

# Pushing the boundaries

Sustainability Report 2023





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We are transforming the way buildings and infrastructure are engineered and built.


Our 2030 goal is for all our sites to be net zero for operational emissions.

Before 2050 we plan to be a net zero company delivering nature positive solutions with teams that represent our diverse society.

**We are shaping a lasting legacy for our clients, our environment, our people and society.**

 Cover: Woolgoolga to Ballina Pacific Highway upgrade, NSW, Australia

 Inside front cover: Transport Access Program, NSW, Australia

 Back cover: South Quay Plaza, London

# About Laing O'Rourke



## Our story is one of energy, passion, ambition, people and purpose.

Laing O'Rourke was formed in 2001, bringing together the construction arm of John Laing plc, whose origins stretched back to 1848, and R O'Rourke & Son, a regionally-based formwork and concrete specialist, founded in 1978. Since those very beginnings, we have taken pride in our sense of purpose which sits at the heart of the company.

Our strong culture stems from our family ownership and a passion to deliver projects that improve the lives of the communities they serve. Our company purpose, which is to push the boundaries of what's possible in service of humanity, together with our values of care, integrity and courage, are what make us unique. They help drive the impact that we want to have as a business in the world.

We recognise that our industry is a significant contributor to global emissions, and we have a determination to take on the sustainability challenge inherent in construction. The decisions we make over materials, construction methods, supply chain partnerships, recruitment, community engagement, working with nature – among many others – all have an impact. These decisions must be carefully considered, and we have a responsibility to show leadership. To take on the challenge to do things differently, to innovate, to embrace diverse perspectives, to protect. To be a force of positive change in our industry.

Our unique operating model brings together areas of industry-leading expertise: excellence in engineering; use of digital technologies; and the use of modern methods of construction. We're continuing to invest in these areas, bringing together the brightest minds and pioneering technologies, to help us deliver a more sustainable future. One where projects are delivered more quickly, more sustainably, more safely and to a higher standard.

Perhaps the most urgent challenges facing the construction sector today are those of sustainability. We are transforming the way buildings and infrastructure are engineered and built. Our 2030 target is for all our sites to be operationally net zero. Before 2050 we plan to be a net zero company delivering nature positive solutions and creating lasting social value for the communities from which our diverse project teams are drawn.

**We are shaping a lasting legacy for our clients, our society, our environment and our people.**

### Our goals

2030

Operationally net zero

2033

50/50 gender balance across our global staff

2050

Net zero company before 2050



# Introduction messages



**Ray O'Rourke**  
Group Chief Executive Officer

I am proud to introduce our Sustainability Report, a stand alone document that supplements the information in our Annual Report. This report offers a comprehensive overview of our ongoing progress towards our goals, and details of the work we have delivered so far.

Our company purpose is to **push the boundaries of what's possible, in service of humanity**, always acting in line with our values of **care, integrity and courage**. It's my belief that the work we're doing to deliver a more sustainable future is an important example of how our actions are guided by our purpose.

We have made significant strides over the last 12 months in embedding a sustainability-first mindset across our business, and this work continues. Our sustainability strategy comprises carbon reduction, nature protection, social impact, diversity, inclusion and employee wellbeing. I believe our integration of each of these areas into a single strategy will increase our ability to make a positive impact.

Providing leadership on sustainability issues means making clear commitments, empowering our teams and acting with authenticity. Our leadership teams are passionately committed to the journey we're on. This is further enhanced by the knowledge and focus Cathal O'Rourke brings to our sustainable ambitions as our Group Chief Operating Officer. Cathal's vision and operational expertise will help us accelerate towards our goals and help to shape our future sustainability reporting.

We are transforming our business against a backdrop of a challenging period for the construction industry. But this cannot deflect us. We must be honest about the scale of change needed and the new norms and sustainability standards that need to be created. We cannot change the sector in isolation. All participants in our industry must focus on greater collaboration to make a tangible difference and create a brighter long-term future. The companies that embrace and lead the change should be valued and rewarded for doing so.

At Laing O'Rourke, we're determined to be a net zero company before 2050, to be operationally net zero by 2030 and to achieve gender parity among our global staff by 2033. We believe that this can be done. In order to achieve it we must be single-minded and work together with our clients, delivery partners, competitors and academia.

Generating the funds to innovate is essential. This will require constructors and their clients to rethink their approach – to procurement, contracting, design and delivery.

We must work as a collective to keep challenging ourselves and to pioneer solutions that deliver sustainable buildings and infrastructure fit for our future.

I am immensely proud to lead a business that recognises it does not have all the answers, whose bright and passionate professionals are absolutely determined to find those answers and drive change.





**Madeleine Loughrey-Grant**  
Group Director – Legal, Procurement (EU),  
and Sustainability

This has been an important year for us from a sustainability perspective. I'm proud to work with so many people who, regardless of their role, department or seniority, are ready to take on the challenge of reducing our climate impact and creating positive, equitable change.

This report is intended to bring our sustainability strategy to life. To describe – with tangible examples – how we're pushing the boundaries for our clients, society, the environment and our people. We've selected projects and initiatives we're particularly proud of in order to tell our story.

The Governance section describes how we're structuring ourselves to maintain a strategic focus on sustainability, centring it within our business as we continue to adapt in the face of a changing climate and natural landscape. The work we're doing at a leadership level to analyse and quantify climate scenarios demonstrates the undeniable link between climate change and long-term commercial success, and further detail can be found within our Annual Report, in our Task Force for Climate-related Financial Disclosure (TCFD) statement.

The cornerstones of our sustainability strategy are **authenticity, innovation and targeted action**. Open conversation around our targets, our progress, our successes, our setbacks – and the changes we need from others – is vital to drive a meaningful difference.

We're undoubtedly moving in the right direction, but there is much more to do. We're continuing to invest in improvements to ensure our offsite facilities and solutions are fit for a cleaner future; and in dedicated Technology and Innovation teams so we can expedite the deployment of sophisticated solutions that will help make tomorrow's sustainable future a reality we can start to implement today.

If our industry is to change at the scale and pace needed, we must think and work differently. We must be creative, placing emphasis and reward on practices that will deliver a brighter future. We know we can't achieve net zero using today's materials, technologies and approach. The same is true of contractual arrangements – we need to put in place mechanisms that incentivise and reward sustainable innovation. The route to 2050 depends on it.

While the task ahead is challenging, I believe we have the passion, the expertise and the strategy in place to meet that challenge.



**Rebecca Hanley**  
Managing Director, Australia

Under testing macro-economic conditions, we have focused on fine tuning our sustainability strategy and turning our commitments into tangible outcomes.

In Australia, we continue to invest in the resources to operationalise our strategy and have restructured our functional reporting lines accordingly, with Sustainability and Environment now a standalone function, led by Hollie Hynes as General Manager, reporting directly to me.

We are driving up our minimum standards in carbon abatement solutions and working with clients to utilise the lowest embodied carbon concrete mixes possible in transport infrastructure.

We have moved closer to our 50/50 gender diversity target in Australia, maintaining 35% overall female participation and the female composition of our Australian Executive Committee now sits at 45%.

We are also focusing on driving better outcomes through our engagement with industry bodies. In 2022, I joined the Climate Leaders Coalition, a group of cross-sectoral Australian CEOs supporting the Paris agreement and setting and implementing decarbonisation targets – and importantly learning from one another across industries.

This progress is not without significant challenges in the Australian market. Lack of policy harmonisation, disaggregated supply chains, access and commercial viability of known global solutions like HVO, and inconsistencies in data and reporting are but a few.

It is promising to see that all governments, both national and state/territory now have net zero targets in place, and we are seeing a significant rise in corporate ambitions to achieve net zero. This is helping influence decisions around design, procurement and construction, and building the appetite for and availability of low carbon products, practices and services. What we now need is scale, local availability, and commercial viability of these solutions.

It's clear we need to move together to drive change as an industry. At Laing O'Rourke, this is the lens through which we are looking to tackle the journey to net zero. I invite you to join us.

# Our sustainability approach

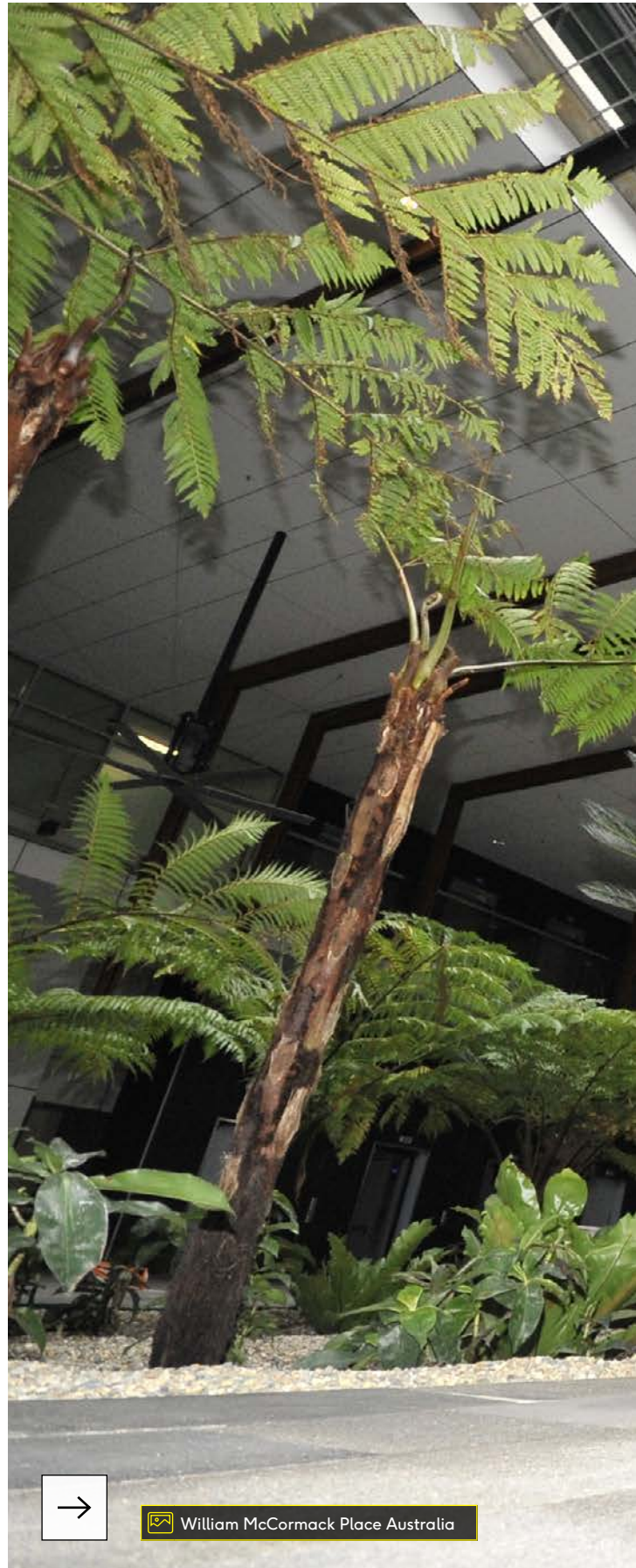
Pushing the boundaries of what’s possible is at the core of our purpose. It determines how we think and how we act. We know that actions speak louder than words and it’s our philosophy to do what we say and say what we do. Our Pushing the Boundaries sustainability strategy is a comprehensive plan that details how we’re reducing environmental impacts while positively contributing to society, whether that’s our people, our clients or the communities within which we operate.



## THE GLOBAL GOALS For Sustainable Development



We are supportive of all 17 of the UN’s Sustainable Development Goals (SDGs) to act in global partnership towards a fairer, healthier future for all people and the planet. We have analysed the sub-targets that the UN has developed related to each of the goals, and recognise that we have a clear and direct contribution to make with a focused group of goals. This report sets out the detail of the actions we are committed to taking in relation to each of those focused goals, to help deliver a better future for all. In focusing our efforts on five goals, with clear action plans, we know we will deliver a greater impact.



William McCormack Place Australia



### Deliver innovative, high performance sustainable solutions

Reduce whole life carbon through the use of calculation tools, design partnerships & continuous product development

Modern methods of construction enable us to help clients meet their sustainability ambitions

Read more on how we push boundaries for **our clients** on page 8



### Engender an inclusive, healthy working environment

Achieve 50/ 50 gender balance across global staff by 2033

Industry-leading parenthood policy

Achieve our third Workplace Gender Equality Agency (WGEA) Employer of Choice Gender Equality Citation in Australia

Read more on how we push boundaries for **our people** on page 35



Read more on how we push boundaries for **society** on page 20

Read more on how we push boundaries for **the environment** on page 26

### Make a positive, lasting impact for society

Inspire the next generation: promote STEM and construction careers in schools, colleges and universities

Enrich the lives of 2 million people whilst delivering £2 billion social impact in the UK, and deliver \$800 million of social spend in Australia by 2030

Become a Disability-Confident Employer in FY26 in Australia

### Preserve our planet

Be an operational net zero company by 2030 and fully net zero across Scope 1, 2 & 3 before 2050

Use 100% low carbon concrete on our UK projects and progress research on net zero materials

Understand the impact of our sites, projects and depots on nature and use to inform responsible decision making

Our sustainability approach *continued*



## THE GLOBAL GOALS

For Sustainable Development

We are taking targeted action to help make progress against five of the UN’s Sustainable Development Goals in which we believe we can deliver the most significant impact. The detail of the work we’re doing aligned with the sub-targets for each goal can be found in the appendix.



Princes Highway East, Kilmany, Australia

### Decent Work & Economic Development

We’re working hard to engender an inclusive working environment, recognising that diversity of perspective is a vital part of our future success. Our target to achieve 50:50 gender parity by 2033 is ambitious in our industry – a position we’re determined to change. Our social value programmes provide direct work opportunities for local communities, supporting economic prosperity, and our employability programmes help individuals with multiple barriers to employment into the workplace.



Thames Tideway, London, UK

### Industry, Innovation & Infrastructure

We’re delivering vital infrastructure projects, including rail, energy, aviation and healthcare facilities. We’re focused on providing social and economic prosperity within local communities and a positive lasting legacy. Our projects are long-term. The decisions we make today must deliver a better future and, along with our clients, partners and supply chain, we must continue to challenge today’s norms to create carbon efficient, nature positive infrastructure.

Full details of the work we’re doing to support these SDGs can be found in the Appendix





📍 School visit to S4 Kings Cross, London

## Sustainable Cities & Communities

We're proud to work with clients to deliver buildings and infrastructure that connect communities and improve lives. We challenge ourselves to find innovative ways to do things better. We work with communities to understand cultural and natural sensitivities and devise programmes that protect nature and celebrate culture.



📍 HS2, Midlands, UK

## Responsible Consumption & Production

The construction sector is responsible for a significant proportion of global emissions and can have a direct impact on nature preservation. We know we must accelerate change in our industry to reduce our impact. We're investing in innovation to identify more sustainable solutions, to reduce our consumption of precious resources and instil standards across our own supply chain.



📍 HS2 environmental sites, Kenilworth and Cubbington, UK

## Life on Land

We recognise that in building sustainable cities, communities and the infrastructure to support them, this can cause disruption to life on land. Careful planning is essential to mitigate any adverse impacts to species at our sites. Environmental assessments at project inception enable us to make clear recommendations around species protection, optimum location of operations from a nature perspective and, where necessary, sensitive relocation of species to ensure nature continues to flourish, along with communities.

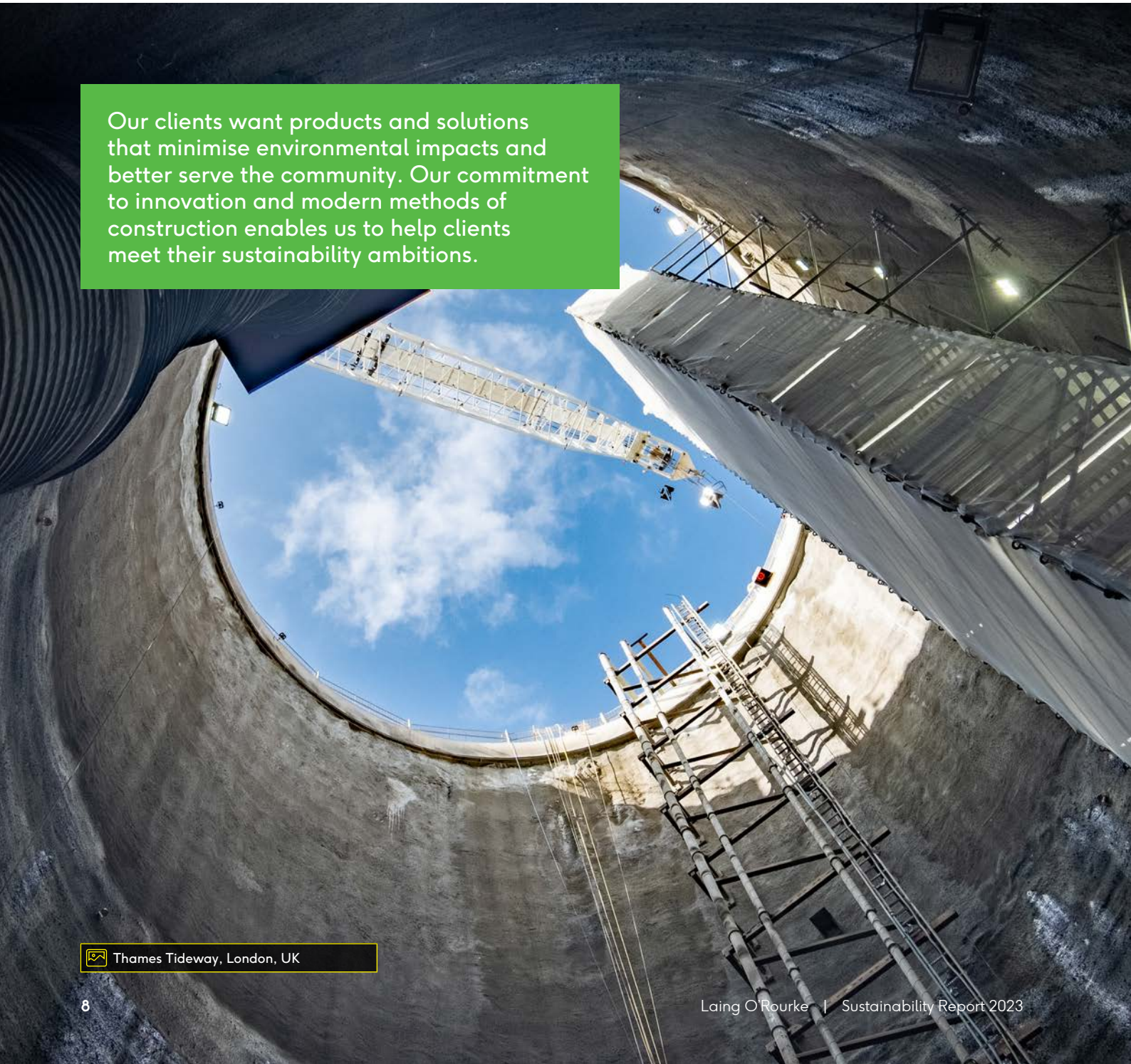
Full details of the work we're doing to support these SDGs can be found in the Appendix




# Pushing the boundaries for our clients



Our clients want products and solutions that minimise environmental impacts and better serve the community. Our commitment to innovation and modern methods of construction enables us to help clients meet their sustainability ambitions.



