a climate hazard may occur. Portfolio level probabilistic modelling was also undertaken for the main acute risks to advise on the likely physical damage and potential loss of rent. The focus of the physical risk modelling was on the assets managed for investors by Savills IM within its funds ("assets under management"), but also looked at the exposure of Savills rented offices. The climate hazards were derived from climate modelling using data from MunichRe Nathan, SwissRe CatNet and research findings from the Intergovernmental Panel of Climate Change IPCC, Knutson et al 2019 and Hirabayashi et al 2013.



Identifying and Assessing Climate Related Risks and Opportunities

In order to identify potential climate-related risks and opportunities and assess the impact of these on Savills businesses, strategy and financial planning, scenario analysis was used. Savills applied two scenarios to stress test the resilience of its business. As advocated by the TCFD, transition risks were identified, and stress tested against a well below +2°C scenario and physical risks were tested against a High Emissions Pathway associated with +4°C temperature rise by the end of the century.

When constructing the scenarios, Savills made use of several publicly available scenarios. The scenarios drew on Representative Concentration Pathways (RCPs) and Shared Socioeconomic Pathways (SSPs), the Network for Greening the Financial System (NGFS) scenarios and the International Energy Agency (IEA) Scenarios. Details of the sources and key indicators are shown below.

Savills Scenario	Informed by	Temperature Rise by 2100	Policy Action
Well below 2°C scenario	RCP 2.6[1] SSP1[2] IEA SDS[3] NGFS Below 2 Degree[4]	Not likely to exceed + 2°C by 2100[1]	Aggressive mitigation to bring about a reduction in emissions[4]
High Emissions Pathway	RCP 8.5[5] SSP5[6]	Likely to exceed + 4°C by 2100[5]	Little to no policy action taken

1 Technical Summary, IPCC, 2018 pg. 89
2 The roads ahead: Narratives for shared socioeconomic pathways describing world futures in the 21st century, O'Neill, B et al, (2015)
3 Sustainable Development Scenario, IEA, 2020; World Energy Outlook 2020, IEA, 2020
4 NGFS Climate Scenarios, NGFS, 2021
5 Technical Summary, IPCC, 2018 pg. 89
6 The roads ahead: Narratives for shared socioeconomic pathways describing world futures in the 21st century, O'Neill, B et al, (2015)

Identifying and Assessing Climate Related Risks and Opportunities

Below 2°C scenario (< 2°C)

The scenario is based on The Paris Agreement to which more than 190 countries to limit global warming to well below 2°C above pre-industrial temperatures and to pursue efforts to limit it to no more than 1.5°C. The scenario assumes climate policies are introduced early and become gradually more stringent across the globe. There is an increase in public and private investment into green technologies and the share of renewables by 2030 in global electricity supply increases to approximately 50%[1] shifting economies from being fossil fuel dependent to renewable energy driven. More stringent government policies such as stricter energy efficiency building codes and carbon taxes help advanced economies achieve net zero by 2050 and the world by 2070.[2] The scenario assumes low growth in material consumption and increasing consumer pressure on businesses to drive sustainability. Those companies which fail to transition their businesses to a low carbon model will be adversely impacted.

High Emissions Pathway (> 4°C)

This scenario is aligned with RCP8.5, where due to high emissions in the atmosphere, temperature is likely to increase by 2100 by more than 4°C since pre-industrial times. This scenario builds on the Fossil-fuelled Development scenario of the Shared Socioeconomic Pathways. It places increasing faith in competitive markets, innovation and societies to produce rapid growth. There is an increasing adoption of resource and energy intensive lifestyles around the world and the push for economic and social development is coupled with the exploitation of abundant fossil fuels. As a result of the failure to transition, the physical impacts of climate change become increasingly severe. The increase in frequency and severity of flooding, higher sea level rise and other physical hazards put additional stress on the built environment.

Identification and assessment

Under the two scenarios, physical and transition risks were identified together with the time horizon in which they are most likely to occur and the potential financial impact to Savills strategy. The time horizons selected saw “short-term” defined as the next 1 to 5 years, “medium-term” 5 to 10 years and “long-term” 10 years or more. Group materiality incorporates a combined view of the considered impacts across the Regional Businesses.

