

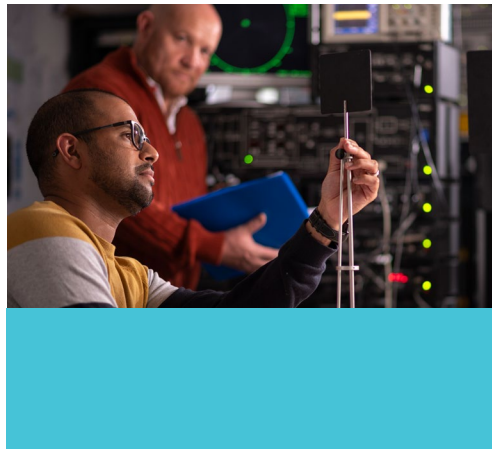
The background of the cover is a long-exposure photograph of a night sky. It features numerous bright, white and blue light trails from aircraft, crisscrossing the upper half of the frame. Below the sky, a dark silhouette of a forested hill is visible. On the right side of the hill, there are some illuminated buildings and a bridge with arches, with bright light reflecting on the water in the foreground.

NATS

Responsible Business Report 2021–22

nats.aero

Contents





CEO introduction

As I write, we have just received news that NATS' climate targets have been independently validated by the Science Based Targets initiative (SBTi) and awarded 'Business Ambition' status – the highest ambition possible.

This assessment relates to our target to be net zero in our business operations by 2035 and builds on the A- 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, though we know that even harder work lies ahead in our efforts with Sustainable Aviation to help the aviation industry achieve the 2050 net zero target. Our airspace modernisation programme is making a significant contribution in the short and medium term until truly ground-breaking technologies in

engines and fuels are developed commercially. Last November, we implemented 'Free Route Airspace' (FRA) across Scotland – the biggest airspace change ever undertaken in the UK which is already saving enough fuel each year to power a small town.

During the year, we reviewed our company strategy and defined objectives for the business through to 2040. These strengthen our commitment to a sustainable future for aviation. We will run our operation sustainably and we will be proactive in supporting the reduction of the wider aviation industry's impact on the environment. We aim to be carbon negative in our business operations by 2040.

The strategy also recognises the importance of our talented employees, with inclusion, career development and wellbeing being front and centre to becoming a top 25 UK company to work for. In the coming year, teams across the

company will be developing plans to deliver these objectives.

Looking after our employees through the difficulties of the pandemic has been our priority and our Occupational Health & Wellbeing teams have worked tirelessly to support our people and help them work through professional and personal challenges.

We said all along that we needed to be ready and prepared to support the return of traffic, when it came, and we have held true to that promise thanks to the incredible professionalism and resilience of our people. We have put in place robust programmes to give our controllers enough work to maintain their licences and their confidence, as well as training them on new technologies and on airspace improvements that require new ways of working. Our non-operational employees, working largely from home, have also needed

our support, both in terms of tools to do their jobs and peer support when life starts to get too much.

Through this, our employee networks have strengthened and expanded and I'm very proud of these and of the powerful work we are doing on ethics with our valued suppliers. Our Human Resources team has also formed strong relationships with new recruitment partners to help improve the diversity of our workforce.

With Covid-19 still disrupting both our professional and personal lives, this has been another challenging year, but one in which we have been able to make great progress as a responsible business and I would like to thank all of our people who have made that possible.

Martin Rolfe
Chief Executive Officer

2021–22 Highlights



Launched our Diversity and Inclusion (D&I) vision in October 2021- Under the Same Sky.



Establishment of a D&I steering group including representatives from across the business, our employee networks and trade unions.



Enhanced our recruitment processes, with new partnerships and channels with Fantasy Wings, Vercida and STEM Returners.



Marked National Inclusion Week for the first time with a programme of activities, open to all.



Continued to introduce and encourage agile working across all of our sites, enabling people to work in new and different ways, supported by a greater variety of office spaces and technology.



Reduction in our Gender Pay Gap and introduction of an Ethnicity Pay Gap Report.



Recognised as a European Climate Leader by the Financial Times for 2nd year running.



Achieved leadership A- CDP rating for our environmental stewardship, putting us in the top 2% of 13,000 companies disclosing environmental management data to CDP globally.



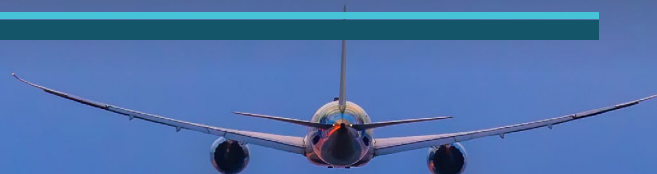
Validation of our GHG emissions targets by the Science Based Targets initiative (SBTi) demonstrating consistency with the reductions required to keep climate change to 1.5°C.



GHG emissions from running our business are 37% lower than our baseline 2018/19, ahead of our target profile.



Delivered the biggest ever geographical change to UK airspace, allowing airlines to fly the most direct, fuel efficient and timely routes ('Free Route Airspace' or FRA).



A man with glasses and a dark suit over a light blue shirt is seated at a desk, pointing his right index finger with a red pen towards a woman on the left. He is smiling and looking at her. In the background, two other people are blurred, suggesting a busy office environment. A teal banner is at the bottom left.

Supported employees

Our business relies on the competencies, capabilities and experience of our employees. We are committed to providing a safe, inclusive and supportive workplace to help employees thrive.



Supported employees

Claire Odd / Health, Safety & Wellbeing Manager

Claire talks about employee wellbeing and agile working...

As an employer, NATS strives to provide proactive support and to equip employees and managers with the tools and skills to help balance work and home responsibilities. This means adapting as an organisation to look after our people while meeting our customer requirements.

During the year, our priority remained the health and safety of all our employees, contractors and visitors at all our sites across the UK and overseas, including Gibraltar, the Middle East and Asia-Pacific regions. A challenging time was made even more difficult by the complex and shifting Covid restrictions that differed from location to location.

As the pandemic continued throughout the year, most of our non-operational colleagues stayed working remotely, as we deferred the re-opening of our sites. In the background, a collaborative team made up of professionals from various departments developed our approach to agile working, ready for when people could return to an office environment.

Our Whiteley site in Hampshire reopened in September 2021 after a huge amount of work to allow employees to return to a reconfigured workspace should they wish, ensuring they had the tools and equipment necessary to do their job safely, efficiently and effectively. After some delay due to Omicron, we also made

agile working spaces available for our non-operational colleagues at both our air traffic control centres – Swanwick, Hampshire and Prestwick, Ayrshire.

It was imperative that our operational employees, air traffic controllers, engineers and individuals doing project work, who could not work remotely or without engaging with others in person, felt safe and secure as they worked. Innovative ways of working continued to ensure social distancing so that flights could still be handled safely, and members of our Health, Safety & Wellbeing team spent many hours 'virtually' sitting in airport towers and overseas offices via phones and laptops, to

get a true understanding of how our people worked and develop Covid-secure processes and procedures.

We will continue to focus on employee wellbeing, providing support through our Peer Support Programme and Employee Assistance Programme (EAP) where individuals can receive the help they need to deal with their wellbeing and mental health issues.



Supported employees

Katie Foster / Head of People Services

Katie talks about our work with D&I...

We made encouraging progress in narrowing our [gender pay gap](#), moving from 19.2% to 16.8%, which we hope to better again in future years through our gender pay action plan. We also published our [Ethnicity Pay Gap Report](#) for the first time, as one of our commitments to Business in the Community's (BITC) Race at Work Charter, which we signed in January 2022. We strongly believe that attracting and retaining employees with diverse backgrounds, thoughts, experience, knowledge and skills is fundamental to the success of our business.

In another first, we submitted for assessment in the Stonewall Workplace Equality Index, which evaluated our achievements and progress on LGBTQ+ equality. We were assessed on eight areas of employment policy and practice, including family policy, gender identity and menopause. We also conducted an anonymous employee survey as part of the assessment.

In line with our D&I vision, we created a new D&I statement for recruitment advertising, refreshed our job advert templates and

NATS Careers web pages, and held a virtual careers exhibition, particularly in support of Early Careers, and as part of an inclusive and accessible recruitment campaign. We expanded our learning and development offering for our existing employees, covering topics such as inclusive leadership, respect for all and inclusive teamworking.

We formed new partnerships and opened new recruitment channels to help improve the diversity of our workforce, including an alliance with Fantasy Wings, an organisation that

promotes individuals from Black, Asian and Minority Ethnic backgrounds and women into the aviation industry. We are also now working with Vercida, which provides an inclusive job board platform.

We refreshed, simplified and introduced new policies covering the menopause and work and family, including carers leave, in an effort to spark awareness and discussion, as well as offer support and guidance.



Supported employees

Nicky Upton-Goodall / Employee Communications Consultant

Nicky talks about inclusivity and our employee networks...

Creating an inclusive culture where colleagues feel safe to share their personal stories is core to our company values and corporate communications strategy. Our focus this year has been to work with our employee networks to raise their profiles and recognise the many D&I awareness events celebrated throughout the year. We have also supported colleagues, and provided them with a platform where they can share their life experiences and alternative perspectives, which has created new conversations and connections.

