Transition Plan:5 Year Plan

Our route towards carbon negative

In this report:

Introduction

Our path towards 2040 is set out in our company strategy. Built on what we had before, our strategy connects our business needs to the things we care about - a safe service, an inclusive and diverse culture where all colleagues can thrive, a carbon-negative future and a sustainable and profitable business. Through our purpose, objectives, and values, our strategy explains what we need to do to have a positive impact on our future and the future of those who follow us. Our strategy recognises the role we have in helping to create a sustainable future for aviation. It sets out our ambition to minimise our direct environmental impact and to become carbon negative across our estate. We commit to supporting the reduction of aviation's impact on the environment thereby ensuring aviation's crucial role in the UK's economy and to prioritising work with our customers and partners to find more sustainable solutions, including providing efficient routings to minimise the emissions of air traffic in our airspace.

We aim to be **net zero by 2035** and **carbon negative by 2040**. We will be proactive in supporting the **aviation industry achieve net zero by 2050**.

Achieving carbon negative also supports our other strategy objectives. Innovation in the delivery of carbon reduction can help us realise opportunities that support our objective to generate increased revenue and positively impact our objective to be relied on by all airspace users as we create integrated safe, efficient airspace for all.

For current and future employees, being able to deliver solutions to our carbon challenges is something we can be truly proud of. Alongside inclusion, career development and wellbeing, our environmental ambitions are, therefore, a core part of us being a Top 25 UK company to work for.

There is no doubt our talented employees are rising to the challenge to achieve our carbon targets. We have made good progress by setting targets that the Science Based Targets initiative (SBTi) awarded 'Business Ambition' status – the highest ambition possible. This assessment related to our 2035 target to be net zero and builds on the B rating we received last year from the Carbon Disclosure Project (CDP). We have also been recognised for the second year running in the Financial Times/Statista list of Europe's Climate Leaders.

We are proud of these acknowledgements which reflect much hard work. We know that even harder work lies ahead both across our estate and with Sustainable Aviation to help the aviation industry achieve net zero. Our airspace modernisation programme is making a significant contribution in both the short and medium term until truly ground-breaking technologies in engines and fuels are developed commercially.

This 5 year Transition Plan is our response to the company strategy and sets out our work over the next five years to drive sustainability performance right across the company. It sets out our case for change and indicates our direction of travel and targets across all areas of our sustainability performance, aligned to net zero and carbon negative. It also details our risks to the impacts of climate change and how we are addressing them.

This plan will be updated annually. Our voluntary Taskforce for Climate related Financial Disclosures (TCFD) for 22/23 are included within this plan.

Our impacts—the case for change

Our promise...

On the ground to be a net zero emissions company by 2035 and carbon negative by 2040

In the air to work with our customers, partners and suppliers to achieve a net zero aviation industry by 2050

We are in a climate emergency and catastrophic climate change will happen if decisive action is not delivered in this decade; this means action is required across everything we do. It is embedded in our company strategy as our plan to deliver one of four long-term objectives to 2040. Flying has been an overwhelming force for good over the past 120 years. It has helped create a truly global community, opening up international trade and fostering an appreciation for other places and cultures. As an island nation, aviation is critical to the UK's global connectivity. However aviation is now facing a potentially existential crisis; its climate impact is in the spotlight and we must act to reduce it, and quickly.

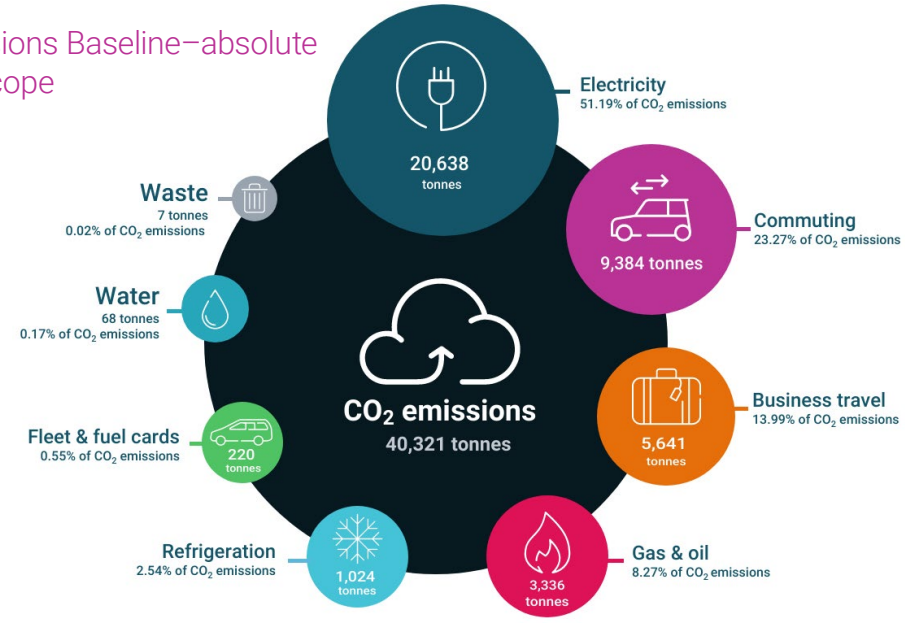
We have a role to play in this, across our air traffic operations, our communications sites, air traffic control centres and offices. We clearly contribute to the climate crisis and it is embedded in our company strategy as our plan to deliver one of four long-term objectives to 2040. Our 5 year Transition Plan and sustainability programme demonstrate how we will address this in the short term, pivoting our business to a low carbon world while building our resilience to the impacts of climate change on the ground and in the air.

On the ground

Our role is to keep the UK airspace operating safely 24/7/365. To do this, we operate a large infrastructure of communications, navigation and surveillance sites across the UK, providing our air traffic control centres and airport towers with the ability to communicate with and see where aircraft are positioned. Like most organisations our emissions footprint on the ground is made up of the emissions relating to our offices, travel and suppliers. Unlike most organisations, as a safety critical provider of core national infrastructure, our use of data, communications and remote sites poses a decarbonisation challenge.

How will we take emissions out of our remote navigation communication and surveillance sites? How do we service these remote sites in adverse weather conditions with low carbon solutions? How will we adapt our sites to be resilient to the impacts of climate change itself and continue to provide the safe and efficient air traffic service our customers and the travelling public have come to expect every day? And all this as a net zero emissions company by 2035, transitioning to carbon negative by 2040? We will be driven by targets across our estate, a 41% reduction in emissions by 2026, 65% by 2030.