1 World Energy Outlook 2020, IEA, 2020 (pg. 105)
2 Sustainable Development Scenario, IEA, 2020

Climate-related risks and opportunities identified over the short, medium, and long term and related impacts

Risk Type	Risk Description	Time frame of impact	Potential Financial Impact	Materiality Assessment	
Physical – Assessed under the High Emissions Scenario (> 4°C)				**2025**	**2030**
Acute catastrophic events	Increased frequency and severity of extreme weather events, such as cyclones, hurricanes, heat waves, wildfires and floods.	Long Term	Risk Impact:	Low	Low
			Potential for increased property damage from catastrophic events deemed minimal, as damage itself to properties is likely to increase, but properties are leased rather than owned; Climate modelling which considers RCP8.5, conducted by WTW shows minimal exposure across short, medium and long terms. In relation to assets under the management of Savills IM, some exposure, however, Savills IM is developing strategies to mitigate the impact of these risks in relation to assets in funds under its management.		
			Opportunity Impact:		
			As cities become increasingly concerned about the impacts of severe physical risk events, there is potential for Savills to support resilient city strategic planning, which could generate additional revenue for the business.		
Chronic - Gradual changes in weather patterns	Longer-term shifts in weather patterns; which may cause increasing frequency of heavy rain and wind, rising sea levels and average temperatures	Long Term	Risk Impact:	Low	Low
			Potential for increased operational and maintenance costs, which are passed on from landlords to Savills as tenant, relevant cost deemed minimal. Some of the assets in funds managed by Savills IM have some exposure, however, Savills IM is developing strategies to mitigate the impact of these risks in relation to assets in funds under its management.		

Climate-related risks and opportunities identified over the short, medium, and long term and related impacts

Risk Type	Risk Description	Time frame of impact	Potential Financial Impact	Materiality Assessment	
Transition - Assessed under the Well Below 2°C Scenario (< 2°C)				**2025**	**2030**
Policy & Regulation	Enhanced climate risk disclosures	Short Term	Risk Impact	Low	Low
			The financial cost of compliance and disclosures is considered to be limited.		
	Introduction of emissions caps, carbon pricing and offsets	Long Term	Risk Impact	Low	Low
			Savills is predominantly a service provider, its overall level of Scope 1 & 2 emissions is are relatively low, and it intends to further reduce its overall emissions through regional targets.		
			Opportunity Impact:		
			Given higher carbon taxes, there will likely be increased demand for sustainable design and performance advice, providing additional revenue opportunities.		
	Changes in building standards; new requirements for property transactions, development and operations	Short to Medium-term	Risk Impact	Low	Low
			Because Savills is in particular already implementing actions to track, and monitor changing regulatory standards, conduct retrofits to increase efficiency of properties and increase ESG training across the business, the risk is assessed as “low”. In relation to assets held in funds managed by Savills IM, ensuring that fund assets meet future minimum standards may result in additional asset management costs at fund level, with overall risks deemed to be low.		
			Opportunity Impact:		
			Significant opportunity for Savills Regional Businesses to increase revenue by becoming a leading provider of ESG consultancy services to clients who will increasingly demand it.		

Climate-related risks and opportunities identified over the short, medium, and long term and related impacts

Risk Type	Risk Description	Time frame of impact	Potential Financial Impact	Materiality Assessment
Reputation	Increased stakeholder concern or negative stakeholder feedback	Short Term	Risk Impact	Moderate Low
			Risk is assessed as low, when reflecting the mitigation plans in place, a moderate opportunity exists.	
			Opportunity Impact:	
			A proactive approach to sustainability and commitment to responsible business, such as Savills UK's Net Zero target and the formation of Savills Earth, could help to attract the next generation of talent who are increasingly concerned with sustainability issues. There is significant opportunity to become a leading provider of ESG services to clients, as Savills continues to develop employee skill sets and knowledge to build its client facing service offering.	
Market Changes	Shifts in customer preferences for real estate services incorporating climate considerations	Short Term	Risk Impact	Moderate Low
			Greater level of focus on climate related risks. If Savills fails to respond to these shifts in client focus it would see reduced income and market share, arising from lower relevance in the market. However mitigation in place for this.	
			Opportunity Impact:	
			Savills could increase its market share and revenues if it becomes a leading provider of sustainability consultancy services. Likely increase in demand for consultancy advice.	

