

QINETIQ

# Targeting a sustainable future

QinetiQ Group plc

Net-Zero Greenhouse Gas Emissions Plan

**Issue 1: March 2022**



# Chief Financial Officer's foreword



*"At QinetiQ we recognise the importance of delivering results responsibly and sustainably for the benefit of all of our stakeholders.*

*Sustainability and Net-Zero planning have never been more important and will need to be a key component of the strategies of all successful organisations operating in the defence and security markets for many years to come."*

Reducing QinetiQ's greenhouse gas emissions and making a positive contribution to climate change has been part of our sustainability approach for over a decade. For example, since establishing our targets to reduce our Scope 1 and Scope 2 greenhouse gas emissions in FY19, we have reported significant progress. We are now building on this progress with near-term and long-term targets covering our whole value chain. This comes at a time when sustainability has never been more important to our stakeholder groups, particularly our colleagues, our customers and our investors. Fundamentally, though, we are focusing on this because it is unquestionably the right thing to do, and we have our part to play; we will innovate and collaborate across the value chain to improve our own and our customers' climate change impacts.

In the defence and security domain, climate change is recognised as one of the biggest risks to regional stability and supply chain resilience. Sustainability is also an integral part of next generation defence.

For business, understanding the impact of physical changes to the environment, emerging global policy, changes in technology and public expectation will be critical to being successful. We must continue to innovate to create products and services that help our customers deliver exceptional capability in an ever-changing world, whilst remaining cognisant of the need to do so in a sustainable manner.

We are pleased to present this Net-Zero plan which brings together these themes of how we will reduce our own emissions to Net-Zero with ambitious targets, while contributing to the sustainability efforts of our customers, in the context of the climate emergency.

**Carol Borg, Chief Financial Officer** - March 2022

# A. Introduction

## Scientific context

Human influence has unequivocally contributed to the warming of the planet. The International Panel on Climate Change (IPCC) Climate Change Report 2021: The Physical Science Basis is one of many reputable sources warning of the damaging effect of human activity on the environment and the need for us all to redress this balance. What we need to do is clear: limit warming to no more than 1.5°C above pre-industrial levels to avoid the most significant climate change impacts on human and natural systems. The pathway to achieve this goal requires net human caused greenhouse gas emissions to reach Net-Zero by 2050.

## A word on definitions and scopes

When we refer to Net-Zero, we include the total footprint of the QinetiQ Group, across all of our Scope 1, 2 and 3 emissions, i.e. our direct and indirect emissions across our whole value chain. The range of sources of QinetiQ's Scope 1, 2 and 3 emissions is illustrated in Figure 1. It shows how emissions are linked to everything we do. That's why becoming Net-Zero will require adjustment and change across all of our operations. But we also believe that these changes can also be opportunities to sustain and drive competitive advantage.

See the **Glossary** for further information.

## Defence and security market context

Our company purpose is to protect lives and secure the vital interests of our customers. Climate change represents a risk to global security. As a leading science and engineering company operating in the defence and security markets it is in the joint interests of our company and our customers to contribute to an improved climate trajectory. The role defence and security market participants can play is particularly significant because governmental defence departments are commonly the largest contributors of government greenhouse gas emissions in most countries, including in our largest geographic markets.

## Our contribution

We were the first defence company in the world to publicly commit on the Science Based Targets initiative (SBTi) website to developing science-based targets aligned to a 1.5°C scenario. We submitted our full set of Scope 1, 2 and 3 (near-term and Net-Zero) emissions targets to the SBTi in January 2022, with formal assessment and validation scheduled for later this year.

Our targets will, subject to validation, position us to pledge our commitment to Race to Zero, the United Nations global campaign of leading Net-Zero initiatives.

We also contribute to and influence the climate change improvements of our wider value chain, which assists our customers and suppliers adapt to intensifying sustainability challenges.