Our 2018–19 Emissions Baseline–absolute emissions target scope



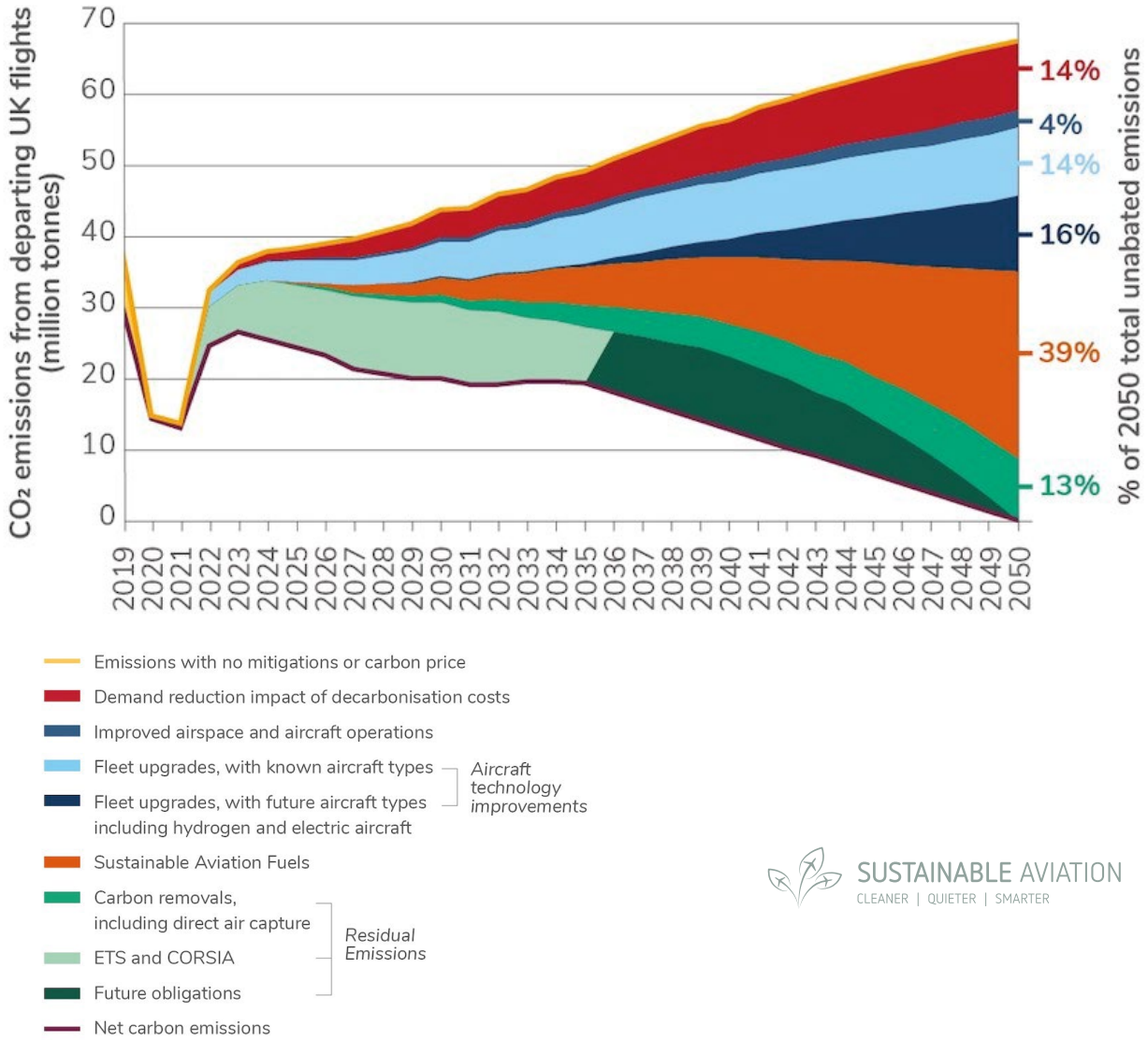
In the air

Our role in the air is to deliver safe and efficient air traffic management services that minimise the emissions of the aircraft we control. The annual study for NATS by Ipsos - the Aviation Index - shows consistently that action on climate change is by far the public's top priority for the aviation industry. Not only that, but people are considering changes to their behaviour in light of climate anxiety.

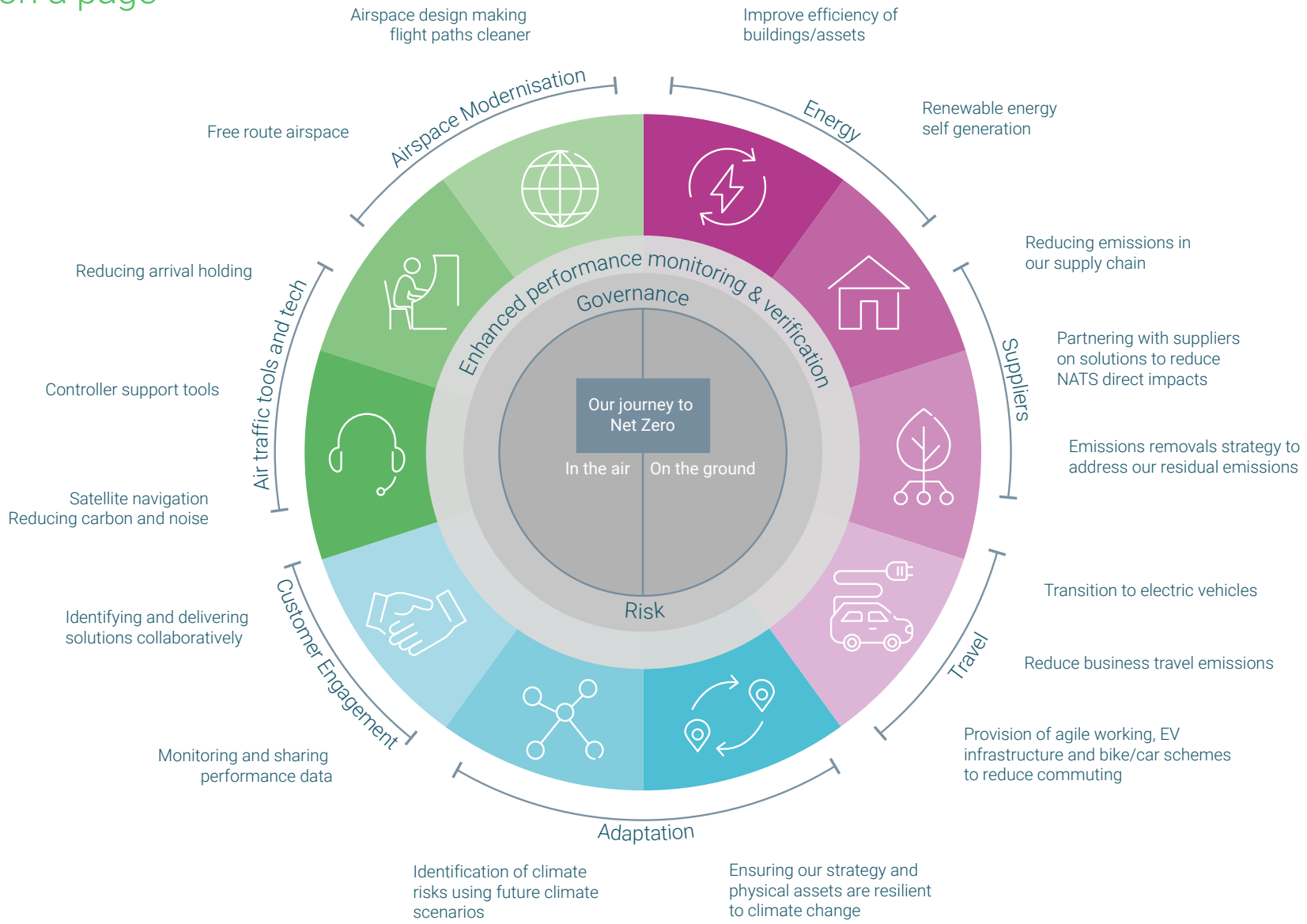
In 2022, 40% said they would consider no longer taking domestic flights, and 33% said they might start to limit their flying to reduce their environmental impact.

We are part of the UK aviation industry's work to reach net zero emissions by 2050. As part of the Sustainable Aviation decarbonisation roadmap we have set out our expected contribution to reducing airspace carbon emissions as a result of planned airspace modernisation, new controller tools and delivering more efficient profiles for aircraft under our control, day by day, flight by flight.

Our plan embedded in the Sustainable Aviation decarbonisation road map aims for a reduction in carbon emissions in UK airspace of 4.7% between 2020 and 2035, in line with independent assessments of the contribution air traffic control can make to overall aviation emissions reduction. Our long term airspace modernisation plans are aligned to this road-map contribution, this equates to 1 million tonnes of carbon removed from UK domestic and oceanic airspace.



