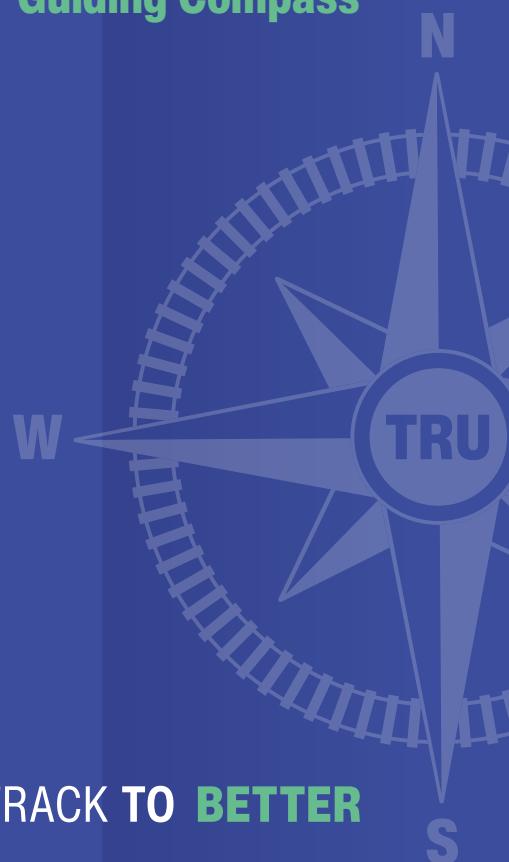


On track to a better, more sustainable future

Our sustainable development
strategy to take everyone at TRU
on our sustainability journey -
Our Guiding Compass



ON TRACK TO **BETTER**



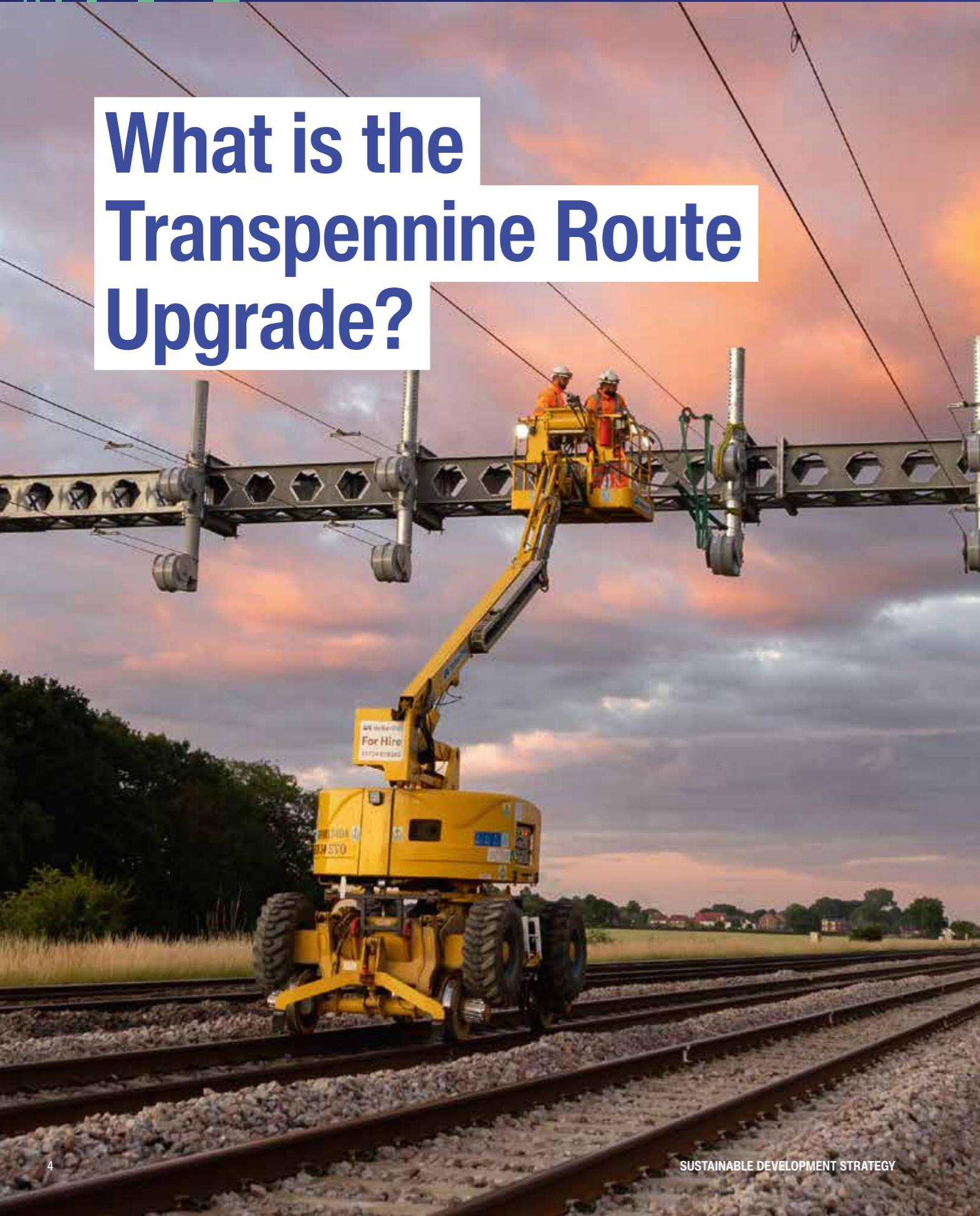
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“The Transpennine Route Upgrade will transform journeys across the North, better connecting towns and cities through more frequent, faster, greener trains, running on a better, cleaner and more reliable railway.”

What is the Transpennine Route Upgrade?



“TRU will support moving **more essential goods by rail**, **attract more people** to use the train, **help communities prosper**, **create jobs** for local people and **improve the environment** through decarbonisation.”

More trains to choose from and more seats



Our improvements will enable more trains to run between Manchester, Leeds and York.

Up to **six fast/semi-fast** services every hour between Leeds and Manchester and up to two stopping services for local connectivity.

Faster journeys



Travel to your favourite towns and cities more quickly. Our fastest journey times are forecast to be **63-66 minutes** between Manchester and York and **41-42 minutes** between Manchester and Leeds.

More reliable journeys



Smoother journeys with trains that run **on-time**.

Better stations



Station improvements across the Transpennine route, bringing passengers a **better travel experience** through improved, more accessible stations.

Greener travel



Reducing our carbon footprint and improving air quality. We're also developing a proposal to move more goods by rail (up to 15 more freight trains) **removing over 1,000 lorries** off the road each day.

OUR OBJECTIVES AND STRATEGY

Government priorities

Grow and regenerate the economy by raising productivity and empowering places across the country to make sure everyone benefits	Reduce UK greenhouse gas emissions to net zero by 2050 and improve the environment through cleaner air and water, minimised waste and protecting terrestrial marine wildlife
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Department for Transport priorities

Build confidence in the transport network and enrich experiences by ensuring the network is safe, reliable and inclusive	Improve connectivity and grow the economy by enhancing the network on-time and on-budget	Tackle climate change and improve air quality by continuing to decarbonise transport
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TRU priorities

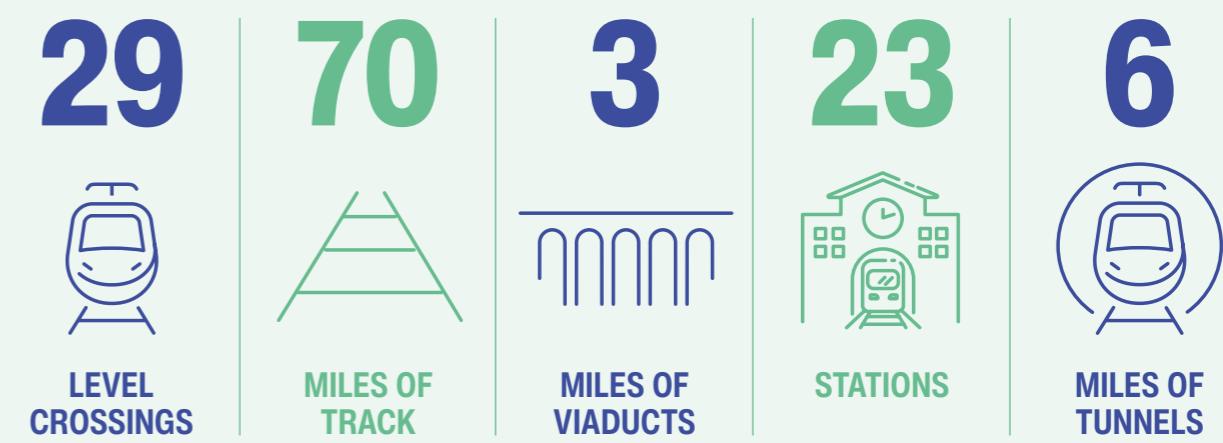
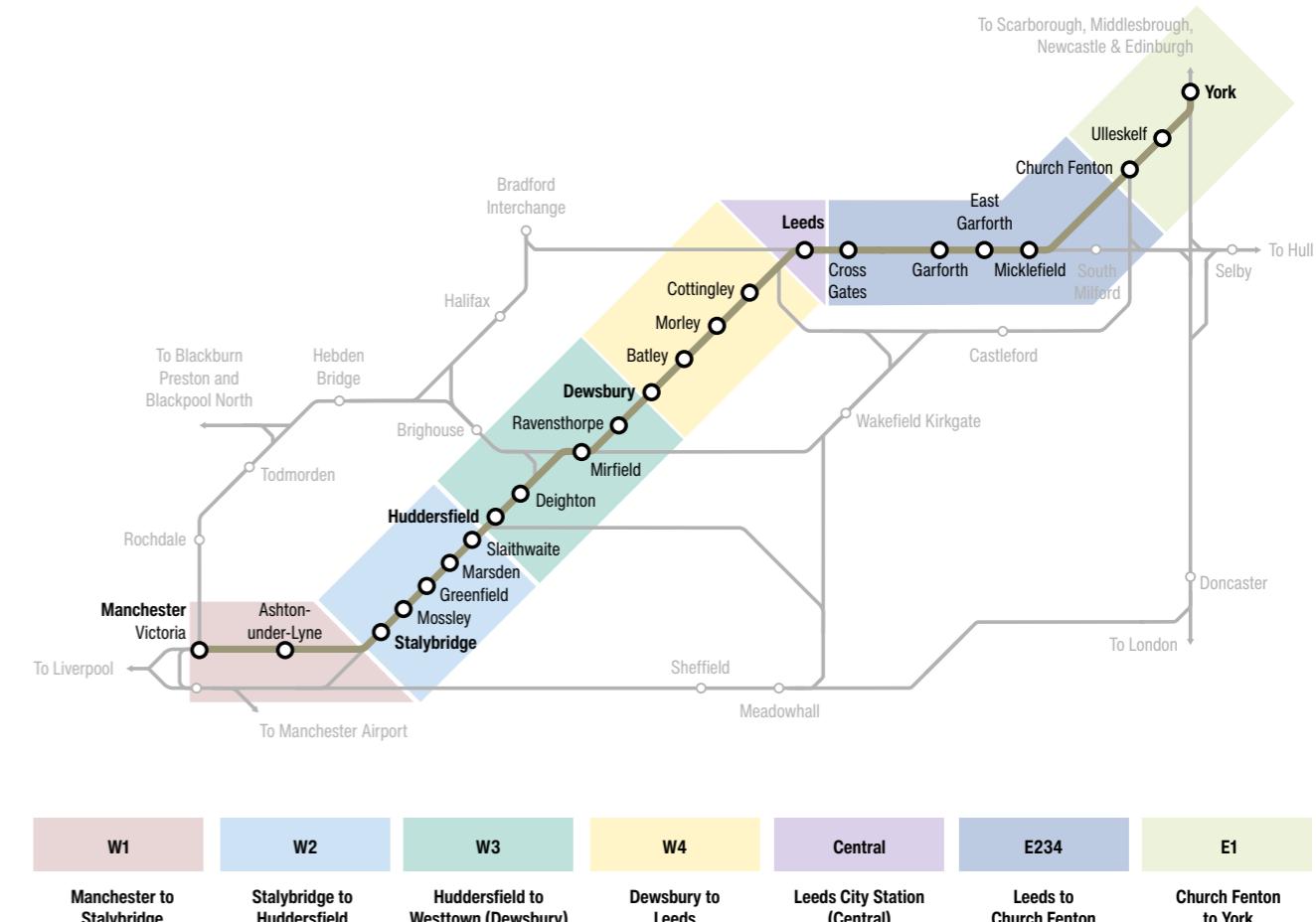
Enhance experiences by providing more frequent, more reliable, faster and more comfortable trains	Improve connectivity and contribute to growing the North	Attract new users to rail – across both passenger and freight	Decarbonise the railways to continue the journey towards a greener future
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This strategy is designed for the TRU Route, as displayed opposite.