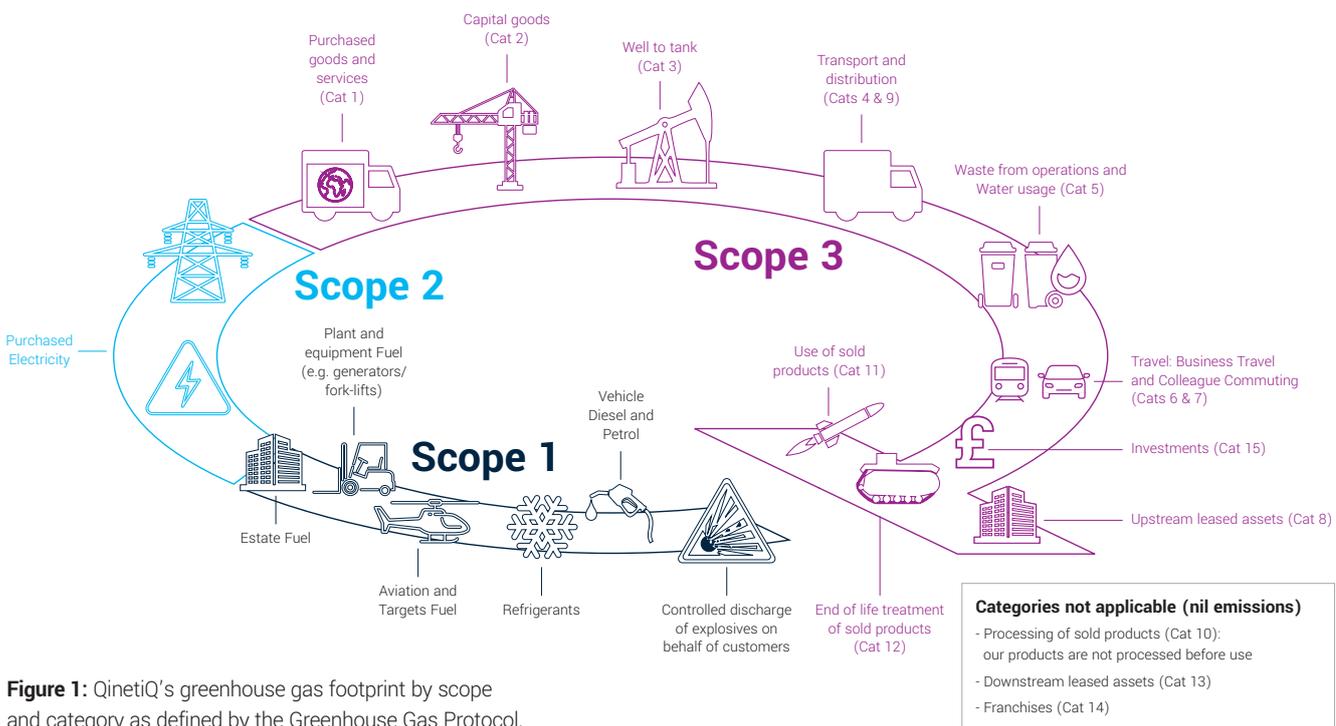
See **Section C** for further detail and interim targets.

## QinetiQ commitment

We need to act urgently on climate change to collectively strive for and achieve Net-Zero emissions. We also truly believe that our business activities position us prominently to contribute to reducing the emissions of the customers we work with in the countries we operate in.

### To achieve this, we commit to:

- achieve our Net-Zero and near-term targets:
  - Net-Zero by 2050 or sooner
  - 50% reduction in our Scope 1 and 2 emissions by 2030
  - 30% reduction in our Scope 3 emissions by 2030.
- present figures and targets in accordance with the applicable reporting standards, including SBTi criteria and the GHG Protocol Corporate Standard.
- review our targets periodically to ensure they remain appropriate.
- take responsibility for the GHG emissions that remain in our value chain which are not feasible to abate by 2050.
- actively contribute to the climate change improvements of our wider value chain, particularly those within our direct sphere of influence such as our customers and suppliers.
- leverage our capabilities and technical expertise to be a leader in this field.