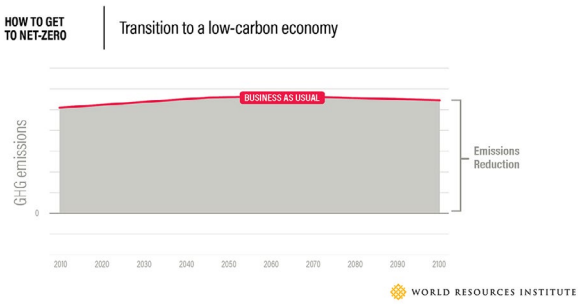
Our plan on a page

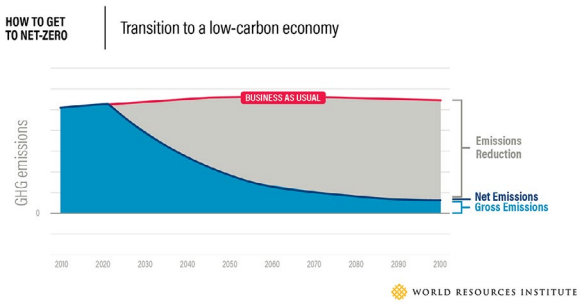


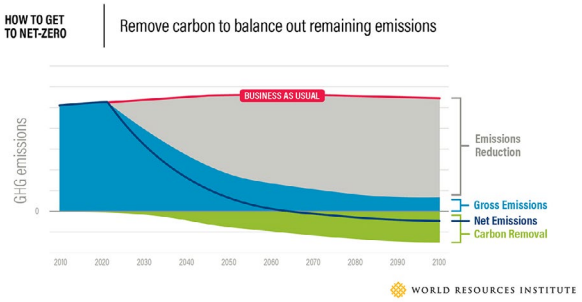
Our pathway to carbon negative on the ground focuses on achieving deep reductions in our emissions[1] between now and 2035. By 2026 we are targeting a 41% reduction in emissions; a level of improvement that has been independently verified by the Science Based Targets initiative to be in line with what the latest climate science says is necessary to limit temperature rise to 1.5°C above pre-industrial levels. Simply put, by achieving this rate of reduction, which equates to just over 6% per year, we will have helped avoid worst consequences of climate change,

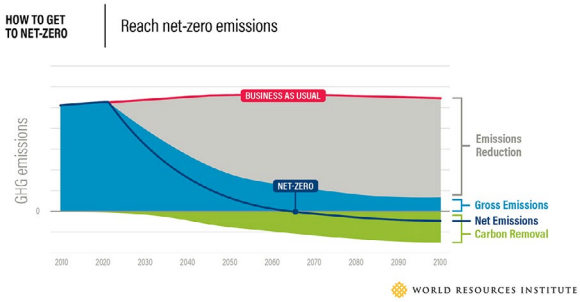
By 2030, we are targeting a 65% reduction in emissions, then seeking to minimise our emissions as far as practicably possible by 2035. To achieve net zero, any leftover or residual GHG emissions will be fully compensated by GHG removals. This either relies on developing technologies which capture and store carbon emissions deep underground or a range of nature-based solutions that remove and store carbon from the atmosphere. Examples include, afforestation, peat bog restoration, seagrass, improved soil health.

Achieving our company strategy goal to become carbon negative will mean that our greenhouse gas removals from atmosphere, exceed our residual emissions.









[1] Scope 1, 2 emissions and scope 3 categories 1, 3, 4, 6 and 7. Scope 1 emissions include the direct emissions we combust or release to atmosphere from gas use, burning fuel in generators, combustion within NATS owned fleet and refrigerant losses from our air conditioning systems. Scope 2 emissions are from our use of electricity. Scope 3 emissions include business travel and employee commute, energy upstream related emissions water. NATS targets are based on the 'location-based approach' which uses national average emissions intensity for gas use and electricity use. See Targets and Progress for more details.

On the ground—our approach

Avoid: make the right decisions to stop high emissions activities from happening

Reduce: consumption and improve energy efficiency, reduce unnecessary business and commuting travel emissions, adopt agile working

Self-generate: install on-site renewable energy

Removals: if there are no zero emission alternatives, compensate with direct carbon removals

Verification: have the full picture of our emissions and having our data externally audited.

Engagement: of suppliers, employees and regulator to implement sustainable solutions, committed to ensuring our direct and indirect engagement is in line with the goals of the Paris agreement.

In the air—our approach

Service delivery: controllers aware of how they can reduce aircraft emissions

Local procedure changes: implement small scale changes to airspace and procedures

Airspace management: set our airspace up to make most efficient use, working with other airspace users like the military

Controller tools: developing solutions to support controllers in making the best decisions

Infrastructure change: modernising and improving the design of airspace

Policy: ensuring environmental priorities are embedded through everything we do

Engagement: engaging with our people, airports and airlines on joint actions to improve environmental performance

Near term activities on a page

Our estate

- Offsite data centres from 2023
- Upgrade EV charging during 2023
- Clear carbon negative strategy by end 2023
- Improved monitoring of performance during 2023
- Appoint a TS carbon manager during 2023
- Paper audit at Prestwick rolled out to Swanwick during 2023
- FM energy reduction strategy in 2023
- 10% energy reduction 2023/24
- Energy reduction 19% by 2024
- Large scale PV 2025
- Solar remote sites by 2025
- 100% renewables by 2030
- First net zero building by 2030
- Retrofit lighting
- All generators using HVO by 2030
- Working with suppliers to reduce single use cups and plastics
- Reducing water use across our estate

Our travel

- 6% year on year reduction in commuting footprint
- 6% year on year reduction in business travel footprint
- Revised business travel policy published in 2024

Adaptation

- Partial TCFD declaration by end 2023
- Full TCFD declaration by end 2024
- Mapping of transition and physical risks by 2024
- Work with EACCA on CEO adaptation awareness material

Our suppliers

- 50% of suppliers by spend committed to a science based target by 2025/26

UK airspace

- Sharing 3Di data with 3 airlines by 2023
- New sustainability module in student ATCO training during 2023
- Sharing 3Di data with all airlines by 2025
- 1m tonnes ATM carbon reduction by 2035
- 4.7% ATM carbon reduction by 2050
- Continuous improvement plan for tactical Ops
- Stages to check alignment of airspace change with net zero
- Inclusion of sustainability material in NMOCS for all controllers

Our estate

What we know

We operate a large infrastructure of communications, navigation and surveillance sites across the UK, providing our air traffic control centres and airport towers with the ability to communicate with and see where aircraft are positioned. Understandably, energy consumption is the largest source of our own emissions and a priority focus area for our teams in support of our net zero and carbon negative trajectory.

What we've done

By 2021 we increased our annual procurement of renewable electricity to 96% from 0% in 2018/9 and in doing so have been recognised for the third year running as one of Europe's Climate Leaders by the Financial Times & Statista. This special report names just 400 European companies that have achieved the greatest reduction in their Scope 1 and 2 GHG emissions between 2015 and 2020.

Our net zero estate targets have been validated by the Science Based Targets initiative (SBTi) with 'Business Ambition' status – the highest achievement possible. This demonstrates NATS emissions targets exceed requirements to help prevent the most damaging effects of climate change and consistent with the goals of the Paris Agreement.

Our environmental programme is ISO 14001 (Environmental Management System) certified and we achieved a B score for environmental performance from renowned non-profit organisation, CDP (formerly known as the Carbon Disclosure Project).

Our smart energy metering has identified a range of opportunities to reduce energy use, with reductions arising from improvements to lighting, cooling and equipment settings already delivered. Further improvements are being delivered on a day-by-day basis, for example by retrofitting low energy lighting as part of our energy reduction strategy. We've driven down our use of paper in our Operations room at Prestwick and will do the same at Swanwick. Our round the clock delivery of safe and efficient air traffic services often relies on backup generators. A change in the fuel type from diesel to Hydrogenated Vegetable Oil (HVO) means that when used, our generators have a much smaller impact on the planet.