“As a client, the Department for Transport is fully committed to sustainability and delivering that through the programmes we sponsor and fund. TRU is leading the way for rail enhancements, not just in terms of expressing the holistic environmental and socio-economic impacts of the programme but using that analysis to produce better outcomes. We look forward to TRU leaving a great legacy for the North’s communities and environment.”

NICK HAIGH | HEAD OF STRATEGY & APPROVALS, TRANSPENNINE ROUTE UPGRADE, RAIL INFRASTRUCTURE NORTH, DEPARTMENT FOR TRANSPORT

TRANSPENNINE ROUTE UPGRADE PROJECT AREAS



TRU Enterprise Sustainable Development Charter

The TRU Enterprise* is committed to working together to design, build and operate our railways in a way that puts our **customers first**. This commitment is built on three key rules:

1 We agree to actively support, promote and deliver this strategy, while always looking at opportunities to do even more

2 We understand building a sustainable railway for the North is essential

3 We recognise that all the decisions we make will have short-term and long-term economic, environmental and social impacts



“We've developed this approach to sustainability to push boundaries of what is expected and what is possible. This strategy is designed to drive innovation, focus on where we can make the best outcomes for communities and lead the rail industry, while being an exemplar for both Network Rail and major projects.”

ANNA HUMPHRIES | TRU HEAD OF SUSTAINABILITY AND SOCIAL VALUE

“The TRU programme will make a difference to the lives millions of people living and working in the North. This isn't just about delivering faster, more frequent and more reliable journeys for passengers or moving more goods by rail. It's about leaving a lasting legacy in the North by investing in local people and communities and slashing our carbon footprint above and beyond the standard.”

NEIL HOLM | TRU MANAGING DIRECTOR

“This pioneering approach of bringing together all enterprise partners is crucial to the success of TRU, both in delivering benefits for our customers but also in building a more sustainable railway that gives back to the communities we're working in. This strategy makes sure we're working towards the same common goal when it comes to delivering a lasting impact for communities and commuters sustainability and social value.”

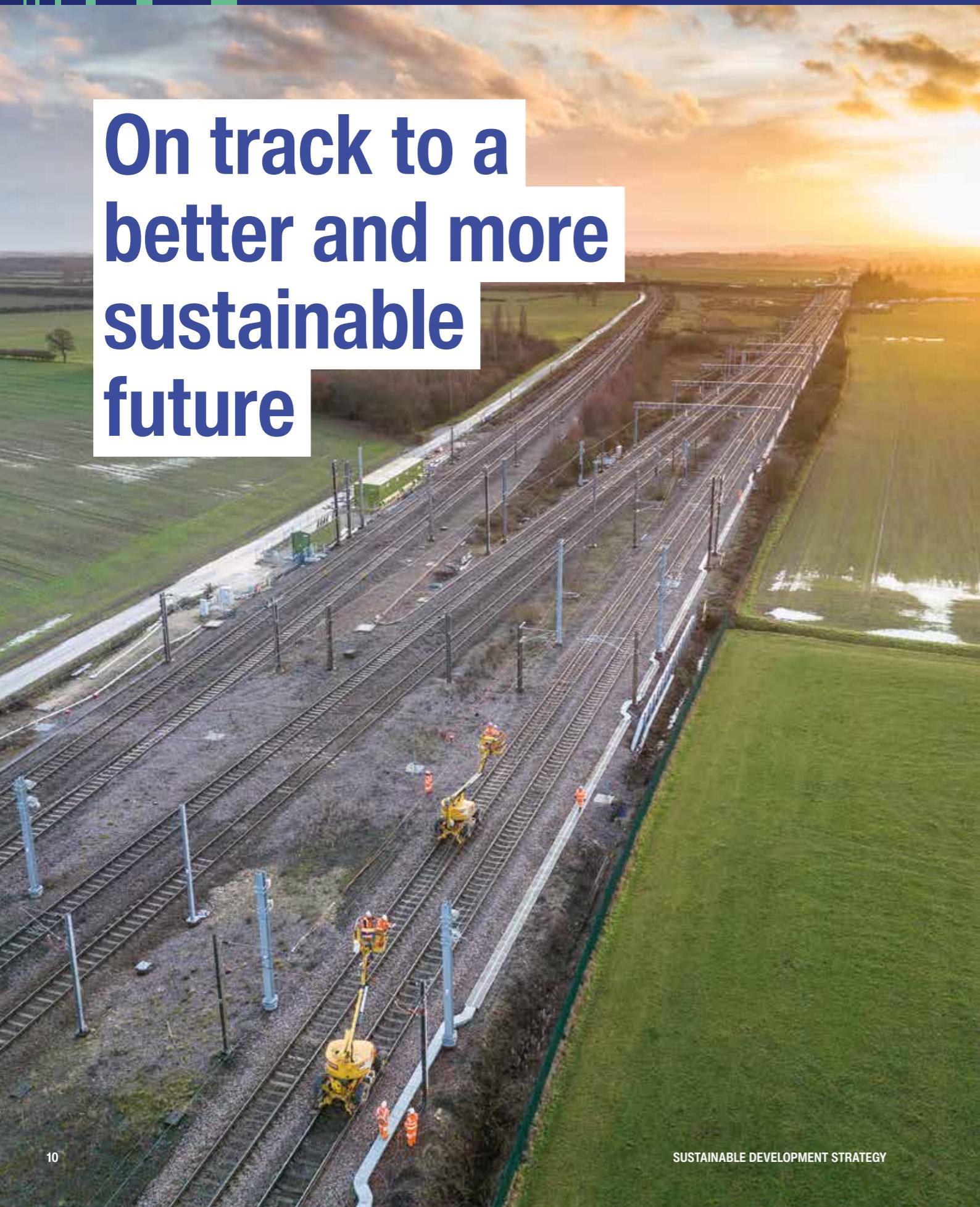
ROB WARNES | TRU TRAIN OPERATIONS LEAD REPRESENTING NORTHERN

“This sustainability strategy is one example of how TRU is bringing customers to the heart of its planning and delivery. Through our partnership across the train operators, construction teams and operations we are working together to improve the lives of people in the North of England through transformative action.”

CHRIS NUTTON | TRU TRAIN OPERATIONS LEAD REPRESENTING TPE



On track to a better and more sustainable future



“Sustainability is so much bigger than just doing a bit more to look after the planet – and the impacts can be **conomical as well as **environmental** and **social**.”**

But, if TRU are going to stay on track to a better and more sustainable future, we all need to be pulling in the same direction.

Our over-arching strategy has been shaped by Network Rail's environment strategy and social value framework but has taken great influence from the United Nation's Sustainable Development Goals.

Sustainable development does not just mean looking after the planet, it is not interchangeable with 'environment', sustainability impacts society and the economy as well. So what is Sustainable Development?

Sustainability, sustainable development, corporate social responsibility, social value and more recently Environmental, Social and Governance (ESG), are terms designed to put a badge on 'doing the right thing'. Most people feel passionately about doing the right thing for the planet or giving back to society, but how do you know what the right things is and what does giving back look like?

Sustainable Development can be defined in many different ways. In 1987 the Brundtland Report "Our Common Future" defined Sustainable Development as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs"

By providing a strategic framework that gives direction to everyone working on (or involved with) TRU we believe Our Guiding Compass showcases what leadership looks like in order to leave a legacy that we can all be proud of.

“The Sustainable Development Goals also known as the **Global Goals, were adopted by the United Nations in 2015 as a universal call to action to **end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity**. The 17 SDGs are integrated – they recognize that action in one area will affect outcomes in others, and that development must balance **social, economic and environmental** sustainability.”**

SUSTAINABLE DEVELOPMENT GOALS | UNITED NATIONS DEVELOPMENT PROGRAMME (undp.org)

Our Guiding Compass

We believe sustainable development is the only way to keep us on track to a better and **more sustainable future**.

Whether we are playing our part on the green agenda or maximising the social value opportunities that this programme brings – TRU is proud to take collective responsibility to make sure we maximise this opportunity to leave a lasting legacy in the North of England.

By transforming communities along the route – and beyond – we aim to unlock significant economic, social and environmental benefits. But it will take an ambitious, innovative and industry-leading approach to fully deliver sustainable development, driving up industry standards in sustainability across both construction and operations.

