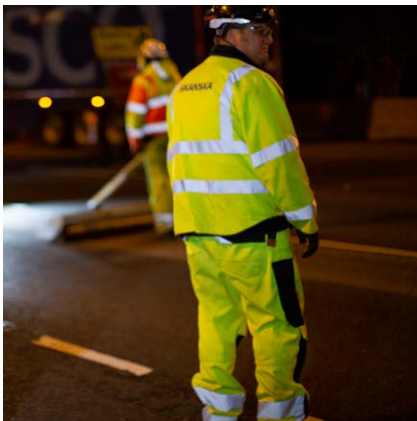
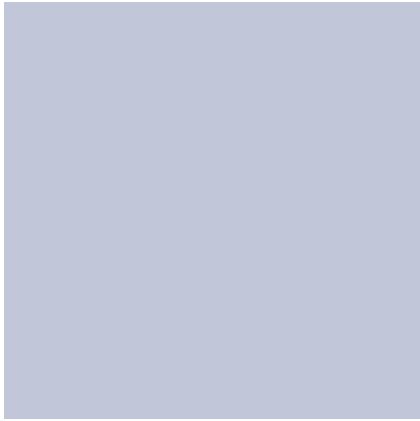


Business Plan
2022/2023





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Our *One Community* ethos
is built on a strong culture
of collaborative working.

FOREWORD

The last two years have seen many challenges for people and businesses. As the operators and maintainers of Europe’s busiest motorway, we had to look beyond the immediate challenges brought about by the pandemic and ensure that we not only kept the M25 safe and serviceable, but that it also remained open and free flowing.

We were able to do this thanks to our unique and innovative community of framework contracts, and whilst others in the industry were stopping all work, we were able to not just continue, but go above and beyond in delivering more, whilst traffic flows were reduced during periods of lockdown.

Our one community ethos is built on a strong culture of collaborative working, which enabled us to accelerate and issue our 200+ annual call off contracts just one week after the first national lockdown. This resulted in £46.7m of work being delivered through our framework community, despite significant and acute disruption in the construction sector during that first year of the pandemic. In addition, by the end of contract year 12 (March 2021), we had procured and delivered an actual 14% increase in bridge repair work, compared to the previous year. This was a fantastic achievement of which we’re immensely proud.



Jane Guyett
Chair



Andy Dean
Chief Executive

In the last few years, we have started our carbon journey, aiming to reduce our greenhouse gas (GHG) emissions in line with National Highways' net zero plan.

That work ethic continued throughout last year which saw us deliver a further £104m of work - £82m in highway asset renewals (such as carriageway resurfacing) and £22m in National Highways sponsored improvement schemes. One such scheme, junction 23 at South Mimms, is the single biggest gyratory interchange on the entire UK motorway network.

We know that collaboration is key to the success of this project, and this is why we continue to strive to be an intelligent client to our strategic supply chain partners, including Connect Plus Services. We want to support and empower our community to work together with us to achieve the optimal outcomes for everyone involved in the M25, including National Highways, our customers and road users, and all other stakeholders.

In the last few years, we have also started our carbon journey, aiming to reduce our greenhouse gas (GHG) emissions in line with National Highways' net zero plan. The M25 is a huge project and, with asset renewals being one of the biggest carbon generators, we must play our part and lead the way, and we believe we are. Over the past year, we have been focused on developing carbon output data capture and analysis techniques, so that we can more accurately understand where our GHGs are coming from. You can read more about the work we're doing to develop our carbon strategy in the case study on page 17.

We are also changing the way we work to meet our targets, trialling award-winning innovative materials such as surface courses that use 50% reclaimed asphalt materials leading to an overall carbon footprint reduction of 58%. Thanks to the testing process that went above the usual industry standards, the trial has already been approved by National Highways. By working collaboratively as one community, and engaging with designers, asset managers and service delivery teams,

we will succeed in our aim to reduce our carbon emissions.

Of course, health, safety and wellbeing continues to be at the forefront of everything we do and we're constantly trying to be innovative in the way we tackle associated issues. The wellbeing of our workforce was never more important than during the pandemic, as we explored hybrid ways of working, with communication being absolutely key. We've also been working with experts on occupational hygiene, an area that focuses on work-related ill-health prevention, something that has long been the Cinderella to traditional health and safety. As an intelligent client we know that we must work outside the industry norm and address our significant occupational exposures that could potentially put our workforce at risk. You can read more about our award-winning Healthier Highways programme on page 13.

We rightly work within a performance-driven culture, one that is closely monitored in conjunction with National Highways. We measure ourselves against a set of agreed deliverables and metrics that are closely aligned to our core business pillars of innovation, performance and value (IPV).

These metrics sit behind everything we do, and we need to deliver them successfully to achieve our objectives and vision.