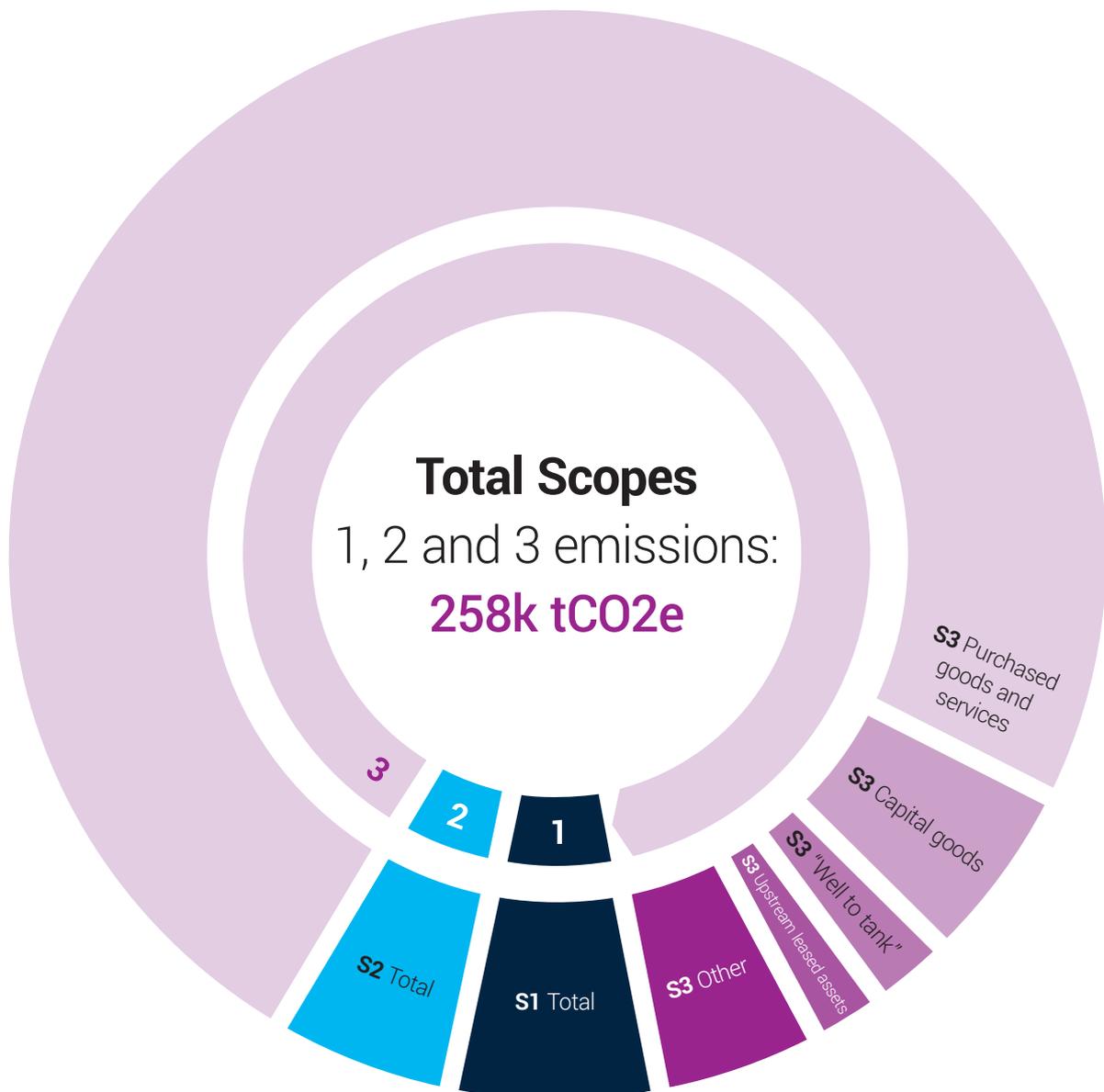


**Figure 1:** QinetiQ's greenhouse gas footprint by scope and category as defined by the Greenhouse Gas Protocol.

## B. Our base year and current emissions footprint

A key point of departure in developing targets is to establish a robust base year emissions footprint. Our base year is FY20, when our total footprint for FY20 across scopes 1, 2 and 3 was 265k tCO<sub>2</sub>e (thousand metric tonnes of Carbon Dioxide equivalent emissions).

Our FY21 footprint of 258k tCO<sub>2</sub>e represents a 2% improvement against our FY20 base year. We have seen improvements on our Scope 1 and 2 emissions, i.e. from our own operations, which represent 11% of our GHG emissions. But we have seen varying performance, resulting in a slight increase, across the Scope 3 categories. Ultimately, 75% of our value chain emissions are from indirect emissions from Purchased Goods and Services. **See Figure 2.**



**Figure 2:** Current (FY21) GHG emissions footprint

See also **methodology and assumptions** in Section E

# C. Our Net-Zero pathway

## Summary

QinetiQ will need to successfully deliver a diverse range of initiatives to achieve Net-Zero. As is necessary to limit global warming to a 1.5°C scenario, the scope of our Net-Zero Pathway covers all of our whole value chain, globally, across all of our Scopes 1, 2 and 3 emissions.

We have developed achievable targets based on a planned programme of activities; applying a data-driven approach to inform what we do and when. We also recognise that options for tackling GHG emissions will evolve or newly emerge and so we will continue to horizon scan for opportunities to accelerate our transition to becoming a Net-Zero organisation.

## Scope, boundary and timeframes

Our emission reduction targets cover the full extent of our Scope 3 emissions according to the “Minimum boundary” as defined in the GHG Protocol Standards. We have based all our target milestones against our FY20 figures.

See **methodology and assumptions** in Section E for more detailed information.

## Our targets

We commit to achieve Net-Zero GHG emissions by 2050 or sooner for our operations and our whole value chain (i.e. all of Scopes 1, 2 and Scope 3) without relying on offsets. A breakdown of our targets over time is presented in **Figure 3**.

Timeframe	Scopes 1&2	Scope 3	Total
2020	Base year	Base year	Base year
2030 (our near-term target)	-50% absolute reduction	-30% absolute reduction	-33% absolute reduction
2050 or sooner	Net-Zero	Net-Zero	Net-Zero

**Figure 3:** Our GHG emissions targets present an ambitious trajectory to achieve Net-Zero by 2050 or sooner.

Significant milestones in this transition to achieving our ambitions will be:

1. Halving our Operational Emissions by 2030 on an absolute basis from our 2020 base year.  
This builds from an improvement of 13.4% achieved between FY19 and our base year of FY20.
2. Reducing our total emissions by a third by 2030 on an absolute basis from our 2020 base year.