Climate-related risks and opportunities identified over the short, medium, and long term and related impacts

Risk Type	Risk Description	Time frame of impact	Potential Financial Impact	Materiality Assessment	
	Markets vulnerable to climate change becoming less desirable over time	Long-Term	Risk Impact	Low	Low
			Due to the inherent diversification of Savills business this was assessed as being likely to have minimal impact. Savills is not exposed to markets that are expected to be impacted by the transition.		
			Opportunity Impact:		
			Potential to share expertise across Savills Regional Businesses to meet new client requirements. Consequently, this could generate additional revenue opportunities.		
	Specialist skills shortages	Short-Term	Risk Impact	Low	Low
			As Savills is proactively investing in expanding sustainability recruitment and training across its business, this risk is assessed as being low.		
			Opportunity Impact:		
			If Savills can attract the next generation of talent to build on its existing resource base, it could generate a competitive advantage and lead to increased revenue generation.		
Technology Development	Substitution of existing products or services with lower emissions options	Short to Medium-Term	Risk Impact	Moderate	Low
			Savills will continue to incur development and capital investment costs in relation to client facing real-estate technology. However, costs are deemed to be relatively low.		
			Opportunity Impact:		
			Developments in data collection technology could present Savills a moderate opportunity to increase revenue by further strengthening the Group's client advisory service offering on emissions reporting and benchmarking. There is also an opportunity for Savills to occupy more efficient buildings, with smarter more efficient technology, which could lead to cost reductions on Savills own electricity spend.		

Strategy and Risk Management

2 Degrees – Transition Risks and Opportunities

Under the well below 2°C scenario, Savills strategy is assessed as being resilient to the impacts of the transition to a low carbon economy, with most risks assessed as "low". In particular, Savills assessed that the opportunities presented in terms of new revenue streams derived for example from the expansion of sustainability consultancy services and efficiency gains from technologies, outweighed the transition risks that it is exposed to. The most material transition risks and opportunities under this scenario are assessed as being "moderate" in 2025 with exposure reducing to "low" by 2030 and are as follows:-

1 **Reputation**

Increased stakeholder concern or negative stakeholder feedback;

2 **Market**

Shifts in client preferences for real estate services incorporating climate considerations and requiring service providers to have the necessary expertise;

2 **Technology**

Substitution of existing products or services with lower emissions options;

Savills has identified that it will further reduce its exposure to these risks and exploit potential opportunities through the following actions: -

- in 2020 Savills UK, Savills largest Regional Business, was the first region to set a net zero target on its scope 1 & 2 emissions, targeting net zero by 2030. Savills IM set equivalent targets in 2021, and extended these to target net zero scope 3 emissions by 2040. Building on this, the Asia Pacific, CEME and North American businesses have baselined their scope 1, 2 and 3 emissions during 2021, which enabled Savills as a Group to start the process of setting Science Based Targets (SBTs) and join Race to Zero in March 2022
- Savills will continue to invest further in the development of its sustainability offering across its Regional Businesses by building out the Savills Earth offering, our energy and sustainability combined services, complemented by appropriate training programmes to ensure that knowledge of climate related risks is embedded in all relevant teams to allow these teams to meet client requirements;
- the Group's TCFD Working Group, consolidating the estimates provided by the Regional and Savills IM ESG Groups, has estimated incremental annual expenditure (excluding costs in relation to Savills IM's Assets Under management) to implement the above mitigations over the medium term to be de minimis in relative terms, which has a "low" financial impact in relative terms.
- Savills will also continue to invest in technology solutions and strategic partnerships with, or acquisitions of firms offering climate-change related services and solutions both to better serve its clients changing demands and to reduce its own carbon footprint.

Strategy and Risk Management

4 Degrees – Physical Risks

Under the High Emissions Pathway (>4°C) scenario, whilst extreme weather events are forecast to increase, the physical risk impact to Savills is expected to be relatively low, due to the advisory business activities, which only use leased space which can be relocated. Savills also assessed the potential for additional revenue opportunities under this scenario. The higher physical risk will likely lead to climate-change related migration in the long-term and increased volume of movement provides opportunities to increase revenue in Savills consultancy and transaction advisory businesses.

In relation to Savills IM, assets held on behalf of investors in its managed funds do have some exposure to high flood risk and moderate storm risk, and these risks are projected to increase in the long-term. To ensure strategy resilience, Savills IM intends to invest in detailed assessments of higher-risk assets currently held within its managed funds, and to engage as appropriate with flood and coastal risk management agencies to plan future protection and consider divestment if adaptation measures are deemed inadequate.