We must continue to work together with National Highways and our supply chain to deliver **innovation** and **value**, so that we can continually improve our **performance** and deliver a safer, more reliable network.

Together, we can achieve excellence on the M25.



Andy Dean



Jane Guyett

Our Mission

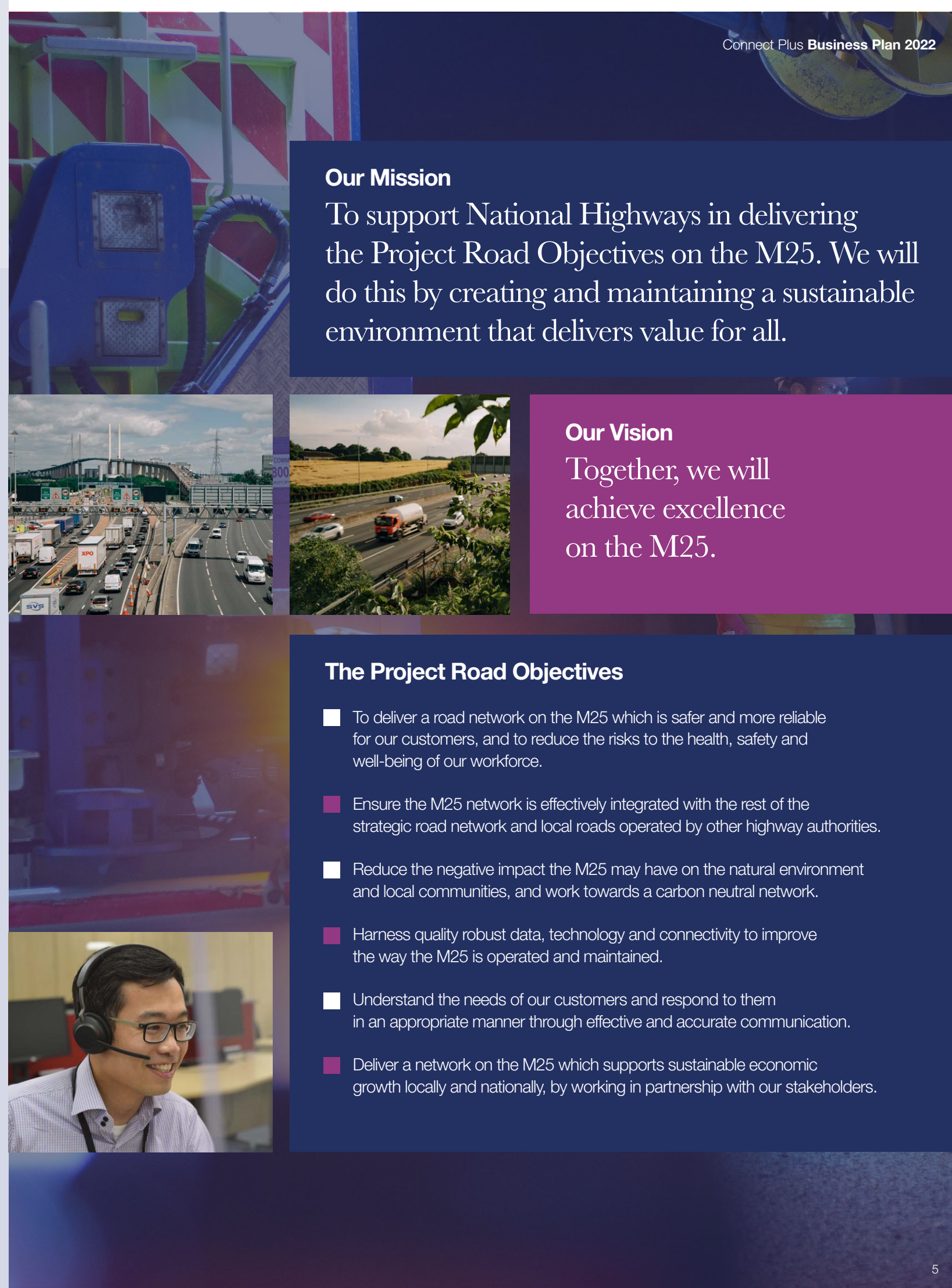
To support National Highways in delivering the Project Road Objectives on the M25. We will do this by creating and maintaining a sustainable environment that delivers value for all.

Our Vision

Together, we will achieve excellence on the M25.

The Project Road Objectives

- To deliver a road network on the M25 which is safer and more reliable for our customers, and to reduce the risks to the health, safety and well-being of our workforce.
- Ensure the M25 network is effectively integrated with the rest of the strategic road network and local roads operated by other highway authorities.
- Reduce the negative impact the M25 may have on the natural environment and local communities, and work towards a carbon neutral network.
- Harness quality robust data, technology and connectivity to improve the way the M25 is operated and maintained.
- Understand the needs of our customers and respond to them in an appropriate manner through effective and accurate communication.
- Deliver a network on the M25 which supports sustainable economic growth locally and nationally, by working in partnership with our stakeholders.