To ensure our approach is robust, TRU will design, build and operate a railway sustainably, delivering a final asset that provides **more frequent, faster, greener trains**, running on a **better, cleaner** and **more reliable** railway. Delivering ongoing sustainability benefits for generations to come.

To achieve these goals, we've outlined our sustainable development strategy up to 2035. Some of this work has already started, but this outlines our journey to a better, more sustainable future. It's called Our Guiding Compass.

OUR MISSION STATEMENT:

TRU will accelerate change by creating **Northern jobs** for local people. We will balance building and operating a railway that **enhances the environment** whilst ensuring we **satisfy customers' needs**. All the while **working with our communities** to make sure we're all heading in the right direction.

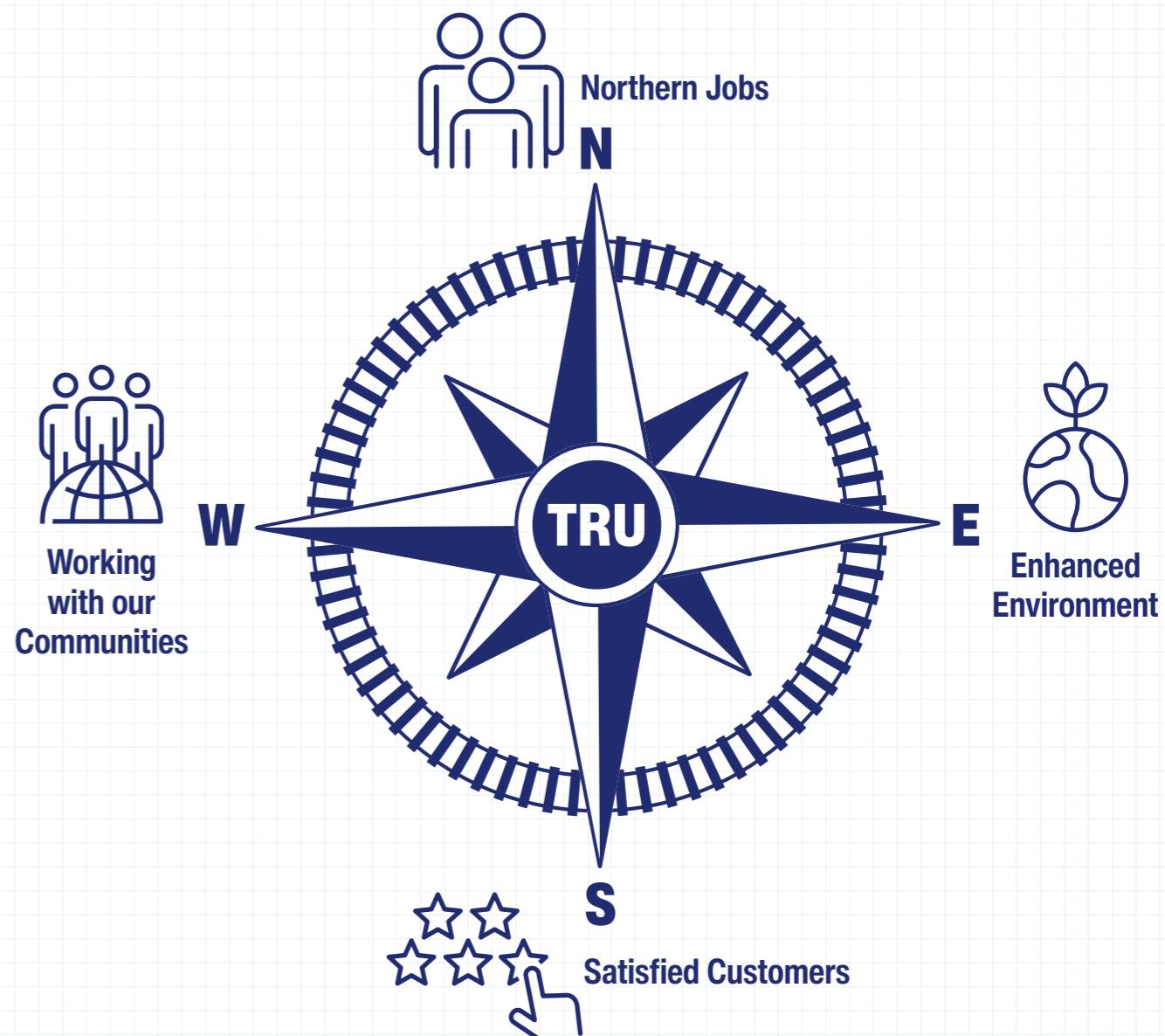
Our Guiding Compass points the way to a better, more sustainable future. It is made up of four strategic pillars which will help guide sustainable development for TRU and ensure we maximise the opportunities to deliver for our customers and communities.



Deliver a minimum 50p value to society for every £1 spent on construction on the TRU programme



Achieve BREEAM Infrastructure V6 Whole Project Award 'Excellent' rating



These four pillars have been carefully selected to help realise two key overarching objectives across the programme:

Northern Jobs



TRU is here to help the North prosper. Faster, more frequent services can deliver better connectivity and fuel regional job creation. TRU will also work with local businesses of all sizes to deliver a legacy of economic growth in the region. The construction and operation of TRU will create a wealth of employment and business opportunities along the Transpennine corridor – encouraging new entrants into the rail industry through work experience and apprenticeships – while also ensuring our team reflect the rich diversity of the communities we serve.

Enhanced Environment



We take our environmental impact seriously. TRU will act as a custodian for the natural environment through design, delivery and operation to deliver a fully electrified route, running more electric powered trains and in doing so, significantly reducing diesel fuel being consumed, which will reduce our carbon and air quality impacts. TRU will also reduce carbon from the infrastructure, adopt circular economy principals and support sustainable sourcing – Minimising pollution while looking at renewable energy and biodiversity opportunities on – or near – the line every step along the way.

Satisfied Customers



The customer always comes first. TRU will deliver more frequent trains, on a more resilient railway, that is fit for current weather conditions and future climate change impacts. Providing safe, reliable and accessible travel for both freight and passengers to ensure the railway that can be used and enjoyed by all.

Working with our Communities



TRU is committed to improving the lives of those living in the communities we are working in. TRU will keep our communities safe, minimise disruption and invest in wellbeing, education and community spaces to leave a net positive impact on society.

BY 2035 WE AIM TO:

Overarching objectives in Our Guiding Compass



Deliver a minimum 50p value to society for every £1 spent on construction on the TRU programme, generating £4.28 billion of social value

Achieve BREEAM Infrastructure V6 Whole Project Award 'Excellent' rating

Northern Jobs



Create tens of thousands of jobs both directly and indirectly, including 8,000 new and safeguarded roles as well as 590 apprentices created during construction

Spend a minimum 25% with local businesses to drive further growth in the North

Enhanced Environment



Reduce the carbon used to operate the railway by 230,000 tonnes CO₂e, leading to a total saving of 6 million tonnes CO₂e over the 60-year programme design life

Preserve and enhance the natural landscape to increase biodiversity and deliver a minimum 10% net gain

Satisfied Customers



Provide step free access to a minimum 99% of the customers using the route from intermediate stations

Improve our customer satisfaction experience

Working with our Communities



Engage with over 100,000 young people through our inclusive education programme

Deliver 25,000 hours volunteering in the community to develop job skills and shape public spaces alongside the communities that use them

A SUSTAINABLE CULTURE

Our Guiding Compass sets an ambitious approach to embed sustainability in how we design, build and operate this new railway. But it will only be possible if our people, our communities and our stakeholders combine to become a force capable of delivering the change we all want to see.

We all have a vital part to play to build a more sustainable, world-leading TRU.

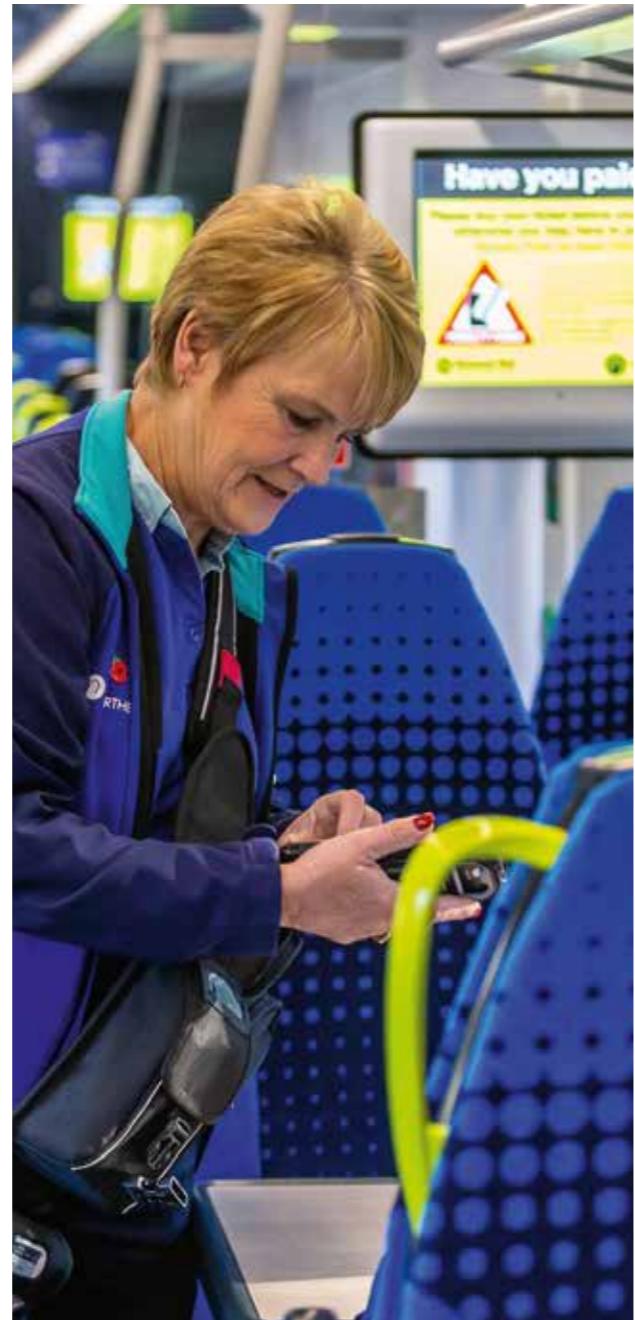
It starts with our people...