 Thames Tideway, London, UK



# Delivering innovative, high performance sustainable solutions



Businesses have a significant role to play in delivering a better future, preserving our planet and supporting communities. Our clients are responsible for the provision of infrastructure and buildings that are vital to our society, whether that's the roads and railways that connect communities, tomorrow's energy infrastructure, the laboratories that will deliver medical advances or the educational institutions that will inspire our future generations. We have a collective responsibility to design, engineer and construct more sustainably and we're proud to help our clients to deliver better outcomes for people and the planet. Experience shows us that the earlier we engage, the deeper our client partnerships run, laying the foundations for far more sustainable outcomes. We know there's a long way to go, but we're determined to play our part.

Authenticity, innovation and targeted action are central to our strategy. Across our business we're working with clients, academic partners and industry to develop, trial and implement the technologies, materials, designs and programmes that will enable societies to thrive, sustainably.

## Investment in innovation

The world of sustainable construction is evolving rapidly. Our established Technology & Innovation Groups in both operating hubs are actively working to decarbonise our live projects and the wider sector. We work with government and academia to develop and test new solutions, some of which are already in use and helping to reduce embodied carbon in buildings and infrastructure projects. Our specialist teams are innovating at every stage, whether it's testing next generation materials, deploying advanced manufacturing methods at our facilities, or making waves with robotics and AI technologies before they are deployed at scale. Other pioneering solutions – such as digital modular bridges – are fast becoming the new norm (read more on p13).

We have a roadmap of activity to help take us to a net zero future and will continue to share our findings with industry to accelerate progress.

Sustainability is an area of growing academic interest and we are delighted to sponsor a number of PhD students, utilising their skills and ideas and helping bring them to life via our facilities, supported by our wide-ranging technical expertise and industry experience. This opportunity to test concepts and identify outcomes is helping us to take further action towards decarbonising construction.

We continue to harness innovation to develop the solutions that will take us forward, recognising that clients' demand for, and investment in, these solutions will ultimately accelerate adoption and emissions reduction.

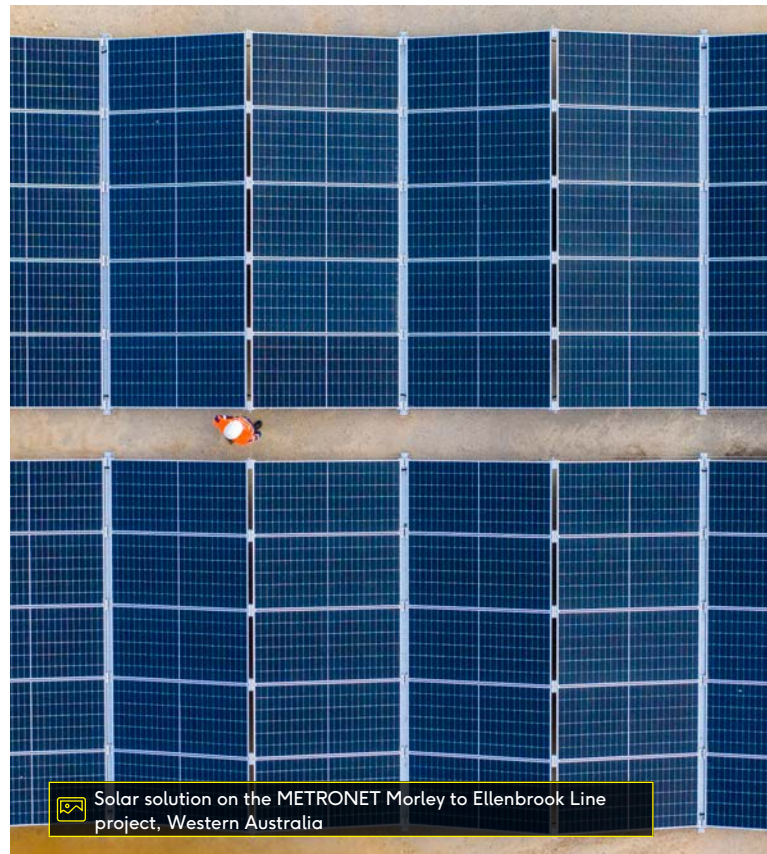
## Modern methods of construction

In the UK, our Centre of Excellence for Modern Construction (CEMC) and Crown House Manufacturing (CHtM) sites are an essential part of our operating model. Manufacturing a kit of parts in a controlled environment improves scheduling and project programme, delivers high quality consistently and provides the capability for research and development.

At CEMC, our specialist concrete technologists have the conditions, technology and space at their disposal to test and trial a wide range of product mixes and designs. The prototyping opportunities are a huge advantage in terms of driving progress in construction. However, the primary focus of the facility is to deliver excellence for clients today. Our technical engineers build detailed digital models that can be adjusted in line with client needs, then seamlessly translated for build.

Our skilled workforce is directly employed and trained by us, with direct access to design engineers on-site. It helps us to foster a collaborative environment and maintain exceptional quality standards for our clients.

There are clear sustainability benefits too. For instance, wastage is lower and we're using renewable electricity to power our plant.



Solar solution on the METRONET Morley to Ellenbrook Line project, Western Australia

Pushing the boundaries for our clients *continued*

### Taking a whole life carbon approach

We're working towards 2030 and beyond, future-proofing the built environment by prioritising lower-carbon design, engineering, and construction.

The best way to lower carbon emissions in construction is by addressing them early in the design phase of a project. By considering whole life carbon in the design features and materials we use on our projects, we can lower overall emissions and avoid costs of carbon at a later stage. We work with clients, design partners and suppliers to understand lower carbon options from the start to finish of projects and identify and advocate for low carbon options wherever they are possible.

We take a whole life carbon approach to our projects. That means:



challenging designs and material decisions from the outset to minimise material use



using innovative modern methods of construction to drive carbon and time efficiencies



deploying sustainable technologies on-site to reduce carbon during build



using digital tools and models to test a variety of scenarios and calculate the relative carbon associated with each option



bringing together smart designs and engineering excellence to improve operational efficiency in-life, once we've handed the asset over to the client



considering material reuse at the point of disassembly and deploying circular economy principles

Defining a common, robust methodology for carbon calculation from the design process, through build and on completion is vital to ensuring we baseline and track carbon appropriately. We work closely with clients and design partners to define the best whole life carbon assessment methodology for each project, using proprietary software tools. The most important factor is having a common understanding of calculation and measurement across the project team from inception through to completion.



#### Advanced carbon calculation methodologies

We use a range of carbon calculation tools to scenario model, set a baseline and track progress through projects. Whether it's our bespoke, in-house tool, which specialises in the embodied carbon content of the sub- and super-structure elements of a build, or one of our proprietary software tools, scenario modelling across the whole carbon lifecycle means we can develop carbon efficient solutions from the start.

We work closely with clients and design partners to define the best whole life carbon assessment methodology for each project. The most important factor is having a common understanding of calculation and measurement across the project team from inception through to completion.




Thames Tideway, London, UK



# Whole life carbon: Driving down embodied carbon in a high profile Melbourne infrastructure project



 The South Eastern Program Alliance team pouring their low carbon piling mix

In a Victorian industry first South Eastern Program Alliance (SEPA), Vinsi Partners, Keller, and Holcim collaborated to test and deliver a more sustainable Department of Transport approved concrete mix.

Hollie Hynes, General Manager – Sustainability and Environment, said, “Our sustainability team and our engineering team worked out the areas of greatest materiality in this job and over the next three jobs. We were able to make some decisions that were going to have large, scalable impact rather than impact on just one job. We chose concrete.”

We know that concrete is a major contributor of embodied carbon emissions, and approximately half of all concrete used across the program alliance is attributed to piling.

We engaged industry partners and our supply chain to collect extensive data to analyse the opportunity for carbon savings against the technical requirements in detail. This ultimately showed that significant embodied carbon savings were achievable.

Laing O’Rourke worked closely with the SEPA team to identify the concrete mix, its use cases, and a supplier – Holcim Australia. The team set the right controls and measures in place to ensure the mix would be approved.

The team successfully challenged the existing specified limit for the use of supplementary cementitious materials (SCM) in concrete piling mixes in Australia. Having been a part of the entire discussion, Victoria’s Department of Transport and Planning (DTP, formerly VicRoads) confirmed, in August 2021,

it would approve mixes on a case by case basis with a higher proportion of cement replacement than allowed in their standards, on its Level Crossing Removal Projects (LXRP).

This particular concession in the specifications allows for 70% cement replacement with industrial by-products such as fly ash and slag. This is 30% higher than the 40% limit in the standard and 55% higher than the LXRP business as usual (BAU) 15%.

Once tested and approved on the live project, which was the Union Road and Mont Albert Road level crossing removal project, it was immediately approved for use for piles on the next three projects – Bedford Road, Coolstore Road and Dublin Road. On these projects, 50% of the concrete, or around 18,000 cubic metres, will be in piling.

This change, which will prevent around 4000 tCO<sub>2</sub>e over three sites compared to BAU of 7,200 tCO<sub>2</sub>, might have been impossible had there not been a programme alliance model in place, one that encompasses collaborative contracting.

And its positive effect should scale significantly as the LXRP scope has now grown to 110 crossings.

## Low-carbon concrete and collaborative contracts

“In a traditional contract model, you go to tender and it is roughly a four to five-month process to bid the job, followed by a six to nine-month process to be awarded. If you did that for 110 projects consecutively, we’d still be bidding in 2090 and beyond,” Hollie says.

Pushing the boundaries for our clients *continued*

Driving down embodied carbon in a high profile Melbourne infrastructure project *continued*



Low carbon concrete pour on the Union Road and Mont Albert Road level crossing removal project

“The client has been smart and wrapped this up into a program alliance, which helps accelerate the work.”

There are a lot of efficiencies to be gained from doing several projects at the same time, and from the same alliances moving on to the next projects.

Within the Laing O’Rourke alliance, known as the South Eastern Program Alliance (SEPA), is Level Crossing Removal Project (LXRP – the client), Jacobs and Metro Trains Melbourne.

“We’ve completed six level crossings to date, including four at the beginning that weren’t formally part of the alliance program,” Hollie says. “We also have five we have been awarded that we are developing with the client. Three of the projects in delivery are using this mix, showcasing how we are able to create sustainable solutions that have ongoing benefit, not just for LXRP but the broader industry.”

“That’s the second important point of this collaborative contracting model. When you are in a program alliance, and the client is in the tent with you, there are no barriers to sharing innovations or ideas and we’re incentivised to put everything on the table.”

“It fosters an environment in which innovation, sustainability and early adoption are encouraged and rewarded financially, so innovations are shared, and best practice quickly spreads across sites. I cannot stress enough how contract models are going to be the maker or breaker of the transition to 2050.”

“The client’s maturity and confidence around the importance of this has evolved along the way. It went from incentivising Green Star and Infrastructure Sustainability Council ratings to incentivising the areas of real materiality (reduction in tonnes of carbon) and saying actually, we’re now incentivising you to find solutions that don’t exist at the moment. That’s the real golden nugget.”

The 70% SCM piling mix was a great initiative to drive emissions reductions on the project. What was especially impressive though, was the effort that went into taking this beyond a good single project outcome. Making it available to the market will maximise the impact of this initiative and help drive the industry towards lower carbon alternatives.



### Other Australian projects using low carbon concrete

Laing O’Rourke is not just using lower-emissions concrete on the LXRP project.

On the Sydney Central Station Metro project, the team has achieved 51% of cement replacement using supplementary cementitious materials (SCM) across all the concrete used on the project.

The client Sydney Metro is keen to have contractors use concrete mixes with a reduced carbon footprint. All concrete used in the metro tranche of projects must contain SCMs like fly ash or slag, following specific requirements.

Also, on the METRONET Morley-Ellenbrook project in Western Australia, encompassing 21km of rail, multiple bridges and five stations, current use of SCM is running at 52% on average. It is mainly used on stations as kerbing and ground slab.

Laing O’Rourke’s team, as part of the Melconnx alliance with the Public Transport Authority, is sharing these learnings with the company’s Byford Rail Extension project team, also in WA.



# Modern methods of construction: How innovation is transforming bridge build



M42 modular bridge, Midlands, UK



Our industry-leading modular building solutions are used in multiple applications, and bridges are a primary example. Using a combination of digital configuration, precast components and off-site manufacturing, we're revolutionising the way we engineer and build today, delivering reductions in embodied carbon, project timeframes and local disruption, and bringing benefits to workforce safety and productivity. Developed, tested and refined by our engineers and in collaboration with industry and academic partners, today our solutions are supporting our highways and rail networks, delivering reliably high quality products while minimising the impacts to local communities.

## How it works

Our modular system comprises standard, pre-cast components that can be readily configured to specification, essentially, an engineered kit of parts. Our advanced digital modelling enables designs to be developed and refined quickly and easily, reducing the design period. Manufacture largely takes place off-site at our CEMC factory in Nottinghamshire, before being assembled quickly and with a far smaller workforce on-site.

“Our modular bridge solution epitomises the way in which we’re taking a fresh approach to engineering and construction. By using a product-led, ‘kit of parts’ methodology, we’re transforming the industry. Our digital bridge configurator tool allows for rapid optioneering and exploration of design, cost and carbon, so that clients can make informed decisions dynamically during the design process.”

**Peter Lyons**, Business Unit Leader Specialist Trading Business Group, Europe

## Railway trace bridges

These 35m span bridges were built using the modular bridge kit of parts, having been designed and configured using our proprietary digital technology.

### Outcomes achieved were:



Programme timeframe reduced by 50% – from 37 to 19 weeks



16% reduction in embodied carbon – a detailed comparison was created using traditionally designed, in-situ reinforced concrete abutment. The design of the modular approach delivered a 16% reduction in carbon. As low carbon concrete is used more widely, further reductions will be achieved.



84% reduction in on-site resource – with much of the work taking place off-site, the actual construction took 3 weeks with a 6-strong workforce. This, in turn, delivered benefits in terms of reduced safety risk through working from height.



Reduced disruption – a shorter programme meant a far shorter period of traffic management was required, with local roads handed back quickly.

Pushing the boundaries for our clients *continued*

# Innovative solutions: The road to emission-free sites



Project sites are a major source of emissions. That's why we have taken action to reduce our impact on the environment during construction.

Today, 100% of the electricity we use in the UK is renewable and is backed by Renewable Energy Guarantee of Origin (REGO) certification. In Australia, GreenPower certified electricity is used meaning all our office electricity is from 100% renewable sources.

The plant we use contributes to site emissions, so we've deployed initiatives and technologies to reduce this impact. Firstly, we've converted diesel to biodiesel – specifically hydrotreated vegetable oil (HVO) – for all heavy plant used on sites where we're the main contractor in the UK. This delivered a carbon reduction of 8,500tCO<sub>2</sub>e in FY23. All our HVO is derived from waste, is from ISCC certified sources and has a fully traceable supply chain, ensuring it doesn't contribute to negative indirect land use change (ILUC), such as deforestation. Once HVO is more readily available in Australia, we intend to transition. Until such time, we continue to utilise traditional biodiesel blends in locations where supply is available.

To reduce diesel usage to power off-grid site facilities, we have introduced a minimum standard on all new projects in Australia. All sites with off-grid site facilities must use a hybrid generator rather than a conventional diesel generator. Hybrid generators include a battery suitable for powering lower load activities and this move is expected to reduce diesel use by at least 40%. This is coupled with a stretch target of achieving a >75% reduction in diesel consumption through the use of battery and solar solutions.

Working with our specialist plant business, Select, we have ramped up our deployment of electric plant equipment on sites in Australia and in the UK. Our use of battery-powered electric crawler cranes, telehandlers and electric piling rig trials allows us to deliver innovative, zero emissions options for our clients.

## Using innovative technology to work smarter

Construction is traditionally a carbon-intensive sector and switching from equipment that typically used diesel generators to more sustainable solutions takes innovation, a fresh approach and a willingness to trial.