NATIONAL HIGHWAYS

Our client, National Highways, is the government company who plan, design, build, operate and maintain England’s motorways and major A roads, collectively known as the strategic road network (SRN).

The Government has invested significantly in the SRN through its Roads Investment Strategy (RIS) programme. In 2020 a second strategy, RIS2, was launched with a £27.4 billion budget for investment between 2020 and 2025.

Having the certainty of long-term investment, and a schedule of committed schemes and targets, has helped move away from managing the SRN as individual pieces of asset, such as tarmac, concrete, bridges and signs. The government now considers our roads as a fully integrated system, and a part of the broader UK transport network. As a result, National Highways can work with their stakeholders and supply chain as partners.

National Highways’ performance framework for RIS2 brings together delivery aims for the next five years and will provide the basis for monitoring by the Office of Rail and Road (ORF). As part of this framework, National Highways have agreed a number of KPIs for the second RIS period, grouped under six performance outcomes, as outlined below. The Project Road Objectives closely align with these performance outcomes.

The Government now considers our roads as a fully integrated system, and a part of the broader UK transport network.

Performance outcomes

- 1 Improving safety for all
- 2 Providing fast and reliable journeys
- 3 A well-maintained and resilient network
- 4 Delivering better environmental outcomes
- 5 Meeting the needs of all users
- 6 Achieving efficient delivery

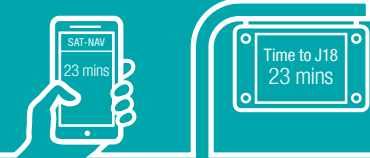
1. Improving safety for all

At least a **50%** reduction in the number of people killed or seriously injured on the SRN by the end of 2025, compared with the 2005-09 average baseline.



2. Providing fast and reliable journeys

Ambition that average delay per mile driven will **be no worse** by the end of RP2 compared to the end of RP1.



3. A well-maintained and resilient network

95% of road surface in a condition that requires no further investigation for maintenance for years 1 and 2 of Road Period 2.



4. Delivering better environmental outcomes

Road noise mitigation for **7,500** households in 'noise important areas', funded through designated funds.



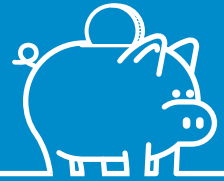
5. Meeting the needs of all users

82% road user satisfaction score for first two years of RP2 with year-on-year increases in the following years.



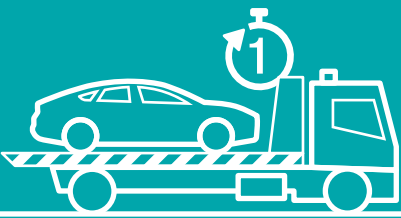
6. Achieving efficient delivery

Achieve efficiency target of **£2.23 bn** on capital and operational expenditure by the end of RP2.



2. Providing fast and reliable journeys

Achieve **86%** of motorway incidents cleared within one hour, based on 24-hour coverage.



4. Delivering better environmental outcomes

No net loss of biodiversity across all Highways England activities by the end of RP2.



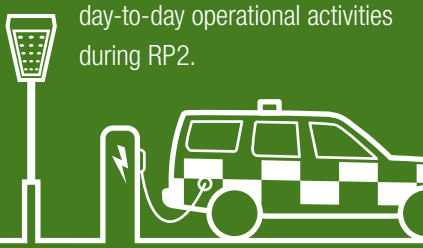
5. Meeting the needs of all users

By 2024-25, **90%** of overnight road closures information accurately issued seven days in advance of work starting.



6. Achieving efficient delivery

Reduce **carbon emissions** resulting from Highways England's electricity consumption, fuel use and other day-to-day operational activities during RP2.

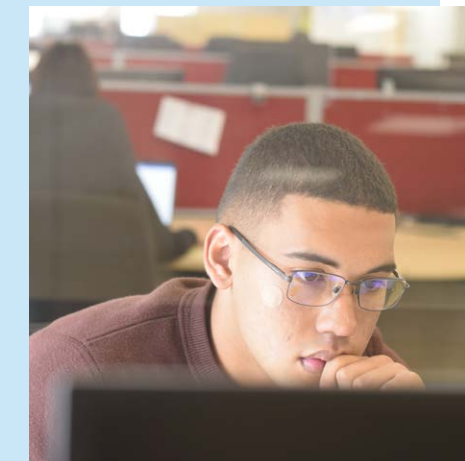


Business Plan 2022 Extra

To hear Sofia Athanassiou, Connect Plus Commercial Director, talk about how we align with National Highways’ objectives, simply scan this QR code with the camera on your smartphone.