We understand that progress is powered by brilliant people. That's why TRU will roll out sustainability training and awareness campaigns to help our employees to understand their own personal contribution to the global sustainability agenda and how they can support the delivery of our sustainable development strategy for TRU.

TRU will also develop and deliver frequent knowledge-share sessions to engage our people and our partners in all carbon management, social value, biodiversity, environmental management and much more. By continuing to upskill our workforce in sustainability, we can harness the incredible talent we have on the programme.

Our new Steering Committees will oversee each pillar of Our Guiding Compass to drive performance while bringing new partners and contributors into sustainability planning and decision making.

The Steering Committees will drive topic-specific working groups aimed at bringing people across our programme together to tackle sustainability problems and find innovative solutions together. Whether that's getting creative with carbon innovation or harmonising community volunteering and inclusive education programmes.



Measuring our impact in the North

TRU is pioneering the use of a new tool to measure the social value created by our sustainable development approach. By using the Rail Social Value Tool (RSVT) to capture our activities across a range of social impacts, we have calculated that TRU will **deliver a minimum 50p value to Society for every £1 spent on construction on the TRU programme, generating £4.28 billion of social value** (see page 43 for more information).

TRU will continuously learn...

TRU is committed to learning as much as we can from every single experience along our sustainability journey – successes and failures, and continuously learning from other projects and programmes.

Our Guiding Compass is also underpinned and verified to be best practice through our programme commitment to achieving 'Excellent' on Building Research Establishment Environmental Assessment Method (BREEAM) Infrastructure version 6 (formerly CEEQUAL) Whole Project Award.

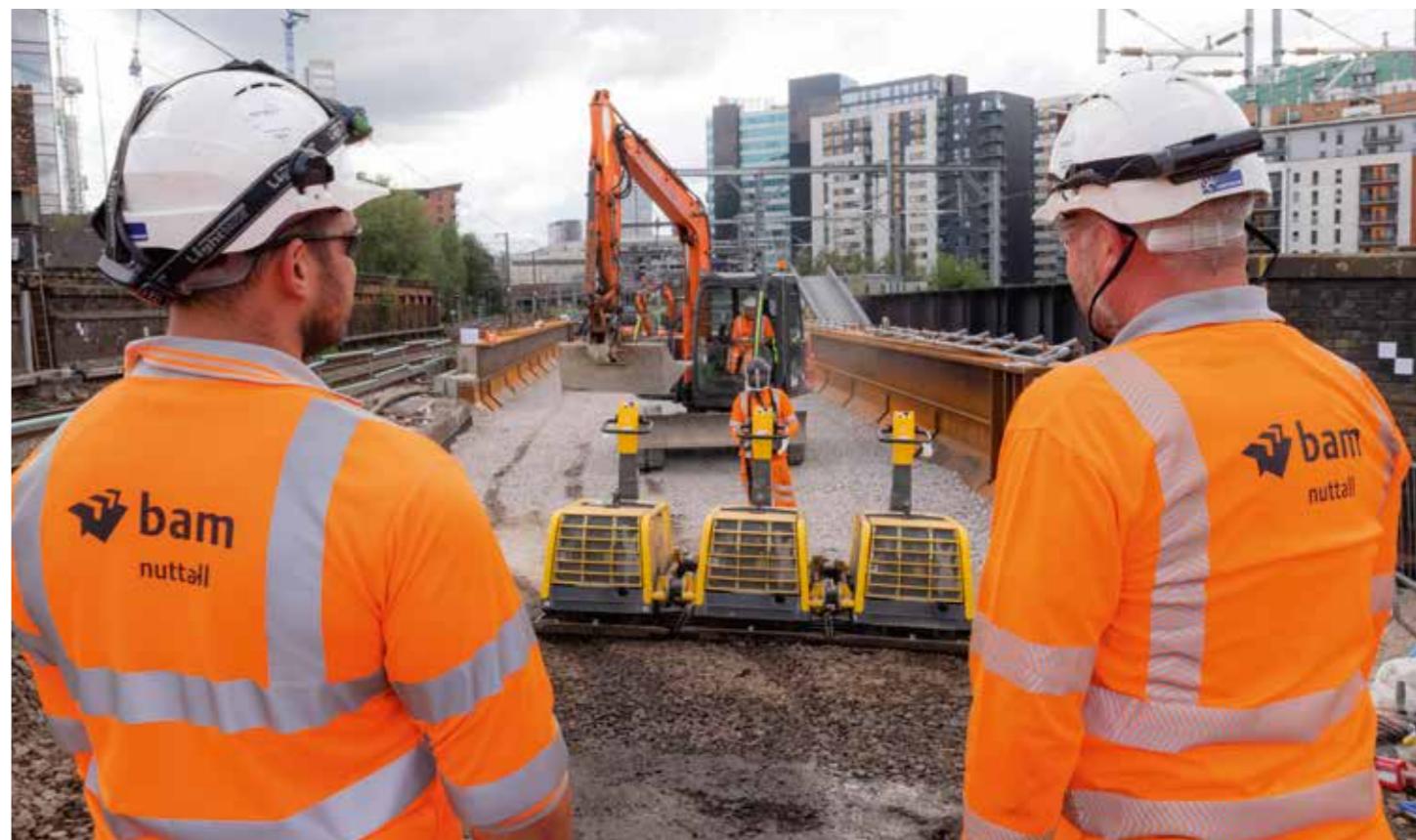
As an independently-verified sustainability certification scheme, BREEAM Infrastructure allows the programme to develop (and then robustly demonstrate) where TRU is driving sustainability best practice and actively drives improvements in sustainability performance elsewhere. This process is already integrated into

everything that we do on the programme and helps to feedback and improve through continuous learning.

Achieving an 'Excellent' rating would give us a clear benchmark against other major infrastructure programmes at this level of ambition – bringing recognition of the high level of performance being delivered on the programme.

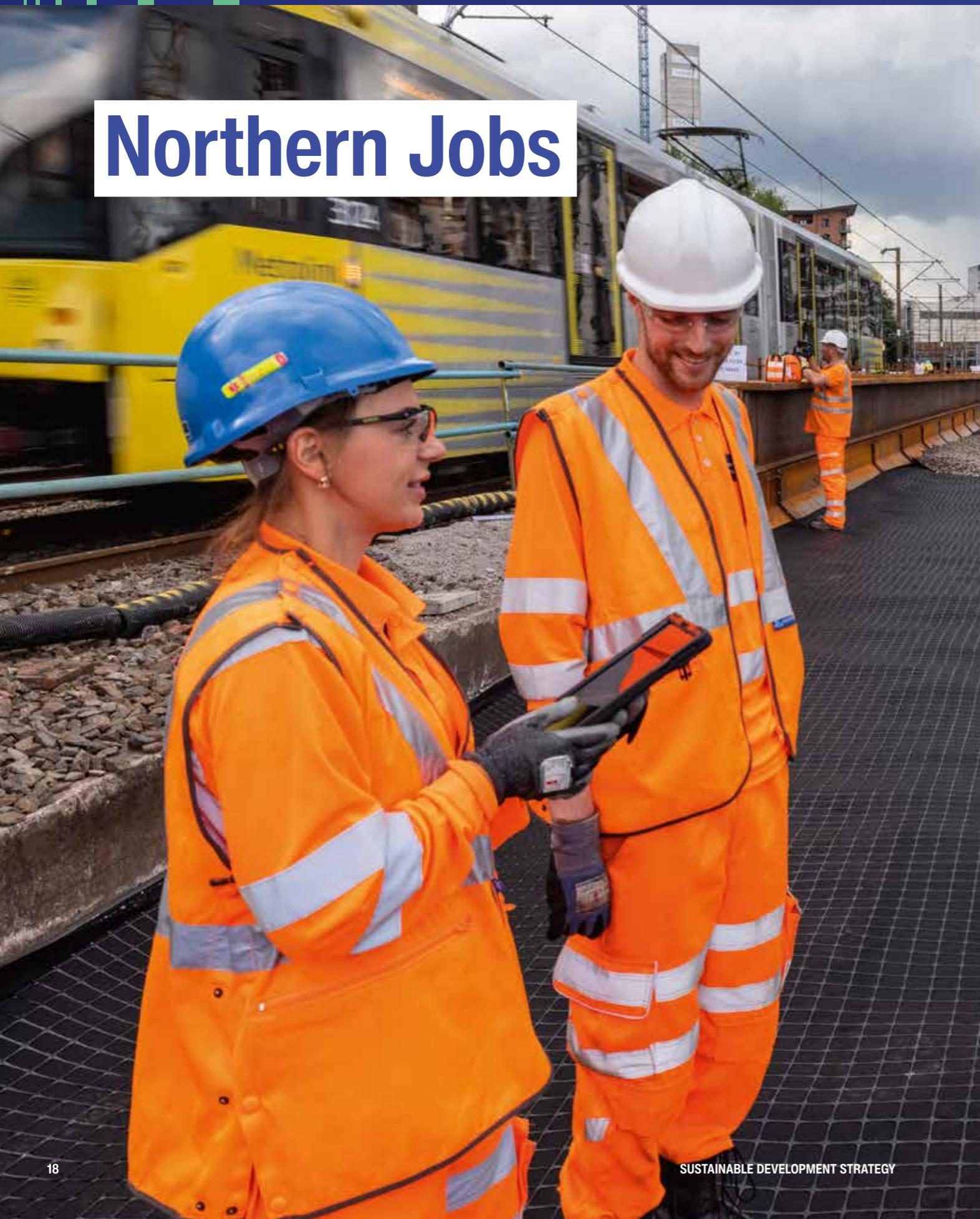


You can find more information on our sustainability approach at theTRUpgrade.co.uk/OurGuidingCompass/





Northern Jobs



WHAT DOES SUCCESS LOOKS LIKE? BY 2035 WE AIM TO:

- 1 Support over 8,000 roles. Creating 4,000 new opportunities and safeguarding 4,000 jobs during construction – with 20% of new roles filled by underrepresented groups to create a diverse team that reflects the communities in which we work.
- 2 Employ 590 apprentices of all ages, levels and backgrounds.
- 3 Deliver over 30,000 placement days to support new entrants joining the industry, pre-employment, transitioning and upskilling of which a minimum of 20% will be from underrepresented groups.
- 4 Make sure 60% of the project workforce are employed from within 25 miles of the route and 80% within 40 miles.
- 5 Ensure a minimum of 25% of our project supply chain spend will be with local businesses within 25 miles of the route.
- 6 Place a minimum of 33% of our project supply chain spend with small to medium sized enterprises, micro businesses, and voluntary sector organisations.
- 7 Have 100% compliance with our Fair and Ethical Work Charter.