We've pioneered several cutting-edge technologies on our sites that are helping us make gains in reducing emissions, compare technologies and make confident recommendations across our portfolio. For instance:

**Hydrogen tower lights**, providing emission-free lighting for nightworks at Old Oak Common railway station, part of major UK rail project, HS2. This innovative technology produces power from bottled hydrogen combining with oxygen, where the only by-product is water vapour.

We're pioneering cutting edge technologies on our sites that are enabling us to make gains in reducing emissions



**Ampd Ertainer battery storage systems** – we've been working with the 2022 Earthshot Prize finalists to bring their innovative battery storage technology to Europe for the first time. The Ertainer acts as a replacement for diesel generators, delivering an emission-free solution to powering electrical plant and equipment on site, including cranes, hoists and welders.

**Off-grid solar generation** has proven particularly successful for our Australian business. An innovative renewable energy system was designed to power the site compound at the Princes Highway East Kilmany project with the support of the client Major Road Projects Victoria – leading to a 90% reduction in diesel fuel consumption for the generation of power. To date, the project has avoided 77,630 kgCO<sub>2</sub>e, with the solar panels being the primary source of supply during daytime hours and the batteries used overnight.

**Flybrid flywheel generators** dramatically reduce the fuel used by tower cranes. Tower cranes have very dynamic power requirements. They operate at low load much of the time, then require a "surge" when lifting. Traditionally this means that they have been powered by generators large enough to manage peak load capacity, resulting in inefficient operation, wasted energy and high emissions. Adapted from F1 technology, Flybrid systems optimise energy usage. They capture and store energy that would otherwise be wasted while the crane is operating at low load, using it to provide a boost when the crane lifts, which is when most power is needed. This means that the generator can be far smaller.

**Switching to battery-powered alternatives** – this applies to small generators, that are often used to power tools and small equipment on-site, as well as replacing petrol-powered cutters with battery-powered technologies.

**Deployment of sub-metering** – complemented by demand optimisation technology and a PowerCube hybrid system, sub-metering was successfully used on our Sydney rail upgrade project to gather more granular, actionable data on usage. The result was a 60% reduction in generator output, dramatically reducing on-site emissions.



Carbon reduction may have been a primary driver in the deployment of diesel-free measures, but they bring a wider set of benefits too. There are very practical advantages: the risk of spills is eliminated, as is the need for diesel storage space – something that can come at a particular premium in urban areas. There are also reductions in transport emissions when we no longer have to factor diesel deliveries.

It's better for our people and our neighbours too. Air quality is improved, as particulates associated with diesel are eradicated, and noise levels are significantly reduced, creating a better environment for our workforce and the local community.



**Select powers forward with sustainable fleet**

With more than 30 years' experience specialist plant business, Select, has built an excellent reputation as a sustainability leader in the Australian and UK plant hire and rental industry. A wholly owned subsidiary of Laing O'Rourke, Select owns and operates a modern, innovative and environmentally sustainable fleet.

Together with Select, we have been investing in electric construction equipment in Australia in three key areas: Material Handling and Lifting; Transport and Site Logistics; and Power Systems.

We launched the first zero emissions fleet of 250 tonne electric crawler cranes and 2.5 tonne electric telehandlers. This was the first investment of its type for the UK and Australian construction sectors and is part of our efforts to reduce scope 1 and 2 carbon emissions and reach operational net zero by 2030.

Select has installed smart digital energy monitoring systems across all our site compounds to monitor energy use. This insightful data is then used to improve the site and change behavioural habits to reduce future carbon emissions.

Prior to the installation of renewable energy systems, we deployed hybrid generators on projects across NSW and Victoria to improve the fuel efficiency of diesel power generation on off-grid site compounds. The diesel generator coupled with a battery energy storage system led to a 40% reduction in diesel consumption for the generation of site compound power.

Select also recently deployed an 8.5T electric flatbed truck at the Union & Mont Albert project (UMA) by South Eastern Program Alliance (SEPA) and has achieved 35% operational cost savings since October 2022. Four of these trucks have been purchased along with a wide range of solar powered lighting solutions, innovative electric telehandlers, and hybrid power systems to complement the growing range of zero emissions plant, equipment and vehicles in the Select fleet.



**Inner City Redevelopment**

The use of innovative technologies has delivered impressive carbon reduction for this central London project.



It was the first project in the UK to use electric crawler cranes in 2021. These proved to be 89% more energy efficient than diesel-powered alternatives and delivered a saving of 12tCO<sub>2</sub>e in the first 16 weeks alone.



Flybrid flywheels have been deployed on 5 tower cranes, reducing wasted power and delivering an 83% fuel saving.



Use of diesel has been eradicated, in favour of HVO.



3 Ampd Enerainers are being used in place of diesel generators. During the first six months of use, this technology saved over 105tCO<sub>2</sub>e and eliminated the need for almost 47,000 litres of fuel.

The combined impact of these measures is abatement of more than 430tCO<sub>2</sub>e in a 2-year period.



Pushing the boundaries for our clients *continued*

# Sustainable solutions: Eradicating diesel from our sites



**Rossella Nicolin**  
Head of Sustainability,  
Europe

Diesel phase-out is critical to achieving our net zero goals. A significant contributor to global emissions, we identified the switch from diesel-powered plant to more sustainable alternatives as a key carbon abatement initiative for our company in 2021, in both Hubs.

Our long-term plan is to fully transition to electric and/ or hydrogen plant, as the technology starts to become available at the scale needed. Collective drive and innovation with our supply chain partners will be necessary to achieve this goal. Our journey has already begun – we’re deploying innovative technologies, such as electric crawler cranes, hybrid generators and Ampd batteries, via our specialist business, Select. Where these options are not available, biodiesel represents a more sustainable direct replacement for diesel.

Hydrotreated vegetable oil (HVO) is more commonly used in the UK, and as such in April 2022 we chose to mandate the use of HVO on all our UK sites. This move has already delivered a significant carbon reduction. In fact, coupled with the transition to electric plant alternatives, our switch to HVO delivered a saving of around 8500 tCO<sub>2</sub>e in FY23, representing 75% of our total direct (Scope 1 & 2) emission reduction.

We recognise that HVO fuel can vary, and it’s vital that we understand exactly where our fuel comes from to ensure we’re sourcing sustainably. We therefore have strict governance processes in place for HVO procurement.

All our HVO comes from waste and must comply with the Renewable Energy Directive, known as RED II. It must meet the requirements of the Renewable Transport Fuel Obligation, as well as being certified by an appropriate body, such as International Sustainability and Carbon Certification (ISCC).

Certification means that the supply chain associated with our HVO fuel is fully traceable, so we can be sure that we do not become indirectly responsible for practices we are opposed to, such as deforestation, or other kinds of land clearance that would negatively impact the natural environment.

We continuously monitor the HVO market to make sure that we only ever purchase certified fuel that meets recognised sustainability standards, recognising that this is a transitional solution as alternative plant options mature. Our relationship with Select continues to be a real strength for us in this regard, helping us to access pioneering products that will ultimately make a significant difference in reducing our environmental impact – and that of the wider construction industry.

In Australia the supply of HVO is limited and, in many cases, unviable due to the lack of domestic supply, hampering our ability to make progress in carbon reduction through fuel transition. This is an issue we are working to overcome. We’re actively engaged with global suppliers, industry peers and government bodies to determine the best ways to overcome existing constraints, which include feedstock supply security, commercial viability and a lack of government support.

We would like to see government mandates introduced to enforce minimum levels of biofuel use, stimulating supply within Australia and helping to reduce the price delta between biofuel and diesel, such that it represents a more commercially favourable option.

As plant technology advances, along with the electricity infrastructure to support widescale electrification, we are poised to progress our journey towards diesel eradication across our global business.



**Hollie Hynes**  
General Manager,  
Sustainability and  
Environment, Australia



# Whole life carbon in practice: Leadership in sustainable design



 The Northern Concourse at Central Station in Sydney

The Central Station Metro (CSM) project has been awarded a 6 Star Green Star Design Review rating from the Green Building Council of Australia. This rating represents ‘world leadership’ in environmentally sustainable building design and is a first for Laing O’Rourke in Australia.

In line with both the client, Sydney Metro, and Laing O’Rourke’s sustainability approach, and using a road map from Green Star, the team committed to embedding sustainable principles into the design of the new metro station. To provide certainty for our client, the Laing O’Rourke team, with Woods Bagot and the Aurecon GHD design joint venture, set a target to achieve a minimum 5-star rating for the project.

The team has also achieved the highest possible level Infrastructure Sustainability (IS) Rating v1.2 score for the CSM Sydney Trains asset areas. The team has done an outstanding job in reaching a Leading Rating Level of 85 points, exceeding both their contractual target (75 points) and their contractual stretch target (79 points).

With the IS Rating achievement, all project assets in design now have the highest possible sustainability rating levels, for their respective rating scheme.

“We were genuinely stretching the daylight out of the targets back in 2017 and for the CSM team to say ‘thanks, but we reckon we can do better’ (and achieve it) is beyond incredible – especially given the complexity of the project, the interface with Green Star and the existing sustainability technical specifications”

**Hollie Hynes**, General Manager, Sustainability and Environment, Australia

There were a number of major achievements on the project that led to this rating, including:

An Australian first innovation for collaborating with the project waste services provider to be the first Australian construction project that use a Good Environmental Choice Australia (GECA) certified waste services company. Separate to the IS Rating, a world first innovation was recognised by Global Ecolabelling Network who have stated CSM is the “first construction site and project to be included on a Type 1 Ecolabel programme in accordance with ISO 14024 Environmental Labels and Declarations for waste services”.

Implementation of Return & Earn to donate to local charities. The team shared the idea and learnings across their networks, which has led to multiple Sydney Metro contractors replicating this initiative on other projects, delivering impact beyond this programme of works.

Commitment to sustainable procurement and encouraging good sustainability practices and innovation through the supply chain.

Reducing energy by 36.53% over the 100 year design life of the project compared to the forecast base case footprint.

Substituting potable (drinking) water by 90% over the 100 year design life of the project compared to the base case footprint.

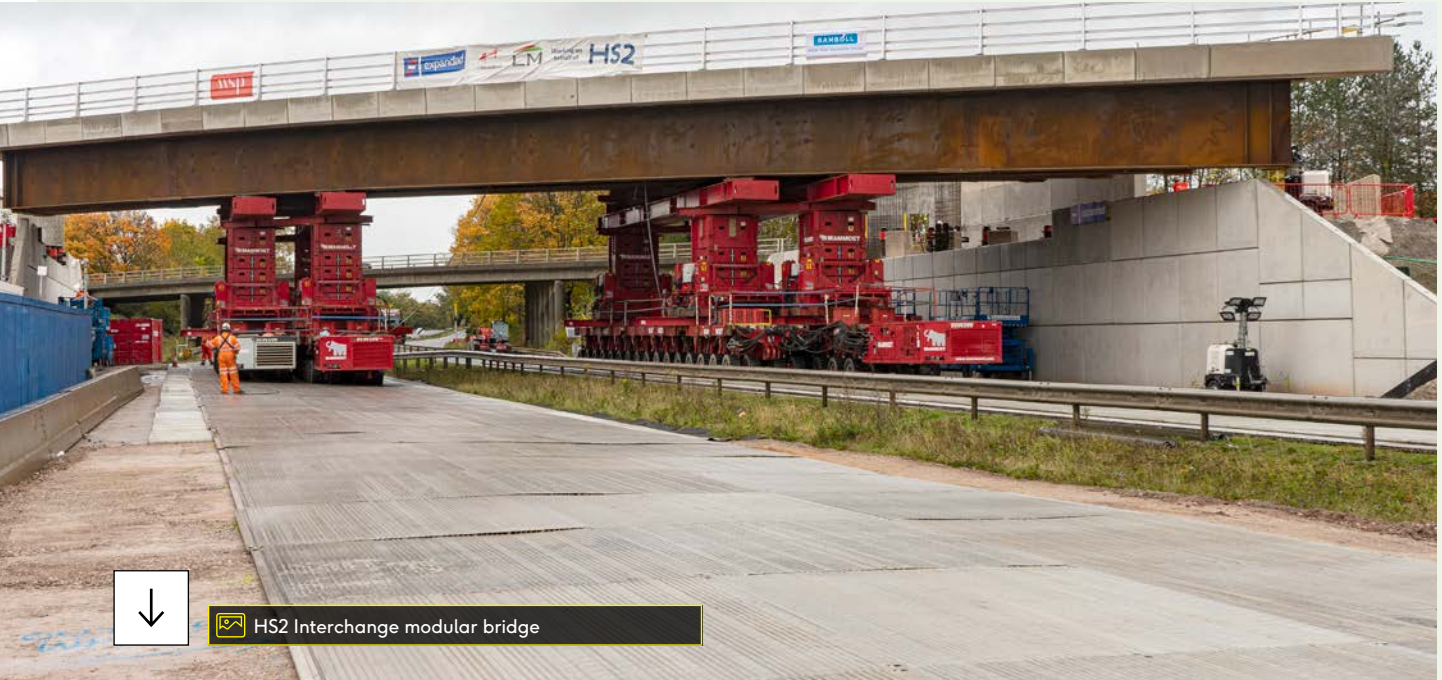
Reducing the carbon footprint of materials by 21% over the 100 year design life of the project compared to the base case footprint.

Delivering community benefit initiatives that respond to the community priority issues – support people experiencing homelessness or at risk of homelessness, workforce development and industry participation, and integrated transport for a connected city.

Not only did the team deliver above the plan for this city-shaping infrastructure project, they stretched their targets to provide a number of Innovation Challenges such as the contribution to Laing O’Rourke’s Reconciliation Action Plan, local workforce targets and certifying their waste provider to the new GECA standard. This is a prime example of what can be achieved by working collaboratively with our client, setting targets, and engaging a team with an unapologetic focus on sustainability.

Pushing the boundaries for our clients *continued*

# Combining innovation, modern methods of construction and a whole life carbon approach



 HS2 Interchange modular bridge

HS2 is Britain’s new high speed rail line, designed to link Britain’s biggest cities and boost economic prosperity across the country via improved connectivity. It is a flagship infrastructure project within the Government’s Levelling Up strategy.

Sustainability is central to the entire project. HS2 has a strong focus on carbon reduction; when running, every HS2 train will be powered by zero carbon energy, in order to provide a genuinely green alternative to road and domestic air travel. The embodied carbon in the project build is an area of intense focus too. As part of the Laing O’Rourke – Murphy joint venture (LMJV), Laing O’Rourke brought its expertise to the project, responding to the client’s request to remove carbon and waste at every stage.

### Our approach

The full scope of works was analysed, and the most carbon-intensive work packages identified. These packages provided the most substantial opportunity for carbon savings and as such provided a clear focal point for the team in terms of identifying innovative carbon reduction solutions. Full life cycle carbon assessments were completed, providing a greater level of detail from which to formulate a plan.

We then developed an integrated strategy that considered the carbon savings possible through smart design decisions, material reuse, lower carbon materials, sustainable procurement practices and innovative on-site technologies.



### This plan produced a 42% carbon saving versus the baseline

The team was keen to explore further opportunities to reduce HS2’s environmental impact, beyond absolute carbon reduction during construction. Whole life carbon emissions were calculated, enabling us to develop a comprehensive picture of the project, including ongoing operational efficiency once complete and how components are managed at the point of disassembly or end of life, including opportunities for reuse or recycling.

Direct environmental impacts were documented as part of the environmental assessment process, such as water use, air quality impacts and waste management practices. Embedded environmental impacts were also considered to fully understand the project’s environmental ‘reach’. The team interrogated the materials used via Laing O’Rourke’s supply chain partners to formulate a total view of resource availability and the climate change impact of using those materials.

It was important that sustainable choices were made when it came to selecting materials. The strategy incorporated reuse of materials from site where possible. Where reuse wasn’t an option, the team sought to use materials with recycled content.





HS2 environmental works, Kenilworth bypass

**Our solutions**

We used the carbon reduction hierarchy framework (see p31) to develop the strategy, challenging at each stage to ensure carbon was minimised through the project design and construction.

This forensic approach enabled us to tailor a programme of work that maximised the carbon savings. For instance, we redesigned a work package for a complex highways diversion that resulted in a 96% reduction in the materials required.

We found opportunities to reuse existing infrastructure or materials from the site to minimise the need for new materials. For example, by using existing pavement in parts of the development we were able to reduce the quantity of new materials required to meet the same depth.

In fact, we took an innovative approach to materials deployment across the work packages. This included using a thinner, stronger asphalt, so that less material was necessary. We used lower carbon concrete to reduce overall embodied carbon across the project. Gabion baskets containing stones or aggregate were used to support soil retention, protect against erosion and to replace concrete structures, and we maximised the use of recycled aggregates.



HS2 solar pod, Kenilworth bypass

When it came to the construction itself, we completed as much of the manufacture and assembly as we could offsite at our Centre of Excellence for Modern Construction (CEMC). Not only did this minimise disruption at the site and reduce the size of workforce needed, it also reduced the number of vehicle visits to site, provided the perfect conditions to manufacture with lower carbon concrete and bolstered programme efficiency as the manufacture process was not exposed to weather conditions.

Electric plant and machinery were used onsite, supported by solar-powered charging stations. Solar-powered tower lights also helped to improve onsite air quality and reduce the project's overall carbon footprint.

Where electric plant options were not available, hybrid generators were introduced to boost the efficiency of plant equipment, such as tower cranes, and reduce the overall size of generator needed.

**The outcome**

The combined result of the activities underpinning the carbon strategy was a 42% carbon saving versus the baseline, which exceeded the original forecast of 24%.

The benefits of the approach were further reaching, however. The use of offsite manufacturing and assembly meant that disruption to residents was minimised, and a smaller workforce could be used onsite. Offsite manufacturing brings safety benefits too; it eradicates the need to work at height and standard shift patterns are adhered to in completing the work. The ability to continue work during inclement weather conditions drives operational efficiency, which can be impacted when working onsite.