6

7



THE ROLE OF AN INTELLIGENT CLIENT

We believe that to foster the best relationships with our supply chain, we need to wholeheartedly commit to the role of intelligent client. Being an intelligent client is critical to delivering against our contractual obligations with National Highways and, ultimately, delivering a safer more reliable network for our customers.

We will only become an intelligent client by embedding our five core pillars into our way of working and implementing them clearly and consistently.

We understand, however, that we must hold our supply chain to account. We do this by supporting and empowering them to innovate, add value and improve their performance so that together, we can achieve excellence on the M25.

OUR INTELLIGENT CLIENT PILLARS

■ Expectations

We will clearly communicate our expectations and priorities in a timely manner. Our expectations shall be reasonable, detailed and relevant.

■ Governance

We will embrace a leadership role with a mature approach to relationship management. We will hold ourselves and our supply chain to account to deliver our mission and objectives effectively, and in a fair and transparent manner.

■ Information

We will ensure that we use accurate information and data to inform our decision-making, to help build trust with all our stakeholders. We will provide our supply chain with the information they need to deliver and develop strategy effectively and efficiently.

■ Enablement

We will support and facilitate our supply chain enabling them to deliver effectively and efficiently, and add value to all. We will create a safe environment for challenge, learning and collaboration.

■ Consistency and transparency

We will lead consistently and with transparency. We will challenge the status quo enabling us to learn, improve and create value. We will act as role models to mentor and support our people and our supply chain in embedding this intelligent client approach.

Business Plan 2022 Extra

To fulfil the needs of our contract, we must act as an intelligent client. To watch Andy Dean talk about this, simply scan this QR code with the camera on your smartphone.



**innovation****performance****value**

Innovation, Performance and Value are our three core business pillars and the themes we use to set our objectives and achieve our vision.

They reflect our priorities and are closely aligned to our contract principles. Our business pillars and key principles are reflected in everything we do. They're not static, they each interlink, and as we evolve, so will they. The following pages explain how.

The key principles of our M25 private finance project are:

- We create value for National Highways, our shareholders and our customer.
- We ensure excellence of stewardship across the M25 network.
- We work within a performance-driven culture, constantly striving for continuous improvement.
- Through the project road objectives, we support and align with National Highways' strategic aims and aspirations.
- We work within a defined financial structure to manage the operational risk of the M25 network.
- We work in collaboration with National Highways and our supply chain to embed innovation into our culture, to improve our delivery and productivity.

Innovation

Innovation can be defined as the creation, development and implementation of a new product, process or service – with the aim of improving efficiency and effectiveness.

Innovation is a part of everything we do, from the products we use to the systems and processes we employ across the organisation. It is by being open to new ideas and solutions, and innovative longer-lasting materials that we will deliver value to our customers, our community, National Highways and the wider industry.

Our approach to innovation is simple; developing an idea and, if appropriate, turning it into a solution that can add long lasting benefits and long-term value to the project, ultimately helping to secure the successful delivery of our asset management responsibilities.

We believe that innovation is a fundamental principle of our contract with National Highways. We are continually exploring new and innovative ways to deliver safer, more reliable journeys for our customers while at the same time limiting disruption and providing a safer environment for our workforce. We investigate developments in asset management techniques and technologies not only in the UK but also across the rest of the world, to be able to effectively manage the project lifecycle.

We openly encourage and support innovation within our framework community and our wider supply chain partners. Our innovation steering group (ISG) continues to drive our innovation strategy across the project, creating and maintaining a sustainable and supportive community culture, through a strong and effective innovation programme.

The relationship we have with our framework community is innovative in itself. Our special form of contract demonstrates our inclusive and collaborative culture. It stands alone within the industry and was developed in partnership with our contractors to benefit the

project, our client and our contracting community.

Last year, through our innovation programme, we facilitated many new ideas. These include a bitumen product that contains an anti-aging binder to potentially extend its life, and trialling the Omnicom solution (previously used in the rail industry) to improve the efficiency of inspections on the network.

Together with the support of the innovation board, we will continue to review and approve targeted funding to facilitate new ideas from across the framework community and the wider supply chain, over the coming year.

Business Plan 2022 Extra

Innovation is key to everything we do on the network. To watch Andy Dean talk about this, simply scan this QR code with the camera on your smartphone.



Case Study LEADING THE WAY WITH HEALTHIER HIGHWAYS

Innovation is key to health, safety and wellbeing and we're continually exploring new working practices to improve the safety of our workforce and our customers. One such innovation is our work with health protection and occupational hygiene specialist advisors, Steve Perkins Associates.



Healthier Highways is our collaborative initiative to improve health protection across the M25 supply chain. One of our first projects has seen a great step forward in controlling dust exposure on asphalt planing operations, resulting in significantly improved health protection for colleagues.