“We’re creating thousands of jobs for people living in the North, inspiring them to join the railway and developing the next generation of railway talent – as well as investing in local businesses. We’re going above the norm to provide opportunities, skills and experience for everyone.”

JOE HOLLAND | TRU HEAD OF HR AND SPONSOR
FOR NORTHERN JOBS





WHAT CAN TRU ACHIEVE THROUGH NORTHERN JOBS?

TRU will boost jobs and business opportunity in the North of England throughout construction, operation and beyond.

TRU will help regenerate regional economies during construction through local procurement, employment, skills development and social inclusion programmes.

The increased railway connectivity between towns and cities across the region and the operation of the improved route will also deliver regional growth through upgraded employment opportunities, greater job satisfaction and social mobility. While the social value created through the TRU programme will offer a significant contribution towards regenerating the North.

To deliver the programme, it is vital that TRU develops a local talent pipeline that creates a legacy for both the rail industry and local economies – providing vital skills and jobs to establish rail as a key industry in the North – a legacy to be integrated into the route's operation by Network Rail, TransPennine Express and Northern Trains.

What is TRU doing to drive Northern Jobs?

TRU will create 4,000 new roles during construction, of which 20% will be from underrepresented groups to create a diverse team to reflect the communities in which we work. In order for regions, institutions and individuals to obtain the vital experience and skills, TRU will tailor our approach through programmes aimed at young people and adults, specifically creating 590 apprenticeships.

TRU is a multi-billion-pound project that can support jobs through investing in our local supply chains. TRU are ensuring this opportunity is not missed by contractualising that 25% of spend outside the franchise framework contracts is with companies operating within 25 miles of the route to help develop our supply chain and in doing so creating and safeguarding thousands of more jobs.

Local employment:

TRU, operated by local people, for local people. TRU is committed to making sure local communities benefit from our Talent Pipeline programme and adult engagement. We aim to employ 60% of the project workforce from within 25 miles from route and 80% within 40 miles.

To support this, we have developed a joint TRU programme recruitment page thetrupgrade.co.uk/vacancies/ that advertises roles from across the programme locally to harness the vast local networks of our partner organisations. TRU will provide a combined 30,000 placement days for young people and adults alike from the local community. These experiences, coupled with the 590 apprenticeship opportunities, will provide the experience and confidence for local people to gain employment through the TRU Programme.

Jobs for young people:

To create new opportunities for young people, TRU is developing a **Talent Pipeline programme**, working to engage future rail employees starting in primary schools all the way into employment. As we learn what jobs are needed across the route, TRU is working closely with key educational and employment groups to prepare the region for the opportunities the programme will bring. Much of our focus will be towards 'Routes into Rail', directing young people in the steps they can take to harness the upcoming employment opportunities within TRU and the wider industry through our enterprise partners. Such programmes are driven by our people, and TRU will be releasing more information and knowledge shares on how to get involved.

TRU will support this approach by using skills workshops to identify candidates for our **TRU Youth Placements programme**, which aims to deliver over 25,000 work experience placement days. We have started this journey of supporting new entrants to our industry, pre-employment, transitioning and upskilling through programmes such as our innovative 'Workplace Safari Programme' for neurodiverse students to gain insights into workplaces – a pioneering scheme which we trialled with United Response, a charity that works with neurodiverse young adults struggling to access employment opportunities.

TRU also has a mentoring programme for young adults 'not in education, employment, or training', and care givers. TRU will continue to work closely with local universities to offer year in industry placements – providing invaluable rail industry work experience while students study, connecting closely with our graduate recruitment approach.

For young people ready for the job market, TRU will offer opportunities for apprenticeships, as part of our plan to employ over 590 apprenticeships during construction. We have already developed a collaborative apprenticeship programme that has seen nearly 200 apprentices placed across the programme and gain varied experiences with different teams. TRU will be enhancing this approach by developing a **TRU Apprenticeship Academy** to harness the opportunity to learn across the whole rail programme – from train operating companies and Network Rail through to major supply chain partners. This is a unique opportunity for individuals to learn about the rail industry and how companies need to collaborate to provide the very best service for our customers.

Contact:
OurGuidingCompass@networkrail.co.uk
 to become part of this journey.

Jobs for adults:

TRU will work with Local Authorities to plan training and identify employment partners, while ensuring we understand local needs and the best way to connect with people over 18 currently outside of education and training. TRU is already working with local charities and organisations to target underrepresented groups in our communities such as Migrants at Work, Leeds Autism Services and Project RECCE. Project RECCE provides a pathway through Resettlement, Education, Community, Construction, Employment for anyone leaving or left HM Armed Forces.

Our Human Resource and People teams are working alongside our Sustainability team and many Science, Technology, Engineering, Arts and Maths (STEAM) volunteers from across the programme to share our employment opportunities with people of all ages and backgrounds. In addition to adult apprenticeships, we have also committed to providing 5,000 work experience placement days for adults.

Our focus will reflect a wealth of talent that exists amongst populations such as adults at risk of homelessness and ex-military personnel at risk of long-term unemployment.



Developing the skills of our people:

TRU is not just about employing new people. TRU is also committed to developing our existing employees through training opportunities, mentoring programmes and a number of networks – such as an Early Careers Professionals network and existing partners' equality, diversity & inclusivity networks. TRU will safeguard 4,000 roles through working with our partner organisations to retain and upskill our people by providing access to our **TRU Apprenticeship Academy** and encouraging movement across the different teams and regions of the TRU enterprise.

We understand it is not enough to just provide the skills, experience and competence. We also need to provide a working environment designed to let individuals thrive and achieve their potential. Each enterprise partner is committed to equality, diversity and inclusion and have their own programmes and initiatives. TRU will work together to learn from each other and enhance the opportunities that collaboration on the scale of TRU provides. To bring this together, TRU will develop and comply with a **Fair and Ethical Work Charter** to ensure we operate an inclusive environment within TRU.

“It is not enough to just provide the skills, experience, and competence, we also need to provide a working environment to let individuals **thrive and achieve their potential.”**

Stimulating local, sustainable growth through our supply chain:

The TRU programme will be a significant investment for the region. It is vital that as much investment as possible is retained within the local economy to grow businesses that can provide jobs, goods and services during construction and as a lasting legacy.

Not only can local businesses and small to medium enterprises (SMEs) benefit from the investment from TRU, but TRU will be able to harness innovative expertise with knowledge of local conditions and needs.

We have committed to ambitious targets on the money TRU will spend using local businesses (within 25 miles of the route) and SMEs. We require our partners to spend a minimum of 25% of goods and services that sit outside of usual frameworks, with local businesses – a target that is already being significantly exceeded.

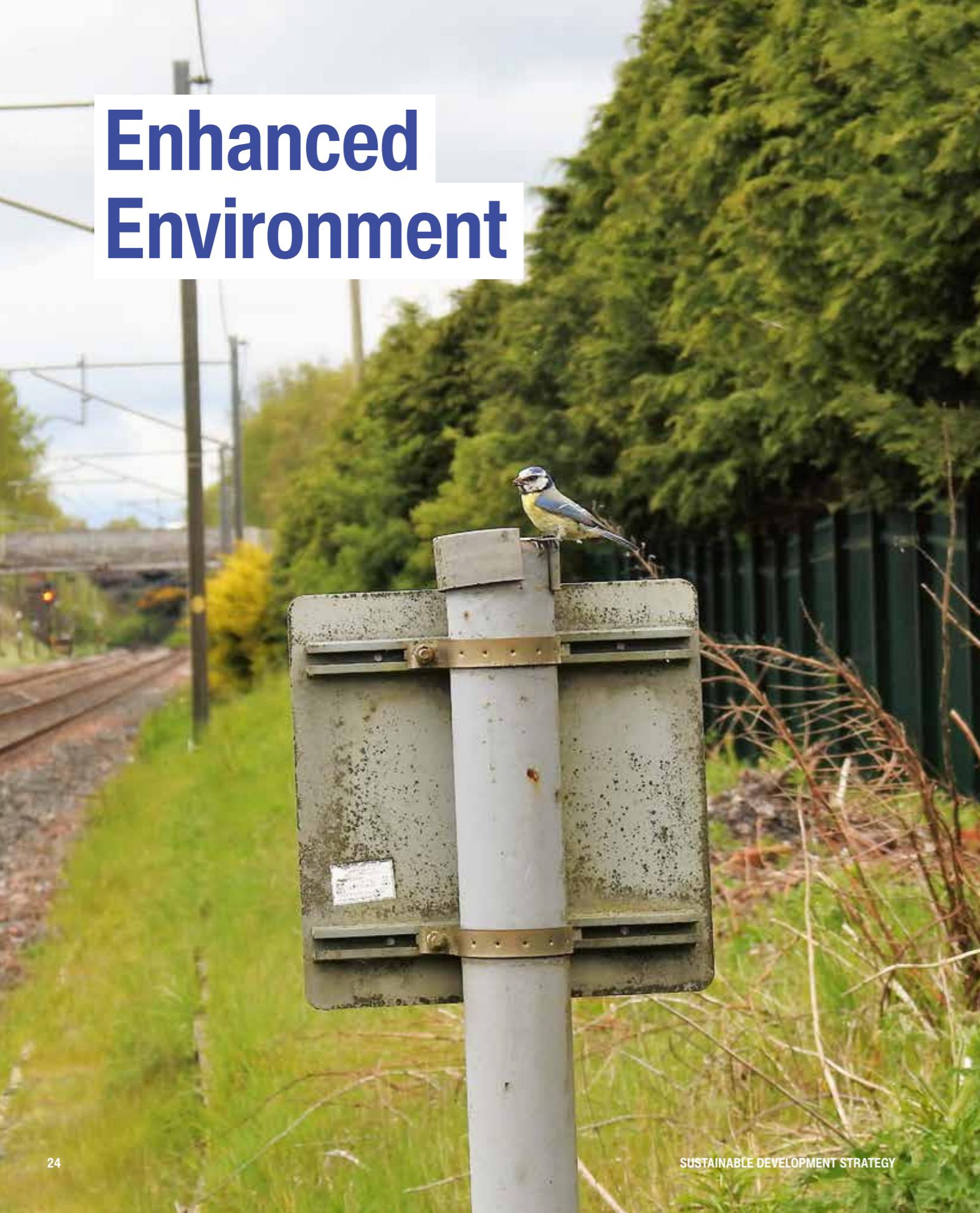
We have also committed to making sure a minimum of 33% of our partners' project supply chain spend is with SMEs. TRU will drive this by working with our Local Authorities, regional business groups and local supply chain engagement events to identify and support local and SME businesses. TRU will also develop training to upskill local and SME business on topics like carbon and circular economy to develop local market capacity.