We provide dedicated communications support to each of the six employee networks we now have: Disability network, Faith network, GlobeAll, SkyPride, Women's network and Young Professionals network. Employee

networks promote diversity within our organisation and help create a culture where everyone is included, business challenges are addressed, and support and advice can be shared. Our employee networks are run by colleagues for colleagues, who come together based on shared characteristics and life experiences to influence, shape and foster a diverse and inclusive workplace.

Each network has a volunteer committee, with co-chairs and supporting lead roles, and an Executive sponsor. They meet independently as a network, hold Annual General Meetings, provide regular updates to their membership, and the co-chairs meet monthly with HR and join the D&I Steering Group meetings. Each network has developed

its own communications plan that delivers the network's objectives, and is aligned to our diversity and inclusion vision, Under the Same Sky. We collaborate with the networks on significant celebrations and awareness campaigns, for example, Black History Month, Women's History Month and Pride. The networks also have a dedicated page on our internal intranet and their own community groups on Yammer.

Last year, for the first time, we celebrated National Inclusion Week. A core team of representatives from the employee networks, HR, Trades Unions and Employee Communications, organised a week of 25 virtual sessions, to explore a wide range of topics, including unconscious bias, inclusive

recruiting, inclusive language and terminology, Trans and non-binary awareness, adult ADHD and menopause.

In March, on International Women's Day, we partnered with Swiss ANSP Skyguide, for a CEO-led panel discussion entitled #BreakTheBias. Employees from both organisations were invited to the live discussion to converse and debate.

We have also introduced an internal quarterly D&I business round-up, where we provide an update on business-led activities and deliverables. To support their visibility, the employee networks are invited to contribute to the update, enabling them to raise their profiles and share their activities beyond their membership.



Healthy environment

For more than a decade we have reported on our impact on the environment, including progress on managing airspace more efficiently, reductions in greenhouse gas emissions and resource use associated with running our buildings and infrastructure.



Healthy environment

Dr George Koudis / Environment Lead, Research and Development

George talks about our work supporting research into the non-CO₂ impacts of aviation...

The industry has collectively set a net zero target for 2050 based on its CO₂ emissions, but aviation's overall climate impact is known to be broader than CO₂ alone. Other greenhouse gases, including nitrogen oxides, contrails and contrail-induced cirrus have an overall warming effect on the planet – with climate scientists suggesting that when taking these effects into account, the overall climate impact of aviation could be two to three times higher than if non-CO₂ effects are ignored.

Avoiding the creation of persistent contrails could be a useful short-term option to mitigate climate change, especially given that many of the industry's major developments, such as sustainable aviation fuels, and other

propulsion sources are still some years away on a commercial scale. We have been active in this developing landscape for several years; we were founding members of the Royal Aeronautical Society (RAeS) contrail avoidance group in 2015 to help establish the feasibility of minimising persistent warming contrails. Since then, we have established links across industry and academia to drive research in this area and supported a number of demonstration flights with partners.

During the last year, we worked with a number of partners including technology start-ups (SATAVIA), research centres (DLR and Imperial College London), ANSPs (MUAC) and airlines (KLM and Etihad) to demonstrate the use of

atmospheric modelling that optimises flight plans for contrail prevention and test the science through flight trials. Our role has been to provide air traffic control expertise during the flight planning phase, helping to adapt the flight plan based on contrail forecasts and making our controllers aware of the flight so that it can achieve its requested flight plan – which isn't always the case as our airspace gets busier and traffic patterns change.

Our activities in this area have also contributed to the development of a consortium, which is seeking European funding for a three-year project to investigate and demonstrate large-scale strategies to reduce aviation's non-CO₂ emissions (CICONIA) and the publication of

four research papers. This is in collaboration with Imperial College, DLR and others.

A [paper](#) published earlier this year and which we co-authored, focused on aircraft operations in the North Atlantic and found that between 2016-2019, on average only 12% of flights were responsible for 80% of the annual climate impact caused by persistent warming contrails. The study also identified a number of relevant factors including time of day, season, background meteorology, aircraft and engine type, etc. which could help to target any potential intervention at those flights most likely to create strongly warming contrails.



Healthy environment

Lee Boulton / Head of Airspace Development

Lee talks about our airspace change programme deliverables from the past year...

In the past year, we delivered the first tangible steps in modernising UK airspace to be more efficient and to support sustainable growth in the future. With sustainable fuels and new engine and aircraft technology still some years away, managing our airspace in a way which allows more efficient flying is already playing a major role in helping the aviation industry reduce its environmental impact.

Free Route Airspace (FRA) is a deliverable under the UK's airspace modernisation strategy, to remove long-established air routes above 25,000ft, allowing airlines to

fly the most direct, fuel efficient and timely routes considering variable factors such as weather and wind speed. This level of flexibility hasn't previously been possible, with the UK's airspace structure requiring aircraft to follow predefined routes which can often be longer than necessary. Now, with the introduction of FRA and with new technology, we can make this high level flying much more efficient.

The first deployment of FRA into UK Airspace came in December last year enabling annual savings of 10,500 tCO₂. It is the biggest ever geographical change to UK airspace, covering

approximately 150,000 square nautical miles of airspace over the North Sea, Scotland, North Atlantic, Northern Ireland and a small portion of northern England – a footprint twice the size of the UK. This is a busy area, handling up to 2,000 flights per day and around 80% of all transatlantic traffic. This means FRA will enable a reduction of up to 500,000 nautical miles of now unnecessary distance for aircraft using this airspace.

We are currently developing a further deployment of FRA and are on track to implement this across the Southwest of

England and Wales in 2023, subject to CAA approval. This is one of many changes over the next few years to help the aviation industry achieve its target of reducing its CO₂ emissions by at least 15% by 2030 (vs 2019) and reaching net-zero by 2050. The introduction of FRA in Scottish airspace alone will save CO₂ equivalent to the power used by 3,500 family homes every year.

Modernising UK airspace is a once in a generation opportunity to change and adapt to ensure we deliver lasting improvements and long-term environmental benefits.



Healthy environment

Marie Darvill / Strategic and Pre-Tactical Planning Manager

Marie talks about our work supporting the UN Climate Change Conference (COP26) and a perfect flight trial...

We were proud to play our part in supporting COP26 in Glasgow last year in what was a complex proposition. With high numbers of VIP flights, business jet flights and helicopter flights arriving at the same time as commercial flights, months of planning from our teams came together to deliver a safe and efficient service.

In the lead up to the event, we also supported a second 'Perfect Flight' project, with a

flight between Heathrow and Glasgow on 14 September 2021 to showcase the efforts being made across the industry to reduce emissions. Led by British Airways and involving Heathrow and Glasgow airports, Airbus and bp, it was up to NATS' air traffic controllers to optimise the flight profile and provide the most direct routeing. The flight proved to be a great success, reducing CO₂ emissions by 62% compared to the original Perfect Flight more

than a decade ago. Each part of the journey was optimised across the flight profile from push back to destination stand.

The Airbus A320neo used for this year's demonstration towards a Perfect Flight was able to fly without the everyday but necessary constraints imposed on air traffic because it was a special project, but our work to modernise airspace will make flying inherently

more efficient, providing greater CO₂ reductions and ensuring aviation can connect people and goods in a sustainable way. While the Perfect Flight might not be a reality today, the industry has made great progress over the last decade, and with further collaboration and stakeholder and Government support, the industry can move closer still to the Perfect Flight in the future.

Watch...

The Perfect Flight



Glasgow International Airport





Healthy environment

Paul Hughes / Head of Facilities Management

Paul talks about our progress reducing the emissions from running our sites...

NATS' role is to keep the UK aviation industry operating 24-hours a day, 365 days a year. 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. Understandably, energy consumption is the largest source of our own emissions and a priority focus area for my team, not only to support our net zero trajectory but also to help keep the spiralling costs of energy down.

We have been exploring opportunities across all our sites, with a huge breadth of initiatives progressed across the year.

We continue to develop plans to generate our own on-site renewable energy through large-scale solar installations for our main air traffic control centres. We have also identified a number of remote communications and surveillance sites for on-site solar and, 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.

The installation of 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 and further improvements rolling out to our largest sites in the coming year.

At our remote sites, backup generators are crucial to maintaining our critical infrastructure in severe storms like we saw earlier this year. 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.

During the year, we completed an [assessment](#) of how the most recent UK climate projections could impact our infrastructure. 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. This information is feeding into our long-term investment

decisions, alongside requirements to reduce emissions taking a lifecycle approach.

We are currently exploring our electric car charging infrastructure with an eye on our commuting emissions and the transition to electric vehicles.



Strong communities

As a large company with multiple sites across the UK and overseas, we play a positive role in the socio-economic development of the communities in which we operate, creating highly skilled and paid roles, and secondary employment, as well as supporting a range of charities and other good causes.



Strong communities

Anne Marie Black / Corporate PR & Charities Manager

Anne-Marie talks about re-starting in-person events with our corporate charities...

We continued to financially support our corporate charities throughout the pandemic, and as Covid restrictions eased, especially later in the year, both Aerobility and the Jon Egging Trust (JET), were able to re-start their face-to-face programmes and events, which we were delighted to participate in once again.