The results of a static exposure dust monitoring assessment showed that unacceptably high levels of inhalable and respirable dust, at or above the current recommended exposure limits, were created during planing operations when not fully deploying the onboard water suppression system. Further static exposure dust monitoring then concluded that the systems for water suppression and dust

extraction on the planers (the main engineering controls for dust in planing) were not being operated as per the manufacturers' instructions, leading dust levels to more than double. Following further investigation, we concluded that the reasons behind minimising water usage were not applicable to M25 works, where the planing time window is relatively short.

As a result, we have been able to more than halve dust levels through more robust use of existing engineering controls, resulting in a much safer working environment at little or no additional cost implication.

We have now successfully embedded improved working

methods, with checks in place from framework contractors, and improved risk assessments and maintenance schedules from the supply chain.

Not only has this information been shared across our own supply chain, but we have also provided industry guidance on planing dust control to both the UK and European planing associations to share good practice with the wider sector.

It's fantastic that the work our teams have undertaken throughout the year has been recognised by our peers resulting in two award wins during 2021-22.

These were:

- *Highways Awards – Best Site Safety Initiative*
- *National Highways Industry Awards – Outstanding contribution to health, safety and wellbeing*

Business Plan 2022 Extra

We're very proud of the work we're doing with our Healthier Highways programme. To watch Andy Dean talk about this, simply scan this QR code with the camera on your smartphone.



Performance

Our **Performance** business pillar is about how we, as a company, focus on our business and asset management strategies, and how we manage and realise the opportunities available to us in delivering value to our client, our customers and our shareholders.

This includes how we perform as a team. One of our key principles talks about how we work in a performance-driven culture and how we measure ourselves against a set of clearly defined objectives, ensuring we deliver against the requirements of our contract with National Highways.

The M25 is a self-policing contract, which means we hold ourselves to account. If our performance falls below our own high standards then contractual sanctions apply.

To consistently improve our performance, we have developed processes that allow us to align the way we work to industry best practice, in a way that encourages us to excel in being the best at what we do and delivering a service that we can all be proud of.

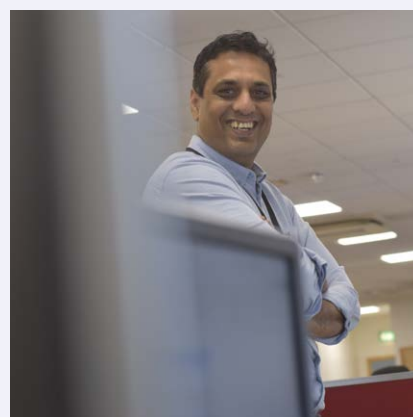
We have implemented and continuously maintain an integrated management system that is accredited by BSi and certified to PAS99. This forms the framework by which we monitor both our

own performance and that of our supply chain partners and includes a robust risk-based audit plan and governance structure. By working collaboratively with all areas of our business community, our aim is to identify performance issues early and ensure that resultant interventions are appropriate and deliverable.

In addition to our own performance, we are responsible for maintaining the performance of the network and the asset itself - the pieces that come together to create the M25, such as bridges, roads, drainage, and even the technology and innovations we use to deliver our service.

Through these technologies, there is a vast amount of network and asset data available to us, that our skilled workforce analyse and use to inform on the condition of the network, enabling us to optimise our decision making.

Maintaining a safe and serviceable network requires the right interventions at the right time. The M25 can be a challenging highways maintenance environment



with many specialist organisations undertaking work at any one time, it is therefore vital that road space is optimally managed to cause the least disruption to our customers.

The performance of both our people and the network are of course intrinsically linked, with each one affecting the other. We will aim to continually assess and improve our performance for the betterment of the network and for our customers.

Case Study

LEADING THE WAY WITH OUR DIGITAL STRATEGY

To deliver the principles of our contract, secure efficiency savings and embrace digital opportunities, we have established a central community digital function

The M25 digital team will set strategic direction, address key capability gaps and provide better visibility, alignment and governance for our digital activities.

Technology is an increasingly important part of how we run and maintain the M25, and many digital initiatives have already been delivered and produced tangible improvements. Below are some examples of projects currently being implemented.

■ Safe to dig

One of the most important permits requested on the network today is the 'Permit to Dig' – a critical safety step in the process to mitigate against utility strikes and a requirement that allows contractors to work on the network. We receive around 35 requests per day.

We're developing a digital solution that will significantly improve the process, digitising the request workflow and geolocating the permits on an easy to interrogate web interface. It is based on a similar solution utilised on the recent A14 works, by a Balfour Beatty Vinci joint venture. On that scheme, the utilisation of the digital solution reduced service strikes by 70%.

■ Augmented reality

In August 2021, we began to trial the use of digital glasses. They work two ways – allowing the user to receive instructions from a person not on site, or to relay information to another location, and/or person entirely.

Initial testing was with the tunnel maintenance team, where an expert engineer wore the glasses to remotely connect to an operative at the asset. Using augmented reality, the engineer was able to instruct the operative on how to service the asset.