Processes for Managing Climate-Related Risks and integration into overall risk management

Each Regional Business' detailed climate-risk management plans have been developed to establish mitigation and adaptation measures to manage the most material climate-related risks. The materiality assessment was based on a combined view of the impact and likelihood of each risk and opportunity.

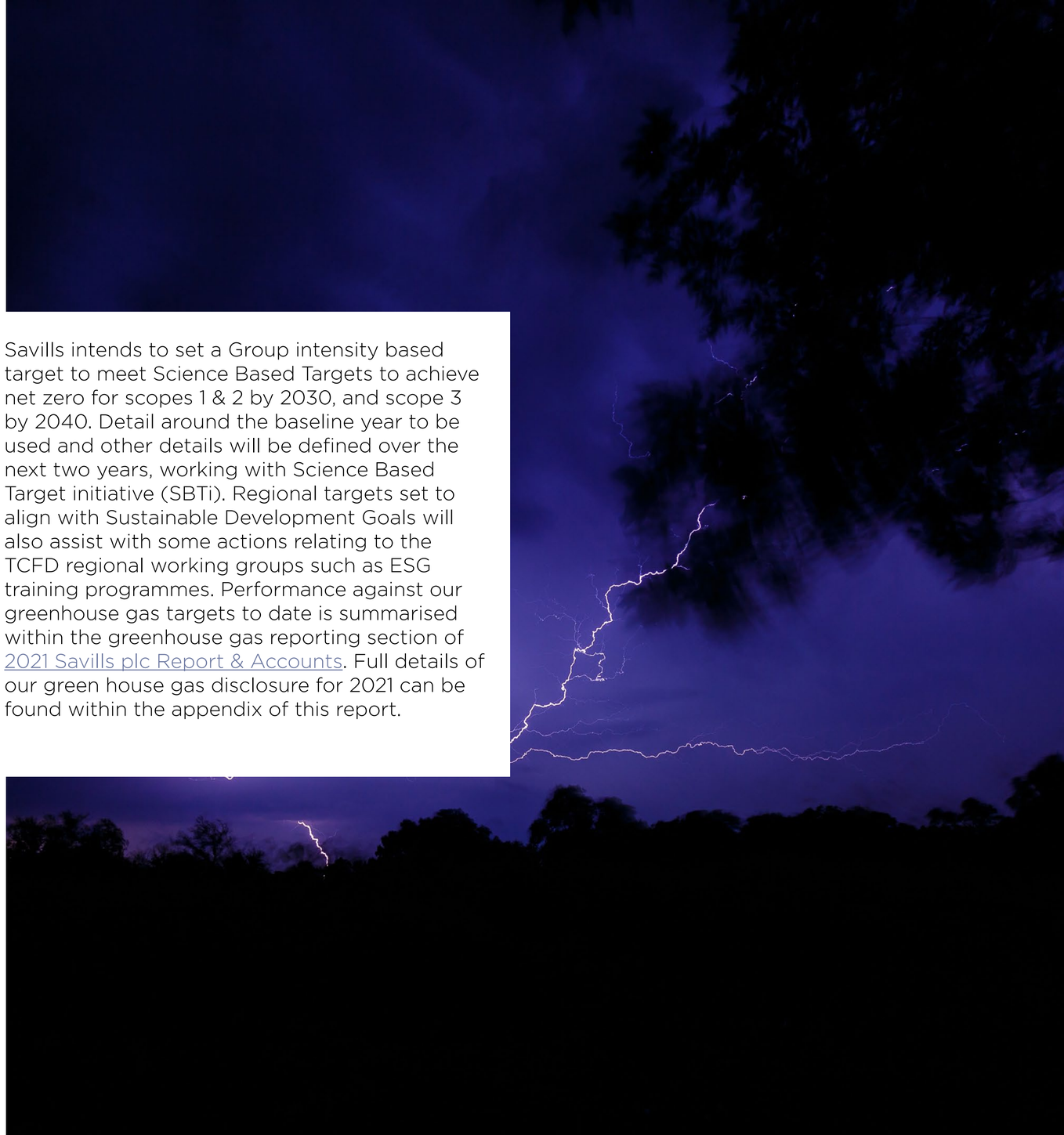
Climate-related risks continue to be evaluated as part of Savills six-monthly risk identification, review and assessment process for emerging and principal risks conducted by the Group Risk Committee.