Our Net-Zero GHG emissions by 2050 or sooner targets include a commitment to reduce absolute emissions by 90% (therefore needing to neutralise a maximum of 10% to reach Net-Zero) but we view this as a minimum reduction and will be aiming for an absolute reduction of 100%. For any residual GHG emissions that remain within our value chain which are not feasible to eliminate, which we have committed to ensuring remains no more than 10% of our base year emissions by 2050, we will take responsibility for these by implementing neutralisation measures. Nature-based neutralisation initiatives, for example, even present an opportunity for QinetiQ to do better than achieve Net-Zero.

See **methodology and assumptions** in Section E for more information on the implications of major business change.

## Key initiatives

We will need to successfully deliver a diverse range of initiatives in order to achieve Net-Zero across our value chain, as well as making a positive contribution to the climate more broadly. We have categorised these initiatives to guide how we approach them and to help communicate these to our various stakeholders:

1. **Net-Zero Operations:** activities across our Scope 1 and 2 emissions, i.e. our direct GHG emissions from sources we control or own
2. **Net-Zero upstream and downstream (Scope 3) focus:** activities to improve our performance across our Scope 3 emissions, including through our supply chain and with our customers
3. **Critical enabling activities:** providing the internal foundation and productive industry engagement to deliver success
4. **Contributing to global Net-Zero:** activities to improve the environment outside of our in-scope emissions, including helping our customers achieve their Net-Zero ambitions without compromising their capability

These are explained in more detail on the following pages with the impacts over time summarised in Figure 4.

## 1. Net-Zero Operations

**Reduce emissions from our energy usage.** In FY20 our energy usage represented 6% of our whole value chain emissions. To reduce this to zero, we are going to improve the efficiency of our property portfolio, implement digital systems and sub-metering, and optimise our workplaces and physical footprint. We will enable enhanced energy efficiency, standardise assets, and invest in onsite renewable electricity generation and battery storage. There are also further projects including upgrading air-conditioning and lighting units, energy Monitoring Management & Control and Smart Grid solutions, transitioning our vehicle fleet to zero emission power sources by 2035 and procuring 100% of our electricity from renewable sources by 2030. We will continue to operate an ISO50001 certified Energy Management System.

**Aviation fleet.** Our aviation fleet provides essential services to military forces around the world, accounting for 1-2% of our total emissions. They are primarily used for training services over relatively short distances. In time, we anticipate that we will be able to transition this fleet to hydrogen or electric fuelled aircraft. However, the timing of the replacement of these assets depends on a maturing technological, operational and financial feasibility landscape. We have an active strategy to reduce fuel usage and improve operational efficiency and the aircraft replacement programme over the last 3 years has already delivered a 20% reduction in fuel burn. Within our aviation operations, we are also implementing further efficiency improvements, such as reducing weight of aircraft (removing ballast and spare fuel) and replacing ground support equipment with electrically powered assets. We continue to horizon scan, work with our aircraft suppliers and update our aviation fleet strategy to reflect potential opportunities to adopt sustainable aviation fuel.

**Other global projects.** We will complete our programme to remove and replace the use of sulphur hexafluoride (SF6) within some test & evaluation range equipment, replace our plant and mobile handling equipment with lower or zero emission assets when they reach their renewal points and extend our asset standardisation process to specify efficient low carbon standards for asset selection to drive energy reduction across the sites we are responsible for.

### Range equipment insulator modified to zero emissions solution.

We have three mobile flash x-ray machines that resorted to Sulphur Hexafluoride (SF6) as an insulator, which are used for trials both on- and off-site. While we only use very small amounts, this refrigerant has a very high global warming potential and so its removal has been prioritised. We modified the assets to use compressed air thereby removing emissions of SF6 into the atmosphere.

>1,400 tCO2e (in FY20) reducing to **Zero** (in FY23).



**Decarbonising military operations: developing hybrid electric vehicle technology.** QinetiQ has entered into a strategic collaboration agreement with military and commercial automotive manufacturer AM General to accelerate the development of electrification technologies for military vehicles. The partnership has begun by exploring the conversion of the globally iconic HUMVEE® vehicle (HMMWV – High-Mobility Multipurpose Wheeled Vehicle) to a hybrid electric vehicle using QinetiQ technology. This will demonstrate the viability of electrifying both existing and new military vehicles to deliver enhanced operational performance while decarbonising military operations.

Pioneering new ways of working, QinetiQ and AM General worked together to create a synthetic life-size model of an electrified Humvee vehicle in virtual reality, allowing both organisations and customers to experience the impact of the electric drive system to the vehicle without the traditional Carbon Footprint associated with international travel. As the defence industry must accelerate towards Net-Zero, QinetiQ's military specification electric drive technologies can provide up to 30% less fuel consumption than purely combustion powered alternatives, reducing fossil fuel dependency, the need to transport refuel on operations and decreasing emissions.