We are currently undertaking a second trial with the incident support crews. It is often the case that when crews are called to an incident, damage has been caused that would normally require specialist input from an engineer. This process can be lengthy, with crews waiting for an engineer to pass the repair safe so that the road can be reopened.

By using the glasses, the crew are able to share sight of the repair remotely, enabling the engineer to pass the repair safe within a significantly shorter timeframe. This means the road can reopen more quickly, causing less disruption to the travelling public.

We have also used the glasses on safety tours, meaning we no longer need to bring large groups of people onto site, as they can view the site remotely.

As the successful trial comes to a close, there is a longer-term plan to roll this technology out more widely and explore further areas that will benefit from this solution.

■ Dash cams in inspection vehicles

Historically safety inspections were conducted by two individuals. During the pandemic this wasn't possible, so we explored alternative single-driver options. We developed a solution where a driver was able to conduct safety tours with a simple dash cam, however the process of capturing and uploading the data for review was time consuming and inefficient.

After further investigation, we have now rolled out a four-camera dash cam solution to the safety inspection vehicle. This solution allows for the footage to be remotely accessed by anyone, providing a reduction in visits to the defect, saving on time, fuel and costs. The inspections can also be done closer to motorway speeds, avoiding the need to be a slower

moving vehicle on a live motorway, or having to stop (where refuge is present) and capture details of defects. It is also much quicker and easier to identify exactly what the defect is.

■ Network digitisation update

Last year we digitised the main ring of the M25. This means our M25 framework community can now access a single source of data, within a single visualisation platform. Following its success, we will now be scanning the full 440km, which will be regularly refreshed to provide a comparison of the assets.

We're already seeing strong benefits from our work, such as allowing teams to understand the network terrain and vegetation before going out on site, saving considerable time as teams arrive ready and are clear on any potential issues or hazards. We're also able to save time on planning closures, designing traffic management and measuring assets.

The platform can be used to collaborate on design for traffic management and ultimately agree this in advance against a real-world visualisation, before arriving at the location.

Our work to digitise the M25 was the only project to be highly commended at this year's National Highways Industry awards.

■ The unity app

The unity app is our new briefing app. It will be used to undertake inspections and briefings, and to report defects around our network.

It includes new features, such as improved photo functionality and easier data entry. One of the most important features is the crew messaging facility, developed in response to feedback received from our workforce. It will be a huge improvement in the way we are able to communicate with our operational teams.

Value

What does **Value** mean to us on the M25 network? One of our core project principles is to create value for National Highways, our shareholders and our customers. The value our customers derive from using our network, the value that comes from sharing innovative new ways of working with National Highways, and the value in savings and efficiencies we deliver to our shareholders.



Value to our customers means delivering a safe, reliable, positive and consistent driving experience. They expect their journey to deliver particular outcomes, and value to them comes from the extent to which those expectations are met.

The management and careful planning of roadworks is key. A significant piece of work we are undertaking that will help us do this is Optimatics - a programme optimisation tool that will enable us to plan our delivery programme more efficiently in the future. When fully embedded into the network, this industry-leading improvement will transform a largely manual process into a much more powerful way to schedule road works. This will result in reduced risk exposure for road workers, as well as fewer customer impacts and efficiency savings – a huge benefit to those who use the M25 network.

To deliver true value to National Highways we must endeavour to go further than what we set out to deliver in our contract. We aim to introduce new and innovative methods that will allow us to safeguard the future of the M25 network. A key imperative for us is to lead the way in innovation, trialling new ways of working that, if successful, can be utilised by National Highways to add value across the SRN and beyond.

For our shareholders, value is about delivering across all of this and more, it is about driving operational value and efficiency, and supporting our supply chain by being an intelligent client. Fundamentally it is about getting better at what we do. We want to drive the continuous change and improvement needed to get the best value from the network. It is important to also consider the value in the business that comes

from the people we employ. Our parent companies engage with people from all over the world who bring different and unique skill sets to our project. We want the best people in the industry in order to deliver the very best value.

Finally, we also need to consider our social value. Measuring this allows us to understand and manage the contribution that our organisation, our framework community and the wider supply chain make to society through the project. It also establishes a structured process for target setting, measurement and reporting on social, economic and environmental impact. We have been working to achieve a consistent and replicable approach with robust KPIs, to understand and manage the positive legacy we are able to leave in local communities and the environment.

Case Study

LEADING THE WAY WITH OUR CARBON STRATEGY

Our aim is to reduce our carbon emissions in line with National Highways' net zero plan.

To reduce our emissions effectively, over the past year we have been focused on developing data capture and analysis techniques, so that we can more accurately understand where our greenhouse gas emissions are coming from. This will enable us to engage more easily with different areas of the business and make change. We will only succeed in our aim to reduce carbon by working collaboratively as one community and engaging with designers, asset managers and service delivery teams.