The ESG Committee, responsible for overseeing the climate scenario risk assessment includes the Group Risk Director and the Group Sustainability Director within its membership. The climate risk assessment adopts other elements used in the broader Savills risk assessment categories including description of the risk and time horizon (identification); impact-likelihood rating (the evaluation enabling prioritisation); mitigating actions and controls (mitigation); future action plans & risk owner (monitoring). The results are integrated into ERM reporting and ongoing identification, assessment and management of climate-related risks.

Metrics and Targets

Metrics used by Savills to assess climate related risks and opportunities in line with Group strategy and the Group risk management process are summarised within the greenhouse gas reporting section of 2021 Savills plc Report & Accounts. This section summarises some of the metrics used in the analysis, including energy consumption and scope 1 and 2 greenhouse gas (GHG) emissions, and makes an initial partial disclosure of our scope 3 greenhouse gas (GHG) emissions, which have also been taken into account as metrics within our TCFD analysis. Savills has undertaken Regional Business specific net zero pathways and costing exercises, as part of its TCFD review, with changes in carbon price regulation monitored globally to assist predicting future cost implications.

Savills intends to set a Group intensity based target to meet Science Based Targets to achieve net zero for scopes 1 & 2 by 2030, and scope 3 by 2040. Detail around the baseline year to be used and other details will be defined over the next two years, working with Science Based Target initiative (SBTi). Regional targets set to align with Sustainable Development Goals will also assist with some actions relating to the TCFD regional working groups such as ESG training programmes. Performance against our greenhouse gas targets to date is summarised within the greenhouse gas reporting section of 2021 Savills plc Report & Accounts. Full details of our green house gas disclosure for 2021 can be found within the appendix of this report.



Appendix: 2021 Green House Gas (GHG) Emissions Data

Greenhouse gas emissions

Our Greenhouse Gas (GHG) Emissions Statement includes all emission sources required under the Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013 and the Companies (Directors' Report) Regulations 2018 for the financial year to 31 December 2021.

Reporting methodology

We report our GHG Emissions using the revised edition of the GHG Protocol Corporate Accounting and Reporting Standard, the GHG Protocol Scope 2 Guidance, the GHG Protocol Corporate Value Chain (Scope 3) Standard and the UK Government Guidance on Streamlined Energy and Carbon Reporting (SECR). Our GHG emissions reporting boundary is based on an operational control approach and includes emissions from Savills PLC and Group subsidiaries.

Scope 1 and 2 emissions

Reported Scope 1 emissions include emissions from business travel by the Group owned or leased vehicles and the combustion of fuels within our occupied offices. Scope 2 emissions are reported using both 'market-based' and 'location-based' methodologies and relate to electricity use in our occupied offices. Scope 1 and Scope 2 'location-based' emissions have been calculated using regional/ national emission factors published by the United Nations Statistics Division, the UK Government GHG Conversion Factors for Company Reporting, US Environmental Protection Agency, Australian Department of the Environment and Energy and other national agencies and internationally recognised guidelines for each reporting period. Under the Scope 2 'market-based' method, no emissions have been accounted for electricity supplies backed with the Renewable Energy Guarantees of Origin, and residual mixes or grid average emission factors were used to account for the remaining consumption.

To coordinate the global collection of GHG emissions data, a network of Environmental Reporting Nominees (ERN) has been established within Savills, reporting datasets into the Group Sustainability Director. Specialist third party verified environmental reporting software has been adopted to manage the data quality review and verification process. Through the ERN network, reported greenhouse gas emissions have been collated using actual activity data wherever possible. In some instances, where activity data was not found to be wholly reliable or readily available, we have estimated the relevant emissions by using a range of standard carbon accounting methods, including data extrapolation, regional benchmarks and use of comparator indicator based estimation.

In addition to the absolute GHG emissions measures, we use two standardised intensity ratios to provide insights on our regional performance and year on year results. The first of these ratios calculates our global Scope 1 and 2 'market-based' emissions intensity, expressed per Group revenue. In the second, we report on Scope 1 and 2 'location-based' emissions intensity per square metre across our offices globally. The GHG intensity ratio of our offices excludes business travel and is focused on driving improvements in operational energy efficiency in buildings.

Where we have received more accurate energy data we have made restatements to the 2020 absolute performance measures. We have restated GHG emissions accordingly, to reflect these changes. This restatement has resulted to a 2% adjustment to the total energy use and a 0.2% adjustment to the total Scope 1 and 2 GHG emissions reported last year.