What we will do next

We will accelerate energy efficiency schemes with our landlords, and the feasibility of generating renewable energy at our larger sites, this will mean a tireless programme of energy efficiency. We will need to do more though, particularly as we replace ageing air traffic control equipment and we will be working with our investment teams to ensure we embed energy efficiency measures and the latest low carbon emissions technology.

We host our applications within modern offsite data centres with the highest possible green credentials. The energy we use is reduced to an optimal level and is sourced entirely from renewable sources; we will increase our annual procurement of renewable electricity to 100% by 2030/2031 (from 0% in 2018/9). Our smart metering and building management systems will continue to reduce energy use in our buildings, in line with our electricity consumption (kWh) reduction target of 19% by 2024/25 vs 2018/19.

Increasing the capacity of our electric vehicle charging points at our main sites will allow us to exploit electric vehicles within our fleet, as well as encourage low carbon commuting among our employees. We have also identified a number of remote communications and surveillance sites for on-site solar and will install these by 2025.

Where we need to build new sites, we are challenging the business and our suppliers to make it zero emissions or as close as possible, with a replacement for our Atlantic House property in Prestwick due to deliver our first net zero building. Having set clear net zero carbon 2035 targets and trajectory we will, during 2023, develop the detail of our carbon negative strategy including a carbon removals policy. We will continue to work with our suppliers and contractors to reduce water use and drive down single use cup and plastics use across our estate. To enable the actions above we will need to develop improved monitoring of environmental performance, targets and actions to report to the company and our Environmental Strategy and Decarbonisation Implementation Groups.

Timeline

- Offsite data centres from 2023
- Upgrade EV charging during 2023
- Clear carbon negative strategy by end 2023
- Improved monitoring of performance during 2023
- Appoint a TS carbon manager during 2023
- Paper audit at Prestwick rolled out to Swanwick during 2023
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- First net zero building by 2030
- Retrofit lighting
- All generators using HVO by 2030
- Working with suppliers to reduce single use cups and plastics
- Reducing water use across our estate

Our travel

What we know

With more than 170 sites across the British Isles our geographically diverse estate saw NATS employees (pre-pandemic) travelling almost 15 million miles a year on business; commuting in excess of 35 million miles. Our 2019 travel as a company resulted in carbon emissions more than 15,000 tonnes. Due to the pandemic this footprint reduced dramatically to between 2,000 and 5,000 tonnes a year, even including the carbon impact of homeworking. As we emerge from COVID-19 travel is on the rise. As the second biggest contributor after energy to our on the ground footprint, we need to entrench the lower emissions from the pandemic years as a core part of our decarbonisation pathway.

What we've done

We've implemented agile working as a way of delivering a more flexible low carbon working pattern to our non-operational employees, thereby limiting the carbon emissions that could result from a full return to on site working. By creating a new, agile-ready office work environment we're encouraging employees to make the most of the 'new office and new start' limiting our emissions while still delivering against all our strategic objectives. Our travel carbon emissions are currently running at 56% and 28% of 2019 levels for commuting and business travel respectively.

What we will do next

We will support our non-operational employees with tools to enable them to evaluate low carbon options to enable a 6% year on year reduction of commuting and business travel emissions. By 2024 we will have implemented a streamlined travel emissions dashboard to track our performance at the departmental and personal level. This will lead to the establishment of departmental carbon budgets across the company by 2025, with targets aligned with our net zero and carbon negative objectives. Our lower emission business travel choices will be informed by data provided as we work in partnership with our travel providers to achieve our 6% year on year emissions reduction, reflected in a revised business travel policy published in 2024.

Timeline

- **6% year on year reduction in commuting footprint**
- **6% year on year reduction in business travel footprint**
- **Revised business travel policy published in 2024**

UK airspace

What we know

Aviation is a difficult to decarbonise sector. While a relatively small contributor to global carbon emissions, as other sectors decarbonise quickly, aviation is set to be a key element of the global carbon picture in a few years. People love to fly, aviation connects countries and people, enabling valuable economic activity and social benefits. But as aviation's share in the global climate crisis increases dramatically, the challenge is to continue to access the positive socio-economic benefits while eradicating the negative environmental outcomes. Flying is not the enemy, carbon is; we just need to take the carbon out of flying.

What we've done

We launched its industry leading sustainability programme in 2008 and became the first air traffic control organisation to become financially incentivised on its performance. Good progress has been made to reduce our emissions by 37% since 2018/19 and the SBTi's first-rate analysis through to 2026 is encouraging as we drive towards our ambitious sustainability commitments. As a founding member of UK cross-industry Sustainable Aviation Coalition we worked with partners to develop an industry decarbonisation plan, a world first. Our 3Di horizontal and vertical environment metric has been in operation for more than 10 years, providing basis for financial incentivisation on airspace efficiency. Using this metric, we have an ongoing commitment to continued improvement in the efficiency of our airspace. Building on our knowledge from the use of 3Di we have offered our intellectual property to any aviation stakeholder globally that would like to use it to improve their airspace efficiency.

What we will continue to do

Work with our industry partners through the Sustainable Aviation Coalition to deliver our decarbonisation plan within the UK airspace we control. Day to day we'll continue to make controllers aware of how they can reduce aircraft emissions, implement small scale changes to airspace and procedures as well as developing tools to support controllers in making the best decisions. We will work with other airspace users (e.g. military, airline and airport operators) to optimise efficiency of airspace utilisation.

What we will do next

In the period 2023 to 2027 we will be exploring potential for improving the embedding of environmental priorities through regulation and charging mechanisms; encouraging the industry to switch to a more sustainable model. Modernising and improving the design of our airspace will deliver a reduction in carbon emissions of 4.7% between 2020 and 2050, equivalent to 1 million tonnes of carbon removed from our UK domestic and oceanic airspace. To drive these improvements in a structured way we will develop an airspace continuous improvement plan for tactical operations and non-LTIP change. We will also implement stages within major airspace design projects to review compatibility of design development with net zero commitments and ensure improvement options are reviewed.

Working with our regulator and airline customers from 2023 we'll evolve our 3Di airspace efficiency metric so it is fit for the aircraft and airspace of the next decade. Sharing our airspace efficiency data with our airline customers will identify bi-lateral and system level opportunities to deliver further emissions saving efficiencies. We will start with 3Di data sharing agreements with three of our largest airline customers in 2023, with a further five to follow in 2024. By 2025, all airlines using the UK air traffic network will have the ability to access their own 3Di performance data.

Timeline

Our suppliers

What we know

The partners and suppliers that we work with are key to how we deliver our services and investment programmes. Our Supply Chain team seek to work with suppliers who can help us deliver these outcomes in ways that reflect our own values and ethics. Our procurement process includes an assessment of the benefits that a procurement, and the supplier providing it, can bring to the Environmental, Social and Governance (ESG) aspects we are looking to advance.

What we've done

During 2022 we applied these ESG criteria to an IT replacement programme, selecting a product with both the lowest carbon involved in its manufacture and also lowest energy consumption. We also applied the criteria when selecting new dry air coolers, which cool equipment and operational rooms during the warm summer months. Energy efficiency was key in the selection criteria and from the products offered to us, the project team and Supply Chain opted for a solution that saves around 220 tonnes of carbon per annum compared to those being replaced. For our longer-term suppliers, we've worked collaboratively to understand how they can help us achieve our carbon negative and other sustainability goals, and also where we can help them in achieving their plans relating to carbon reduction.

What we will do next

Building on our 2023 sustainability themed supplier workshop we will develop networks of support among our suppliers to raise the level of understanding of net zero and carbon negative outcomes. This is in service of our target to have 50% of suppliers by spend committed to a science based target by 2025/26.