We hosted three workshops with JET at our corporate headquarters in Whiteley, with more than 40 students participating in a range of activities with NATS volunteers from across the business to inspire them. Focusing on communication and leadership skills, the days were an important part of JET's 'Blue Skies' youth engagement programme, a three-year STEM-inspired syllabus that provides young

people who face barriers to learning, with long-term support and access to inspirational teams and individuals to boost confidence, academic engagement, aspiration and work-readiness.

We provided more than 20 auction prizes of air traffic control tower tours in England, Northern Ireland and Scotland to help fundraising efforts at Aerobility's events, namely the Aviator's Ball and the Armchair Airshow. As long-standing supporters, we attended the ball, which was in-person after a virtual event the previous year and celebrated one of our own employees, Brian Wheeler, Deputy General Manager at Swanwick, winning Fundraiser of the Year, a real achievement and a great honour.

In celebration of our tenth anniversary of partnership with Aerobility, our Airports team also took on a huge challenge to raise £15,367 for the charity, climbing each of the tallest peaks in England, Wales, Scotland, Northern Ireland and Gibraltar, the territories where we operate airport towers. Various training exercises and events beforehand also contributed to the fundraising efforts, which boosted the total to over £20,000.

Following a year's suspension due to Covid-related budget restrictions, the Footprint Fund, a grant scheme for which our employees nominate their chosen local charities, was reinstated. We donated up to £500 to more than 25 charities, with monies going to projects

ranging from new kayaks for a Sea Scouts unit, to training kit for a community youth football club, to building a garden for a community centre.

Our employees have continued to support charities and causes they care about via our Payroll Giving scheme, which has been operating since 2008. Thanks to the generosity of 12% of the workforce, a total of £207,294.37 was donated to hundreds of different charities in 2021-22 via the scheme, ranging from the British Lung Foundation to the Hampshire and Isle of Wight Air Ambulance.



Strong communities

Robin Clarke / Community Relations Manager

Robin talks about community engagement and an important airspace change...

As an organisation we are committed to understanding the views of local communities and considering these in decisions we make that may impact the public. While the pandemic largely prevented our usual round of face-to-face meetings with community groups at airport and government forums, we have continued to engage widely with this audience through the now familiar online meeting tools. As mentioned in last year's Responsible Business report, we have been working in partnership with London

Luton Airport (LLA) on a consultation to change the airport's arrival routes, separating them from Stansted's. The change was implemented in February, and we followed this up by attending a public surgery in a newly overflowed village to understand the impact of the change. The findings from this surgery and emails we have received from residents from a wider area will be included in the evidence we submit to the CAA's Post Implementation Review (PIR).

As traffic has started to return, so our public enquiries email inbox has got busier. The pandemic had a dramatic impact on aviation with the skies becoming much quieter. During that period, when aircraft were often able to take more direct routes thereby cutting down on emissions, this meant many flights were seen in areas which don't normally experience aircraft overhead and residents worried that airspace changes had been introduced. Now, as flight numbers have increased, the

familiar pre-pandemic patterns have returned and we have had to remind communities that this is just a return to normal operations and flight paths.



Strong communities

Helen Fuge / Head of Talent

Helen talks about the importance of partnerships...

Despite the continued constraints the pandemic has enforced, we have continued to support the local community through STEM engagement and Apprenticeship support. Our partnerships with local schools and colleges have continued through the delivery of both virtual and face-to-face sessions centred on

innovation and the importance of engineering.

We have also been working on a partnership with STEM Returners to support Science, Technology, Engineering and Maths (STEM) professionals to get back to work after a career break. We look forward to welcoming our first

'returners' into fully paid 12-week placements this coming year.

Our partnership with the RAF Cadets has continued as well as the creation of new partnerships with charities such as Womens World Gliding.

We have also continued to support small and medium-sized enterprises in the Solent region through our work with the Solent Hub. NATS will be pledging a further £100,000 of unused levy funds to SMEs across the Solent region to cover the cost of apprenticeship training for smaller businesses.



Good business practice

Our business is built on partnerships with our customers, suppliers, peers and other stakeholders. These relationships are built on trust and our high standards of ethical behaviour and integrity.



Good business practice

Simon Lansdowne / GM Customer Affairs

Simon talks about engaging with our airline and airport customers...

The last year continued to be unpredictable and hugely challenging for our airline and airport customers.

The summer of 2021 saw travel and air traffic start to recover, but demand remained suppressed by changing restrictions and travellers were understandably apprehensive.

In late 2021 the Omicron variant emerged, restrictions were re-introduced, and our airline and airport customers were yet again impacted. Thankfully once the restrictions were lifted, consumer demand returned strongly, and the challenge switched to servicing the

demand, with the added complexity of network restrictions in Europe and rising fuel prices and we continue to see significant volatility in the Summer 22 schedule, with flight cancellations and delays, challenging the whole industry.

Throughout this last year, we continued to meet with our customers, bilaterally and as part of larger industry groups, to share information and insights on each other's operations. Every month we hosted a collaborative lookahead call for the following month, providing weather forecasts (direct from the Met Office) and air traffic predictions across the UK and European network. This is a

platform for airlines and airports to share with each other any salient points. We are grateful to the many airlines who take time to engage in this dialogue and we value the benefit this provides to us, airports and airlines in preparing for the month ahead.

We shared our medium-term plans with customers through our "Service and Investment Plan" consultation and encouraged a dialogue with them through meetings and requests for written feedback. In the Autumn of 2021, we consulted with our customers and stakeholders on a new price control business plan (NR23: 2023 to 2027). With their feedback

in mind, we finalised our business plan and published this in February of 2022 and we look forward to hearing the CAA's initial conclusions later this year.

We will continue to support our customers through the coming year, as we hope for a sustained recovery in demand for travel.



Good business practice

Stuart Gray / Director, Group Treasury & Corporate Finance

Stuart talks about sustainability linked-finance...

Last year, as part of the broader refinancing of its debt structure, NERL agreed a £400 million sustainability-linked revolving credit facility with a syndicate of six banks. The key performance indicators (KPIs) for this facility relate to our scope 1 and 2 emissions, scope 3 emissions (i.e., categories 1, 3, 4, 6 and 7) and the group's CDP rating. A condition of these GHG emission KPIs was that they needed to be validated by the [Science Based Target initiative \(SBTi\)](#). Our recent receipt of this validation,

alongside being awarded 'Business Ambition' status is really pleasing as it demonstrates our commitment to environmental stewardship and implementing best practice in the areas of Environmental, Social and Governance (ESG) and it enables us to complete the documentation of these validated GHG emission targets in the facility agreement.

In the meantime, our A- score from CDP, which represents a 'leadership level' score, meant that

our recent sustainability compliance certificate led to no change in the margin for loans under this facility.

Being prepared to commit to sustainability-linked finance and engaging with providers of finance on ESG issues continues to grow in importance. The targets that we have set ourselves currently stand us in good stead in this regard. However, we remain mindful that maintaining our current CDP score and

continuing our downward trajectory for GHG emissions will be far from straightforward. That said, our approach to meeting this challenge, including having an objective within our newly launched corporate strategy to 2040 of being carbon negative across our estate, provides me with confidence that we will continue to have strong, and cost-efficient, support from our providers of finance.



Good business practice

Stephen Rose / Head of Business Services

Stephen talks about responsibly managing our supply chain...

The partners and suppliers that we work with are key to how we deliver our services and investment programmes. We seek to work with suppliers who can help us deliver these outcomes in ways that reflect our own values and ethics. We work with suppliers responsibly and set out our expectations of them, and what they can expect of us, in a Supplier Charter that is published on our company website. The charter covers two-way expectations in terms of ethics, conduct, health and safety, fair treatment of employees and contract staff, corporate & social responsibility, and the environment.

In responsibly managing our supply chain, we strive to pay suppliers promptly within agreed terms, and work to a policy that sets out how we engage flexibly with micro, small and medium sized enterprises, many of

whom bring new ideas and innovation to our business.

Our procurement process includes an assessment of the benefits that a procurement, and the supplier providing it, can bring to the ESG aspects we are looking to advance. In the past twelve months, we have applied these criteria to a laptop 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 CO₂ per annum compared to those being replaced.

We also like to work with our supply chains to bring benefits to our local communities and have recently worked jointly with one of our suppliers, CGI, an IT and business consulting firm that provide NATS with resource and support to our Analytics department, to reforest a local woodland. The trees were provided by CGI and planted by members of NATS staff, most of whom had not previously met having worked remotely during the pandemic. We are also working with a number of suppliers keen to help develop STEM opportunities in the communities local to our operations.

For our longer-term suppliers, we work collaboratively with them 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, and Equality, Diversity & Inclusion (IED). Where there are a number of suppliers working together on a shared outcome, for example in delivery of our new technology programme, or who have a shared responsibility around areas such as operational cyber security, we bring supplier groups together and work to foster a collaborative learning or working environment. Where a supplier is more experienced than we are, we learn from them and incorporate best practice into our own ways of working.



Governance

Effective governance is essential to ensuring we set and meet our responsible business goals and we reinforce that from the top of the company.

Our investors, customers, suppliers and other stakeholders are aware of the need for, and benefits of, good environmental, social, governance. Our commitment to the welfare of society, including our employees, and the natural world is an increasingly important measure of our overall performance. We recognise the growing expectations of the public and policymakers regarding transparent reporting on these outcomes.