“By committing to 4,000 new roles and safeguarding 4,000 roles we will ensure the TRU programme will support 8,000 roles, 20% of which are from underrepresented groups. By working to develop our supply chain, we can create and safeguard thousands more for years to come.”





Enhanced Environment



WHAT DOES SUCCESS LOOKS LIKE? BY 2035 WE AIM TO:

- 1 Reduce the carbon used to operate the railway by 230,000 tonnes of CO₂e – leading to a total saving of 6 million tonnes of CO₂e over a 60-year period after work is complete.
- 2 Deliver and manage a minimum 10% net gain of biodiversity.
- 3 Reduce the carbon impact of construction by up to 30%.
- 4 Reuse/recycle 90% of construction waste and 70% of operational waste and 99% of all non-hazardous materials diverted from landfill.
- 5 Embrace the principles of circular economy, including piloting initiatives.
- 6 Improve air quality, including a reduction in particulate matter, through the delivery of a fully electrified route and encouraging modal shift.

“We’re not just cutting carbon emissions through a greener, electrified railway once TRU is complete – we’re using a ‘whole railway’ approach to slash carbon during construction and leave the environment around the railway in a better condition than when we started.”

DAVID LAWRENCE | TRU TECHNICAL DIRECTOR / CHIEF ENGINEER AND SPONSOR FOR ENHANCED ENVIRONMENT



WHAT CAN TRU ACHIEVE TO PROTECT THE PLANET WE LIVE IN.

Climate change is the biggest threat to our planet and we all need to get involved to drive down carbon emissions in our day-to-day life and in the way we work.

The UK was the first major economy to commit, in law, to net zero carbon by 2050. The Plan for Rail (May 2021) reiterates the net zero commitment, and the industry has set out in the **Sustainable Rail Blueprint** (developed with the Rail Safety and Standards Board) how to deliver the DfT's ambition of 'a railway that's central to delivering a net zero economy by 2050'. TRU will play a pivotal role in reducing carbon across the North of England.

Taking the train is, in itself, a green choice. Through fully electrifying the Transpennine route to enable electric and bi-mode trains to operate, TRU is reducing carbon emissions and local air quality pollution, making that choice even greener and easier for individuals to make a difference.

The TRU programme is about much more than improving the railway asset, it is about transforming our communities and the natural environment (land, water and air) along the route. By making trains faster, more reliable, more comfortable and greener, TRU will provide a sustainable alternative to air travel and the use of private vehicles.

It's estimated that by 2035, TRU will reduce the carbon used to operate the railway by 230,000 tonnes of CO₂e and 6 million tonnes of CO₂e over the next 60-years.



That's the equivalent of taking
6 million cars
off the road for a year!



TRU is very conscious that these structural changes will also lead to the removal of large areas of vegetation, so TRU is committed to preserving and enhancing the natural landscape to increase biodiversity and deliver a minimum 10% biodiversity net gain.

Industry leading

The construction of TRU has an estimated baseline of 1 million tonnes of embodied carbon. In order to reduce this impact, we have adopted an industry-leading approach in many areas.

TRU is the first Network Rail major programme to develop a whole life approach to the monitoring, measurement, and reduction of carbon, in-line with the ambitions of the Department for Transport. This robust methodology for carbon reduction and monitoring during design and construction is embedded within the Alliance and delivery partner contracts. We have also set a very ambitious stretch target to reduce the carbon impact of construction by 30% from initial design.

The selected whole lifecycle methodology for carbon calculations aligns with the British Standards Institute (BSI) PAS2080:2023 Carbon Management in Infrastructure standard. This is internationally recognised as best practice for carbon management in complex infrastructure projects.



The programme design life is assumed to be 60 years for the purposes of the carbon calculations.

The whole lifecycle assessment approach assists our engineers with decision making in design and recognises that intelligent engineering delivers both carbon and cost savings – principally through the existing value engineering process and applying the principles of carbon reduction within infrastructure projects, shown in the hierarchy below.

The carbon hierarchy is being applied at all key decision points within the TRU programme to ensure that carbon impacts and reductions are maximised.

Cost vs carbon has always been a challenge when it comes to making decisions on designs or material use. A dedicated **TRU carbon fund of £30million** has been created, governed by a Carbon Council that aims to bridge the gap for low carbon initiatives that may incur more costs than the traditional approach.

This mechanism will allow the creativity of our expert teams to drive for a low-carbon future. TRU is committed to leaving a legacy of low-carbon design and build and by pushing forward with new innovative products and approaches TRU will open the opportunity for future projects to learn and for low-carbon materials to reduce in cost as they become mainstream.

We welcome all contributions on how we can reduce our impact in our design and construction, and people can get involved by submitting ideas for carbon savings to TRUidea@networkrail.co.uk

BUILD NOTHING

BUILD LESS

BUILD CLEVER

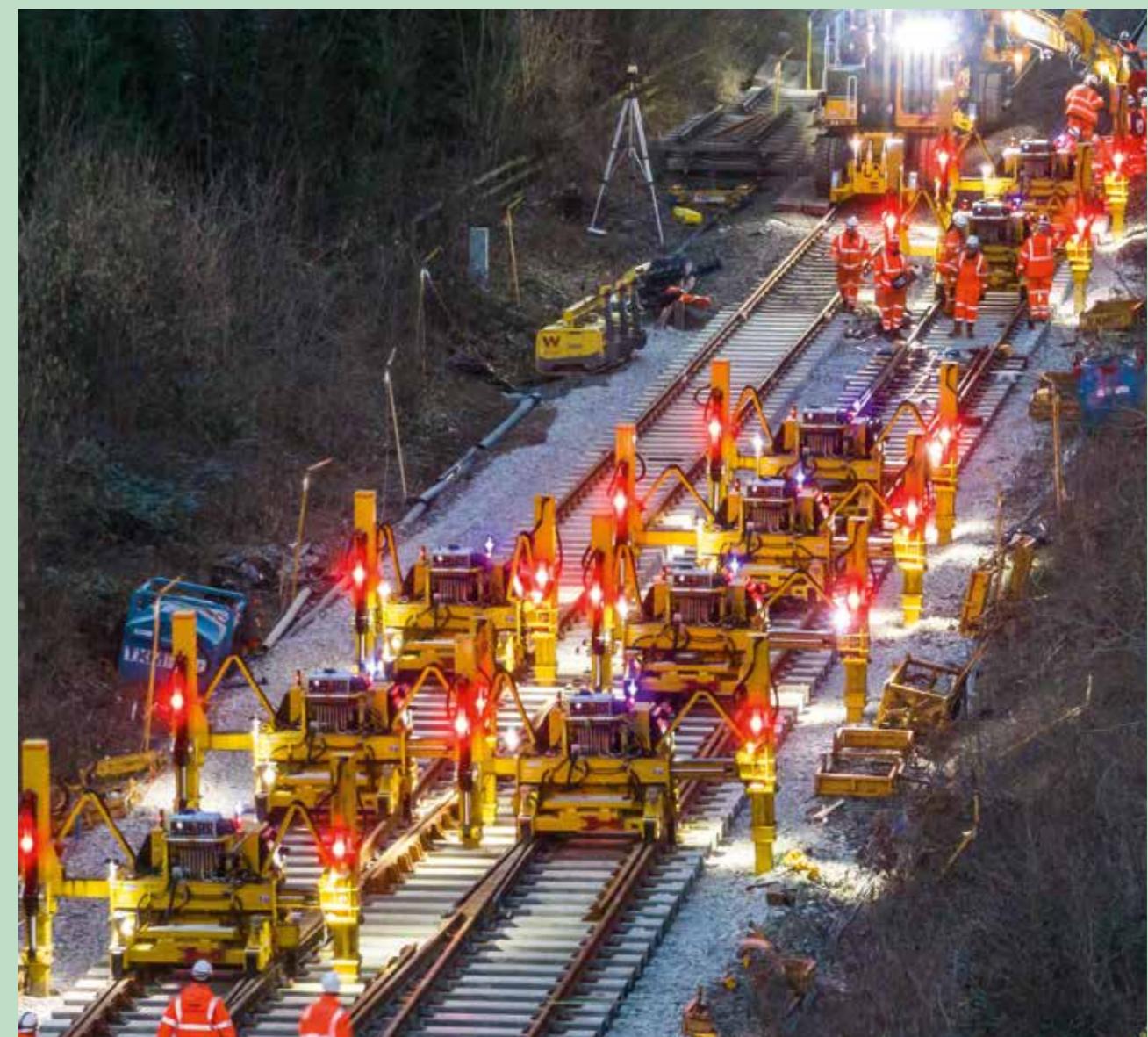
BUILD EFFICIENTLY

The carbon hierarchy in infrastructure projects

Using intelligent engineering to remove material usage from initial designs is the first step to reduce the projects carbon footprint. Above and beyond that, TRU will use the technical expertise and experience for all our Alliance partners and the wider supply chain to review energy efficiency opportunities at stations, investigate renewable energy opportunities across the programme infrastructure and identify low-carbon materials in high embodied carbon areas such as steel and concrete. TRU will also work with Network Rail's

Technical Authority and look to adopt any low-carbon products that have been approved and where possible use TRU as the test bed to gain approval.

We understand that we need to drive the carbon agenda and will proactively work with our supply chain to increase capability through engagement and upskilling workstreams.



Enhancing the natural environment

Inevitably there will be some vegetation removal and clearance to create the space to build TRU. While construction compounds will be required close to the areas of track where the work is taking place, we are committed to preserving and enhancing the natural landscape to increase biodiversity. We are very conscious that these structural changes will also lead to the removal of vegetation, so we are committed to preserving and enhancing the natural landscape to increase biodiversity and deliver a minimum 10% net gain as calculated using the DEFRA metric. Measures implemented to achieve 10% net gain will be proportionate to the scale of the project and its effects on biodiversity. Vegetation management, for the purposes of ongoing maintenance activities for the safe operation of the railway, is the responsibility of the Network Rail Regional Operations team and therefore considered separately from the TRU programme biodiversity net gain target.

Our approach has been developed to assess and manage the biodiversity impacts of the programme in a robust and challenging framework to achieve long-lasting, net-positive outcomes for nature conservation.