Timeline

50% of suppliers by spend committed to a science based target by 2025/26

Adaptation

What we know

The climate is changing, leading to different weather patterns and this will have a fundamental impact on delivery of safe and efficient air traffic services to our customers. And we need to be ready for the changes, to ensure our facilities and operational service provision are resilient to the challenges climate change presents us.

What we've done

During 2021, we completed an assessment of how the most recent UK climate projections could impact our infrastructure, this was our third such assessment. We identified nine physical climate risks based on the latest climate scenarios which point to warmer, wetter winters and hotter, drier summers along with an increase in the frequency and intensity of extreme weather events.

What we will do next

Our knowledge of the impacts of climate on our operations is feeding into our long-term investment decisions, alongside requirements to reduce emissions taking a lifecycle approach. We will, during 2023, further develop our understanding of transition and physical risks, preparing an initial Taskforce for Climate Related Financial Disclosures led statement for our Annual Report and Accounts, ahead of a full report in 2024/5.

Our plans to mitigate the impact of climate change related weather events will be fully embedded into our risk management systems during 2023 with clear governance from our Business Continuity group, through our Environmental Strategy Steering Group to the NATS Board. Continuing our work with Airports Council International and EUROCONTROL through the European Aviation Climate Change Adaptation (EACCA) group we will support the development of a harmonised approach to climate adaptation across Europe connecting airport and ANSP action plans to identify gaps and strategies to combat the impacts of climate change on the aviation network.

We will also continue to work with international colleagues through ICAO on the production of the latest state readiness of the global aviation system to the impacts of climate change and in doing so, ensure our own plans are good practice and fully aligned.

Weather in 2019

Major storms which cost aviation an estimated **€2.2billion** in 2019 in terms of en-route delays, are expected to increase in intensity.

Bad weather forced airlines to fly **1m extra km** burning **6,000 tonnes extra fuel** producing **19,000 tonnes extra CO_2**

Weather in 2050

Extreme weather is predicted to drive these numbers up, with horizontal flight inefficiency on days when storms account for over 50% of air traffic flow management delays expected to **worsen by 0.5%.**

That's an extra **57,000 tonnes of CO_2/yr** increasing every 1,000 nautical mile flight by roughly 40 nautical miles further driving up the cost to airlines, passengers and their carbon footprint.

66% of coastal/low-lying airports are at an increased risk of flooding in the event of a storm surge.

Reducing flight durations

Future flight operations will also be modified by climate change with jet streams reducing many transatlantic flight durations both eastbound and westbound.

This will have positive effects on flight times, fuel burn and emissions, and could yield possible saving of **55,000 tonnes of fuel** per year by 2050 **c.175,000 tonnes of CO_2**

Timeline

- **Partial TCFD declaration by end 2023**
- **Full TCFD declaration by end 2024**
- **Mapping of transition and physical risks by 2024**
- **Work with EACCA on CEO adaptation awareness material**

Delivering and monitoring the plan

The NATS Board is responsible for setting and leading the group's climate-related strategy and goals, and has oversight of climate-related risks and opportunities impacting the group. Following its strategy review in the year, the Board set a strategic objective to be carbon negative by 2040. This is in addition to previous direction from the Board for NATS to drive towards achieving net zero carbon across our estate by 2035 and delivering our part of the aviation industry's 2050 plans to decarbonise its operations.

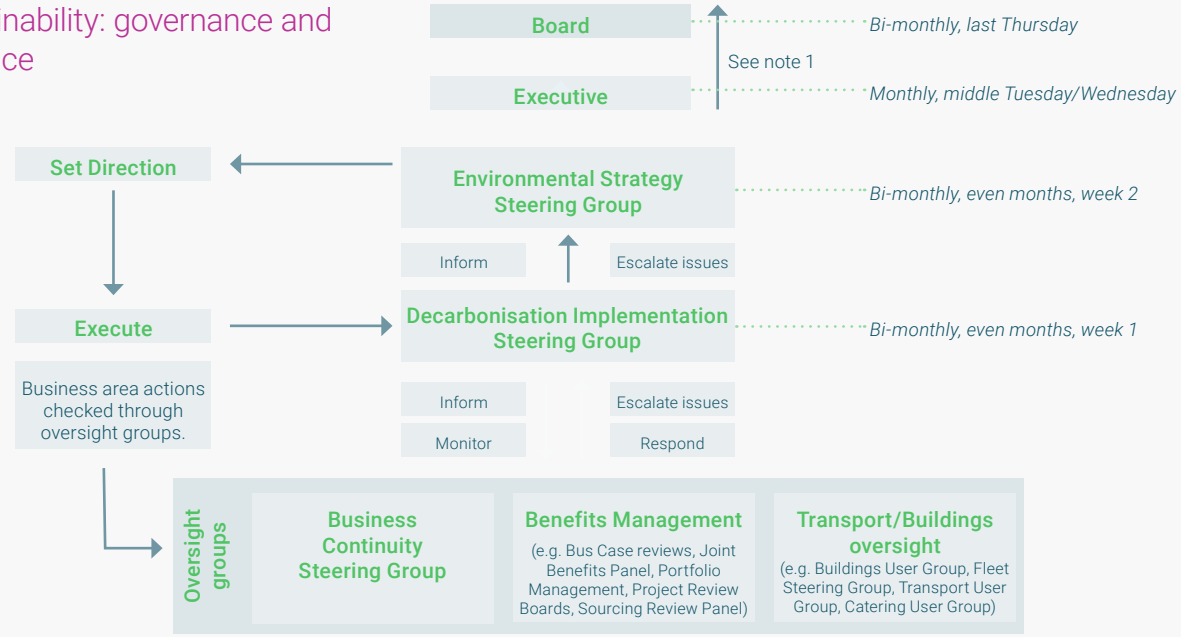
During the year, the Board reviews the governance framework to ensure the remit of its committees are appropriately aligned with climate change risks and opportunities and monitoring progress against decarbonisation targets.

The CEO has overall accountability for the NATS decarbonisation targets and for ensuring business resilience to climate change. The Board receives updates on matters discussed at the executive level Environmental Strategy Steering Group (ESSG), including progress against the company's science-based target for net zero by 2035 and carbon negative by 2040 as well as consideration of physical and transition climate-related issues.

The ESSG meets bi-monthly and is chaired by the Director of Safety and Sustainability and its members include the CFO, the Director Operations, Director Technical Services, Director of En-Route Operations, Director Supply Chain, Director Sustainability and the Director Corporate Communications.

The ESSG sets direction for sustainability activities across NATS and receives progress reports from the Decarbonisation Implementation Steering Group whose primary objective is to manage and monitor performance towards our net zero and carbon negative objectives, supported by numerous day to day oversight groups set out in the figure below.

Sustainability: governance and cadence



Note 1: (From ESSG TORs) The Chief Financial Officer will cascade material outputs from the steering group to the Board. As minimum this shall include; annual environmental management review (March as part of Corporate Governance Code updates), two separate one slide updates c. June/ Dec and mid year (Sept/Oct) update via paper.

- The Business Continuity Steering Group is accountable for ensuring the day to day resilience of the group's air traffic infrastructure to baseline climate and previously experienced weather events, as well as service continuity and recovery from such events.
- The Joint Benefits Delivery Panel oversees (among other benefits categories) ATM activities that contribute to reducing aviation emissions such as more fuel-efficient flight profiles and airspace change as well as activities which reduce scope 1 and 2 emissions from NATS estate and selected scope 3 emissions.
- The Portfolio Management team oversee Project Review Boards as a second level of benefits assurance below the Joint Benefits Delivery Panel.
- The Sourcing Review Panel is run by Supply Chain and oversees business cases for alignment with (among other benefit areas) sustainability objectives.
- Buildings, Transport and Catering user groups maintain oversight of activities in these respective areas.
- The Fleet Steering Group oversees vehicle fleet related activities to ensure they are aligned with direction and targets set by the ESSG and DISG.