The NATS board is responsible for non-financial policy and performance. The Board has reviewed how it has applied the principles of the Code of Corporate Governance in each of the main areas of culture, diversity, employees, stakeholders, remuneration and succession. The Board receives regular updates throughout the year on these topics and formally reviews the approach annually.

In addition to the Board, the Executive and various subgroups monitor health and safety, employee relations and environment matters.

Our Chief Executive is accountable for our responsible business policy. And, in accordance with their accountabilities under the Code, our Board takes an active interest in the policy and its implementation as part of their strategic responsibility for the culture of the company. Oversight from the NATS Executive covers our policies for employee relations, environmental performance, anti-bribery and corruption, Health, Safety & Wellbeing, D&I, prevention of modern slavery and human trafficking through various strategy, risk and governance sub-committees.

We have adopted a number of management systems to ensure compliance with legislation and mitigate business risks, many of which are certified, such as: ISO 9001 (quality), ISO 14001 (environment), ISO 27001 (information security), ISO 55001 (asset management) and ISO45001 (health and safety). Governance processes are in place to ensure oversight for these management systems.

Employee and environmental matters have been determined as material non-financial matters that have an indirect financial impact on our business and have been identified by taking account of the views of our customers, suppliers and employees, including key performance areas subject to regulatory targets, and responsible business issues subject to mandatory reporting. Some of these are addressed further in our [Annual Report & Accounts](#).

Risk management

Governance of risks and opportunities takes place at various levels throughout our company, with ultimate responsibility resting with our Chairman of the Board of Directors and our CEO. The system for the identification, evaluation and management of emerging and principal risks is embedded within the group's management, business planning and reporting processes, accords with the UK Corporate Governance Code, and is aligned with the ISO 31000 risk management standard.

Detailed risk identification, assessment, and control mapping is carried out at business unit, departmental and Executive levels and is recorded and measured in a structured and controlled enterprise-wide database. NATS' risks are mapped against risk appetite and tolerance statements which have been agreed by the Board.

Risk update reports are submitted to the NATS Executive team which address changes in risk, risk appetite and tolerance, internal controls and the progress of actions associated with NATS' risks. Regular reviews are also carried out by the Audit, Safety and Transformation Committees in accordance with their remits, as reported in later sections.

Taking into account the work of the Committees, the Board formally reviews emerging and principal risks, and the risk management processes and mitigations in place on a six-monthly basis. In addition, monthly Executive reports to the Board identify by exception any changes in the 'top risks' particularly if the change means a risk falls outside agreed appetite.

Policies

NATS regularly reviews its internal policies to ensure that they reflect best practice and comply with legislation in the countries in which we operate. The policies we have in place include:

- a responsible business policy;
- an anti-slavery and human trafficking policy;
- a company-wide code of ethics and professional behaviours;
- comprehensive HR and recruitment policies; including Respect at Work, Just Culture, work and family and menopause policies;
- a code of conduct covering all employees;
- a health and safety policy
- a wellness, mental health and stress management policy
- a whistleblowing policy open to all employees and third parties, including customers and suppliers;
- an airspace, energy and environmental data disclosure policy; and
- extensive supply chain governance, policies and procedures.

In the reporting year, we developed and launched a new menopause policy, with accompanying support pathways for individuals and manager guidance. This has been well received by the organisation, sparking awareness and positive discussions that may not have taken place previously.

Our responsible business policy sets out our core principles as they relate to human rights, ethics, protecting our natural world, working with communities and transparent reporting.

Environmental governance

Oversight for environmental matters on behalf of the Board rests with our CEO who is responsible for the company's environment strategy and for the management of any climate related issues. This comprises a set of core principles which cover a wide range of non-financial matters including climate-related issues. Various subgroups and committees sit across the organisation reporting up to the Executive and Board on environmental matters. This includes:

- An Executive-level Environmental Strategy Steering Group acts on behalf of the CEO and Board to ensure that environmental issues are monitored and managed and commitments to customers, regulators and other major stakeholders are being appropriately delivered; the Group is also responsible for the evolution of the sustainability strategy. Meeting bi-monthly, the scope covers environmental impacts we influence through our air traffic operation and the estate-based impacts from delivering our business.
- A Director-level Decarbonisation Implementation Steering Group focuses on the implementation of the sustainability strategy to meet company and industry net zero commitments.
- The Operations Director oversees the Service Delivery Improvement Group, which is responsible for delivering improved service delivery across airspace-related safety, environmental and delay performance. Meeting monthly, the group monitors risks and opportunities, including tracking a suite of airspace environmental metrics and monitor values to improve airspace efficiency.
- Numerous panels ensure our capital investment programme is appropriately delivering improved environmental performance and managing compliance requirements.

NATS has an environmental management system that operates across the company and is certified to the international standard ISO 14001:2015. The certified scope covers the planning, management and provision of Air Traffic Management and estates services for activities carried out at our head office in Whiteley, in addition to the activities at all UK airport towers and Aberporth ranges, and seven military towers.

The operation of a robust environmental management system ensures NATS activities and services are assessed to determine all significant environmental impacts and to ensure control measures are reviewed and improvement plans developed.

Public disclosure and performance

Modern Slavery

Our annual [Slavery and Human Trafficking Statement](#) describes the steps we have taken during the financial year to deal with modern slavery risks within our supply chain and business. NATS' policy requires everyone within the organisation to prevent slavery and human trafficking and to comply with the requirements of the Modern Slavery Act 2015.

Gender Pay Report

We report annually on our gender pay gap under the UK Equality Act Obligations. Our latest [Gender Pay Report](#) relates to data up to April 2021. Over the past year our pay gap moved from 19.2% to 16.8%, and one of the drivers was a voluntary redundancy programme, which we introduced in response to the impact of Covid on our industry. The programme saw around 10% of colleagues leave the business at the end of 2020, partly driving our pay gap improvement, as higher paid male colleagues and lower paid females left the company.

This created an opportunity to redress some of the previously reported gender imbalances, by actively encouraging female talent to apply for new management opportunities, as we reorganised the business. This has resulted in 36% of our promotions into our senior management grades being female, in comparison to 27% of our overall demographic. Following our recruitment freeze during the pandemic, we have been able to re-open our early careers programme for a September 2022 intake.

Ethnicity Pay Report

We published our first Ethnicity Pay Report this year, which we committed to when we signed up to Business in the Community's (BITC) Race at Work Charter. Whilst ethnicity pay reporting is not mandatory, we have chosen to share our data and action plan to illustrate transparency, improve

the company's approach to D&I and improve the equality of opportunity in the workplace.

In its first Ethnicity Pay Report, NATS has identified a pay gap of 20.7%. * This is our first year of reporting but looking at data from previous years shows a slight improvement in the pay gap as a result of actions already undertaken through our 2020 D&I Strategy.

**Currently, 15% of our employees have chosen not to declare their ethnicity data, and so our report does not represent a complete picture of our organisation.*

Diversity and Inclusion Steering Group

Following the introduction of our D&I vision, we established a D&I Steering Group, chaired by our CEO, to guide the direction of our D&I agenda and ensure all work is aligned across the business, including our leadership teams, business areas, employee networks, Communications, HR and Trade Unions. The group will shape the direction, track progress and ensure commitment and focus across the organisation.

Licence reporting requirements

NATS' en route licence sets out a number of reporting requirements, including an annual update to the CAA (Condition 10) on our environmental performance. This information is also published in our Annual Report & Accounts and the Responsible Business reports. In addition, we report our airspace environmental performance using the 3Di metric on our [website](#), as part of our Condition 11 requirement.

Transparency of environmental reporting

In order to ensure transparency and accuracy in the reporting of our environmental impacts, our greenhouse gas emissions data associated with running our business, and contribution to aviation decarbonisation, is externally verified to the ISO 14064 standard. Achieving this requires us to prepare and publish a technical report outlining how our GHG emissions have been calculated on our [website](#). The verification statement and GHG report are updated annually to take account of updated performance information and any changes in approach, methodology, boundaries, etc. and are also published on our [website](#).

CDP

We have sought a third-party [CDP \(formerly the Carbon Disclosure Project\)](#) climate change rating annually since 2016 (except for 2019-20 due to Covid). CDP is a non-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts. It is considered a gold standard measure of environmental sustainability and stewardship. Each year, CDP takes the information supplied in its annual reporting process and scores companies and cities based on their journey through disclosure and towards environmental leadership and transparency. NATS' rating is available on the [CDP website](#).

Climate Adaptation Reporting

NATS is exposed to physical climate related risks because of climate change. These can be acute, and event driven, or chronic, arising from longer-term shifts in climate patterns. As a critical infrastructure provider, we periodically respond to DEFRA's (Department Environment, Food and Rural Affairs) Adaptation Reporting Power request under the Climate Change Act 2008. This involves submitting a climate risk and adaptation progress report based on an assessment of how the most recent UK climate projections have the potential to impact our infrastructure. Our [most recent report](#), developed during the reporting year, sets out our latest assessment based on the 2018 UK climate projections.



Environmental targets and results

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

While our material focus is on climate change mitigation in these areas, our policies and environmental management system ensure that we apply the principles of sustainable consumption and our business practices contribute to the protection and enhancement of our natural world, biodiversity, ecosystems and to prevent pollution.