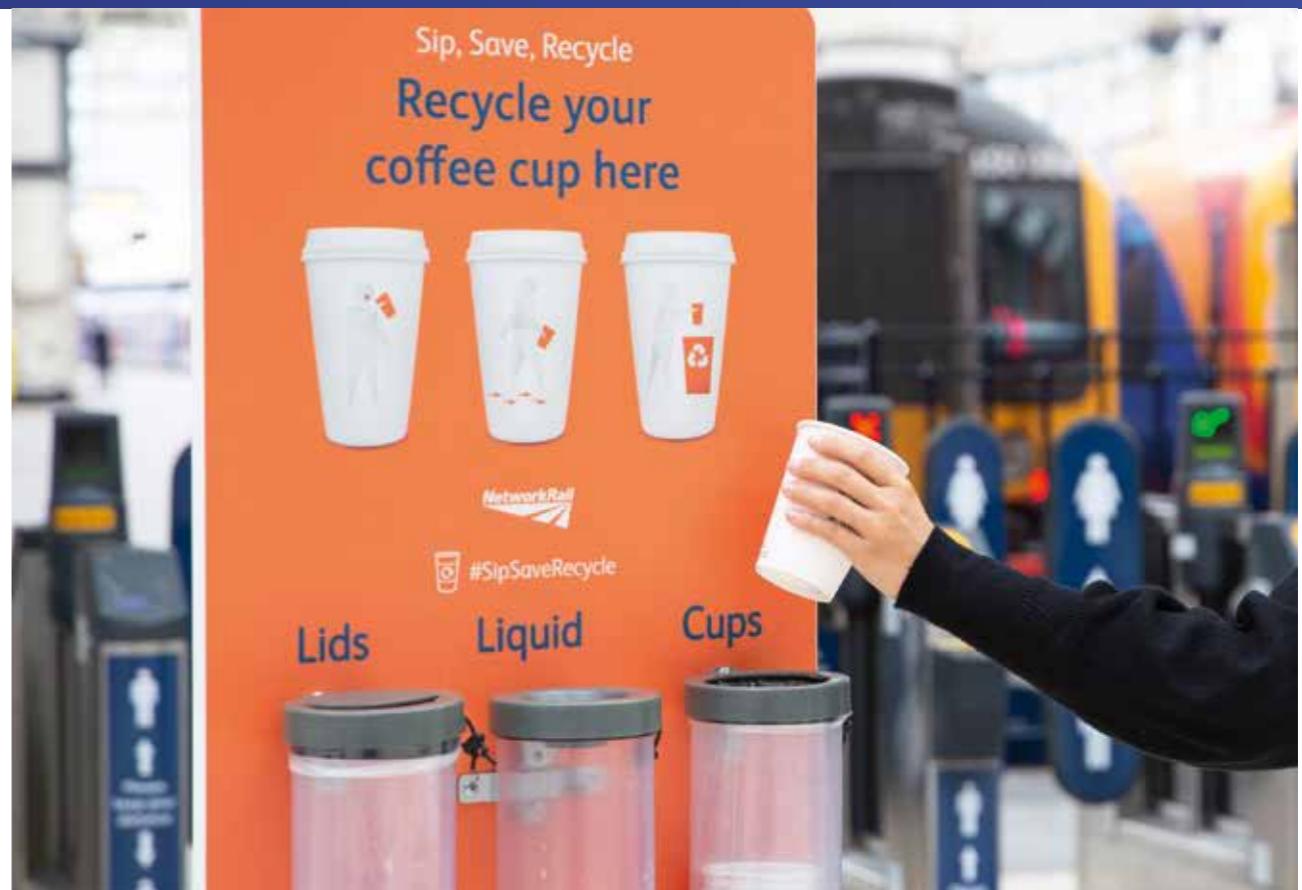


Preservation work for 'City of Trees' at Saddleworth.

The aim is to deliver biodiversity benefits as close as possible to where the impacts occur, while seeking to promote biodiversity on a landscape scale. Working with our stakeholders, TRU is already identifying offset area boundaries and mitigation and offset opportunities that will be of genuine conservation benefit to the North of England.

Ideas for collaboration, partnerships, offsets or mitigations for biodiversity are always welcome – you can get involved by contacting TRUidea@networkrail.co.uk with suggestions.

TRU will be targeting areas along the route that will not only enhance nature but also provide social value benefits by allowing communities access to these improved spaces. Incorporating biodiversity improvements at stations – by working with our community rail partners and station adopter teams – TRU will enhance the look and feel of the stations for customers as well as improving and developing habitats for wildlife to thrive.



Resource, reuse, recycle

The world only has a finite amount of natural resources and we all should take responsibility to minimise our impact. The extraction, consumption and disposal of resources produce carbon emissions, pollution, biodiversity loss and use of water at each stage. For these reasons, TRU will minimise our resource use and take care in how they are put back into the environment.

A large programme on the scale of TRU will have to use a vast number of natural resources and materials to build and maintain the infrastructure and trains. However, TRU is dedicated to eliminating unnecessary waste. **90%** of any waste that is generated from the construction project will be recycled or reused before looking at incineration with energy capture. TRU is also committed to diverting **99%** of construction waste from landfill.

TRU is managing these principles by completing resource efficiency reviews which includes the five key **WRAP** principles: reuse & recycling, off-site construction, materials optimisation, waste efficient

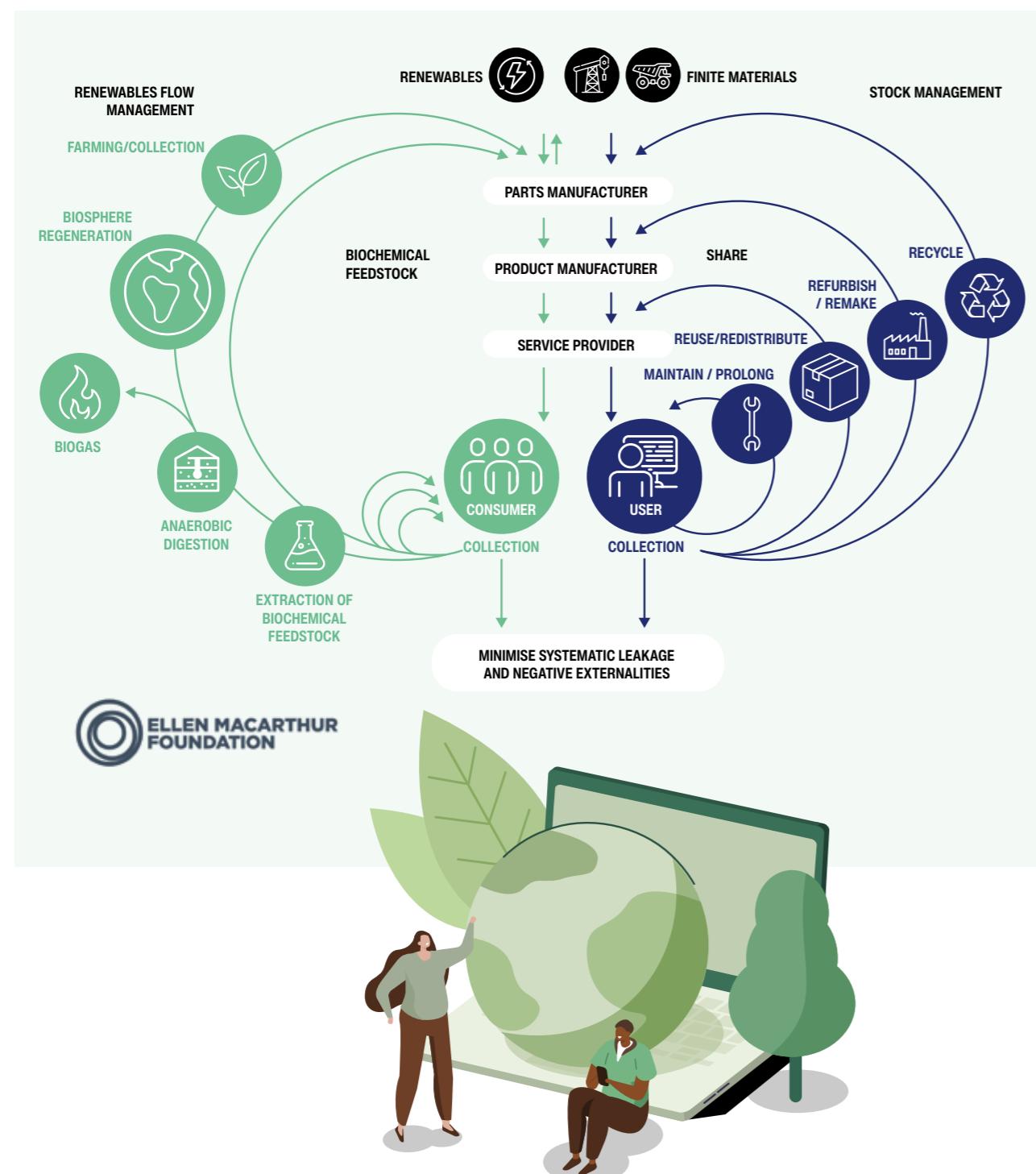
"Together TRU will look to recycle or reuse 70% of operational waste and divert all waste from landfill."

procurement and deconstruction & flexibility. We want to do more than just waste management and as such are committed to continually reviewing and embracing the principles of circular economy and piloting initiatives that can be shared with the wider rail industry.

It's important to note that the end state operational railway maintained by Network Rail and operated by Northern Trains and TPE will also use resources and generate waste. Together, TRU will look to recycle or reuse 70% of operational waste and divert all waste from landfill.

What is a circular economy?

A circular economy is one that gets the most use and value out of products, components and materials for as long as possible, designing-out waste at the early stages and ensuring component parts can be deconstructed to be used again rather than the energy required to recycle the material.



Pollution prevention

The trains operating on the TransPennine route today emit nitrogen oxides (NOx) and particulate matter (PM) into the atmosphere, which can have health impacts.

The impact of the structural changes and the electrification of the route will provide the opportunity for electric powered trains to be procured and operated. This does not just result in a reduction in carbon. By minimising the use of diesel, there will be huge improvements in air quality. A reduction in emissions will reduce the amount of potentially harmful particulate matter and nitrous oxides:

**PM10 reduced by:
5 TONNES per year**

**PM2.5 reduced by:
4 TONNES per year**

**NOx reduced by:
321 TONNES per year**

These improvements will provide health benefits to all existing and new customers who use the route, as well as those individuals who work at or near stations.

“Across the route, TRU will be taking steps to improve the environment and ecosystems where people live and work – taking steps to protect the environment for future generations by significantly contributing to the UK’s approach to reducing carbon and fighting climate change.”

Which pollutants are we aiming to tackle?