From an environmental perspective, the decisions to use electric plant and solar-powered technology had positive implications for air quality and noise levels, as well as reducing the risk of diesel spills around the site.



# Pushing the boundaries for society



From hospitals to railways, we're delivering the infrastructure needed to improve lives and help local communities thrive. By creating employment opportunities and investing in skills development we create economic growth and help communities prosper.



Sydney's Central Station Metro project



# Delivering a positive, lasting impact for society



Delivering projects that connect and support people and communities is a privilege and a responsibility. As a family-owned business, we have always sought to ensure our work delivers a lasting benefit for people, in line with our purpose.

Our social value strategies in each operating region provide a framework to achieve this. This allows our project teams to adapt and focus on what clients and communities need most. This could be more skills and employment opportunities, prioritising local supply chain partners, inspiring and educating the next generation about careers in construction, improving community health and wellbeing, or protecting the planet and nature.

“Our clients’ projects deliver the buildings and infrastructure needed to improve society. We’re passionate about making sure that communities connect with, and benefit from, those projects before, during and after construction, leaving a positive legacy to be proud of.”

**Nicholas Arcaro**, Head of Diversity and Wellbeing, Australia

## Enriching lives, strengthening communities

In Australia we have a specific priority outcome for Indigenous (Aboriginal and Torres Strait Islander) Peoples, businesses and communities. We deliver this through our Reconciliation Action Plan and through the ways our people show up in our daily interactions.

In 2011 we were the first major contractor to develop a Reconciliation Action Plan, officially endorsed by Reconciliation Australia. We recently launched our Stretch Reconciliation Action Plan, which sets out the steps we will take over the next three years to ensure we are continuing to play our part in supporting the national reconciliation movement. We do this by collaborating with Aboriginal and Torres Strait Islander Peoples within our organisation, supply chain, clients and the community to ensure there are equitable opportunities in employment and training, procurement, and the sharing of culture through education, urban design, placemaking and storytelling.

In Australia, we are committed to delivering \$800 million of social spend by 2030 by focusing on inclusive employment and programmes to engage with priority job seekers, marginalised groups and their communities.



Pushing the boundaries for society *continued*

### Measuring our social impact

In the UK, we are committed to enriching the lives of 2 million people and creating £2bn of social impact by 2030. In FY23, our UK business delivered £435m in social value, including 11,242 employee volunteering hours, helping 369 people who had experienced barriers to employment into work, 346 work experience placements and 156 apprenticeships.

Our contribution is independently calculated and measured by social value specialists, Thrive. The Thrive platform enables us to report the progress we're making at a detailed level across all projects, calculate the value delivered to society in financial metrics, and pinpoint opportunities for us to do more.

Thrive enables us to keep on track as we progress towards our strategic goal, challenging us to ensure we're delivering appropriately across all pillars and in partnership with communities. By attributing an independently calculated financial metric to the social impact we deliver via the Thrive platform, we're better placed to demonstrate its value.

### Promoting best practice

We know that to maximise the social value we create, we're better working with others. We partner with a range of experts with specialist skills and knowledge to complement that of our own people. We share our insight within social value-focused forums and at industry events, and listen to examples from our peers to ensure we continue to deliver to the highest standards.

In Australia we are members of the Diversity Council Australia, Australian Network on Disability and we partner with several social enterprises, including Career Seekers, giving us an opportunity to help shape and drive social value action across our industry and directly within communities.

In the UK we are part of the committee for Impact Evaluation Standards, partner with the Institute of Corporate Responsibility and Sustainability and Social Value UK.

One of the achievements we are most proud of is that we are the first UK Tier 1 contractor to achieve Disability Confident level 3 status, which means that Laing O'Rourke has been recognised as a Disability Confident Leader. Our responsibility is to ensure that our business actively recruits and retains people with disabilities, that we increase the proportion of employees in our business that consider themselves to be disabled or have a long-term physical or mental condition, and that we share our experiences with other organisations, encouraging our peers and supply chain to follow our lead and become Disability Confident. In Australia, we have set a target to become a Disability Confident Employer in FY26.



### Inspiring the next generation: Supporting career pathways in Melbourne

In 2022, Laing O'Rourke signed a 3-year partnership in support of the North Melbourne Football Club (NMFC) Women in Construction 'Freestyle' Programme and the Women's Australian Football League, which aims to attract women and non-binary people to construction careers and connect them to meaningful and sustainable employment opportunities.

The programme is designed to provide connections to construction pathways via the club through 'Try a Trade' events, as well as offering opportunities for training through local training organisations, and connections to local employment agencies.

According to Helen Fraser, Director – People, Laing O'Rourke's partnership with NMFC is currently the only one designed to deliver long-term and direct value for individuals and the community.

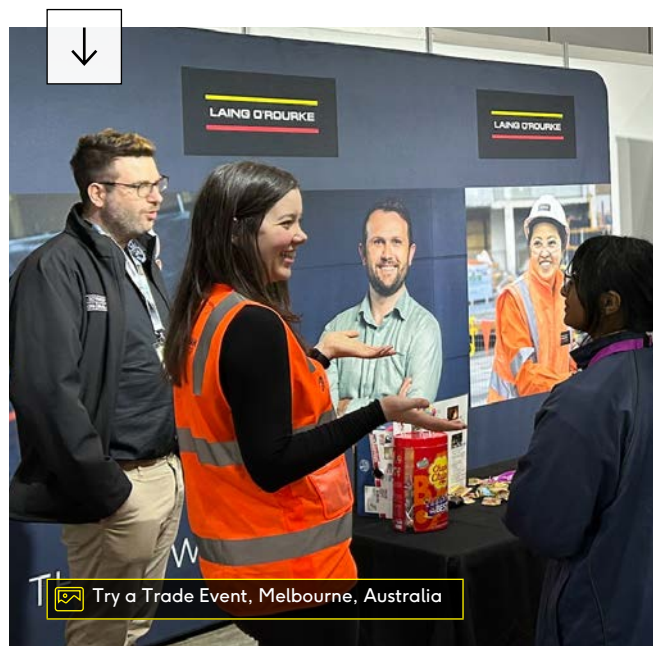
She said, "By now we are all aware of the benefits of a diverse workforce. The job now, and what we are hoping to achieve with NMFC, is a step change in the attractiveness and inclusivity of construction careers."

Michael Learmonth, General Manager – Eastern Freeway – Burke to Tram Alliance, praised the agreement. He said, "The partnership will create strong connections between potential employees and our large pipeline of projects in Victoria."

Our UK business delivered

£435m

social value in FY23





# Leading positive change in Indigenous engagement



Ray O'Rourke with Darumbal Traditional Land Owners at Shoalwater Bay on the Australia Singapore Military Training Initiative project

We launched our first Reconciliation Action Plan in 2011, and in the first year of delivery, FY2012, we spent a total of \$1.8m with twelve Indigenous businesses. Since then we have been on a journey that has seen us continue to learn from the Indigenous communities we have engaged across the country.

Reconciliation refers to the mending of a damaged relationship. In the context of Australian history, it's the process of creating a just society that honours and respects the Indigenous population. By nurturing these relationships and working towards a fairer society, the hope is to create a better and more unified Australia for everyone.

Through our collaboration with Indigenous Peoples, businesses, clients, and communities we have been able to grow as a business that genuinely supports and advocates for reconciliation across the country.

Our increased engagement has resulted in us utilising more Indigenous businesses, employing more Aboriginal and Torres Strait Islander Peoples, and importantly, fostering an inclusive culturally safe environment that ensures everyone who joins our business feels a sense of belonging and inclusion.

In the twelve months to the end of our financial year March 31, 2023, we had engaged 141 Indigenous businesses in the supply chain, with a spend of nearly \$70 million - that's a 22% increase from the previous year.

These outcomes are the result of a long-term focus on developing and strengthening our relationships with Aboriginal and Torres Strait Islander Peoples, and a strong Indigenous Affairs strategy ensuring our teams have the tools they need to engage in meaningful reconciliation activities that support Aboriginal and Torres Strait Islander Peoples.

We are proud of our history here in Australia, and our involvement in projects like Sydney's Central Station Metro, Australia – Singapore Military Training Initiative (ASMTI), and the Larrakeyah Barracks Redevelopment project gives us a unique opportunity to foster strong relationships with and provide employment, training and contracting opportunities to local Indigenous Peoples, businesses and communities. On our journey to transform ourselves and our industry, we are using the power of our experience to give small business owners the opportunity to learn and acquire new ideas, skills and tools to take their business to the next level.

*“When I reflect on the positive change that is occurring across the business, it fills me with pride. There is a genuine desire at Laing O'Rourke for our projects and our people to do more, learn more and engage more with Indigenous Peoples, businesses and communities. We honestly don't say it loud enough or proud enough, the work we do is meaningful and is making a tangible difference to people's lives. As we roll out Laing O'Rourke's Stretch Reconciliation Action Plan, we will be braver and bolder with our aspirations to drive education and equity across our business, across our industry and in our society.”*

**Belinda Murdoch**, Head of Indigenous Affairs, Australia

Pushing the boundaries for society *continued*

# Delivering lasting impact: Our Building Opportunities Programme



As part of the Abraham Moss Library and Leisure Centre project in Manchester, our social value team recently delivered Laing O'Rourke's inaugural Building Opportunities Programme. Designed to support individuals with multiple barriers to employment, it's an employability programme with a difference.

## About the programme

Laing O'Rourke worked with the local authority, specialist partner ANTZ and community groups to design a programme that delivered practical skills and tangible outcomes within the region, while also supporting client KPIs and local planning requirements. Focused on an area of Manchester with high unemployment levels, a cohort of 15 people undertook a three-week course that included time in real-life working environments, practical employability skills, health and wellbeing support and an insight into the range of roles available in construction.

## A person-centric approach

Our UK social value strategy is to deliver £2bn of social impact and enrich the lives of 2 million people by 2030. We're serious about those goals and making sure that our work delivers genuine, lasting impact rather than some kind of 'tick-box' activity.

The Building Opportunities Programme embodies that. Not only did all 15 participants that completed the course receive their Construction Skills Certification Scheme (CSCS) card, we also held a networking event with potential employers, providing an opportunity for participants to put their skills into practice and access immediate employment opportunities.

Within weeks two participants had secured jobs and two more were in recruitment processes. This is a significant success when considering the backgrounds of the cohort and the often long-term unemployment they had experienced.

Unlike many employability programmes, our support doesn't end there. The reality is that not all individuals are work-ready at the end of the course, so we're continuing to support them into employment through business mentoring, wellbeing support and further development of employability skills. Individual needs vary, so we're tailoring that support on a person-by-person basis.

"The Building Opportunities Programme represents a really progressive approach to delivering social value. The people we're supporting simply don't have the same employment access as so many of us. The practical elements of the programme are vital. They're really designed to help participants overcome some of the primary employment barriers. I'm especially proud that we continue to support cohorts longer-term. We're truly committed to enriching lives within the communities we operate in, and that long-term view is essential. The feedback we received at the end of the programme was really inspiring – and quite emotional."

**Mark Cottam**, Social Value Leader, UK

"Laing O'Rourke has taken an industry-leading approach to shaping a programme that delivers legacy. It creates a long-term impact that enables a shift change for communities. We're proud to be working with the team as the programme is rolled out more widely and to provide the longer-term support needed by the programme's participants."

**Jen Pemberton**, CEO, ANTZ



# Transforming the future through Inspiring STEM+



Students from Monte Sant' Angelo Mercy College visit our North Sydney Office

The Inspiring STEM+ Programme is a Laing O'Rourke initiative with a vision of disrupting the way the construction industry embraces gender diversity, where female participation currently sits at 13% and even less when you look specifically at engineering and trades. We have a long-term strategy to tackle gender diversity by encouraging and supporting females in selecting STEM subjects in their influential high school years.

The Inspiring STEM+ Programme is a series of modules delivered over a two-year period. One two-hour module is delivered each school term to align with other school commitments and consists of educational and interactive activities that highlight the range of available career paths within the construction industry.

Currently, the programme is run in partnership with seven schools across Australia, led by volunteers across various functions who are passionate about encouraging students to be inspired about a career in a STEM industry. A number of young women who have completed the programme have gone on to pursue subjects and careers in STEM, completed work experience with us or are now employed with us. This speaks directly to the impact of the programme.

Kayla Chaoui is a Civil Engineering Graduate who first learned about Laing O'Rourke through our Inspiring STEM+ Programme in high school. As a result, she chose to pursue a career in construction with an engineering degree and now plays an integral role in the delivery of the programme, helping to educate future generations of young women on the variety of careers in construction.

“Monte Sant’ Angelo Mercy College offers over six industry programmes and we believe Laing O’Rourke’s Inspiring STEM+ programme is the gold-standard, flagship industry programme. This is largely due to the Laing O’Rourke team who provide engaging and interactive learning modules for our students. Additionally, the Laing O’Rourke team offer in-real-time support and advice for students who are curious or have an interest in construction and engineering. We’re proud that our alumni are not only undertaking tertiary study in courses like Civil Engineering, Architecture, Mechatronics and Construction Management, but are in undergraduate programmes linked to Laing O’Rourke and other construction firms. For the College this is the ultimate indicator of the success of this programme. A key belief of our industry programmes is ‘if you can see it, you can be it’ and the Laing O’Rourke team are instrumental in affecting real, positive change – influencing and inspiring the younger generations to be champions of change in an industry that is in need of the talents and bright minds of women.”

**Tom Lee, Director of Innovation and Technology**  
Monte Sant’ Angelo Mercy College




# Pushing the boundaries for the environment



We're driving leadership in low-carbon innovation as we work to become a net zero company before 2050. By working collaboratively across the sector to identify decarbonisation solutions, we're addressing complex climate challenges, developing solutions for a better environment.



 Ecological Compensation Site, East West Rail Alliance, UK



# Preserving our planet

## Our journey to net zero

Significant irreversible change to the earth’s natural environment is one of the greatest threats faced by humanity. We are reducing our contribution to global warming by taking targeted action on our emissions, reducing waste and aiming to deliver projects that leave sites ecologically better than they were.

## Our carbon commitments

We have two key goals when it comes to reducing the carbon that our organisation is responsible for. They are:



1. To be operationally net zero by 2030



2. To be a net zero company before 2050

Our 2030 target is to be operationally net zero. That means eliminating carbon emissions from our directly controlled operations, including the energy used to power our offices and facilities, and the fuel used for construction plant and vehicle fleet. Described as Scope 1 and 2 emissions, we have made good progress in recent years to abate carbon from our operations.

We deploy many of the same principles and technologies on our fixed facilities – our factories, offices and depots – as we do on our project sites (see p14 for examples).

All our sites are powered by 100% renewable electricity – our Australian sites and offices are backed by the renewable energy GreenPower accreditation scheme and we have Renewable Energy Guarantee of Origin (REGO) certification for all of the electricity we consume in the UK.

Our UK business is transitioning fleet to electric and hybrid alternatives and has installed electric vehicle (EV) charging facilities at owned sites. There is still work to do to achieve a fully electric vehicle fleet, but we expect to transition all remaining diesel and petrol vehicles to EVs in the next five years as the charging infrastructure expands. In the UK, we are rolling out a telemetry-led driver behaviour programme to minimise fuel consumption in the interim. This, in turn, will yield results in efficiency once drivers do move to fully electric alternatives.

Our focus in Australia is the transition of plant operations to electric alternatives. Whilst electrification is our preferred option, 100% electrification simply isn’t possible today on large linear and remote construction projects, due to market limitations and constraints in the national grid. Biofuels represent a useful alternative in these instances and we have directed our projects to use B5 biodiesel on project sites in locations where it is available. Once hydrotreated vegetable oil (HVO) is more readily accessible in Australia, we intend to transition from B5 to HVO. We have also mandated the use of hybrid generators on off-grid facilities in order to reduce diesel use by at least 40%..

We are committed to being a net zero company before 2050. This goal includes those emissions that we are indirectly responsible for, known as Scope 3 emissions. We have taken a comprehensive view of our responsibility and account for a full range of emissions from our supply chain and business practices, covering:

- Purchased goods and services, including materials
- Capital expenditure
- Fuel and energy
- Transportation of materials
- Waste
- Business travel
- Employee commuting
- Transportation of goods to sites
- Emissions from assets leased to other companies

Taking this broad view has helped us to scrutinise the decisions we make and the partners we choose. We’re interested in the origins of materials because we recognise that those sourced from further afield are likely to have a more damaging effect on emissions due to the transportation involved.

As the diagram on page 28 shows, by far our biggest source of emissions today is purchased goods and services. In fact, this represents more than 90% of our indirect emissions. This information has enabled us to take very targeted action to reduce the carbon content of some of our most widely used materials, such as concrete and steel, which represents a core focus of investment for our research and development teams.

High quality data is vital to understanding the true extent of our carbon footprint and to support decision-making. We have worked hard to improve our data integrity in recent years, producing a more confident picture of our carbon emissions across Scopes 1, 2 and 3. Over time, and enabled by new technologies, we will work to achieve net zero earlier than 2050.

Some of the specific steps we have taken to improve data integrity across our business include having our Greenhouse Gas (GHG) carbon emissions independently verified, changing our procurement processes to obtain more reliable data from our supply chain partners, and deploying new software to improve the collection of all sustainability data, in particular scope 3 data from our projects. Whilst availability and accuracy of data is a challenge in the industry as a whole, we are constantly working on ways to better understand our impacts and make progress towards our targets.

## Circular economy

We are developing our approach to circularity, focusing on key materials and identifying opportunities to pilot products with circular economy benefits on live projects, as well as working with projects that are demobilising to find ways to redeploy and reuse products and materials either onto a new site or back to suppliers for recycling or reuse. Cross-functional working groups have been established to lend circular economy focus, recognising that it’s an area we expect to mature rapidly. Working with supply chain partners that share our values is an important aspect of this approach, providing opportunities to reduce waste together.