As a business the reach of our impact is even broader:

- NATS works closely with wind farm developers to mitigate the impact to radar from wind turbines, helping to improve the CO₂ emission factors of electricity on the UK national grid by enabling much larger and more wind farm developments.
- Under our commercial business we are supporting the industry in the implementation of electric air mobility, which as a new emerging sector could replace short distance transportation with lower emissions or no emissions solutions. Electric advanced air mobility is also widely believed to be an important use-case for future scaling up of low carbon short and medium haul flight. Understanding how we efficiently integrate all current and future airspace users is a core part of our new corporate strategy.
- Our commercial business also currently receives revenue from the deployment of technological solutions to improve airspace efficiency to airports and other air traffic providers in the UK and beyond. The deployment of [intelligent approach at Toronto](#) in the year is just one example of this.

Community annoyance continues to be of concern, and we work closely with airport operators, airlines, our regulator, the Department for Transport, ICAO and community representatives to help manage aircraft noise concerns near airports.

Running our business

We adopted a net zero target for emissions associated with running our business in 2019 and brought this forward from 2050 to 2035 in early 2021.

We have clearly defined short-term absolute emission targets which have recently been approved by [SBTi](#). These are;

- NATS Holdings Limited commits to reduce absolute scope 1 and 2 GHG emissions 41% FY2026 from a FY2019 base year.
- 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.
- NATS Holdings Limited further commits that 50% of its suppliers, by spend covering capital goods, will have science-based targets by FY2026

The above represents a comprehensive set of targets covering our material environmental impacts, including direct emissions from electricity and combustion of gas, fuel and oil, and what are often considered some of the hardest to manage e.g. commuting and business travel emissions. NATS Holdings commits to increase annual sourcing of renewable electricity from 0% in 2018-19 to 100% by 2030.

Recently, our Executive and Board set out a new long-term vision for the business, which embedded and further enhanced these goals. By 2040 we aim to be carbon negative across our estate, which marks a further stepping-stone beyond net zero. During the next year, we will be defining what carbon negative means for us and will continue to prioritise transparency and climate science in all of our reporting.

Our approach to managing down our emissions is based on the following hierarchy;

- **Avoiding** – policy decisions to stop carbon intense activities from happening (e.g., size and shape of our business, embedding carbon targets within all of our investment projects, developing minimum purchase standards, review of fleet)
- **Reducing** – improving energy efficiency, reducing business and commuting travel emissions
- **Self-generating** – installation of on-site renewable energy with energy security and cost co-benefits

- **Offsetting** – Any residual CO₂e emissions will need to be balanced with direct carbon removals until they can be replaced with zero carbon alternatives, to meet the net zero target.
- **Verifying** – ensuring our data is robust and transparent by continuing to have it verified annually to the carbon reporting standard ISO 14064.

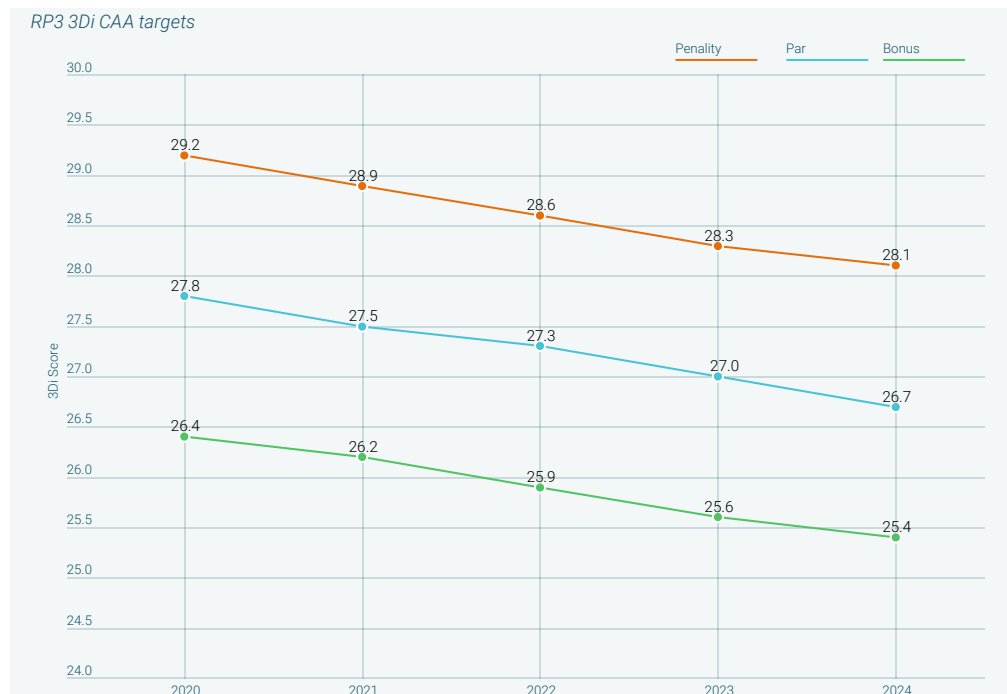
Airspace

As NATS is a monopoly provider of en-route air traffic control services across the UK, the Civil Aviation Authority (CAA) determines our costs and expected performance levels through rolling five-year regulatory 'price controls'. Since 2012, this has included financial performance targets on the efficiency of UK domestic airspace using a metric called 3Di (three-dimensional insight score).

This was a world first, and we believe we are still the only air navigation service provider to have financial incentives based on the efficiency of its overall airspace. Last year, we made available, free-of-charge, the formula 3Di to the wider industry to deliver efficiency gains.

The 3Di metric encourages us to reduce aircraft fuel burn and emissions by improving aircraft trajectories across the UK. It does this by computing an efficiency score for every commercial aircraft, which across the year are averaged and compared to targets set by the CAA.

Financial penalties or bonuses apply, depending on how we perform against targets, which have historically been stretching as they get harder year-on-year and as traffic has increased. 3Di targets for the current price control period, called Regulatory Period 3 (RP3), which was set to run from 2020-2024, are outlined in the chart on the right.



As an indicator that captures the overall efficiency of UK domestic airspace, 3Di is inclusive of others' behaviours and actions. This includes NERL and other ANSPs, pilots, airlines, airports and danger area users amongst others. The metric also captures the impacts of traffic levels upon efficiency.

Due to the reduction in air traffic volumes because of Covid, the RP3 3Di targets are currently not relevant; performance over the past two years has outperformed the regulatory targets during lower traffic levels when our air traffic controllers have been able to provide more optimum routeings and smoother climbs and descents, reducing fuel burn, CO₂ emissions and 3Di (see Environmental Results section below). Our proposals for the next regulatory period (NR23) starting from 2023, ensure 3Di continues to incentivise NERL appropriately to deliver the fuel burn and emissions savings airlines highly value. This includes a proposal for targets that adjust up or down with corresponding changes to expected traffic numbers, to manage the risk of uncertainty in traffic levels.

In 2020, the UK aviation industry, including NATS, made a commitment to net zero emissions by 2050 and during consultations on the NR23 business plan, customers and passengers supported ambitious environmental targets. We have set out our expected contribution to reducing airspace CO₂ emissions as a result of planned airspace modernisation, new controller tools and other initiatives in RP3 and beyond. Our plan aims for a reduction in carbon emissions of 4.4% between 2020 and 2035, in line with independent assessments of the contribution air traffic control can make to overall aviation emissions reduction. We will achieve this through a range of measures including optimising flight paths to reduce aircraft fuel burn and CO₂ emissions and delivering airspace modernisation.

We also have non-incentivised airspace performance indicators aligned with performance regulation KPIs under Single European Sky. This includes 'KEA' which measures average horizontal en-route flight efficiency (based on the actual trajectory of flight). With the endorsement of our airline customers and our regulator, our primary focus remains on the 3Di metric which not only includes KEA within its construct but goes beyond it in scope; to include additional areas of horizontal flight efficiency excluded by KEA, as well as all elements of vertical flight inefficiency, also not covered by the KEA metric.

Where we deliver tower air traffic control services to airport customers, it is usual to have local environmental targets and controls to work towards, both financial and non-financial. These typically focus on improvements to continuous descent arrivals, which reduce both noise and emissions, aircraft taxi time, or ensuring local noise restrictions are met.

Environmental Results 2021-22

Summary of 2021-22 environmental performance

We continue to focus on improving our environmental performance, both in terms of the impact of running our business and our management of air traffic in airspace we are responsible for.