## 2. Net-Zero Upstream and Downstream (Scope 3) focus

**Purchased goods, services and capital goods.** Our largest form of emissions, accounting for approximately 80% of our total emissions, results from the goods, services and capital goods we procure through our supply chain. The nature of our services means the majority of what we buy is technical or scientific expertise from consultancies and this is also what constitutes the majority of the emissions in our figures. For example, many millions of pounds of supply chain spend goes through our largest contracts and framework agreements such as the Long-Term Partnering Agreement and our Aurora Engineering Partnership Provider Network for the Engineering Delivery Partner collaboration with MOD Defence Equipment & Support. Our most significant categories of spend outside of professional or technical services are on construction, machinery and IT. We recognise that this is going to be challenging as this is new not only to QinetiQ but the whole supply chain ecosystem. Critical to this will be working with our suppliers to establish higher fidelity GHG footprints, highlight the need for improvement on emissions and listening to their own projections and ideas for improvement. An example of our engagement with suppliers is our QinetiQ Collaborate series, where we provide a forum for customers and suppliers to engage with QinetiQ on topical supply chain issues.

- For further examples of our engagement with industry and the supply chain see also **Section C.3 Critical enabling activities**

**Other categories.** The remaining categories of Scope 3 emissions account for circa 10% of our total emissions. This includes transport and distribution (upstream and downstream), business travel and waste. We are actively working with suppliers across these activities as well to develop plans for improvement.

- See also Section E on **Methodology and assumptions**, which are a critical part of estimating Scope 3 emissions



### Improvements on St. Kilda delivering reduced emissions across the value chain.

QinetiQ has the privilege of operating on St. Kilda, which is the UK's only dual UNESCO World Heritage Site. QinetiQ is committed to the preservation and protection of the island's

biodiversity beyond minimum compliance requirements.

We have invested in new, state-of-the-art facilities, improving energy efficiency, and reducing shipping requirements and resupply activities.

~10% reduction in accommodation block GHG emissions (versus a standard new build option) plus other reductions across operations.

### 3. Critical enabling activities

**Mindset, skillset, toolset.** We are improving or introducing a range of enablers to advance our ability to achieve Net-Zero. This includes introducing an internal cost of carbon that will be used in all business cases and acquisitions to address the bias away from financial measures. We will develop environmental awareness training for colleagues, evolve the employee relationship with incentives and take opportunities to improve and leverage our datasets.

**Industry engagement.** QinetiQ and its colleagues also proactively support engagement across industry regarding climate change. For example, our CEO is currently co-chair of the Defence Suppliers Forum Climate Change Committee, and we engage with our customers and suppliers through multiple networks.

### 4. Contributing to global Net-Zero

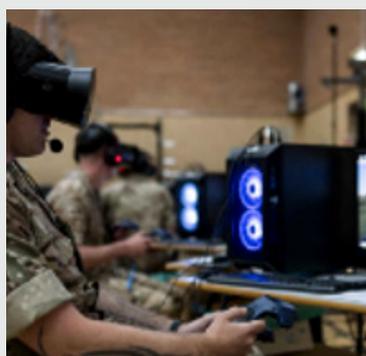
**Customer collaboration.** Reducing GHG impact, without compromising on capability; maintaining operational capability and resilience in a climate changed world; and enhancing operational capability, so that the benefits of sustainable approaches such as electrification are maximised. We are collaborating with our customers to understand and achieve these goals using the QinetiQ Sustainability Framework, including exploration of both deployed capability and how to maximise the sustainability of estate areas used for test and evaluation. Advanced modelling and simulation has enabled us to reduce live platform use during major test and evaluation exercises, with financial and GHG savings as a result and we are developing further synthetic immersive alternatives to physical training to increase these benefits.

The wider ecosystem of service providers and technology developers will be critical to achieving our customers' sustainability goals. For this reason, we are working with our ecosystem of suppliers and partners to develop new sustainability products and services. We are developing hybrid-electric technology for battlefield equipment, innovating on smart power grids, and providing deployable test and evaluation capabilities.

**Research and development.** We foster the science and technology expertise to undertake research and development in fields which contribute to advancing our understanding of the environment and enabling progress on solutions beneficial to the climate.

For example, we have used our stealth materials expertise on windfarms to reduce the interference of the wind turbines with nearby radar, thereby increasing the useable locations for windfarms and extend their usability. Our team of battery experts are involved in the development of high power batteries and storage for military and commercial use, supporting the use of efficient and capable electrical power. Our Wind Tunnel at Farnborough is one of only three large-scale low-speed pressurised wind tunnels globally where we have been providing development testing to Boeing Commercial Airplanes, helping to support advancements in enhanced efficient aircraft.