### Pushing the boundaries for the environment *continued*

#### Supporting biodiversity

Companies should not only be reducing their negative impacts on biodiversity, we must ensure that species thrive. We're seeing unprecedented levels of biodiversity loss around the world, with the World Wildlife Fund (WWF) citing an average of 68% decline in birds, amphibians, mammals, fish and reptiles since 1970. We have a collective responsibility to reverse this trend and we are playing our role in creating a nature positive world.

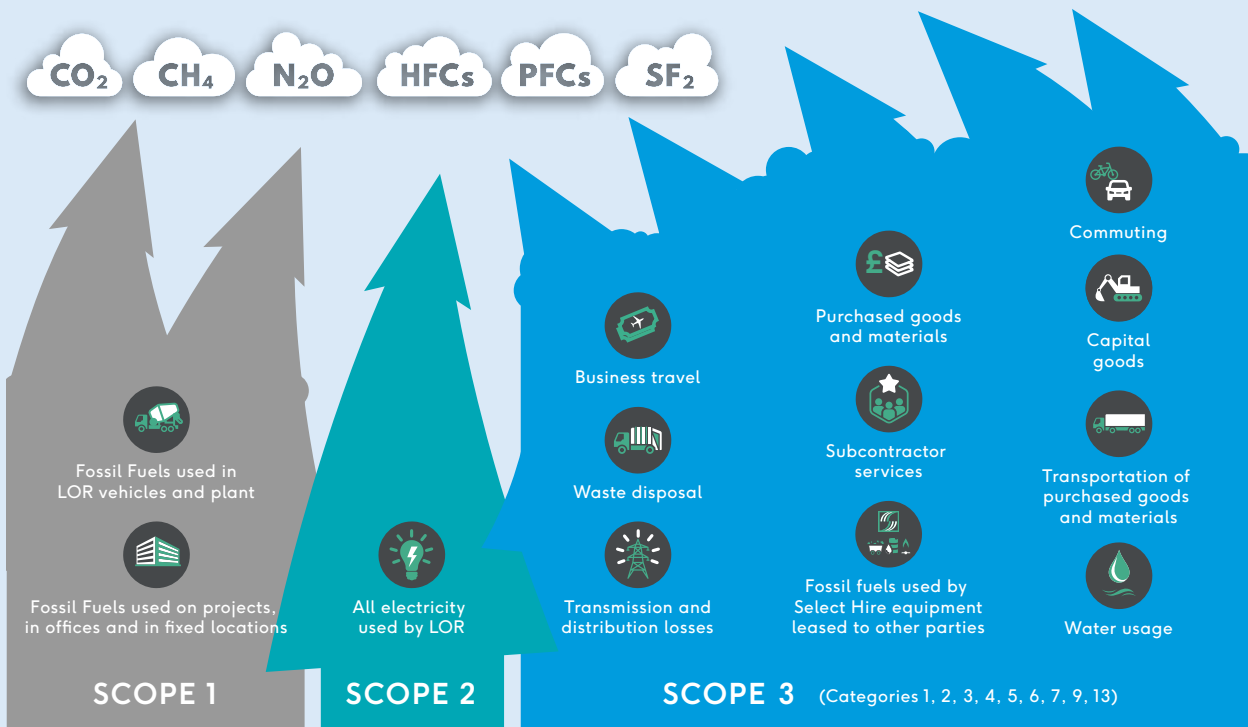
We aim to deliver projects that leave sites ecologically better than they were. We have mapped our fixed and project locations across the world and worked with a specialist partner to determine the biodiversity risks, impacts and opportunities in key locations. This understanding is helping us to make responsible decisions based on the needs of the natural environment in our locations.

Just as the carbon impact of our operations extends beyond our immediate sites and into 'Scope 3', so too does our nature-related impact. We're starting to work with our supply chain partners to analyse the source of the materials and products we use and the associated impact on nature. We have started with seven of the key commodities that we purchase, including steel, PPE and biodiesel. This work will help us to develop depth profiles of the impact of our business operations on our environment and help us to take targeted action on areas where we are able to make the biggest difference.

We are developing a biodiversity strategy based on these insights and drawing on best practice principles, such as Science Based Targets for Nature (SBTN) and the Taskforce for Nature-Related Financial Disclosure (TNFD). This strategy will focus on how we will minimise the impact of our operations and that of our supply chain on nature, while also identifying opportunities to restore nature by 2030.

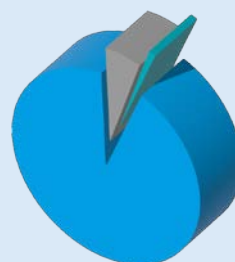
## Greenhouse Gas emissions explained

### LAING O'ROURKE CARBON ACCOUNTING BOUNDARY



#### IMPACT

- SCOPE 1: 2.7%
- SCOPE 2: 0.4%
- SCOPE 3: 96.7%



FY23 data



# Working together towards a common goal

The construction industry is complex. With so many parties involved across the value chain, effective collaboration must be at the heart of our operations. This is particularly true when it comes to sustainability.

As companies across the industry get to grips with their Scope 1, 2 and 3 reporting and seek to understand the wider impact of their activity on nature and people, the need for a common approach to data capture and reporting has been brought into sharp focus. So how do we move forward as a sector while minimising data fatigue?

Supply chain excellence is an area in which we have invested a lot of energy and resource, including supply chain traceability. It is only in understanding where our materials and services come from and how they are managed that we can truly determine our wider environmental and societal impact. And with Scope 3 emissions representing over 90% of our carbon footprint – that is to say, our indirect emissions – developing supply chain partnerships that are transparent, progressive, and hold integrity is crucial.

Industry partnerships have proven a valuable way of driving collective action. In the UK, we are a founding member of ConcreteZero, a cross-industry initiative focused on implementing a pathway to net zero concrete. In Australia, we are a founding member of the Materials Embodied Carbon Leaders Alliance (MECLA). This industry working group has been established to tackle embodied carbon in building and infrastructure, helping to develop a common language on low carbon materials. Both groups are invaluable for sharing our discoveries, learning from peers and enriching our knowledge across the Laing O'Rourke group.

As a global business we work closely with the Supply Chain Sustainability School (SCSS) – it's a helpful mechanism for supply chain partner engagement, to provide training that helps us

move towards a more sustainable future and to work with peers to move towards a standardised approach to reporting. We are proud to hold Board positions in both the UK and Australian Schools.

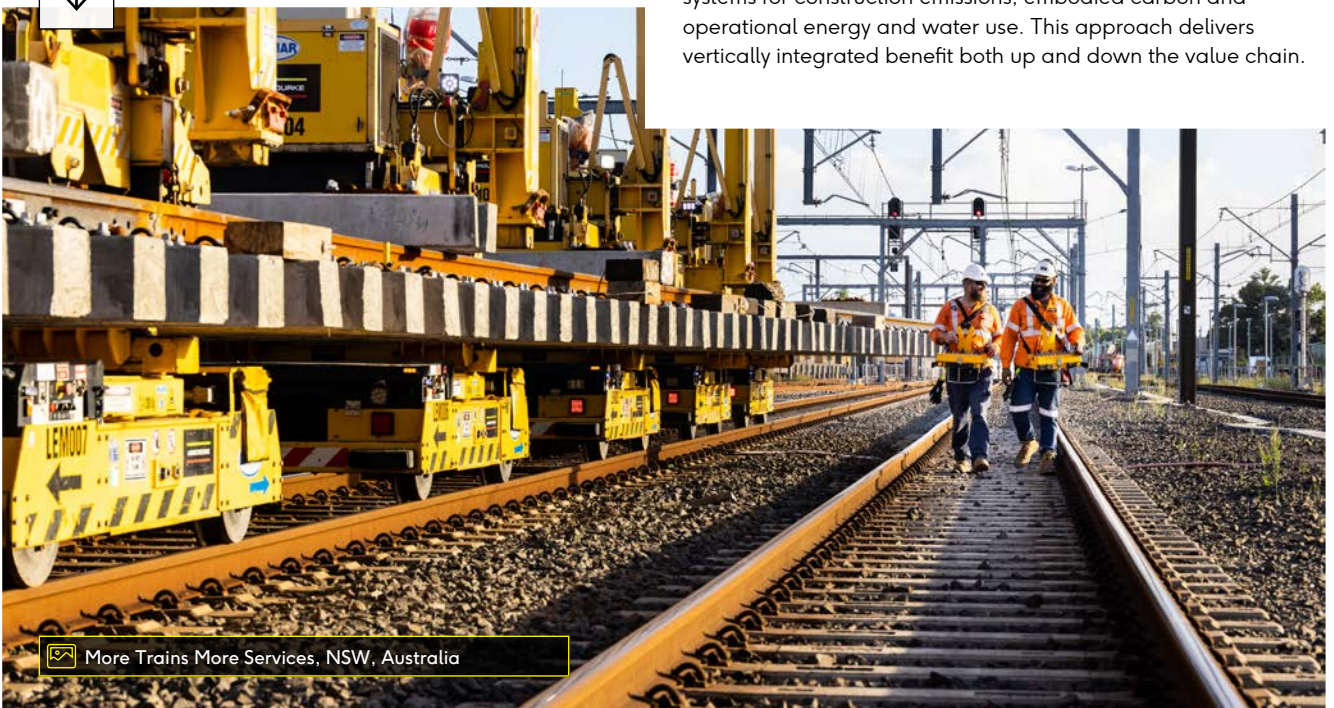
## Embedding sustainable procurement practices

Working with the SCSS, we are actively supporting decarbonisation and ethical practices. Our team is prominent in working groups and our experts support CPD-accredited training sessions each year, engaging hundreds of supply chain partners, and helping to embed high standards when it comes to sustainability.

In the UK we align our practices with the ISO 24000:2017 standard for sustainable procurement. An independent assessment completed in March 2023 ranked our approach as "Mature", which is the third level out of four. The report applauds the rigour, governance and effective cross-functional relationships that are in place, all of which contribute to our mature sustainable procurement practices. Areas for improvement have been identified, which we will be focusing on in the coming year.

## Aligning with design partners

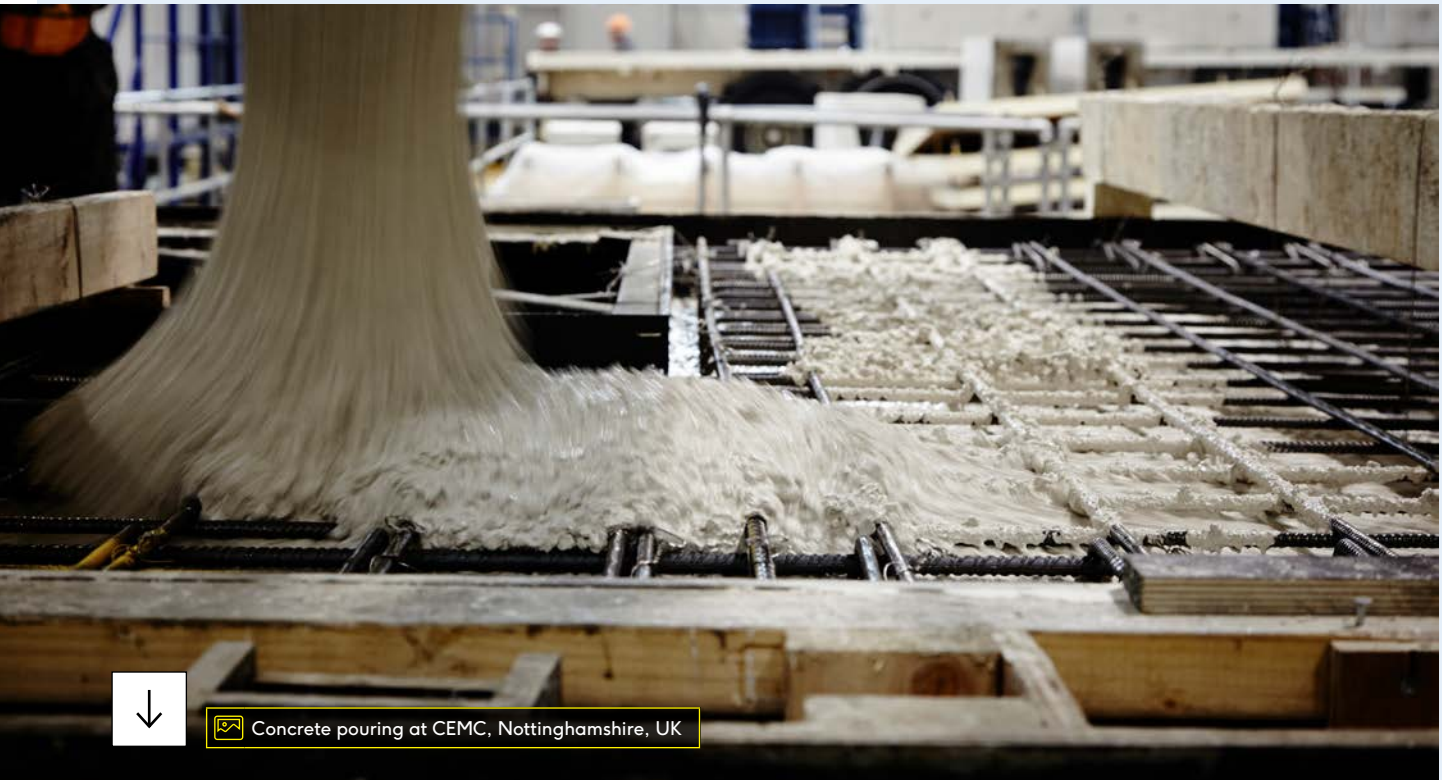
With so many tools and frameworks in the market, developing effective ways of working with design partners is also crucial to ensure we can communicate a clear and common understanding of whole life carbon and associated design decisions. We have worked closely with a group of design partners to establish a design partner framework. This enables us to develop closer, more productive relationships with our design partners through shared carbon information, as well as common measurement systems for construction emissions, embodied carbon and operational energy and water use. This approach delivers vertically integrated benefit both up and down the value chain.



More Trains More Services, NSW, Australia

Pushing the boundaries for the environment *continued*

# Moving the dial on carbon reduction



Concrete pouring at CEMC, Nottinghamshire, UK

## Mandating low carbon concrete in the UK

Our data analysis shows that over 90% of our Scope 3 emissions relate to the materials and services that we buy, and a big contributor to that is concrete. That’s why the start of 2023 saw us announce that we will only use low carbon concrete on our UK projects. As the first UK contractor to make this move, it was an important example of how we are pushing the boundaries of what’s possible to transform construction.

The switch to low carbon concrete follows a two year-long research and development programme, co-funded by Laing O’Rourke and Innovate UK, and with the support of academic partners from the University of Cambridge and Sheffield University’s Advanced Manufacturing Research Centre. As a founding member of the ConcreteZero initiative, we are proud to have taken this step in support of its ambitions, as we drive towards net zero concrete by 2050.

During that time, teams across our business have worked with our supply chain partners to test and refine different concrete mixes and products with less cement – which is the most carbon intensive element of concrete. Our Centre of Excellence for Modern Construction (CEMC) in Nottinghamshire, UK, provides the perfect blend of conditions and expertise, enabling us to perform a wide variety of tests.

We are using ConcreteZero’s definition of low carbon concrete (Construction Leadership Council’s Low Carbon Concrete Group’s (LCCG) Grade A, or better) to guide the mixes that are now acceptable for us in this market. Initially this is likely to mean replacing a minimum proportion of cement with Ground Granulated Blast-furnace Slag (GGBS) or Pulverised Fly Ash (PFA), both of which are industrial by-products. We’re also working with cement-free alternatives and continuing trials with ultra-low carbon concrete and reinforcement options.

Based on data of our UK concrete usage in FY22, the switch to low carbon concrete will result in a 28% reduction in embodied carbon in concrete for our UK business, which contributes to our Scope 3 emissions. This is the equivalent of 14,400 tCO<sub>2</sub>e – and the same as planting 120,000 trees or 94 hectares of forest.

In Australia the shift to widespread use of lower carbon concretes poses a significant challenge for a number of reasons, including geographical spread and a lack of policy harmonisation.

In an attempt to drive harmonisation through industry, Laing O’Rourke conducted market research of lower carbon concrete, steel, and asphalt products in Australia between 2020 and 2022, identifying those available to local projects.

In early 2023, Laing O’Rourke commissioned an independent consultancy with expertise in concrete, specifications, and constructability, to identify the available lowest embodied carbon concrete mixes possible to use in transport infrastructure within the current specifications across four different government clients.

The study, across four different government clients in Australia, revealed that the specifications that allow for the replacement of cement in concrete by supplementary cementitious materials (SCMs) – the less carbon intensive alternative – are considerably below the potential allowance from an engineering perspective.





We are now engaging with clients to challenge current specifications that restrain the use of SCMs and establish allowances for the use of SCMs closer to what's possible from an engineering perspective. We are also working towards establishing a low carbon concrete mandate.

### The first step in a longer journey

Reducing carbon emissions is a priority for our business. The built environment makes a significant contribution to global warming and it's important that we work with clients and design partners to deploy new technologies and innovations that make modern methods the norm and enable us to build in less carbon intensive ways.

Using lower carbon materials is a crucial factor in achieving that reduction and we have a clear view of the steps that must be taken to achieve net zero concrete by 2050, underpinned by a focused R&D programme.

Reflecting on the carbon reduction hierarchy, it's clear that addressing materials is not enough. It is the combination of innovative materials, clever design decisions and the approach to build that will enable us to achieve the most significant carbon reductions.