Estate Performance

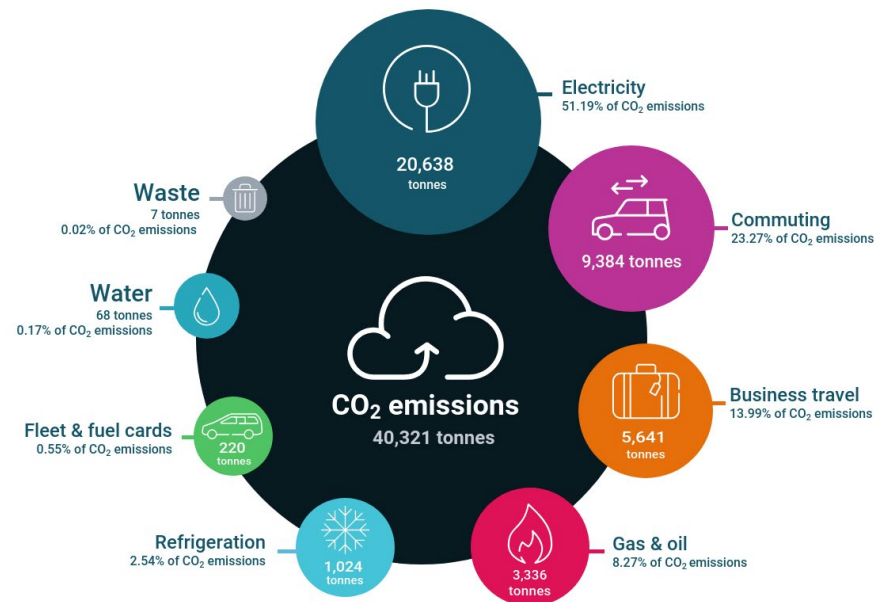
We have a good track record, having reduced electricity consumption across our estate by over 35% since 2006. Through the pandemic, as our non-operational workforce moved largely to working from home, we were able to reduce the size and number of buildings we occupy resulting in energy and commuting emissions savings. We continue to introduce and encourage agile working across all of our sites, enabling people to work in new and different ways, supported by a variety of office spaces and technology. While there has been a steady flow of people using the newly reconfigured workspaces, where their role allows, many colleagues have been continuing to work remotely, and our data shows that people are working with a mix of site-based and remote working. Last year, we incorporated emissions calculations within our reported inventory, and this is something we will continue to do. We have used the [eco-act, homeworking emissions methodology](#) to calculate and include emissions from homeworking in our 2022 disclosure.

There has been some significant progress in exploring further energy efficiency measures. This includes:

- Using newly deployed energy metering to identify opportunities across lighting, heating, cooling, ventilation systems and ways to reduce the energy requirements of our systems.
- Developing proposals for large-scale, on-site renewable power generation.
- Working with landlords to improve the efficiency of buildings.
- The establishment of energy targets across our capital investments supported by new governance (a net zero benefits panel) and a new energy (kWh) benefit category in project tracking.

Electricity consumption is and always has been the largest contributor to our estate emissions (see our most recent baseline to the right) and it is understandably a continued area of focus in our drive towards net zero.

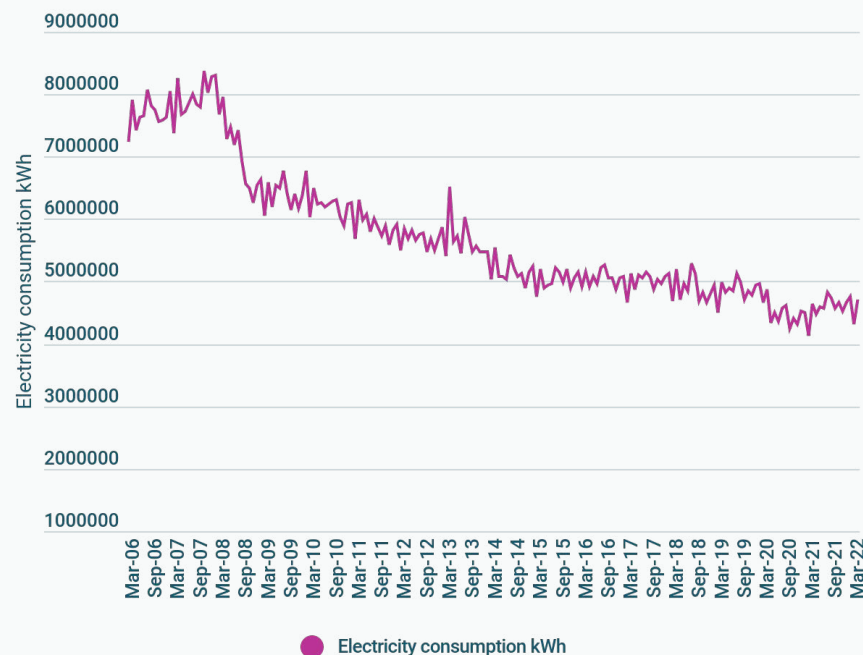
NATS baseline emissions 2018/19



Emissions resulting from commuting have fallen by 88%, largely as a result of the shift to homeworking and recognising that it is an indirect impact from running our business we have used the [eco-act, homeworking emissions methodology](#) to calculate and include emissions from homeworking in our 2021 disclosure. This emission source is also part of our net zero target and will continue to feature in future disclosure.

The above changes, as well as an almost complete stop of business travel, have resulted in a 45% reduction in total emissions from our baseline year in 2018/19.

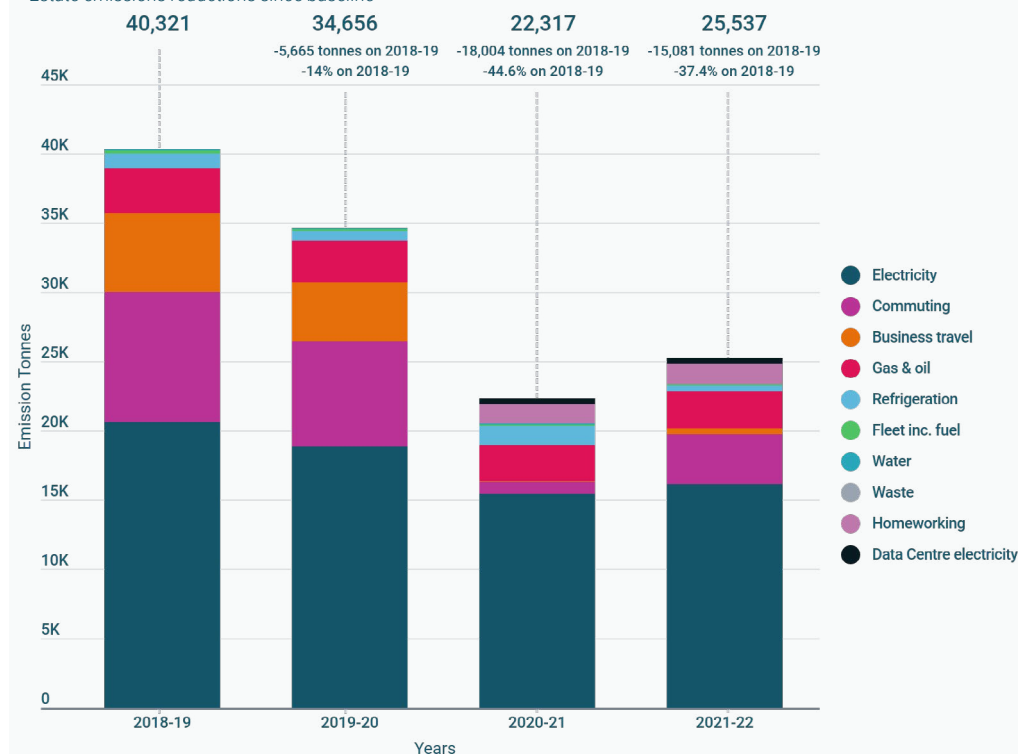
Reduction in electricity consumption kWh from 2006 – 2022, data verified to GHG protocol since 2016



Emissions resulting from commuting have started to rise again as offices have opened but remain well below past levels. Business travel also remains well below past levels. We have adopted a new fleet policy in the reporting year to reduce the emissions of NATS-owned vehicles and included business emissions reporting in regular director reports.

Overall emissions rose moderately year-on-year as a consequence of the rebound from Covid and last year's particularly low emissions figures. By the financial year end, we had achieved a -37% reduction in aggregated CO₂e emissions compared to a 2018/9 baseline, ahead of our -18% target for FY2021/22.

Estate emissions reductions since baseline



We were awarded an A- rating by CDP in the latest round covering reporting year 2020-21. This is the first time we have achieved this leadership grade status having previously been awarded B grades in our last two submissions. This score puts NATS in the top 2% of the 13,000 companies around the world that disclosed their data to CDP in 2021. This reflects NATS' commitment to measuring, managing and disclosing environmental performance.

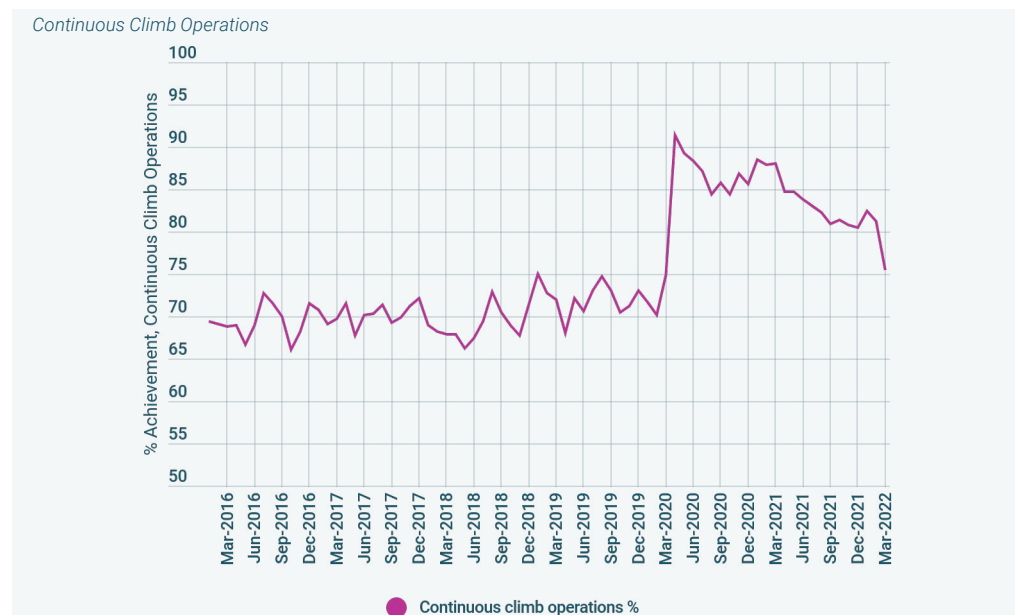
We have completed our third year of procuring low carbon green biogas certificates for all-natural gas supplied and purchased renewable electricity for over 96% of total electricity consumed during the year.