Early last year we developed our carbon reduction hierarchy, to help us identify which areas of the business we should be focusing our efforts on, to reduce carbon emissions. The most effective and obvious way is to eliminate it entirely, however this is not always possible.

We focused on data collection, concentrating on 3 areas:

1. *Identifying the source of our emissions, and the collection of all data.*
2. *Improving the quality of our data.*
3. *Improving data analysis and using this knowledge to make change.*

This focus has provided us with the foundation needed for drafting a thorough and robust carbon strategy. Below we explain in more detail about each of the focus areas.

1. Identifying the source of our emissions, and the collection of all data.

To develop a carbon reduction strategy in line with our hierarchy, we needed to identify all sources of our data, and develop a means of presenting and interrogating that data.

The employment of a sustainability analyst has provided a focal point for data analysis, enabling us to develop dashboards and reporting mechanisms to robustly manage and analyse our data.

We believe that a key potential means of reducing carbon, is through making changes to design and relating it to our carbon reduction hierarchy. Last year the sustainability team began engaging with the designers and asset managers by attending team meetings, webinars and one to one meetings, to encourage them to consider the carbon impact of materials.

(continues on next page)

To reduce our emissions effectively, over the past year we have been focused on developing data capture and analysis techniques.

2. Improving the quality of our data.

By analysing the quality of our data, we identified that there were issues and different parameters, which both COFA and renewal supply chains were reporting. We now hold data quality workshops, both as a group and one-to-one, to improve the quality of data and standardise the reporting.

While service delivery fuel usage has always been reported, as a result of our work, we identified an issue of fleet idling, resulting in the emission of unnecessary greenhouse gases. The sustainability team are now working with the service delivery area managers to establish why our drivers are leaving their engines running. A fuel idling dashboard was created using PowerBi that will be monitored at monthly depot managers meetings to ensure a continued focus on changing driver behaviour.

Another way to improve the quality of our data has been the launch of our carbon tool for design. The tool is completed by our design team as part of every scheme from street lighting to resurfacing. It takes the format of materials, energy, transport and waste and uses these categories to identify higher carbon factors, and seek lower carbon materials or methods of working.



A profile of carbon emissions, projected to be released by manufacturing the construction materials for pavement schemes, was inserted into the 2021 AMFP submission.

3. Improving data analysis and using this knowledge to make change.

The following describes some of the ways we have used our improved data capture to influence our way of working.

Following the launch of our carbon tool for design, as previously discussed, the sustainability team now report design carbon footprints to our designers, so they can identify high carbon materials and seek to change them where possible. Moving forward, the carbon design tool will enable designers to compare the carbon footprint of different materials side by side.

A profile of carbon emissions, projected to be released by manufacturing the construction materials for pavement schemes, was included in the 2021 AMFP submission. By understanding the profile of our emissions, we can work with asset managers and designers to reduce them. The most carbon intensive activities derived from our scope (i.e. pavement, bridges, and ancillaries) are reflected in our carbon profile.

We estimate that the average annual embodied carbon of construction materials, used to maintain our network, will approach 4,700tCO₂e / year. Further efforts will aim to integrate emissions from assets not included in the scope at this stage, such as drainage and geotech, to derive a more comprehensive carbon baseline. In addition, it is with no surprise that the cradle-to-gate embodied carbon of pavement schemes - covering the treatment of 3,000 lane/km of both concrete and asphalt roads - represents 75% of GHG emitted from the construction materials used to maintain our network.

This is why we are actively exploring long-life pavement opportunities and increasingly moving towards using greener

We seek to share best practice and ensure we are all working towards the same goal. This will continue as we move forward.

surfacing techniques, such as reclaimed aggregates, to reduce such carbon emissions.

As well as reducing carbon by changing the materials we use, we are also looking at construction methods as a means of identifying how changes can be made. For example, by analysing the data, we were able to identify that most pavement materials were laid using hot mix methods, however, using data analysis we were able to prompt the designers and project managers to ensure that pavement material is now laid predominantly as warm mix.

An example of how collaboration can help towards our carbon reduction goal came as a result of working closely with the asset managers last year. We were informed of a plan to upgrade tunnel lighting from standard SON to LED replacements. The team were able to calculate both carbon and energy savings, thus discovering potentially huge carbon emission savings per year.

Earlier this year, Holmesdale Tunnel lighting was replaced with LED, with other tunnels due to follow over the coming years. Not only are there huge energy

savings in replacing the bulbs, there are also cost savings too.

Pre-pandemic, we were estimating that road users from our network emitted ~4.0 MtCO₂e per year. It was found that network-wide, 79% of GHGs are emitted on the orbital M25 (as opposed to link roads), and that 52% of network emissions are released by passenger cars and delivery vans (as opposed to HGVs, whose carbon conversion factor is five times that of light vehicles).