The lowest carbon concrete is the unit not used. The work we're doing in collaboration with design and supply chain partners is helping us to push the boundaries to model, engineer, test and construct a far more efficient built environment, and we recognise that there is no 'one size fits all' answer.

### Combining carbon efficient designs with lower carbon materials

One example of the way we have brought together innovative design and materials is within the arched vault shown. This example shows how addressing design and materials together can deliver a significant carbon reduction – today.

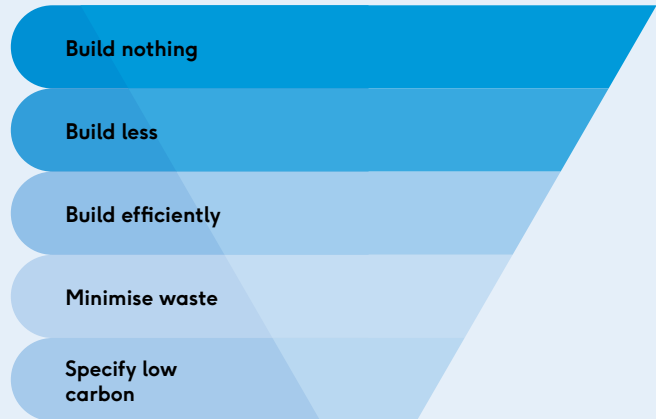
The vault uses a thin, lightly reinforced compression shell slab system, with a depth of just 100mm. Fully precast at our CEMC with steel connection, the vault can be manufactured offsite, rapidly assembled onsite and disassembled easily in future, supporting a circular economy approach. The concrete used is cement-free, contributing to a far lower embodied carbon overall.

In fact, this combination of smart design decisions and lower carbon material choices have resulted in an 85% reduction in embodied carbon versus an equivalent flat slab, and a 62% reduction in material use.



Low carbon vault prototype, UK

## Carbon reduction hierarchy



“We’re proud to be the first contractor to have committed to only using low carbon concrete on our new UK projects. It’s an important move that I hope will accelerate a shift to widespread adoption of low carbon options. Much more work is needed to identify carbon efficient designs and materials that will be crucial to decarbonising our industry, and we’re embracing that challenge.”

Joanna Vezey, Technical Director, Europe

This combination of smart decisions and lower carbon material choices have resulted in

**85%**  
reduction in embodied carbon versus an equivalent slab, and


**62%**  
reduction in material use

When operational, the Hinkley Point C nuclear facility will provide 6 million UK homes with low carbon electricity. As part of the Bylor joint venture, Laing O’Rourke is responsible for the concrete batching plant at Hinkley Point C. The site has only ever used low carbon concrete, and water from concrete production is recycled. Over the lifetime of the project, the use of low carbon concrete has resulted in a saving of 240,215tCO<sub>2</sub>e. Not only that, 41,335m<sup>3</sup> of water has been recycled since project inception.

Pushing the boundaries for the environment *continued*

# Reducing site emissions through pioneering sustainable solutions



 Solar farm on the METRONET Morley-Ellenbrook Line Project in Western Australia

In Western Australia, the MELconnx Alliance, comprising Laing O’Rourke and the Public Transport Authority of WA, have been pioneering sustainable solutions on the METRONET Morley-Ellenbrook Line Project.

The team has significantly exceeded its sustainability targets for energy and carbon reduction, as well as various third-party certifications that provide environmental and social value for their client, the Public Transport Authority. This resulted in 5-star Green Star certifications for the Ellenbrook and Malaga stations, making them the first ever certified Green Star stations in Western Australia, as well as the highest points scored to date.

To achieve the project contractual targets for water use reduction in construction, the MELconnx team used a novel and innovative solution to reduce the water lost through evaporation on construction dams located across the project. The team worked with a local supplier to manufacture a bespoke, modular floating dam cover with a weighted skirt. Implemented on four of the project’s construction dams, the solution is expected to save 6 million litres of water during construction, as well as minimise the algae build up that can often damage water pumps and cause maintenance issues. Its modular design means that any damaged pieces can easily and cost-effectively be replaced, as well as be easily transferred to the next project as warranties last over 10 years.

Another added benefit is that these dam covers are made from 30% recycled content. The construction dam cover solution to reduce water use was endorsed by the Australian Rail Association (ARA), as an ‘Australian first’ innovation.

To reduce energy use in construction, the project team implemented another innovative solution. Whiteman Park Station site office is now home to Western Australia’s first solar farm used in construction, powering an off-grid construction site. Again, partnering with a local supplier, the MELconnx team implemented a 45kW solar farm with battery to mitigate the need to use a standard diesel generator. This was modelled to save an estimated 45,000 litres of diesel, equivalent to 128 tCO<sub>2</sub>e, but has been performing better than expected. This solution, along with extensive reduction of tree clearing, the use of lower carbon concrete, and many other construction optimisation initiatives, has achieved a 26% total CO<sub>2</sub>e reduction from “business as usual”.

“Choosing the sustainable solution is no longer just a choice, it’s an imperative. There are so many options available in the market...A hybrid power system is just one great example of how carbon emissions can be reduced when connection to grid electricity is not possible. Not only is this solution better for the environment, the health of our workforce and the community, but we also found that it is a better financial solution too.”

**Jason Curtis**, Construction Lead



# Understanding our impact on nature: Encouraging biodiversity at our factory



Our Centre of Excellence for Modern Construction (CEMC) is situated near Worksop, in Nottinghamshire. Historically, the site was home to a coal mine, limestone quarry and brickworks. At the point at which Laing O'Rourke took over the land, it was a heavily contaminated brownfield site.

Since that time the estate has flourished, with nature starting to re-establish. To better understand the fauna and flora around the site, we asked specialist ecological consultancy, East Midlands Ecology Consultant Ltd (EMEC), to conduct a biodiversity baseline assessment in the summer of 2022. This assessment identified species that are already present around the site, as well as those that may inhabit the area and merit further analysis. The results of the survey formed the basis for our CEMC biodiversity action plan.

In 2022 we were approached by a local beekeeper looking for a home for ten beehives – and we were delighted to have them! Positioned close to the entrance to our estate, we planted wildflower seeds around the hives to help provide the perfect environment for the bees. Not only is the installation of the beehives a great way of encouraging nature to flourish around our site, it has also created a real buzz among our people. The site held a family fun day in July 2022, encouraging employees and their families to take part in a range of outdoor activities. Honey from the hives was sold at the event, with the proceeds donated to charity.

Our CEMC team works closely with Nottinghamshire Wildlife Trust. Staff took part in a Wild Work Day at the Trust's Idle Valley Nature Reserve in October 2022, helping to maintain the reserve and learn more about the habitats and rewilding programmes there. We're also participating in some of the Trust's initiatives, such as No Mow May, which enables plant life around the site to further establish, and 30 Days Wild.

We're looking forward to completing a second biodiversity survey in summer 2023 to measure the impact of our improvements.



Entrance to CEMC, UK



Beehives, CEMC, UK

## The CEMC site

The CEMC site contains a diverse range of habitats. The blend of lowland calcareous grassland, deciduous woodland, lakes, ponds and native hedgerows provides homes for a variety of species. It is one of only six sites in the country where flamingo moss grows and home to 21 species of bird, seven of which are of principal importance. The mosaic of grassland, bare ground and woodland provide a natural habitat for grass snakes, slow worms and lizards and the woodland supports hedgehogs, brown hares and six different butterfly species, some of which are of special interest. Our biodiversity action plans will seek to protect these species, while providing an opportunity for more plants, animals and invertebrates to flourish.





Pushing the boundaries for the environment *continued*

# Reuse, Recycle, Repurpose

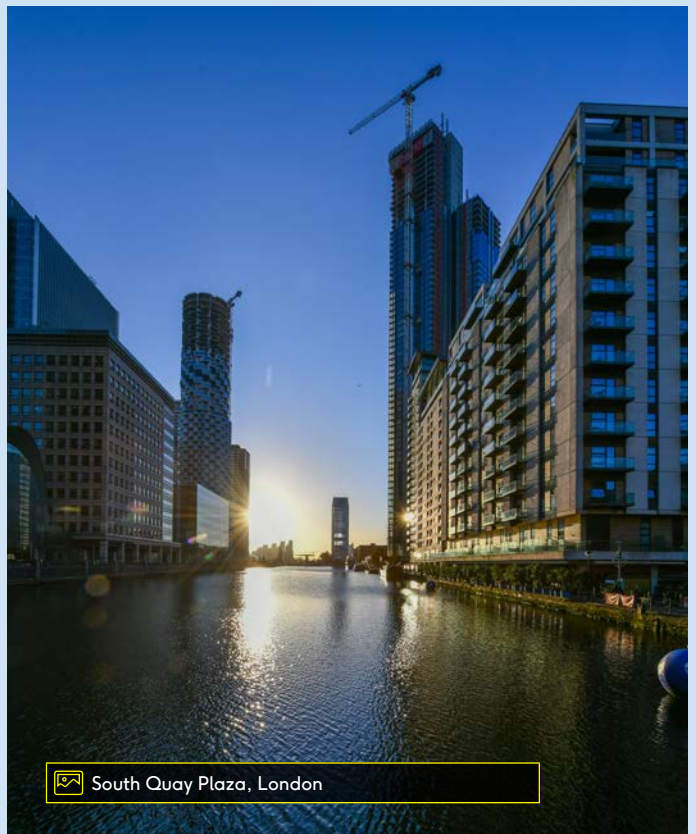


South Quay Plaza, London

Reducing carbon during operations is vital to reducing our impact on the environment, but the decisions we make at the end of a project are just as important. Across our projects we look for opportunities to reduce waste through reuse, repurposing and recycling.

For example, as our South Quay Plaza project drew to a close, our team looked to circular economy principles to reduce waste and ensure that our materials and equipment continued to be put to good use.

- The timber used for jump-form – which is a kind of formwork used for vertical concrete structures – was donated to a local social enterprise. This was then used in the following ways:
  - The enterprise provides skills development and routes to employment for individuals experiencing barriers to employment. The timber provided was used within training as part of its work.
  - 39% was reused in community projects, such as DIY projects, local building projects or creation of new products, such as bird boxes and tables.
  - 5% was processed into firewood and kindling, providing heating fuel for homes and businesses in the local community.
  - 55% was recycled into woodchip suitable for particleboard manufacture, animal bedding and biomass fuel for power generation.
- Tools, metal cages and lifting tackles were sent to our other local sites for continued use.



South Quay Plaza, London



# Pushing the boundaries for our people



Building an enduring and innovative organisation requires us to hire, develop and retain the very best talent. We are committed to transforming the nature of construction work, so that the stimulating and rewarding careers it offers appeal to a more diverse range of people.



Our team in Western Australia

Pushing the boundaries for our people *continued*

# Engendering an inclusive, healthy working environment

At our core is the ambition to be a force of positive change in our industry. Setting an ambitious target for gender balance is a significant step in the process to deliver overdue change in a sector that continues to lack diversity. Becoming more diverse and inclusive is also a key strand of Laing O'Rourke's mission to be the recognised leader for innovation and excellence.

Diversity is about fostering innovation and productivity – but also about growth because our sector needs more talent to meet demand. We know there is power and productivity in diversity of thought, as long as it is accompanied by inclusion and belonging.

In 2021 we set a target to reach gender parity across our international staff by 2033. Progress towards this target is measured and reported monthly. A board-level Diversity & Inclusion Council was established last year, chaired by Non-Executive Director, Charlotte Valeur, and comprising members of our Executive Committees.

In 2018 our Australian business developed and implemented a Gender Diversity Action Plan (GDAP) calling out specific actions and initiatives to increase the pipeline of women in project leadership roles. Our UK business also has a multi-faceted plan in place to support achievement of our 50/50 target, which it continues to implement, with both hubs building on successes and learnings so far. We recognise that there is a need to effectively influence and inspire at different career stages in order to develop the next generation of female talent in construction. Our programme therefore includes a blend of inspiring girls and young women in STEM subjects and careers in construction whilst in their early years of education, as well as supporting the ambition of females already in our industry via sponsorship and mentoring programmes.

Encouraging more women into the construction sector starts earlier than adulthood. We engage with students from primary schools all the way through to university, seeking to maintain their interest in our exciting industry.

For instance, Laing O'Rourke's Inspiring STEM+ is a school partnership programme in Australia designed in-house in 2017 to encourage female students to consider careers in the construction industry, via studying engineering, law, commerce, and environmental science, as well as trade apprenticeships.

Other mechanisms proven to increase the number of women in the business include specific recruitment strategies targeting women, a referral bonus scheme, sponsorship of emerging female leaders and inclusivity training for senior leaders and hiring managers. Implementing these measures is all part of the plan which has yielded positive results and is creating sustainable change.


We are progressing towards our target of 50:50 gender balance by 2033, while recognising there is still much to do to achieve our goal.

In the UK, 25% of our staff are women, a proportion that continues to increase year-on-year.

In Australia we have maintained 35% overall female participation and our Australian Executive Committee is now 45% women.

50% of our Board are women, Having these female role models in the highest positions within our company is a vital part of achieving our ambitions.



 Sydney Central Station Metro project



We know that workplaces where women thrive are workplaces where everyone can thrive, and we have proven a link between this and business performance. The secret to our success is not so secret – a sustained commitment to changing the culture of construction.

A key reason we have been able to achieve the gains we have is that the business has acknowledged and openly discussed the reality of the situation and its root causes, rather than glossing over it. We knew that finding the solution would be hard; we have listened to the facts and interrogated the data; and have taken steps to address disparity. We're still learning, improving and striving to do better.

### The power of diversity and inclusion

Achieving gender parity in our organisation is a key target, but we recognise that to achieve a truly diverse workforce, we must provide an inclusive working environment for everyone. Our business has developed employee-led networks and committees that are designed to represent the needs of a wide range of communities of employees. Those networks are helping to raise awareness of the lived experiences and challenges of different communities across our business, helping all employees to expand their perspective and consider how we can act differently to ensure each person within our business feels they belong.

Our UK business has also developed an inclusion ally network. Each site has inclusion allies that help to embed our diversity and inclusion initiatives, provide feedback on real life experiences at their site and provide a safe space for all employees to discuss concerns and challenges at a local level.



London Pride 2023

“We know that diversity is a complex issue. We can't just pull one lever or expect one change to make that difference. A complex web of change is required, and we know that implementing policies today does not equal cultural change tomorrow. It takes time. While we know there is still a long way to go, we are confident we are taking the necessary steps to drive long overdue change.”

Helen Fraser, Director – People, Australia



### Strategy in action

The Early Works (EW) team on Melbourne Airport Rail (MAR) in Victoria, Australia has taken a proactive approach to supporting greater diversity and ensuring female colleagues feel safe and welcome, through an initiative called Women at MAR.

Women at MAR was started by Project Lead, Salam Al Mulla in response to an industry gathering last year that left him shocked by stories of harassment and bullying that can still happen on construction projects. He was emboldened to foster an environment where women feel valued, psychologically safe and that they feel a sense of belonging and inclusion. The initiative has been warmly received by our client, Rail Projects Victoria.

Changes that have already been implemented as a result of this initiative include an awareness campaign around gendered language, ensuring safety clothing is tailored for women and providing sanitary products in every crib shed bathroom. The delivery of toolbox talks and educational workshops on subjects including sexual harassment will be ongoing to ensure the message remains prominent and encourages continued dialogue. Women At MAR is working towards the bigger picture of ensuring harassment is being prevented and we've set the expectation of zero tolerance early.



St. Neots depot, UK, participating in the Purple Light Up campaign to celebrate International Day of Disabled Persons

Pushing the boundaries for our people *continued*

# Our industry-leading Parenthood Policy



## Supporting employees during significant stages of their lives

In 2011 we led the industry in Australia when we launched a parenthood policy which provided our people with 18 weeks full paid leave and eight weeks half pay. We have since raised the bar higher. Launched in 2022, Laing O'Rourke's parenting policy is available for staff across the UK and Australia, regardless of how they become a parent. This leave is also available for parents who adopt or welcome a baby via surrogacy.

The policy – **any gender, any birth, any child** – will be matched by additional industry-leading benefits in both operating markets, in line with local regulations and requirements.

We understand that becoming a parent can be a challenging journey for many people, and have introduced policies to support our employees during those periods when they need to spend more time with loved ones. Our pregnancy loss policy provides paid leave for any employee who has suffered, or whose partner or surrogate has suffered, a loss of pregnancy. Our UK private medical insurance has been updated to include specific provision for fertility and menopause cover.

Caring for our people is integral to our company values, and we recognise that this is especially important at significant stages of employees' lives. Flexible workplaces are workplaces where all people thrive, and we believe that in taking these pioneering steps, in leaving behind legacy policies, we can eliminate unconscious biases that may exist in our business and provide an environment in which a diverse workforce can thrive.

## Putting families first

**Rehan Tudawe tells his story about how Laing O'Rourke's Parenthood Policy has provided a unique opportunity for his family to flourish while also supporting both parents' careers**

When we had our first child I had the statutory two weeks of paternity leave, which left my wife, Laura, carrying most of the childcare on her own. The introduction of this policy has meant that this time around we've been able to share that childcare responsibility – and joy – far more equally. Not only that, my being home for an extended period has given my wife the breathing space to consider what she wants from her career. She has been able to confidently leave a role that did not have the flexibility she needed and start a new career.

The impact on us as parents is unequivocal: we're less tired, less stressed, able to achieve more of the things we previously didn't have the capacity for, and focus on our growth as a family. This is time I will never get back and it's a huge blessing and privilege that I've been able to spend it with my children.

We're parenting more equally, and this is the first time I've had to think about childcare in a similar way as women typically do. I've had to consider what extended leave means for my progression and how I will fit in once I return to work. There are simply so many aspects of being a mother that we do not appreciate as men, and I realise now how much sacrifice is often necessary to remain relevant in a professional setting whilst also being a present mother.