We were pleased to have been identified for the second year running as one of Europe's Climate Leaders 2022 by the Financial Times/Statista - for our environmental performance since 2015.

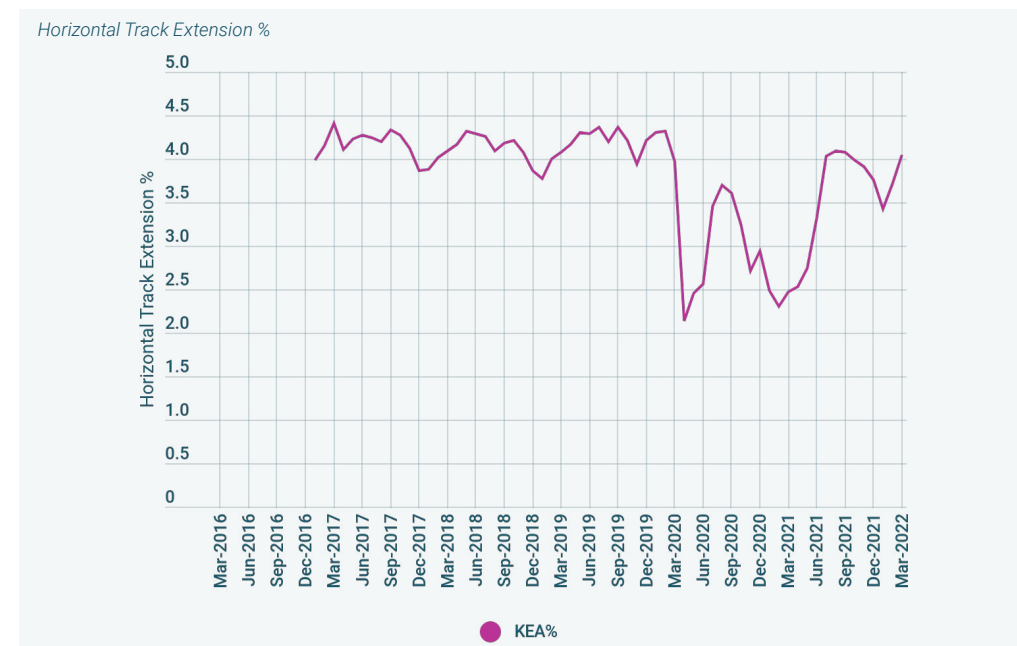
We have continued to expand the scope of our environmental management system with new additions to the NATS operational portfolio; Barkston Heath, Woodvale and St Athan all achieving [ISO 14001 certification](#) in the last year. They join 19 other sites across the UK, including all civil airport towers with certification to ISO 14001:2015, and audited by DNV.

Airspace Performance

The reduction in traffic levels through the pandemic has had a significant impact on the efficiency of the UK domestic network. We saw arrival holding almost entirely vanish, direct routing increase, and constraints impacting vertical flight efficiency largely disappear – all of which tend to improve efficiency and reduce aircraft emissions. We also saw large increases in the number of continuous climb departures given that there were fewer interactions with other traffic. The complex interrelationship between traffic and efficiency is demonstrated across many of the performance measures.

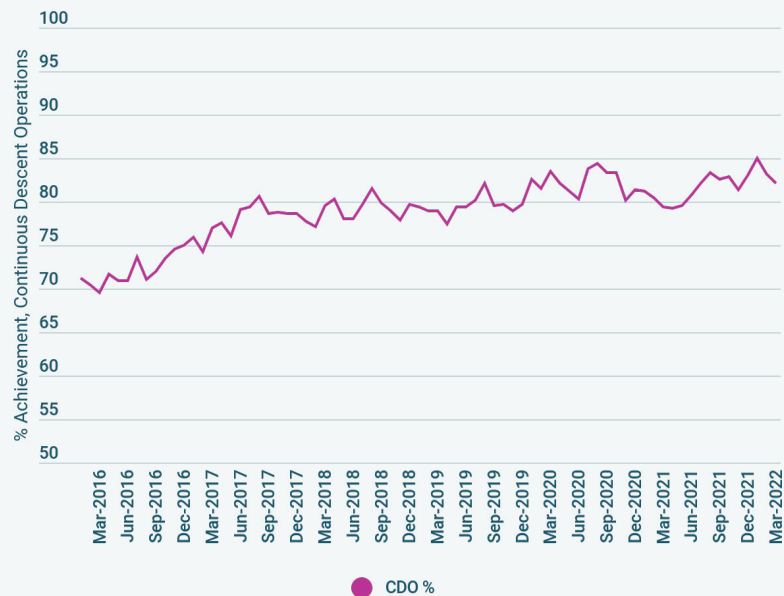


Continuous climb is a measure of airspace efficiency between 0-10,000ft across the UK. A flight has achieved a continuous climb if it performs a smooth continuous climb without levelling off. We saw a 15% increase in fuel efficient climbs following Covid. The Continuous Climb Operations chart represents monthly averages for all departures across 22 (Sustainable Aviation coalition) member airports.



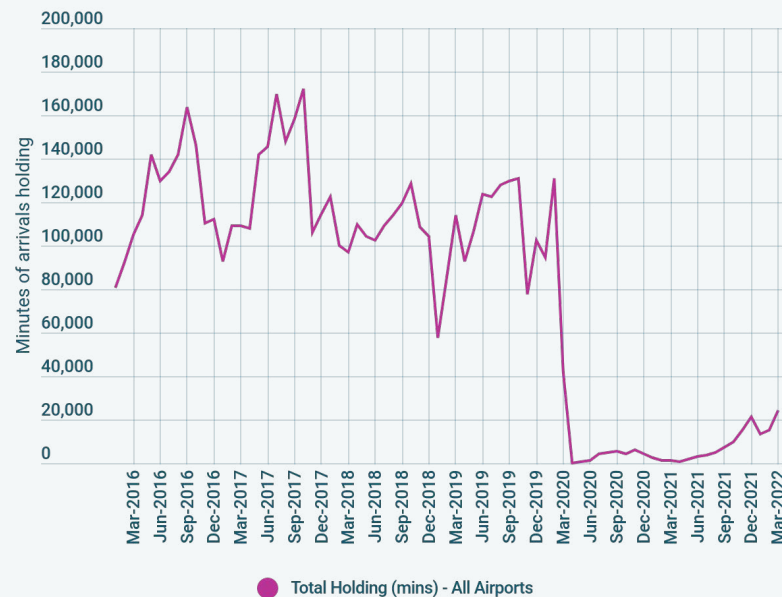
Horizontal track efficiency is a proxy measure of efficiency in the horizontal plane of flight, measuring how direct a flight's path is across our airspace (100% is achieved by every aircraft taking the most direct track over the earth). The chart above represents monthly averages of all flights within UK domestic airspace.

Continuous Descent Operations %

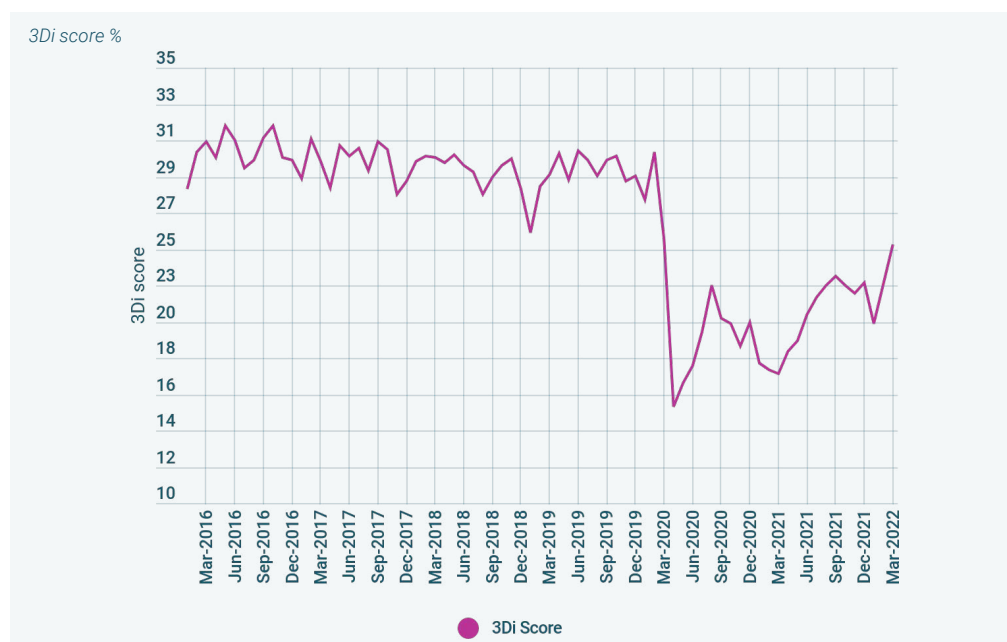


Continuous descent is a measure of arrival emissions and noise efficiency near to airfield level in the UK (local height definitions apply). Performance levels have been able to be maintained over the past year. 100% is achieved when every aircraft achieves a continuously descending profile without levelling off. The chart above represents monthly averages of all arrivals across 22 Sustainable Aviation member airports.