**Ecosystem progress through biodiversity and nature-based sequestration initiatives.** We manage and operate on behalf of our customers 53 important sites of ecological, environmental and historical significance across the UK: 12 Sites of Special Scientific Interest, 10 Special Protection Areas, 16 Special Areas of Conservation, 3 Scheduled Ancient Monuments, 5 Marine Protection Areas, 1 Marine Coastal Zone, 4 Wetlands of International Importance and a double World Heritage Site. Therefore, it is very important that we conduct our complex test and evaluation operations in these environments in a way that is sensitive and responsible to the environment and surrounding communities; furthermore, we are uniquely placed to contribute to conservation and biodiversity through the management and development of the sites we operate and own, working closely with the local community, conservation teams and specialist environmental advisors to manage land and sea conservation. We are also exploring nature-based sequestration initiatives, with a specific focus on restoring natural ecosystems.



#### Army's Virtual Reality In-Land Training.

QinetiQ has been supporting the Army's Virtual Reality In-Land Training Study. The use of Virtual Reality immersive technology compared to live vehicle training reduces emissions, improves performance and lowers training risk.

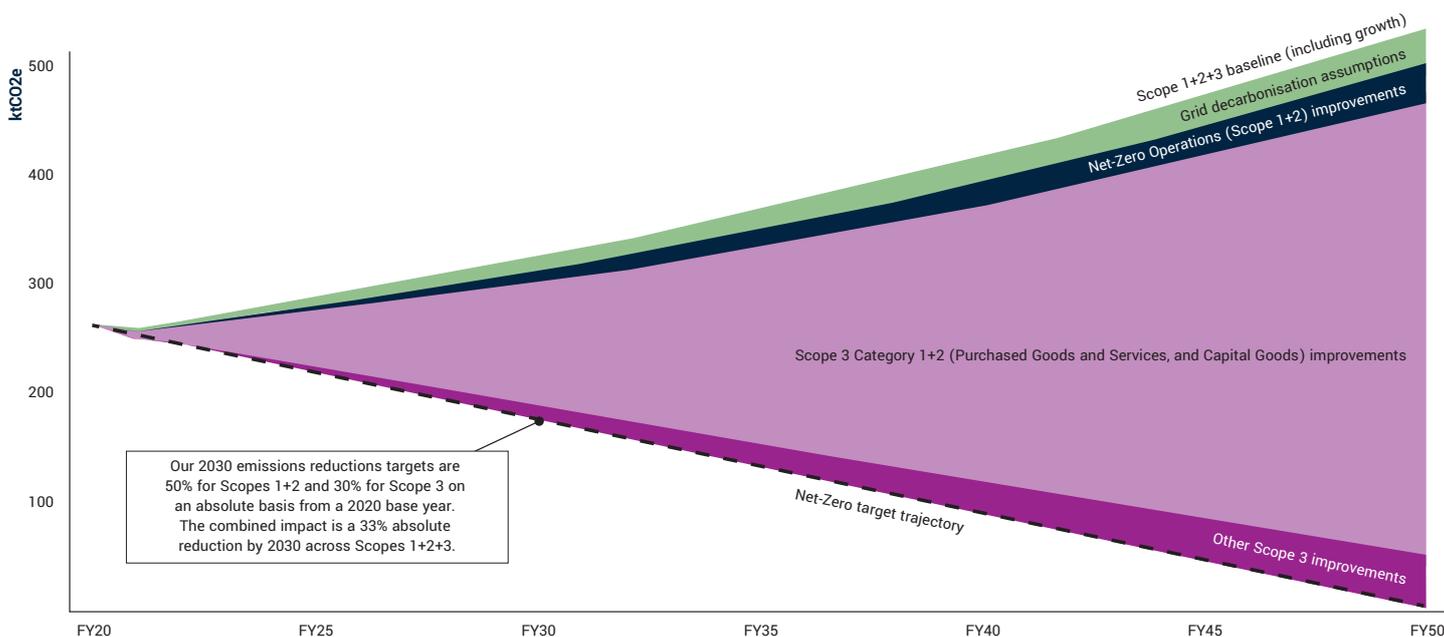


Figure 4: By delivering our initiatives we will achieve Net-Zero by 2050 or sooner.