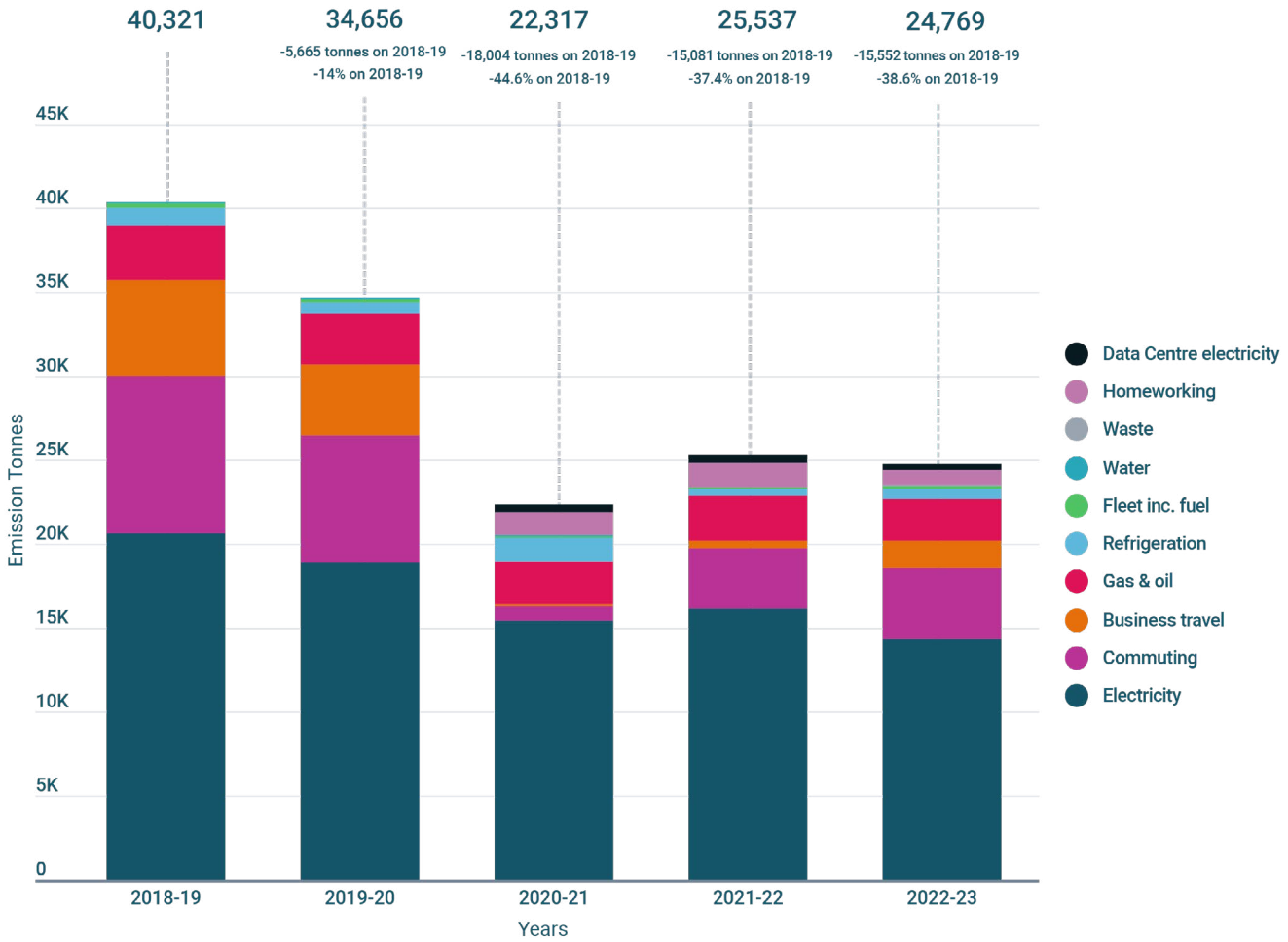
Targets and progress

We have set out an environmental strategy and targets to improve our emissions performance, both in the airspace we manage and from running our business. Our promise is to be a net zero emissions company by 2035/6, carbon negative by 2040, and to work with our customers, partners and suppliers to achieve a net zero aviation industry by 2050.

We have clearly defined, absolute, 1.5 degree aligned near-term science-based targets which were validated by SBTi in August 2022 and further awarded with 'Business Ambition' status – the highest achievement possible. These are:

- NATS Holdings Limited commits to reduce absolute scope 1 and 2 GHG emissions 41% FY2026 from a FY2019 base year (including all electricity use and direct emissions from combustion or release to atmosphere from gas use, burning fuel in generators, NATS owned fleet and refrigerant losses from our air conditioning systems).
- NATS Holdings Limited also commits to reduce absolute scope 3 GHG emissions covering purchased goods and services, fuel and energy related activities, upstream transportation and distribution, business travel and employee commuting GHG emissions 41% within the same timeframe (Scope 3 categories 1, 3, 4, 6, 7 relating to business travel, homeworking, commuting, energy related emissions, upstream transportation and upstream purchased goods and services).
- NATS Holdings Limited further commits that 50% of its suppliers, by spend covering capital goods, will have science-based targets by FY2026.

NATS long term net zero target by 2035/36 and carbon negative objective are based on the same scope of emissions as above. NATS use the location-based calculation methodology in its target coverage for scope 1 and 2 emissions. NATS report updates on performance annually through its mainstream annual report and accounts.



Performance over time

NATS performance data is prepared in accordance with non-financial information reporting guidance from the Financial Reporting Council, the European Commission, the Climate Disclosure Standards Board (CDSB) and the Task Force on Climate-related Financial Disclosures. NATS emissions assertions are verified to ISO14064-1. External verification statements and a report detailing our calculation methodologies and detail on our target boundaries are available on NATS.aero.

Glossary

3Di	Three-Dimensional insight – the airspace efficiency metric created by NATS more than 10 years ago. 3Di compares the actual flight trajectory of aircraft in UK airspace with a theoretical 'optimal' trajectory based on direct point-to-point routings, continuous climb, continuous descent and user requested flight levels. Uniquely, it measures both horizontal and vertical performance, unlike other industry metrics which measure only the vertical, and can therefore offer more precise performance measurements.
Carbon negative	Whereby an entity removes as much carbon dioxide from the atmosphere as it emits.
Carbon positive	Whereby an entity removes more carbon dioxide from the atmosphere than it emits.
Climate change	A term describing global warming and climate change, and their impacts. This term and the term 'climate emergency' have been used to describe the threat of global warming to humanity and the planet, and to urge aggressive climate change mitigation.
Net zero	Refers to balancing the amount of carbon and other greenhouse gases we emit into the atmosphere with an equivalent amount of carbon emissions removals—so that the overall impact is zero.
1.5°C	A carbon emissions target in line with the scale of reductions required to keep global temperature increase below 1.5°C above pre-industrial temperatures.
Sustainable Aviation	An industry coalition of airlines, airports, aerospace manufacturers and NATS targeting cleaner, quieter, smarter flying.
TCFD	The Taskforce on Climate-Related Financial Disclosures (TCFD) is an industry-led group which helps investors understand their financial exposure to climate risk and works with companies to disclose this information in a clear and consistent way.

Task force on Climate-related Financial Disclosures progress

While every sector and industry could experience financial impacts from climate-related risks and opportunities, the TCFD identified the aviation sector as potentially one which is more affected by climate change on the ground and in the air as well as from the transition to a low-carbon economy.