Total arrivals holding minutes (within inner holds)



Total amount of time aircraft spent within inner arrivals holds. A zero score represents zero inefficiency. The chart above represents monthly totals across all 22 Sustainable Aviation member airports.



UK flight efficiency performance, as measured by 3Di. A zero score represents zero inefficiency. The chart above represents monthly averages of all flights in UK domestic airspace. The NERL 3Di target for calendar year 2021 was 27.5 (threshold for bonus and penalty being 26.2 and 28.9 respectively). The overall average 3Di score in 2021 was calculated to be 21.51 largely arising from low traffic levels. By comparison, in 2020 the score was less efficient (23.9) as the first quarter of the year operated with typical traffic levels.

The lower traffic levels during Covid have allowed our air traffic controllers to provide more optimum routings and smoother climbs and descents, reducing fuel burn, CO₂ emissions and 3Di. As a result, NERL proposed that the performance incentive scheme is set aside for RP3, during which traffic has been and is forecast to continue to be, atypical to the levels against which the financial incentives were originally calibrated. We have not and will not claim any bonus for our 3Di performance in RP3 (2020 – 2022).

The 3Di performance chart above shows that as traffic has started to return during the first

quarter of 2022, the gains in airspace efficiency seen over the past two years have started to be eroded, with 3Di correspondingly increasing, although still significantly below historic levels. A comparison of 3Di scores at equivalent traffic levels, pre- and post-pandemic, show that relative efficiency has improved. Our focus has been on retaining as much of the efficiency we’ve seen across our network as possible. To support this, we have set internal targets across a range of environmental metrics for holding, climb, cruise, descent and how direct aircraft fly, all with the principle to outperform our historic performance for any given level of traffic. This has helped us identify a number of emissions improvement opportunities with our airline customers.

An example of this includes work to reduce the early morning arrival of aircraft when runways are not open, which leads to airborne holding and increased emissions. We have engaged with Wizzair at Luton and American Airlines, Etihad, Qatar Airways and British Airways at Heathrow on this. The outcome of this engagement, which is still ongoing, has been to lower the average amount of time aircraft spend holding before making an approach and landing. This work was later extended to cover Saudi Arabian, Virgin Atlantic, United and Jet Blue. The fuel and emissions savings for even small interventions are worth it, for example a B777 will use c.100kg of fuel (over 300kg CO₂) per minute holding. A spin-off benefit is that many of our customers have had a higher level of engagement with NATS, and through sharing performance data with them, they have better information on environmental performance at their fingertips.

We have engaged a range of airlines (DHL, Loganair, Stobart, West Atlantic, Qatar, Lufthansa, Aurigny, and BA Cityflyer) to improve the accuracy of flight planning to ensure we are able to deliver the cruising flight levels our customers want and to improve predictability.

Each year we model the CO₂ emissions from aircraft under our control within domestic UK airspace, airports where we provide a tower service (data availability permitting) and oceanic airspace and report them as our scope 3 category 11 emissions. The table below shows how the quantum of these emissions has changed across the pandemic.

	2018	2019	2020	2021
Modelled CO ₂ emissions in UK Domestic and Oceanic airspace (000,000s)	25.0	24.4	7.1	13.9

Separately, aircraft fuel burn and CO₂ emissions avoided as a result of our actions are modelled across the same geographical scope and reported as our scope 4 emissions. These arise from either structural changes to airspace or improved tactical performance within the confines of fixed airspace. Across the reporting period we have continued to develop and implement specific changes to improve airspace efficiency.

As a result of structural changes to domestic airspace we helped avoid 7,702 tonnes of CO₂ emissions in aggregate across the financial year. This was the result of:

- The introduction of Free Route Airspace Deployment 1 into UK Airspace in December 2021, which enabled 10,539 tCO₂ saving.
- A large number of small-scale improvements to airspace, delivered under the Operational Service Enhancement Project (OSEP) and by our environmental focal points, which enabled emissions savings of 3,307 tCO₂.
- The implementation of Swanwick Airspace Improvement Project AD6, jointly sponsored by NATS and Luton Airport, marked a significant change to Essex and Luton airspace. The development separated Luton and Stansted airport arrival flows from one another to reduce complexity, allowing both airports to have their own arrivals routes and holding procedures. This has delivered an overall disbenefit of -6,144 tCO₂ emissions against the past airspace design; however, when the reduced likelihood of holding in future is taken into account, by 2032 the disbenefit is forecast to reduce to -4,500 tCO₂. The change has not reduced the potential for tactical inventions to offer direct routes.

As well as calculating the impact from changes to the design of airspace, we calculate year-to-year changes to the tactical performance of airspace in several areas, namely changes to the number of continuous climbs and continuous descents, and airfield taxi-time. The assessments form part of our reported annual emissions assertions, as under normal conditions they would show changes in performance.

However, as with 3Di, it is clear that these measures are also significantly affected by traffic volume. Given the increase in traffic levels between 2020 and 2021 financial years, we have seen a

disbenefit in performance in these 'tactical performance' areas compared to the previous reported year. This is essentially showing a correction or return to the past years' performance as a result of changing traffic levels. Combining the results from the structural changes to airspace with tactical performance measures results in a net increase in CO₂ emissions of 22,646 tonnes for 2021.

Since 2006, our average annual reduction in CO₂ emissions stands at 116,000 tonnes, taking this year's performance into account.

Summary Results

The environment metrics 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.

Description***	FY 2021/22 (or CY 2021)	FY 2020/21 (or CY 2020)
Service performance and resilience		
3Di (calendar year)	21.5	23.9
Environmental performance^		
Scope 1 emissions (location-based tonnes CO ₂ e)	2,708"	3,706"
Scope 1 emissions (market-based tonnes CO ₂ e)	2"	2
Scope 2 emissions (location-based tonnes CO ₂ e)	11,774"	12,500"
Scope 2 emissions (market-based tonnes CO ₂ e)	718"	668
Scope 3 categories 1, 3, 4, 6 and 7 emissions (tonnes CO ₂ e)	10,754"	6,111"
Total scope 1, 2 and 3 categories 1, 3, 4, 6, 7 (tonnes CO ₂ e) - location based	25,236"	22,317"
Scope 3 category 11 emissions (tonnes CO ₂)	13,920,072"	7,146,000"
Avoided / modelled enabled ATM-related CO ₂ reductions in tonnes ¹²	-22,646"	37,950"^
Water supply and treatment (m3)	27,508"	45,091"
Energy consumption (gas + electricity) MWh	66,520"	63,864"
<u>CO₂e intensity metrics</u>		
Total scope 1 + 2 emissions (location-based tonnes CO ₂ e)	14,482"	16,206"
Total scope 1 + 2 emissions (market-based tonnes CO ₂ e)	720"	670
Total scope 1 + 2 intensity metric (location-based tonnes CO ₂ e per £m of revenue)	19.3"	19.7"
Total scope 1 + 2 intensity metric (market-based tonnes CO ₂ e per £m of revenue)	1.0"	0.8
<u>Net zero metrics</u>		
Percent change in CO ₂ e against 2018-19 baseline towards net zero 2035 target (scope 1 and 2 emissions)**	-30%"	-22%
Percent reduction of CO ₂ e against 2018-19 baseline towards net zero 2035 target (scope 3 categories 1, 3, 4, 6, 7)**	-43%"	-69%

" [Verified to ISO 14064](#)

^ restated due to inclusion of additional information, improvements to modelling accuracy and data quality.

* GHG assertions independently verified by DNV to the international standard ISO 14064. The verification statement from DNV and technical GHG report detailing how our emissions have been calculated are available on [NATS.aero](#).

** Our net zero target applies to total scope 1 and 2, plus and 3 (categories 1, 3, 4, 6, 7) CO₂e location-based emissions by 2035, using a 2018-19 baseline.

*** Modelled enabled ATM-related CO₂ reductions represent the saving in CO₂ emissions from improvements to the ATM network, such as technical changes which enable us to provide more fuel-efficient flight profiles, based on projections of the volume of flights likely to take advantage of the improvements. The enabled reduction in emissions is reported in full in the year in which the improvement is made. This is modelled based on industry best practice and is outlined in detail in our [GHG report](#), available at [NATS.aero](#).

Contact

Your views matter to us, please let us know if you have any feedback.

For more information visit or email:



nats.aero/environment



responsible@nats.co.uk