Appendix: 2021 Green House Gas (GHG) Emissions Data

Scope 3 emissions

In 2021, we undertook an initial assessment of the Group's Scope 3 emissions. Following careful consideration of the project scale and the amount of data and assumptions involved, we have adopted a staged approach to the assessment. During the first stage, we analysed the upstream emissions associated with our operations in the United Kingdom and North America. In order to provide an estimate of the Scope 3 emissions for all regions in which we operate, we then scaled-up this data using relevant factors. Scaling metrics used were revenue for procurement and capital expenditure, and staff numbers for business travel and commuting.

Reported Scope 3 emissions include purchased goods and services, capital goods, waste generated in operations, business travel in vehicles not owned or controlled by the Group, employee commuting, and fuel and energy related emission that are not captured in Scope 1 and 2. Purchased goods and services includes all expenditure on services (e.g. cleaning, insurance, IT etc) and consumable products/goods (e.g. food and stationery). Capital expenditure includes all expenditure on durable products/goods that arising within the 2020 financial year (e.g. dish washer, office furniture etc). The methodology used to estimate the supply chain emissions from purchased goods and services and capital goods is based on the Exiobase environmentally extended input-output (EEIO) dataset. EEIO combines economic information about the trade between industrial sectors with environmental information about the emissions arising directly from those sectors.

For the UK, we have financial data for all relevant Scope 3 categories except for commuting. Our commuting figures have been estimated based upon extrapolation of Office for National Statistics national average datasets. For North America, business travel and commuting data was not available and has been calculated by extrapolating from staff numbers and expenditure. Waste, water, fuel and energy-related emissions are collected using the same system as for Scopes 1 and 2, described above.

Going forward, we plan to expand on this work by calculating the emissions of each region directly and we are developing a strategy to implement suitable data collection processes. In addition, we are working to capture emissions from Savills IM Assets Under Management.

Performance and trends

During 2021, the imposition and easing of COVID-19 restrictions continued to impact the use of our workplaces, which, in turn, have had a considerable impact on the changes in our operational emissions for the second year. With more staff increasingly returning to our offices, the Group's overall energy use increased marginally to 24,933 MWh (an increase of 1.5%), resulting to an overall increase in the associated Scope 1 emissions and, for some regions, Scope 2 emissions. However, our absolute total Scope 1 and 2 GHG emissions have reduced by an additional 442 tonnes CO2e to 6,738 tonnes CO2e, which represents a 6.2% year on year decrease. This resulted from a combination of several factors, including grid decarbonization, better data quality and energy efficiency improvements across a number of our locations.

Whilst some of the reported emissions reductions are still attributed to the COVID-19 pandemic, our overall performance trend continues to reflect the Group's strategy and efforts made in managing environmental impacts. Since 2018, an improvement has been seen across all GHG emissions metrics, including a 34.7% reduction in the GHG financial intensity expressed as tonnes CO2e / £ million

Appendix: 2021 Green House Gas (GHG) Emissions Data

revenue. During this time, our total Scope 1 and 2 emissions have reduced by 20.4%, whereas our data coverage has increased by 3% and includes additional 15 offices. Amongst the energy measures implemented in the last two years, examples of the most impactful initiatives include LED light replacements, review of energy management measures to eliminate energy waste, and shifting to zero or low emission vehicles. Furthermore, we are continuing to transition our energy supplies to renewable energy contracts, with good progress across a number of our offices in the United Kingdom and Europe. Further details on the environmental initiatives are provided in the 'Environment – Our Strategy in Action' section.

In 2021 as in 2020, actual or estimated Scope 1 and 2 emissions data was reported for all offices where we have operational control for managing environmental performance. The reported energy and GHG emissions data includes estimates where actual data was unavailable. However, our continuous focus on improving quality and accuracy of the underlying data resulted in a 6% year on year reduction in data estimates.