Corporate diversity requires us to not only recruit without bias, but also provide the right conditions for successful retention. This policy may just prove to be the tipping point in how we transform life in construction.



Rehan and Laura with their children, Amalie and Louie



Parenthood policy *continued*

**The impact of our policy**

Joel Thompson, Project Leader in Australia, recently took six months paid parental leave. His wife Elizabeth tells her story about the incredible impact Laing O'Rourke's parenting policy has had on their family;

Last month my husband Joel returned to work after taking Laing O'Rourke's 6 month parental leave policy, and became primary carer of our two young boys, Ronnie (3yo) and Walt (1yo).

After deep reflection I feel compelled to speak out about the positive impact this opportunity has had on me, our boys and Joel and my relationship. It was a fundamental family dynamic reset that we didn't know we needed.

For three years I have been primary carer. Our priorities were set, our family roles were clear, and I was juggling being the household anchor we needed, yet desperately trying to keep a foot in the door with my own career. A delicate balance I'm sure most families can attest to.

*"For me, this opportunity has meant no drop-offs, pick-ups or sick days needed to ensure our boys were the #1 priority. A heavy weight lifted knowing the boys were 100% cared for by Joel, so I could lean back into my career."*


For our boys they have seen Dad do the shopping, cooking, cleaning and washing, and being their go-to parent for all their needs. They have seen how he does things differently to Mum and have formed their own new routine together.

For our relationship it has unequivocally been the most beneficial and positive change we have had in our marriage. We both have a much better understanding of walking in each other's shoes, of what it takes to look after our boys and the household that we both live in.


I whole-heartedly believe if more companies invested in policies like this it will have profound and noticeable positive impact on our children's development, decrease rates of divorce, and most importantly get women back into the workforce sooner.

My gratitude and appreciation to Laing O'Rourke for this opportunity that has changed our family life.



 Joel Thompson and his two boys, Ronnie and Walt



 Sarah Pearce and her twins Raphaella and William

**#SupportingFamilies**

*"At Laing O'Rourke, people are strongly encouraged to take advantage of the paid parental leave policy. There is a focus on making sure people feel comfortable accessing what's available and taking this time to spend with their families."*

**Sarah Pearce**, General Manager, Treasury & Financial Services

Pushing the boundaries for our people *continued*

# Working towards 50/50 gender balance



The annual FTSE 350 report on women in leadership was expanded for the first time this year, opening up the opportunity for the UK’s top 50 private companies to participate. Laing O’Rourke chose to do so, and we were proud to take first position in the construction sector for women in leadership. Overall, we were ranked sixth of all the UK’s private firms for women in leadership and third overall for women on the board.

We have clear targets when it comes to gender equity in our organisation. We’re aiming for 50/50 gender balance by 2033 and to increase the number of women in project leadership roles. We recognise that significant cultural change is needed within the industry to attract a more diverse range of talent. That’s why we have so many initiatives in place to help us drive that change. Those initiatives include inspiring young women in education by showcasing the diversity of exciting roles available in the construction sector at an early stage, providing hands-on experience through work experience and apprenticeships, mentorship and role modelling that help women to see themselves in senior positions, or enabling women to make a proactive choice over their return to work terms following maternity, via our parenthood policy.

In FY23 more than 50% of our Board is female (vs 41% FTSE 350 and top 50 private companies sector average) and 43% of UK leadership roles are occupied by women (vs 31% FTSE 350 and top 50 private companies sector average). We have more work to do to achieve our goal, but we are making good progress and were pleased to receive this external recognition which shows we are outperforming the sector.

“I am delighted by the outcome of the Women in Leadership Review which I see as a validation of our progressive approach to creating an inclusive culture – one that attracts, develops and retains women.”

“Today’s female leaders will inspire tomorrow’s top talent and attract young women into our, still, male dominated industry. Having a cadre of female role models is critical to our ambition of achieving equal numbers of men and women throughout our global staff population by 2033. We know that’s a stretching target and it’s one that will require us to build an environment in which women can thrive by challenging culture when necessary, and by introducing supportive policies.”

**Cathal O’Rourke**, Group Chief Operating Officer



# Gender balance: Bringing our strategy to life



Engineering team at Sydney's Central Station Metro project

Our team on Sydney's Central Station Metro (CSM) is bringing our Gender Diversity Action Plan (GDAP) to life, driving greater gender diversity in our team. In 2018, 11.7% of the project's leadership team were female. Fast forward to 2023 and that is now 33.3%, having peaked at 50% at the height of delivery.

Our Graduate Development Programme has contributed to this positive outcome. In 2019, the programme set a 50/50 gender split target for new graduates, and this target has been achieved ever since, showing that focused effort delivers results.

The project has also exceeded the GDAP target of 25% of senior roles on projects filled by women by 2025. While recruitment has been key to this, the team invested in 'growing our own'. 24% of women were promoted during their tenure, and a further 19% were promoted into their next roles following their time on CSM.

The team has also embraced our parenting policy, with a particular increase in men taking primary carer leave – 25% of all primary carers leave taken during CSM's delivery has been by fathers. We know that enabling any parent to take paid parental leave creates real culture change within an organisation.

*“When I started with Laing O’Rourke ten years ago, it was rare to encounter female engineers in a delivery role. It has been so inspiring to see so many female engineers working at the CSM Project, and the engagement and diversity it brings to the project. The 50:50 gender ratio of my team has happened organically and is a result of Laing O’Rourke’s gender diversity initiatives and inclusive culture.”*

**Jessica Breen**, Project Leader

While there is still a lot of work to be done to reach gender parity, there are certainly pockets of excellence where we are seeing our gender targets and initiatives come to life on our projects, and CSM is just one example.

On another high profile infrastructure project in Sydney the team has driven gender equality outcomes through both leadership commitment and by proposing Key Result Areas (KRAs) to be included in the Contract requirements.

Laing O’Rourke proposed a Key Result Area (KRA) target for diversity in the contract requirements. The requirement was to maintain a minimum of 50% representation of women for 80% of the program. This was achieved as a result of targeted recruitment of women for the initial team formation and retention of females on the project.


The project embraced multiple flexible working arrangements. In an industry that has historically operated on a 6:30am to 6:30pm working day, five or six days per week, proposing new ways to work that are effective is hugely significant. At the commencement of the project, the Senior Leadership Team developed the Best Flex Fit (BFF) Plan.

The Plan defines BFF and sets out a guiding structure for how this is managed throughout the duration of the programme. The plan creates flexibility in the way the team goes to work, removes stigma associated with flexible working and allows each person on the project the opportunity to create a better work life balance that applies to them without compromising the responsibilities of their role.

To achieve Best Flex Fit, Laing O’Rourke proposed a Key Results Area (KRA) to the client to achieve BFF with at least 50% of the team reporting take up of flexible options after 12 months. The team has exceeded this KRA, with 70% of the team taking up a form of flexible working. Having a supportive client has been a key enabler of this success.

# Governance



 100 Mount Street, North Sydney





It is critically important for our business, our sector and our future operations that we deliver consistent and meaningful progress against our sustainability plans. Whether it's making fundamental changes to achieve our carbon reduction commitments, quantifying climate-related risks and mitigating against them, or using our collective ingenuity to harness an opportunity to act differently, having clear lines of accountability and an appropriate governance structure in place is fundamental.

Board level oversight of climate-related risks, opportunities and strategic direction is provided by Laing O'Rourke's Group Sustainability Committee. The Committee is chaired by Non-Executive Director Mark Cutifani and includes CEO, Ray O'Rourke, COO, Cathal O'Rourke, Managing Director Australia, Rebecca Hanley, independent Non-Exec Directors, Group Director of Legal, Procurement (EU) & Sustainability, Madeleine Loughrey-Grant, and the Sustainability Advisor to the Board.

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"The construction sector has a significant role to play in the drive towards limiting global warming to within 1.5°C. We're continuing to build depth and strength into our long-term plans in response to climate change risks and opportunities. While FY23 has been a pivotal year, in many ways our work is just getting started. There's a lot that we must accomplish to achieve our targets, but our achievements to date give me confidence. As our commitment doubles down, from the board and throughout our business, I feel positive about the road ahead and our collective ambition for a sustainable future."

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**Mark Cutifani**, Senior Independent Director and Chair of the Group Sustainability Committee

There is a thread of common attendance across the Board, the Group Sustainability Committee, the Audit and Risk Committee, the Group Executive Committee and the two Hub Executive Committees, ensuring that information, recommendations and progress updates flow appropriately between the Board and the business.

Responsibility for delivering our HSBC sustainability-linked KPIs lies with our Executive Committees, and these KPIs focus on carbon intensity, waste management and gender diversity targets. The Group Executive Committee is responsible for managing corporate disclosures, including CDP and Task Force on Climate-related Financial Disclosure (TCFD), and for measuring and reporting on greenhouse gas (GHG) emissions.

At a management level, sustainability metrics form part of Laing O'Rourke's Project Certainty controls which must be adopted by project leaders, ensuring a consistently high adherence to sustainability practices across all construction projects. These metrics are linked to remuneration. Today, each project has targets for the following metrics, all of which must be reported upon monthly: Carbon intensity reduction, gender diversity, waste reduction, percentage of low carbon concrete delivered to project, and social value return on investment.

We use our Responsible Decision Making (RDM) framework, which operationalises the process for promoting progressive risk management and championing ethical decision-making. Making good decisions requires rigour, process, and a recognition of our biases. The RDM simulates a 'balanced scorecard' approach to assessing decisions in business. The lenses used to make good decisions include legacy, respect, care, environmental sustainability, strategy, people, financial and return on investment. RDM encourages a 'what if?' curiosity, liberates people from their specific roles, and celebrates different perspectives, while trusting everyone to have the right intent.

# Carbon disclosure

CDP



We are pleased to have improved our CDP scores this year. As a business we submit for two assessment categories: Climate Change and Supplier Engagement.

Our Climate Change score has increased from a B- to a B for 2022. This places Laing O'Rourke in the 'Management' band, which means that our company takes a co-ordinated approach on climate change issues. The average score for the construction industry is a C, which is the 'Awareness' banding, and the global average for all companies is also a C\*.

We are delighted that our efforts to take a leading position are recognised, resulting in scores that outperform the benchmark for our sector.

We're committed to further improvements and hope to see our score improve in the next submission, given the strides we have made to improve data integrity and to influence our Scope 3 emissions.

Our CDP Supplier Engagement Rating is an A-, which places Laing O'Rourke in the 'Leadership' banding. CDP considers that we are implementing current best practices on supply chain engagement. The construction sector average score is a C, as is the global average. It is rewarding and motivating to see our supply chain engagement work recognised in this strong rating, as effective collaboration is crucial in reducing our impact on the environment. We will continue to share the knowledge we have obtained and a best practice approach with clients, peers and partners as we strive to deliver a more sustainable built environment.

## Greenhouse Gas Reporting

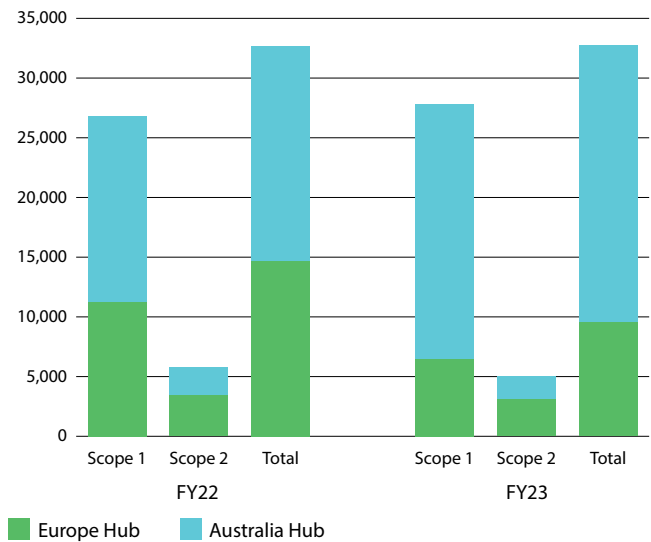
A significant amount of work has gone into data capture and validation over the last year, both internally and in conjunction with our supply chain partners. This work means that we are incrementally improving the integrity of our Scope 1, 2 and 3 data, which forms part of our Greenhouse Gas (GHG) Reporting and Streamlined Energy and Carbon Reporting (SECR).

The insight obtained from this more detailed, robust data is vital to informing our carbon abatement strategy and better understanding our progress towards our net zero targets.

Our 2030 target is to be operationally net zero. That means eliminating carbon emissions from our directly controlled operations, including energy use, fleet, and fuel for heavy plant (defined as Scope 1 and 2 emissions). We are pleased to see our carbon abatement initiatives continuing to take effect, particularly within our European business where Scope 1 emissions almost halved during FY23. This has been driven by a combination of switching to alternative fuels for heavy plant – either electric or biofuel – and switching our company car fleet over to electric and hybrid vehicles.

\* Source: CDP

Scope 1 & 2 emissions FY22 - FY23



While Scope 1 emissions for our Australia business have increased in absolute terms, this is the result of a parallel increase in construction activity. This is further compounded by unavailability of advanced renewable liquid fuels and limited access to commercial-scale electric plant machinery in the local market. Transitioning away from diesel in Australia has been more difficult than anticipated, but we are actively engaging to influence the supply of renewable liquid fuels and electric plant machinery in Australia.

Eliminating the emissions for which we are directly responsible is a business priority. But with Scope 1 and 2 representing less than 10% of our overall emissions, we know we have to do much more to tackle our indirect (Scope 3) emissions and become a net zero company before 2050. Although our proportion of Scope 3 emissions is high, it is typical for the construction sector, which uses high volumes of purchased goods and materials. While the inclusions for each company's GHG reporting may differ, we believe in taking a comprehensive view in our Scope 3 calculations, recognising our accountability and influence when it comes to our purchasing decisions.

We believe in developing strategic relationships with our suppliers. A shared ambition to do better provides a foundation for progress, for creativity and innovation – all of which are necessary to make the scale of transformative change needed. Some of the initiatives we have in place to support collaborative growth with our supply chain are described on p29.



**Progress on abatement initiatives**

14 carbon abatement projects were identified and reported upon within our FY22 annual report.

Progress against those original projects is as follows:

- 100% renewable electricity at our UK sites, backed by Renewable Electricity Guarantee of Origin (REGO) certificates.
- 100% renewable electricity at our Australian corporate offices, depots, and main site offices by large-scale generation certificates under the Green Power accreditation scheme.
- Decarbonising heavy plant via:
  - Switch from diesel to biofuel on all UK sites where we are the main contractor (82%)
  - Deployment of electric plant equipment – 6 electric crawler cranes are now in operation on our sites and electric piling rigs are also being trialled in the UK
  - Switched from standard mineral diesel to traditional biodiesel, including blends of B5 to B20, wherever possible in Australia
  - Two electric crawler cranes, four electric heavy vehicle trucks and 10 electric telehandlers have been purchased for operation on our Australian sites, while also partnering with our suppliers to trial other hybrid and electric plant machinery on sites
- Replacement of company cars with electric vehicle (EV) or hybrid alternatives has resulted in a 72% reduction in UK emissions from car fleet
- Installation of EV charging facilities at all owned, fixed sites and depots in the UK
- Use of hybrid fleet for site vehicles on selected sites in Australia
- Increased investment in Australia to purchase other electric and renewable assets, including solar lighting power solutions and 10 x solar powered self-contained site offices

**Embracing innovation to accelerate change**

We have gone beyond the original abatement projects to identify new technologies and opportunities to decarbonise. These include:

- Implementation of a Building Management System at key sites, helping to reduce energy waste
- Deployment of flybrid generators designed to optimise fuel economy for tower cranes and reduce emissions
- Use of Ampd Enerainer electric battery storage systems – 2022 Earth Shot prize finalists – in place of diesel generators on key sites
- Deployment of driver behaviour monitors across van fleet to improve fuel efficiency, with EV rollout planned
- Mandating the installation of smart energy sub-meters on Australian site offices to monitor electricity usage and inform power supply requirements for future site facilities, minimising wastage
- Invested in two 250 tonne unplugged crawler cranes. The purchase is a first for the Australian construction industry and will be the largest investment in our electric fleet to date

**Data integrity – a universal challenge**

We significantly improved our data integrity in FY23 to develop an accurate and reliable picture of our carbon emissions across Scopes 1, 2 and 3, and a breakdown of exactly how those emissions are generated.

Reducing Scope 3 emissions – those associated with our supply chain and purchased products and services – is the single biggest challenge facing all constructors. Our hope is that as we, and others, develop new innovations, we'll be able to become a net zero company sooner than 2050 and we will review this target in the coming year. Details of initiatives implemented so far can be found on the next page.

We have revised our FY22 baseline for Scope 3 emissions to ensure the data capture methodology is consistent with our FY23 data, using comparable metrics. Both data sets have been independently verified to a limited level of assurance by an accredited third party. The data shows an increase in Scope 3 emissions for FY23, driven by an uplift in materials purchased to support project delivery in Europe. We have also witnessed increases in emissions associated with business travel and employee commuting when compared with FY22, as business operations return to normal levels post-pandemic.

The full Scope 3 breakdown for FY23 is as follows:

	EU	AU	Total	%
Category 1: Purchased goods & services	446,311	464,554	<b>910,865</b>	92.7
Category 2: Capital goods	16,939	7,489	<b>24,428</b>	2.5
Category 3: Electricity transmission & distribution losses	281	256	<b>537</b>	0.1
Category 4: Upstream distribution	4,688	N/A	<b>46,88</b>	0.5
Category 5: Waste disposal	195	12,734	<b>12,929</b>	1.3
Category 6: Business travel	2,620	3,780	<b>6,400</b>	0.7
Category 7: Employee commuting	9,448	6,624	<b>16,072</b>	1.6
Category 9: Downstream distribution	2,875	938	<b>3,813</b>	0.4
Category 13: Downstream leased assets	2,442	600	<b>3,042</b>	0.3

Carbon disclosure *continued*

Quality data is integral to measuring progress, focusing investment and identifying opportunities to decarbonise faster. We're working closely with supply chain partners to access highly accurate carbon data, so we're making insight-led decisions.