We calculated how the pandemic contributed to the reduction of road user emissions in 2020, with persistent effects in 2021. 920,000 tCO₂e and 620,000 tCO₂e were 'avoided' in 2020 and 2021 respectively, due to reduced traffic levels. Although 2021 saw less lockdown disruptions than 2020, traffic levels, and therefore carbon emissions, were potentially still far below pre-pandemic levels. Further calculations will be done this year to identify if the trend of lower post-pandemic emissions continues. By reducing our carbon emissions, we are not only helping to reduce potential climate change, but we're also working more cost-effectively as well as improving the safety of our workforce.

By working with the whole business, we have been able to raise the profile of the carbon reduction agenda and bring it to the forefront of people's minds. Carbon reduction can only be achieved by working collaboratively and in partnership with our colleagues, our community and key stakeholders.

We seek to share best practice and ensure we are all working towards the same goal. This will continue as we move forward and make plans to change the 'business as usual' materials and construction methods we use, so that we can reduce our carbon emissions even further.

We believe that we are leading the way in the Southeast area with our carbon strategy and will be working with the region to share our findings. Moving forward, the work we have undertaken could, potentially, be shared and used across the SRN.



ABOUT CONNECT PLUS SERVICES

Connect Plus Services (CPS) has a vision to ‘deliver market leading solutions to address the needs of our customers, driven by a talented and dynamic workforce, to create a positive legacy and experience for all’.



Central to the delivery of this vision are the company’s delivery values; Safe & Well, Excellence, Sustainable and Reliable, which form the golden thread running throughout CPS’s business strategy. The CPS business strategy aligns with the objectives of Connect Plus, National Highways and its parent companies.

The delivery values are built upon an already strong foundation, and serve to further embed the company’s vision across the business and frame carefully defined measures and strategic targets to drive the business forward.

CPS operates and maintains the M25 DBFO network on behalf of Connect Plus and National Highways. The business carries out routine maintenance and winter maintenance, designs and delivers project and renewal schemes and provides commercial and project management services for Connect Plus renewals works, as well as managing the whole-life requirement of the network’s c.150,000 assets.



OUR FRAMEWORK COMMUNITY

We recognise that to fulfil the fundamental principles of our contract, a fully embedded innovative and integrated supply chain is required, working together with our stakeholders and customers in a long-term relationship.

Connect Plus has learnt that technical, commercial, and collaborative skills, although essential, will not on their own be sufficient to deliver the aspirations of our innovative community culture over the next six years. We need an intelligent supply chain to work with the ambitions of our own intelligent client ethos. In 2017 we procured a new supply chain to work with us over the next 12 years to deliver this ethos and objectives.

We are proud to be One Community

Our supply chain partners are - Jackson Civil Engineering, Octavius Infrastructure, Tarmac, Milestone Infrastructure and R&W Civil Engineering, together with our strategic supply chain partner, Connect Plus Services. We work with a clear purpose and vision - to create a sustainable supportive innovative community culture that delivers greater value to all. Our way of working has challenged the traditional industry barriers and normal adversarial behaviours, enabling innovation, joint risk management and proactive leadership.

Our objectives, alongside the project road objectives, seek to:

- Drive a whole life approach to maintenance and enhancement, continuously improving service
- Own and maintain a long-term sustainable community (through 2nd, 3rd and 4th tier)
- Promote a culture which embraces and seeks out change and integration at all levels
- Put stakeholder relationships and customers at the heart of what we do

Together with the wider supply chain, we seek to deliver industry leading innovation. We aim to drive out waste and generate value, learn from each other and consistently improve. Our approach has evolved over several years and has enabled us to build a community that works together. This culture has been acknowledged as industry best practice and has been certified to ISO44001 (collaborative business relationship management systems) since 2013.

Together we will achieve excellence on the M25.

Business Plan 2022 Extra

To watch Sofia Athanassiou talk about our unique framework contracts simply scan this QR code with the camera on your smartphone.



OUR AWARDS

Over the last two years we're thrilled to have been shortlisted for many awards, and have gone on to win, or be highly commended in fourteen.

There are many people who contribute to the success of these projects – each one is truly a team effort involving lots of people from many organisations, and collaboration is always the key to their success.

We're especially proud of the fact that earlier this year we were named outright winners in four sub-categories at the National Highways awards as well as picking up the only Highly Commended award of the evening, and that they all came in the Safety category, supporting our ethos that safety should be at the heart of everything we do as a community.

Our work with industry partners to develop a common and consistent standard of testing and inspection for impact protection vehicle (IPV) safety cushions, was the winner of the **exceptional contribution to workforce safety category**, with the award for **outstanding contribution to health, safety and wellbeing** going to our Healthier Highways programme.



Together, we will achieve excellence on the M25.



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