See Section C for details of the relevant initiatives

# D. QinetiQ's Net-Zero GHG Emissions Plan: one-page summary

<p><b>Our ambition</b></p>	<p><b>QinetiQ will be a Net-Zero company by 2050 or sooner with achievable and ambitious near-term GHG emissions reduction targets. To deliver this, we will take a global whole value chain approach. We will work proactively with our supplier ecosystem, continue to invest in relevant climate positive research and development to help our customers achieve their Net-Zero ambitions, while improving the operational efficiency and biodiversity of our estates and those we manage on behalf of our customers.</b></p>			
<p><b>Our Net-Zero pathway initiatives</b></p>	<p><b>Achieving QinetiQ Net-Zero</b></p>			<p><b>Contributing to Global Net-Zero</b></p>
<p><b>Our targets</b></p>	<p><b>Initiative 1</b> Net-Zero Operations (Scope 1 and 2 GHG emissions)</p>	<p><b>Initiative 2</b> Net-Zero Upstream and Downstream focus (Scope 3 GHG emissions)</p>	<p><b>Initiative 3</b> Deliver critical internal and industry-wide enabling activities</p>	<p><b>Initiative 4</b> Co-create with customers, invest in research &amp; development and care for our environments</p>
<p><b>Examples of how we will achieve our ambition</b></p>	<p>50% reduction from 2020 to 2030 and Net-Zero by 2050 or sooner</p> <ul style="list-style-type: none"> <li>• Optimise our estate footprint using metering, management and control</li> <li>• Implement energy efficiency improvements to deliver 5-20% energy savings</li> <li>• Invest further in onsite renewables (we have, for example, generated renewable electricity on the roof at our HQ site in Farnborough since February 2012) and procure 100% of the remainder of our electricity needs from renewable sources by 2030.</li> <li>• Reduce water consumption by introducing grey water / rainwater harvesting where appropriate</li> <li>• Transition our road fleet to zero emission power sources by 2035</li> <li>• Monitor opportunities to transition our aviation fleet to SAF</li> <li>• Eliminate leakage of SF6 from our range equipment</li> </ul>	<p>30% reduction from 2020 to 2030 and Net-Zero by 2050 or sooner</p> <ul style="list-style-type: none"> <li>• Develop an advanced, data-driven approach to further leverage our Scope 3 data</li> <li>• Focus on highest emitting categories, including our engineering services supplier network, procurement of digital assets and travel and transport</li> <li>• Reduce emissions from international air travel by 50% by 2030 and use transportation providers who are demonstrably improving their own emissions performance</li> </ul>	<p>Create and foster the internal foundation and productive industry engagement to deliver success</p> <ul style="list-style-type: none"> <li>• Continue QinetiQ Collaborate programme to engage with suppliers and customers</li> <li>• Participate in relevant industry associations and events</li> <li>• Develop environmental awareness training for colleagues</li> <li>• Evolve the employee relationship with incentives</li> <li>• Maintain a detailed 5-year funding horizon for Net-Zero activities through the Integrated Strategic Business Plan</li> </ul>	<p>Helping our customers achieve their Net-Zero ambitions without compromising their capability</p> <ul style="list-style-type: none"> <li>• Developing a Net-Zero pilot site by 2025</li> <li>• Co-create with customers to develop innovative solutions, building our portfolio of climate positive solutions which currently includes: enhanced synthetic test &amp; evaluation solutions, stealth materials for wind turbines, hybrid-electric technology for battlefield equipment, smart power grids, and providing deployable test &amp; evaluation capabilities</li> <li>• Invest in relevant research and development to bring more climate positive solutions to market; an example area of investment is on high power batteries and storage for military and commercial use</li> <li>• Implementing nature-based sequestration initiatives, with a specific focus on restoring natural ecosystems</li> <li>• Provide exemplary management of our estates and habitats around the globe</li> </ul>

# E. Confidence in the figures we present and report

## Current footprint

Emissions are recorded and reported in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Protocol Corporate Standard using the Financial Control approach. We use the appropriate Government emission conversion factors for company greenhouse gas reporting. Scope 1 and Scope 2 emissions are reported in accordance with UK Streamlined Energy and Carbon Reporting (SECR) framework requirements. Scope 3 emissions are reported using the spend-based method in accordance with the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Reporting Standard and the UK Carbon Reduction Plan Technical Standard.

Importantly, we have not excluded anything from our company's value chain from our footprint. We have not included the impact of any avoided emissions or assumed the use of offsets to achieve our targets.

We engaged PricewaterhouseCoopers LLP (PwC) to complete a limited assurance engagement on selected Scope 1 and 2 GHG emissions data for the year ended 31st March 2021 in accordance with International Standard on Assurance Engagements 3000 (revised) and 3410. A copy of the assurance opinion and our methodology to which it relates can be found here: [QinetiQ - Climate Change](#).

## Targets

The targets we present apply a consistent methodology to the historic figures we report as outlined in this document, namely conforming to SECR requirements and the GHG Protocol reporting standards.

These will be validated by the Science Based Targets initiative (SBTi). We will present performance against our targets at least annually and will revise targets to ensure that they remain appropriate. We have not excluded any parts of our business; for the avoidance of doubt, we confirm that the coverage of our targets meet or exceed that required by the SBTi criteria.

Our Net-Zero GHG emissions by 2050 or sooner targets include a commitment to reduce absolute emissions by 90% (therefore needing to neutralise a maximum of 10% to reach Net-Zero) but we view this as a minimum reduction and will be aiming for an absolute reduction of 100%.