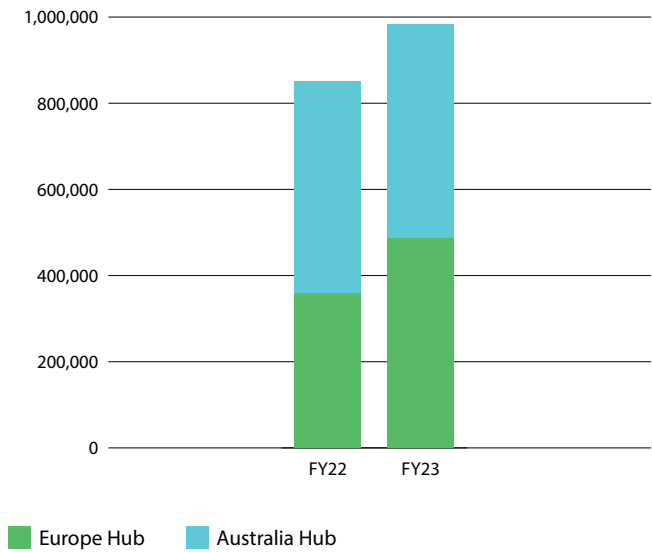
**More reliable data for better decision-making**

With this process complete, we are taking targeted actions to reduce our emissions. We know that we can't do all of this alone – the cumulative work of parties across the industry will be pivotal to our success. We are collaborating with parties across the construction value chain to stimulate a shift change in industry emissions. This ranges from innovative start up companies and partners from across our supply chain through to contractor peers, engineering trade bodies and academic institutions.

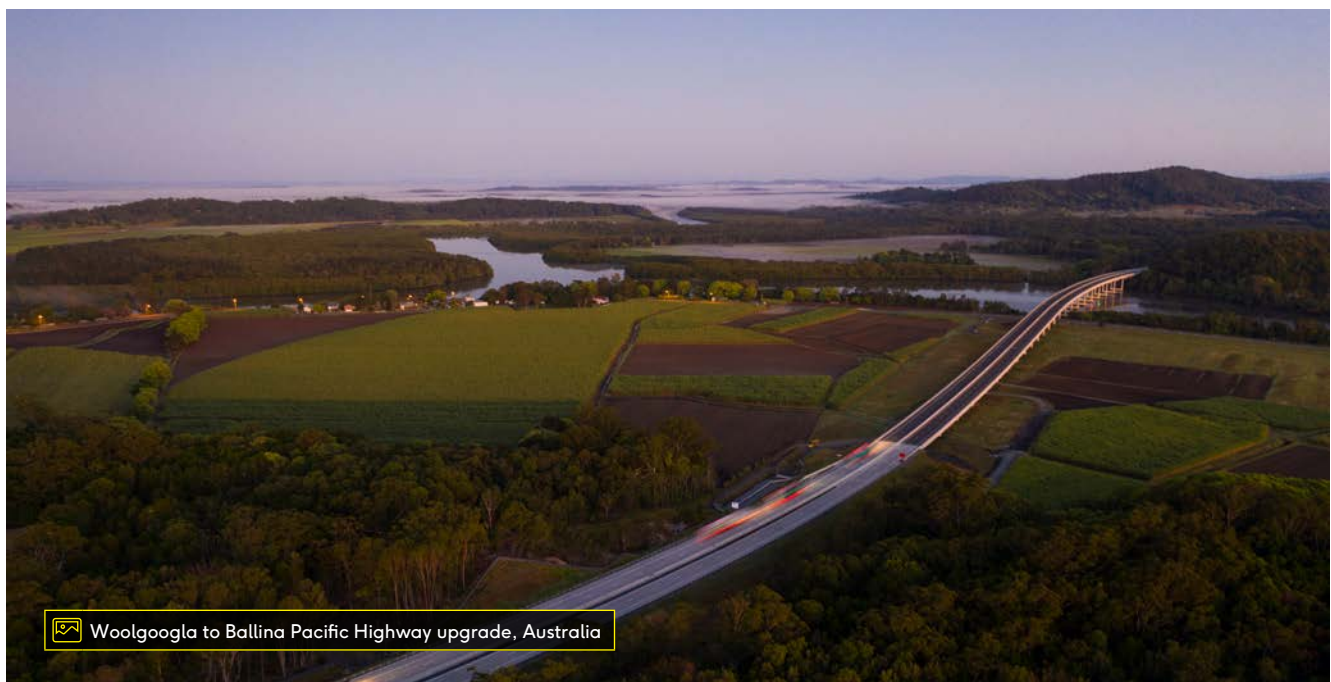
Key initiatives include:

- Move to mandate only low carbon concrete on our UK projects – and to continue our research and development programme into ultra-low carbon alternatives.
- Founding member of The Climate Group's ConcreteZero initiative, working collaboratively towards a net zero concrete target by 2050.
- Supporting supply chain partners by providing training and education, directly and via our partnership with the Supply Chain Sustainability School. Laing O'Rourke holds board positions in the Australian and UK branches of the School.
- Working directly with supply chain partners, trade associations and other industry stakeholders to develop a standardised blueprint for reporting, improving data integrity, reducing the burden for suppliers and removing barriers for smaller businesses.

**Scope 3 emissions FY22 - FY23**



- In Australia, we are a founding member of the Materials Embodied Carbon Leaders Alliance (MECLA) and have representation within each of their working groups.
- The roll out of the Australia Supply Chain Portal, facilitating interaction between Laing O'Rourke and our supply chain partners to digitise sustainability reporting and streamline procurement processes and supply chain management.
- We have worked with our three major concrete suppliers in Australia to receive embodied carbon data about the concrete we have directly purchased from them over the past three years. This is a significant improvement in data quality compared to the spend-based method that is otherwise used.
- Driving cross-industry engagement in Australia through the Climate Leaders Coalition working groups.





# Taskforce for Climate-related Financial Disclosures (TCFD)



The Taskforce for Climate-related Financial Disclosures is a mechanism used to ensure that climate-related risks are analysed, understood and embedded within company strategy, taking account of the impacts of climate change in financial management. In our 2022 annual report, we completed a voluntary, partial TCFD statement. This year's statement remains voluntary, and is a full statement aligned with the TCFD framework.

Critically, we have invested in systematic climate scenario analysis during FY23, which has enabled us to document quantifiable physical and transitional risks and opportunities for our business and elevate their profile within our company.

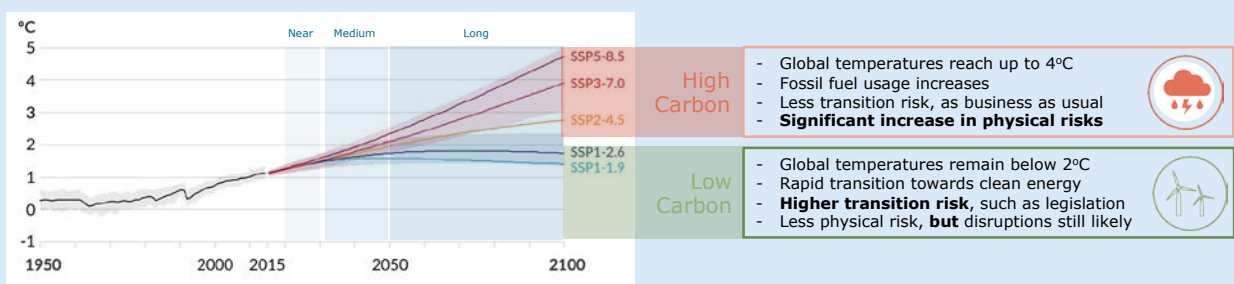
Using the support of an external consultancy, a cross-functional, cross-Hub senior team completed an in-depth review and analysis of climate-related risks and opportunities using two scenarios:

1. a "low carbon" scenario whereby global temperatures remain below a 2°C increase, we experience a rapid transition towards clean energy, we are exposed to higher transition risks, but fewer physical risks;
2. a "high carbon" scenario, whereby global temperatures increase up to 4°C, we witness an increase in the use of fossil fuel, transition risks are lower but there is a significant increase in physical risks.

## Science-based targets

Access to quality data is crucial to establishing a baseline, for setting targets and for measuring progress towards those targets. While data integrity will continue to be a focus for us, the work we have put into establishing a more robust baseline data set for FY22 and FY23 means that we are now in a position to establish science-based targets and interim goals, as well as reviewing our net zero target.

We expect to establish and publish our commitment to science-based targets during FY24 and will report our progress within future annual reports and sustainability reports.



*Time horizons selected align with key target years for carbon reductions, but time horizons for physical risks have been adapted to ensure alignment with Intergovernmental Panel on Climate Change (IPCC) time horizons. The diagram shows a range of Shared Societal Pathways (SSPs) as a basis for climate scenario analysis. SSPs are commonly used as inputs for climate modelling to explore the way in which societal choices will affect GHG emissions.*

*Our full TCFD disclosure - including a complete list of climate-related risks and opportunities - can be found within our 2023 annual report.*

# Managing our material issues

In 2022 we conducted our first materiality assessment to ensure our sustainability strategy prioritises the social and environmental issues most relevant to the business and its stakeholders. As part of this process, we engaged external consultants to conduct an in-depth analysis of our existing approach, while also considering external best practices, industry trends, regulations, disclosure frameworks and inputs from key stakeholders. The results of the assessment helped to identify themes of high or increasing importance for the business and the wider construction industry, which serve as the basis of our sustainability strategic framework, described in this report.

## Environment

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- Net Zero

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- GHG emissions

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- Embodied carbon

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- Energy efficiency

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- Biodiversity and land use

## Social

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- Community investment & socio-economic impact

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- Diversity, inclusion, equity & belonging

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- Employee attraction, engagement & retention

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- Employee wellbeing

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- Health & safety

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- Training & development

## Governance

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- Business ethics

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- Governance of ESG & sustainability

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- Transparency, reporting & disclosure

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- Responsible innovation

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- Responsible decision making

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- Sustainable procurement

To ensure our sustainability strategy reflects the priorities of stakeholders across our value chain, and evolving sustainability disclosure regulations, we plan to refresh this work. This process will include dialogue with both internal and external stakeholders to understand not only the issues that have an impact on our business, but also the issues where we have the greatest impact on the environment and society.




A453, Midlands, UK




# Appendix



We're actively supporting the UN's Sustainable Development Goals for Industry, Innovation and Infrastructure and Sustainable Cities and Communities through the work that we do. In particular, our workstreams are supporting the UN's sub-targets to:

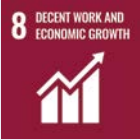
UN Sub-target	Our commitment	
<div style="display: flex; align-items: center;"> <div style="background-color: #f4a460; color: white; padding: 5px; margin-right: 10px;"> <b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE                 </div>  </div> <p>Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all</p>	<p>→</p> <p>We're delivering vital infrastructure projects globally, including rail, green energy, aviation and healthcare facilities.</p> <p>Our social value programmes are focused on delivering social and economic prosperity within local communities.</p>	
	<p>→</p> <p>Promote inclusive and sustainable industrialisation and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries</p>	<p>We support thriving local supply chains by improving spend within local economies, investing in skills growth and spending with SMEs, VCSEs and indigenous businesses.</p> <p>A wide variety of exciting roles are available within construction and we provide employment opportunities accessible to all.</p>
	<p>→</p> <p>By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p>	<p>We're actively decarbonising our industry through a combination of sustainable design, materials and sourcing decisions. This also applies to the construction process, where we're using innovative ideas and technologies to reduce our impact on the environment and communities.</p>

UN Sub-target	Our commitment
<div style="display: flex; align-items: center;"> <div style="background-color: #f4a460; color: white; padding: 5px; margin-right: 10px;"> <b>11</b> SUSTAINABLE CITIES AND COMMUNITIES                 </div>  </div> <p>By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.</p>	<p>→</p> <p>We're proud to work with clients to deliver inclusive and accessible buildings and infrastructure that connect communities and improve lives.</p> <p>We work closely with clients and communities to ensure that the projects we deliver provide lasting benefit to local communities, supporting prosperity and opportunity in the region.</p> <p>We challenge ourselves to find innovative ways to do things better. For instance, our modular bridges can be implemented quickly, safely and with minimal local disruption across a wide range of rail and highways projects.</p>
	<p>→</p> <p>Strengthen efforts to protect and safeguard the world's cultural and natural heritage</p>

Appendix *continued*



**We're actively supporting the UN's Sustainable Development Goals for Decent Work and Economic Growth through the work that we do. In particular, our workstreams are supporting the UN's sub-targets to:**

UN Sub-target	Our commitment
 <p>By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.</p>	<p>From training for people with barriers to employment to apprenticeships and work placements, our social value programmes are designed to support equal employment opportunities.</p> <p>Our gender equality goals are industry-leading. We're working towards a 50:50 gender balance between males and females by 2033 and increasing the number of women in senior project roles year-on-year.</p> <p>→ Our comprehensive diversity and inclusion programmes are helping to shine a light on unconscious bias throughout our organisation and encourage a diverse range of voices and perspectives within our business.</p> <p>In the UK, we are proud to continue to be Living Wage accredited, ensuring that all of our employees are fairly remunerated.</p> <p>In Australia we have set ambitious targets to uphold our Workplace Gender Equality Agency (WGEA) Employer of Choice citation for the third consecutive time and to reduce our gender pay gap year on year.</p>
<p>By 2020, substantially reduce the proportion of youth not in employment, education or training.</p>	<p>→ We are active within the communities we operate in. Our work includes delivering STEM initiatives in schools, apprenticeship schemes, work placements and employability programmes.</p> <p>We're focused on providing employment opportunities accessible to all, today and in the future.</p>
<p>Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms.</p>	<p>→ We know that construction sites can be a target for modern slavery malpractice. That's why all our staff are trained to spot potential signs and are given multiple channels to report any concerns, while protecting affected individuals.</p> <p>We have clear expectations of our supply chain partners and subcontractors. As well as having a stringent modern slavery policy that must be adhered to, we deliver modern slavery training to our supply chain via the Supply Chain Sustainability School (UK) and are active in its modern slavery working group. We conduct audits and spot checks to ensure practices are being upheld.</p>
<p>Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.</p>	<p>→ Many of our colleagues work in potentially challenging and/or remote environments, and a shared understanding of how we operate with the holistic safety, health and wellbeing of all our people (including our supply chain and subcontract partners) is paramount. All employees receive health, safety and wellbeing training across a variety of disciplines, regardless of their role. For those that operate on-site, regular updates are completed as well as specialist, job-specific training. Training is accessible in multiple languages, reflecting the diversity of our workforce. Site access is tightly controlled.</p> <p>In the UK, offsite manufacturing helps to minimise health and safety risk. Shift patterns and working conditions are standardised and predictable, and it reduces the need for colleagues to work at height or in cramped spaces. In Australia, flexible and alternate working options – including individual roles and project delivery patterns – are consistently explored and embedded.</p>

Source: <https://sdgs.un.org/goals/goal8>





**We're actively supporting the UN's Sustainable Development Goals for Responsible Consumption and Production and Life on Land in the following ways:**

UN Sub-target		Our commitment
<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 	By 2030, achieve the sustainable management and efficient use of natural resources	<p>→</p> <p>We're working with our supply chain to map the carbon and nature-related impact of our materials and operations</p> <p>We adhere to sustainable procurement practices, aligning with ISO 20400</p> <p>We're challenging engineering, design and manufacturing norms to reduce the overall volumes of resources used</p>
	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	<p>→</p> <p>In the UK, our sustainability-linked revolving credit facility includes stringent waste reduction targets</p> <p>Our circular economy working groups are identifying ways to reduce waste, through reuse, recycling and sustainable product choices</p> <p>We redeploy materials and tools onto other, local projects where possible, or identify local organisations that can reuse or recycle them</p> <p>We work closely with supply chain partners to recycle products at end-of-life, rather than landfill</p>
	Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	<p>→</p> <p>We're using a range of communication and engagement tools to share our learnings across our industry and beyond, as we believe that collaboration and peer learning are central to progress</p> <p>We voluntarily complete TCFD disclosures, alongside longstanding disclosures including CDP</p> <p>Our European and Australian businesses work closely together to share best practice and progress towards our shared sustainability goals</p> <p>Our revolving credit facility is linked to public sustainability targets for carbon intensity, diverting waste from landfill and increasing the number of women in project delivery</p>
	Promote public procurement practices that are sustainable, in accordance with national policies and priorities	<p>→</p> <p>We're working with supply chain partners to embed sustainable practices, including setting minimum sustainability standards for key products and hosting educational forums</p> <p>We work with partners, including the Supply Chain Sustainability School, to provide sustainability support and education</p> <p>We partner with industry bodies to lend our voice to sustainability-focused progress, including MECLA, UK and AU GBC, ISC, Climate Leaders Coalition, RICS and ConcreteZero, among many others.</p>

UN Sub-target		Our commitment
<b>15</b> LIFE ON LAND 	Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	<p>→</p> <p>We have completed biodiversity audits and hotspot analysis for sites across our portfolio and geographical locations, documenting nature-related risks, impacts and opportunities</p> <p>We aim to deliver projects that are nature positive, leaving sites ecologically better than they were</p> <p>We're developing biodiversity action plans for our fixed sites as well as on project sites</p> <p>We're undertaking supply chain hotspot analysis to better understand the nature-related impact of material sourcing and consumption for key commodities</p>

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