As the provider of the UK's critical national airspace infrastructure, we are preparing for climate change trends from warmer, wetter winters and hotter drier summers alongside an increase in frequency and intensity of extreme weather events, as well as sea level rise and storm surges. We also understand the contribution that air traffic control can make to overall aviation emissions reduction through measures including optimising flight paths to reduce aircraft fuel burn and CO_2 emissions and delivering airspace modernisation.

This year we are making a number of voluntary disclosures broadly aligned with TCFD ahead of full compliance in our 2024 annual report.

Governance

1) Describe the Board's oversight of climate-related risks and opportunities

2) Describe management's role in assessing and managing climate-related risks and opportunities

Our Board is responsible for our climate-related strategy and has oversight of climate-related risks and opportunities impacting the group (risk governance is explained on page 24). Following its strategy review in the year, the business has an objective to be carbon negative by 2040, which goes further than the previous target to achieve net zero emissions across our estate by 2035, and deliver our part of the aviation industry's 2050 plans to decarbonise its operations.

The Board delegates responsibility to various committees (see pages 51 to 78). During the year, the remit of its committees was reviewed to ensure alignment with climate change risks and opportunities and monitoring progress against decarbonisation targets.

Our Board members bring a variety of skills and experience, from their own qualifications as well as other external Board appointments. These include an understanding of ESG and climate change matters.

The CEO has overall accountability for the group's decarbonisation target and for ensuring business resilience to climate change. The Board receives periodic updates on matters discussed at the Environmental Strategy Steering Group (ESSG), including progress against the company's near-term 1.5oC aligned science-based target, our sustainable-finance linked targets and commitments to achieve net zero by 2035 (see Metrics and targets). These updates enable the Board to understand the drivers of emissions performance and to assess investments and resources to achieve net zero as well as actions for mitigating climate risks.

The ESSG is the executive committee that ensures environmental policy objectives are being appropriately delivered. Its scope covers environmental impacts from airspace users of our air traffic control service and our estate-based impacts from delivering our business, as well as climate-related risks and opportunities faced by the group. The ESSG meets bi-monthly.

The ESSG is chaired by the Safety and Sustainability Director with other Executive members being the CFO, Operations Director, Technical Services Director and the Communications Director. Other members include the Director of Sustainability, the Director of En Route Operations and the Director of Supply Chain and Facilities Management.

The ESSG sets the direction and focus of the Decarbonisation Implementation Steering Group whose primary objective is to manage our net zero14 and carbon negative deliverables. These goals include overseeing ATM activities that contribute to reducing aviation emissions such as more fuel-efficient flight profiles and airspace change as well as activities which reduce scope 1 and 2 emissions from NATS estate and selected scope 3 emissions.

Task force on Climate-related Financial Disclosures progress

Strategy

3) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long-term

4) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning

5) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Since the introduction of the adaptation reporting power for DEFRA under the Climate Change Act 2008 we have produced two reports for DEFRA on the progress we are making in identifying and assessing climate-related risks and opportunities. The latest of our periodic reports was published in 2021 and set out the main priority physical and transition climate change risks and opportunities. This report is available on www.nats.aero.

In assessing physical climate risks (see table on page 33), we adopted a bottom-up approach that applied desktop GIS using the most recent UK Climate Projections (UKCP18) covering the locations of 236 assets across the UK and Gibraltar, which represented the critical air traffic control and engineering assets providing services for civil and military customers. A high emission reasonable worst-case scenario (RCP 8.5 ~ >4oC global warming) was used to assess the impacts on airspace and on NATS estate and its assets over a long-term horizon of 2050-2100. A medium case (RCP 4.5) was also applied to NATS estate and assets. The analysis was supplemented with details of past extreme weather events (such as Storm Ciara and Storm Dennis in February 2020).

In recent years we have experienced weather extremes which we have been able to mitigate with limited operational service disruption. For example: high winds from Storm Dennis in 2020 caused damage to a surface movement radar at Stansted Airport; Storm Arwen in 2021 resulting in the loss of communications and surveillance from a radar following a generator failure; and in summer 2022 cooling systems failed at Swanwick due to extreme heat. Aside from impacts to assets and our service, the safety of our employees is a priority during such events. These events reflect our exposure to short-term (1-2 year) physical risks and provide a baseline for post event reviews of our resilience and asset maintenance, spares management and replacement decisions. We mitigate the risk to our infrastructure and operational service through a planned and preventive maintenance regime and using a weather watch process when extreme events are forecast by the Met Office following which we proactively protect our assets and operational service. Alongside system resilience, asset design and restoration management minimises engineering related delay impacting our operational service. Long-term planning of service, system and asset replacements are informed by asset health reviews, historic performance data and ongoing supportability. Design criteria for replacements utilise industry best practice standards, climate projections and expected future capacity requirements to ensure resilience.

To date we have considered the risks of transition (see table on page 34) to a low carbon economy on a qualitative top-down basis. Some of these are direct impacts such as access to renewable electricity while others are indirect for example arising from policies which seek to reduce the demand for air travel or public perception of the impact of aviation emissions on climate change. There are opportunities, particularly market-based ones, for NATS to consider and pursue which may partially offset some of the increased costs from transition impacts.

Our priorities for 2024 are to assess physical risks over medium timescales (to 2030) using the UKCP18 data above and to develop a higher resolution analysis to identify the vulnerabilities of specific assets over short, medium and long-term timescales. We also plan to conduct fine resolution flood risk modelling under different climate scenarios for key sites. For transition risks, we propose to consider the implications under both an orderly and disorderly transition to a low carbon economy. The outputs from this further analysis will enable climate risks and opportunities to be embedded into our business planning and investment decision processes. This insight will also enhance our understanding of likelihood and financial impact. We are also looking to include carbon metrics and pricing in our investment decisions to support delivery of emissions reduction targets. As well as preparing for the impacts of climate change on our business, we are committed to transitioning to a business model that is consistent with the objectives of the Paris Agreement and this is reflected in our strategic objective of reducing our Scope 1, 2 and selected Scope 3 emissions to net zero by 2035 (which has been independently validated by the Science Based Targets initiative) and being carbon negative by 2040.

Our strategy also meets the UK government's Jet Zero strategy to achieve net zero aviation emissions by 2050 and broader international aviation commitments. Our plan for NR23 set an ambitious target to improve the efficiency of flights under our air traffic control by 4.4% between 2020 and 2035. This is represented by a sustainable reduction in the 3Di score in the face of traffic growth, which is enabled by airspace modernisation as the biggest contribution we can make to reducing the carbon footprint of flying.

Our initial view of the principal physical and transition risks and opportunities are described in the table below.

Task force on Climate-related Financial Disclosures progress

Risk management

6) Describe the organisation's processes for identifying and assessing climate-related risks

7) Describe the organisation's processes for managing climate-related risks

8) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management

Sustainability and climate change is a principal risk to our business and is fully embedded within our overall Enterprise Risk Management framework (ERM). The process for identifying, assessing, and managing climate-related risks is the same as for all other risks, as described on page 24.

Our targets validated by SBTi

To reduce absolute scope 1, 2 and 3 GHG emissions by 41% by 31 March 2026 against a 2019 financial year baseline.

Note: scope 3 emissions covers purchased goods and services, fuel and energy related activities, upstream transportation and distribution, business travel and employee commuting.

To commit that 50% of our suppliers by spend, covering capital goods, will have science-based targets by 31 March 2026.

The ERM sets out the categories of risk we face which, alongside the work we are doing to assess site level physical risks, forms a tool for business areas to identify the risks they face, assess each risk based on the potential impact and the probability of occurrence and compare that to the risk appetite and tolerance statements agreed by the Board. Three specific categories relate to sustainability and climate change:

a. **Physical impacts of climate change:** Risks to our assets and operations arising from global warming, including the impact of extreme weather events.

b. **Transitional impacts of climate change:** Risks associated with the transition to a low carbon economy, including changes in regulation and consumer behaviour.

c. **Decarbonising aviation:** Transition risks associated with our carbon negative ambitions and our ability to support decarbonisation across the sector.