Corporate GHG Emissions, tonnes CO2e	2021	2020	2019	2018	change vs 2018	
Scope 1 (Direct)	1,808	1,794	1,775	2,162	-16.3%	▼
Scope 2 (Indirect, market-based)	4,929	5,386	6,358	6,299	-21.7%	▼
Total Scope 1 and 2[1]	**6,738**	**7,180**	**8,133**	**8,460**	**-20.4%**	▼
Scope 2 (Indirect, location-based)	5,630	5,847	6,719	6,697	-15.9%	▼
GHG financial intensity ratio (tonnes CO2e / £ million revenue)	3.14	4.13	4.25	4.80	-34.7%	▼
GHG intensity ratio of our offices (tonnes CO2e / m^2)[2]	0.042	0.042	0.048	nr	nr	▼
Scope 3 upstream, estimate[3,4]	55,223	nr	nr	nr	nr	–
Total	**61,961**	**nr**	**nr**	**nr**	**nr**	**–**

Corporate Energy Use MWh	2021	2020	2019	2018	change vs 2018	
Total energy use	24,933	24,568	25,938	27,079	-7.9%	▼
Data coverage (offices reporting data)	277 (100%)	285 (100%)	282 (92%)	262 (97%)	+3.0%	▲

Notes:
1 Total Scope 1 and 2 emissions and GHG financial intensity ratio are calculated using the market-based Scope 2 emissions.
2 GHG intensity ratio of our offices is calculated using the location-based Scope 2 emissions.
3 Scope 3 upstream emissions have been estimated based upon the regional emissions for our operations in the United Kingdom and North America. We will work to provide a more accurate result in 2022.
4 This disclosure is partial, as we continue to work to improve our understanding of our Scope 3, which does not currently include downstream emissions, our final figures are expected to be materially higher.

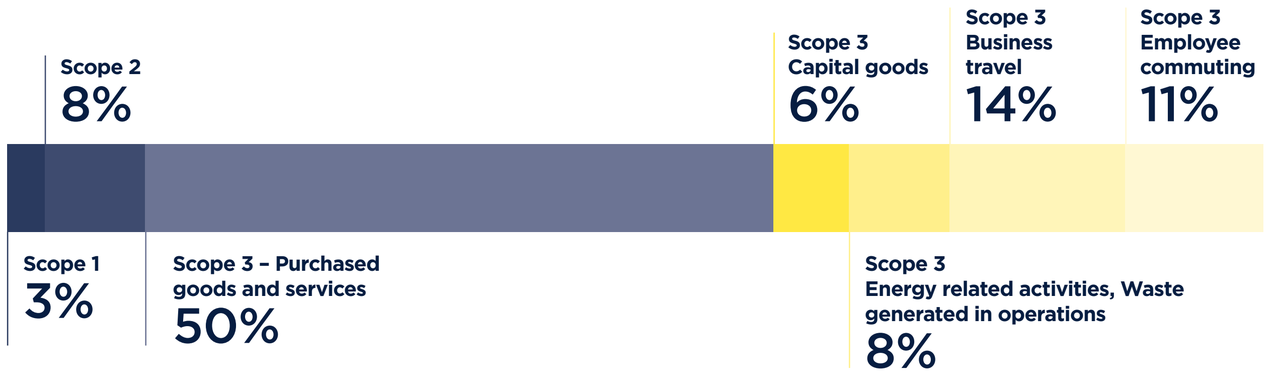
Appendix: 2021 Green House Gas (GHG) Emissions Data

Scope 3 Performance by category*

GHG Emissions Category	tonnes CO2e	%
Purchased goods and services	31,260	57%
Capital goods	3,561	6%
Fuel and energy related activities (not included in scope 1 + 2), and waste generated in operations	5,153	9%
Business travel	8,541	16%
Employee commuting	6,709	12%
Total	**55,223**	**100%**

* This disclosure is partial, as we continue to work to improve our understanding of our Scope 3, which does not currently include downstream emissions, our final figures are expected to be materially higher.

Corporate Emissions, tonnes Co_2e



Appendix: 2021 Green House Gas (GHG) Emissions Data

Performance by region

	Energy Use		GHG emissions Scope 1 and 2			GHG emissions Scope 3	
Region	MWh	%	Intensity ratio, tonnes CO2e / m²	tonnes CO2e	%	tonnes CO2e	%
Asia Pacific	4,612	18%	0.056	2,468	37%	22,412	41%
Europe & the Middle East	8,682	35%	0.042	2,121	31%	7,187	13%
North America	3,317	13%	0.033	1,020	15%	8,256	15%
United Kingdom	8,323	33%	0.036	1,128	17%	17,368	31%
Total	**24,933**	**100%**	**0.042**	**6,738**	**100%**	**55,223**	**100%**

Scope 1 & 2 Emissions by Region tonnes Co_2e