## Methodology and key assumptions

Our Net-Zero Plan is a long-term, evolving plan and many things are likely to change between now and the point at which we achieve Net-Zero. We want to be clear on the assumptions we apply and our intended methodology so that our trajectory and our performance are as transparent as possible against the many changes that may occur.

We will follow the GHG Protocol and most recent SBTi criteria on triggered target recalculations. This means we will recalculate our base year emissions if we execute structural changes (including but not limited to company acquisitions or divestments, or outsourcing emitting activities), which have an effect of more than 5% (positively or negatively) of the base year's emissions. We will keep this aspect of our performance under review and, if necessary, recalculate and revalidate our targets at a minimum every 5 years.

We are presenting our emissions trajectories against the context of planned growth. To be clear, we will not justify increased emissions because of revenue growth. This means our targets set us on a trajectory to reduce our emissions, against our base year, irrespective of changes in revenue.

Where we have not been able to source a reliable dataset for certain items on our GHG inventory and screening, we have used assumptions to estimate emissions but have ensured that this is as accurate as possible.

For Scope 2, we have used the location-based method to report our emissions, which is the mandated method for UK reporting. For example, we use UK government provided conversion factors to establish the emissions from UK operations. As we anticipate further onsite generation and transitioning to procuring electricity which can be certified as renewable, we may take a "dual reporting" approach including calculations based on a market-based method as encouraged in SECR requirements.

## Where we will report on our progress:

This is the first publication of our Net-Zero Plan. We plan to publish updates on the corporate website periodically to ensure that our stakeholders remain updated on our progress towards Net-Zero. This will include:

- In our Annual Report, we will publish progress updates at a Group level. This will include the latest financial year Scope 1 and Scope 2 and other standard requirements.
- Each year, we will publish refreshes of our Net-Zero Plan, including global performance against our Scopes 1, 2 and 3 targets.
- We will also maintain Carbon Reduction Plans, for our relevant UK legal entities in accordance with UK government requirements.

# Glossary and definitions

<b>Financial Year (FY)</b>	in QinetiQ this runs from 1 April to 31 March. Where we have referenced calendar years, this has been done in the interest of simplicity but for the avoidance of doubt means a 2050 target is a target date of FY2050, i.e. end-March 2050.
<b>GHGs (Greenhouse Gases)</b>	are gases, both natural and human caused, that absorb and emit radiant energy, causing the greenhouse effect. The GHG Protocol covers six main greenhouse gases which need to be reported on: carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF <sub>6</sub> ).
<b>Greenhouse Gas Protocol</b>	provides standards, guidance, tools and training for business and government to measure and manage climate-warming emissions.
<b>k tCO<sub>2</sub>e</b>	thousand metric tonnes of Carbon Dioxide (CO <sub>2</sub> ) equivalent emissions, a standard unit for counting all GHG emissions with one comparative figure.
<b>Nature-based sequestration</b>	capturing and storing atmospheric carbon dioxide using nature-based solutions, such as restorative agriculture and re-growing clear-cut forests.
<b>Net-Zero GHG emissions</b>	is a state where human activity no longer contributes to climate change through GHG emissions; it is reached when the levels of GHGs emitted into the atmosphere due to human activity are balanced by the amount we remove. Currently we emit far more GHGs into the atmosphere than we remove.
<b>Neutralisation</b>	measures taken to remove carbon from the atmosphere and store it permanently to counterbalance the impact of emissions that remain unabated. In QinetiQ, we have committed to achieve Net-Zero with a minimum of 90% emissions reduction against our base year (but we are aiming for 100%). This means that no more than 10% of our emissions will need to be neutralised to achieve Net-Zero.
<b>Offset</b>	the purchase of carbon credits to offset an organisation's GHG emissions. This definition follows latest guidance in accordance with the standards we record and report our data to (noting that other definitions exist). For the avoidance of doubt, QinetiQ has committed to achieving Net-Zero without relying on offsets.
<b>Operational emissions</b>	greenhouse gases emitted during the company's operational activities, including any emissions from heating and lighting buildings. These fall into Scope 1 and 2 categories as defined by the GHG Protocol.
<b>Scope 1 emissions</b>	direct GHG emissions that occur from sources that are controlled or owned by an organisation (e.g. emissions associated with fuel combustion in boilers and vehicles).
<b>Scope 2 emissions</b>	indirect GHG emissions that occur from the generation of purchased electricity, steam, heating and cooling consumed by a company.
<b>Scope 3 emissions</b>	a consequence of company activities, occurring from sources not owned or controlled by the company, including from purchased goods and services, transportation and from the use of services.

# QINETIQ

Cody Technology Park  
Ively Road, Farnborough,  
Hampshire, GU14 0LX  
United Kingdom

+44 (0)1252 392000  
[sustainability@qinetiq.com](mailto:sustainability@qinetiq.com)  
[www.QinetiQ.com](http://www.QinetiQ.com)