The specific risks identified in our framework currently are summarised in the table below, and the most material of these are escalated to the Executive team, and included in Audit Committee and Board oversight of risk management as appropriate.

Metrics and targets

9) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process

10) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

11) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets

Our metrics and targets allow us to measure our impact on the environment and monitor our performance towards meeting our strategic objectives. The key metrics relating to our GHG emissions are set out on page 35.

Our target for this financial year was to have reduced our estate GHG emissions by 24% against the 2019 baseline, and we have achieved 39% (2022: target 18%, achieved 37%).

Further detail on our decarbonisation plan and report on the year's performance is detailed within the Responsible business section and NATS Greenhouse Gas report on www.nats.aero.

As we develop our understanding of the physical and transition climate risks we will develop metrics and targets that provide the information the business and our stakeholders need to effectively monitor our performance and demonstrate our progress.

We maintain a range of certified ISO (or equivalent) management systems, which are externally assessed by DNV GL, including ISO 31000 (risk management) and ISO 14001 (environment management). The Audit Committee oversees all verification and assurance activity.

Task force on Climate-related Financial Disclosures progress

Risk or opportunity	Time horizon	Potential impact	How it is managed
Physical risks			
Flooding at en route centres and airports where NATS provides a service	Medium and long-term	Restricted access to sites and damage to equipment impacting operational service	Ongoing analysis of flood risk for key sites. Longer-term maintenance to improve drainage capacity and build flood defences
Storms (precipitation and lightning) at remote sites	Short, medium and long-term	Costs of damage to communications, radar and navigation assets and disruption to operational service	Planned remedial action, geographical separation of assets, layers of redundancy and back-up for critical systems
Wind speed and gusts at remote sites	Short, medium and long-term	Cost of damage to or loss of a radar. Simultaneous loss of multiple assets leading to reduced operational service	
Summer extreme temperature at en route centres, airports and affecting infrastructure assets	Short, medium and long-term	Damage to cooling systems and equipment components leading to reduced operational service	
Thunderstorms and clear air turbulence	Short, medium and long-term	Disruption to ATC service performance, air traffic delay and aircraft re-routing	Operational regulations to limit capacity and ensure safe service provision
Physical opportunity			
Supporting customers with the specification and installation of airport engineering equipment	Medium and long-term	Additional revenue from engineering project services	Ongoing assessment of physical risks to customer sites

Task force on Climate-related Financial Disclosures progress

Risk or opportunity	Time horizon	Potential impact	How it is managed
Transition risks			
Policy measures seeking to constrain air travel demand such as air passenger duty, aviation fuel taxes and carbon charging	Medium and long-term	Lower air traffic volumes and revenue than assumed by the price control	Traffic volume risk sharing mitigates revenue losses ahead of a new price control
Public perception of the aviation sector's impact on climate change	Medium and long-term	Loss of revenue as consumers reduce air travel or opt for lower carbon transport, employee retention risk and recruitment of new talent	
Public opposition to airspace modernisation (e.g. for changing noise patterns)	Short and medium-term	Reduction and/or delays in ATC contribution to aviation emission reductions	Extensive consultation with the public, industry and regulator
Supply-demand of renewable energy and reliance on electricity grid (power and heat)	Short, medium and long-term	Access to clean energy alternatives drives higher cost of energy and risk of grid power outages	Energy avoidance and conservation measures, photovoltaic arrays at main sites reducing scope 2 emissions and minimising exposure to electricity price fluctuations, supply prioritisation
Supply-demand of carbon sequestering and offsetting	Medium and long-term	Potential increase in cost to achieve net zero and carbon negative strategic objectives	Taking early actions in service of meeting decarbonisation targets. Stakeholder engagement on regulatory framework
Transition opportunity			
NATS ATC solutions offer resilience and support emission reductions	Short, medium and long-term	Increased revenue from tools which improve landing rates in strong headwinds (eTBS), reduce airborne holding (XMAN) or climate impacts to airport infrastructure (digital towers)	Targeted commercial activities

Task force on Climate-related Financial Disclosures progress

Supporting information

The Responsible business statement and the environment metrics reported below have been prepared in accordance with non-financial information reporting guidance from the Financial Reporting Council, the European Commission, the Climate Disclosure Standards Board (CDSB) and the Task Force on Climate-related Financial Disclosures. An operational control approach is taken to non-financial information using the same boundary as the NATS Holdings group.

Environmental performance and greenhouse gas emissions

Description[12]	**FY 2022/23 (or CY 2022)**	FY 2021/22 (or CY 2021)
Service performance and resilience		
3Di (calendar year)	**26.0**	22.8
Environmental performance^		
Scope 1 emissions (location-based tonnes CO_2e)	**2,895"**	2,708"
Scope 1 emissions (market-based tonnes CO_2e)	**2"**	2"
Scope 2 emissions (location-based tonnes CO_2e)	**10,587"**	11,774"
Scope 2 emissions (market-based tonnes CO_2e)	**114"**	718"
Scope 3 categories 1, 3, 4, 6 and 7 emissions (tonnes CO_2e)	**11,287"**	10,754"
Total scope 1, 2 and 3 categories 1, 3, 4, 6, 7 (tonnes CO_2e) – location based	**24,769"**	25,236"
Scope 3 category 11 emissions (tonnes CO_2)	**23,365,760"**	13,920,072"
Avoided / modelled enabled ATM-related CO_2 reductions in tonnes[13]	**56,317"**	7,972"
Water supply and treatment (m^3)	**34,142"**	27,508"
Energy consumption (gas + electricity) MWh	**64,243"**	66,520"
Transportation: owned and leased vehicle fuel consumption (as reported within scope 1) KWh	**528,895**	Not measured
Transportation: business travel (scope 3) from employee-owned vehicles and hire cars KWh	**1,066,645**	Not measured
CO_2e intensity metrics		
Total scope 1 + 2 emissions (location-based tonnes CO_2e)	**13,482"**	14,482"
Total scope 1 + 2 emissions (market-based tonnes CO_2e)	**116"**	720"
Total scope 1 + 2 intensity metric (location-based tonnes CO_2e per £m of revenue)	**14.4"**	19.3"
Total scope 1 + 2 intensity metric (market-based tonnes CO_2e per £m of revenue)	**0.1"**	1.0"
Net zero metrics towards validated science-based target		
Percent reduction of CO_2e against 2018-19 baseline (scope 1, 2 and 3 categories 1, 3, 4, 6, 7)**	**Target: -24%** **Actual: -39%"**	Target: -18% Actual: -39%"
Percent change in CO_2e against 2018-19 baseline (scope 1 and 2 emissions)**	**-35%"**	-30%"
Percent reduction of CO_2e against 2018-19 baseline (scope 3 categories 1, 3, 4, 6, 7)**	**-43%"**	-45%"

^restated due to inclusion of additional information, improvements to modelling accuracy and data quality.
"verified to ISO 14064. Certificates, GHG emission methodologies and boundaries are outlined in detail in our GHG report, available at www.nats.aero/environment/library
** Our near-term net zero target applies to total combined scope 1 and 2 and scope 3 (categories 1, 3, 4, 6, 7) CO_2e location-based emissions by 2025/26, using a 2018-19 baseline. Scope 3 categories 1, 3, 4, 6, 7 describe GHG emissions covering purchased goods and services, fuel and energy related activities, upstream transportation and distribution, business travel and employee commuting (including homeworking).

If you have feedback on our plan, we'd be delighted to hear from you.

public.enquiries@nats.co.uk