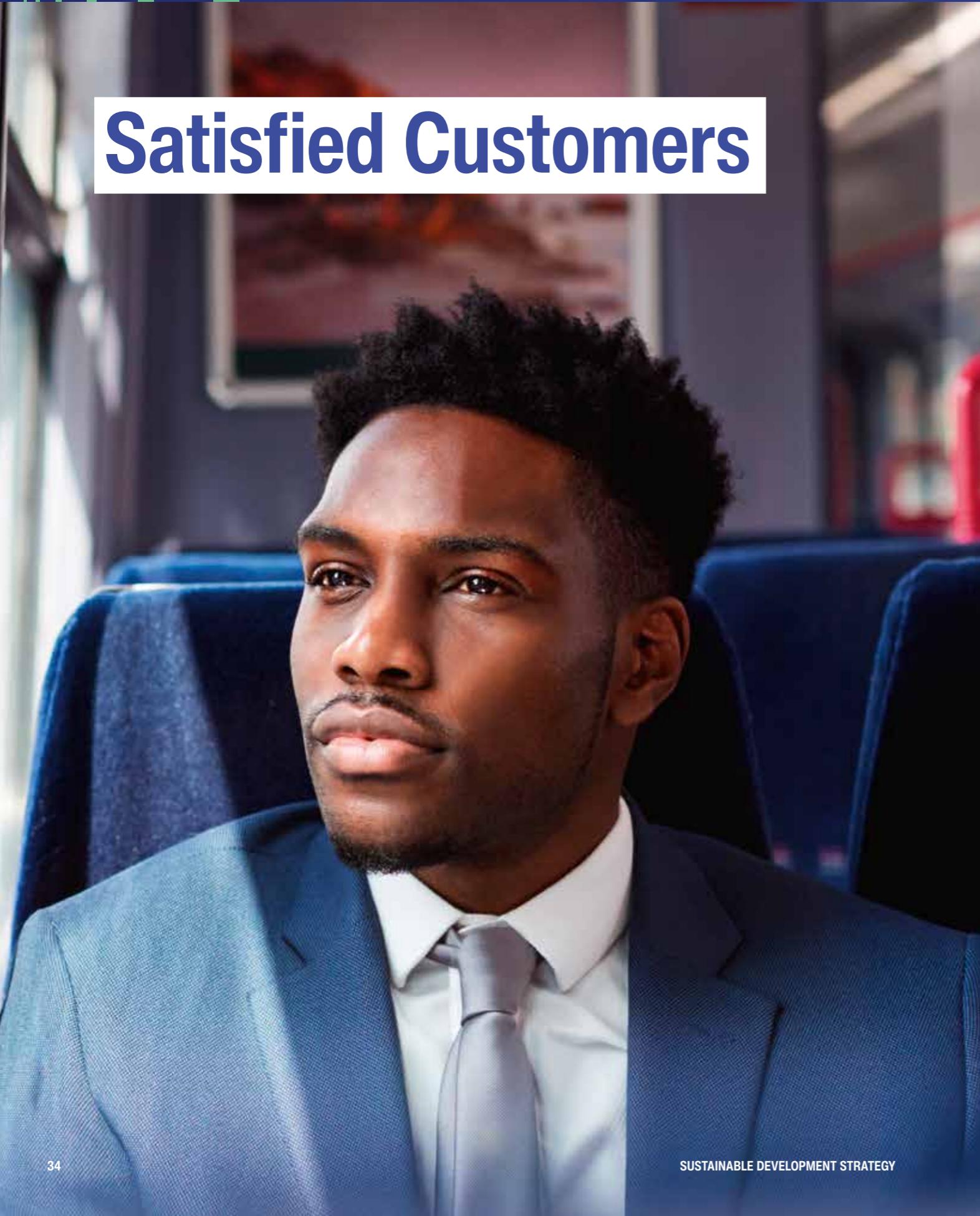
PM10 can include dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, wind-blown dust from open lands, pollen and fragments of bacteria. Exposure to high concentrations of PM10 can result in coughing, wheezing, asthma attacks, bronchitis, high blood pressure, heart attacks, strokes and premature death.

PM2.5 can include dust, ash and sea-spray. It also includes the particulate matter (including soot) emitted during the combustion of solid and liquid fuels in power generation, domestic heating and vehicle engines. Exposure to fine particles can cause short-term health effects such as eye, nose, throat and lung irritation, coughing, sneezing, runny nose and shortness of breath.

Nitrogen oxides (NOx) are a group of gases that are mainly formed during the combustion of fossil fuels. The dominant portion of these gases is nitric oxide (NO). Low levels of nitrogen oxides in the air can irritate your eyes, nose, throat, and lungs, possibly causing you to cough and experience shortness of breath, tiredness, and nausea. Exposure to low levels can also result in fluid build-up in the lungs one or two days after exposure. Exposure to high levels of nitrogen oxides can damage the respiratory airways, while contact with the skin or eyes can cause burns.



Satisfied Customers



WHAT DOES SUCCESS LOOKS LIKE? BY 2035 WE AIM TO:

- 1 Provide step-free access to a minimum 99% of the customers using the route.
- 2 Reduce unplanned disruption caused by adverse weather.
- 3 Improve our customer satisfaction.
- 4 Enhance accessibility to improve customer experience.
- 5 Offer more connectivity and sustainable travel options for customers on the First and Last Mile.
- 6 Improve safety and security of the railway along the route and around station.

“We’re working together as one industry to really understand what our customers want and need, both during and for the overall outcome of the programme. By putting them at the heart of our planning we will design, build and operate a safer, faster, more reliable, and more comfortable railway that can be used by everyone.”

HANNAH LOMAS | TRU INDUSTRY PROGRAMME
DIRECTOR AND SPONSOR FOR SATISFIED CUSTOMERS



WHAT CAN TRU ACHIEVE BY BETTER SERVING OUR CUSTOMERS?

TRU will connect the North and modernise the way the railway operates, so that customers can move with ease and comfort between all the stations along the Transpennine route.

Customer experience will be dramatically improved through more seats, faster journeys, more trains to choose from and better stations, meaning people can travel with confidence and in comfort, making rail a more attractive option for all. This helps take cars off the roads. TRU should meet the needs of the customers and be the first choice of travel between towns and cities for a sustainable North of England.

How is TRU working to improve customer satisfaction?

The TRU programme was created to improve customer experience, while driving better accessibility – creating a railway that is easy to use and adaptive to the needs of all people using the route. In order to achieve this, it is vital to understand the entire customer experience, what drives satisfaction, safety, and other modes of transport.

Customer satisfaction:

By increasing the capacity of the line, electrifying the route and new trains, TRU will increase reliability and the number of train services and improve journey times. TRU will develop new baselines and measure the key drivers of customer satisfaction relative to the programme, such as comfort, reliability, speed, number of seats, and cleanliness – measuring throughout construction and operation to deliver an improvement of the customer experience.

Safer and better connected:

Customer experience doesn't just start and end at the station or with the reliability of the trains. Safe and integrated travel is important for a seamless journey.

The major infrastructure changes that this programme will deliver also opens up the opportunity to improve the safety and security of the railway along the route and around stations. Through our 'First and Last Mile' (F&LM) Strategy, TRU is already working with Local and Combined Authorities to identify new funding streams to improve the conditions around the stations to ensure facilities and safety features are optimal.

Furthermore, the programme is looking to close and replace a number of level crossings, to improve safety along the Transpennine line of route. TRU will also improve lineside safety measures, such as fencing along the route, and supplement this with our inclusive safety education programme, where TRU is working with communities to highlight the dangers of the railway – especially with the route being newly electrified.

TRU will enhance connectivity and sustainable travel options for customers, including better connectivity to onward travel options, including supporting improved cycling provision and bus routes. Through the F&LM approach, TRU will be working with our communities to ensure we align efficiently with other transport systems and facilities throughout the railway network and at stations.



Accessible and easy to use:

TRU is also committed to making the Transpennine route more accessible – providing step free access to a minimum **99%** of the customers using the route from intermediate stations. We continue to review how we enhance this and are systematically reviewing our Diversity Impact Assessments to improve accessibility for all. TRU is engaging with community stakeholders to help us understand their needs and plan and adjust designs accordingly.

Our work goes beyond just making stations step-free extending to the experience navigating through trains, stations and the connection onto other transport modes, ensuring stations and trains are equipped with accessible information systems, clear signage, tactile paving, well-designed station furniture and acoustically considerate environments to help people of all abilities to navigate our places and spaces as they travel.

TRU will employ a 'mystery customers' programme to routinely assess the travel experience from the perspectives that represent our customers throughout construction to continually assess and improve how our stations and services operate.

Minimise weather related disruption:

TRU will deliver more frequent trains on a railway that is resilient to current weather and future climate change, providing safe and reliable travel for both freight and passengers.

TRU will reduce unplanned disruption caused by adverse weather. Minimising the need for maintenance, our robust approach to weather resilience and climate change during design will allow us to proactively identify and manage risks early in the design process.

For example, our teams have conducted a thorough review of earthworks along the route, in partnership with the Route Asset Management (RAM) and maintenance teams from Network Rail. The introduction of new forecasting models, looking at microclimates along the route is allowing TRU to assess and mitigate risk from changing weather patterns through innovative design and nature-based solutions. This will ultimately deliver more resilience, increased reliability and improved customer experience.

"By understanding the customer experience through close engagement and systematic reviews, we can design, build and operate a safer, faster, more reliable, and more comfortable railway that can be used by everyone."



Working with our Communities

What does sustainability mean?



MAKING SMALL
CHANGES TO HELP
THE ENVIRONMENT
FOR THE FUTURE



KEEPING THE
ENVIRONMENT
THE SAME AS IT IS
NOW



MAKING THE
ENVIRONMENT
WORSE FOR
THE FUTURE



WHAT DOES SUCCESS LOOKS LIKE? BY 2035 WE AIM TO:

- 1 Add 25,000 volunteering hours to the community to develop job skills and shape public spaces alongside the communities that use them.
- 2 Engage with over 100,000 young people through our inclusive education programme.
- 3 Use TRU as a catalyst for regeneration by enhancing and protecting community “spaces and places” along the route, including protecting our heritage assets.
- 4 Reduce lineside neighbour complaints during construction, including mitigating any negative visual impacts where we can across the programme.
- 5 Reduce noise at stations along the route moving from diesel to electric powered trains.

“We’re working with local groups to give back to the community while we deliver TRU, including billions of pounds of social value benefits. We’ll do this through working closely with schools, colleges, universities to promote skills and employment development, aligning with communities to regenerate their spaces and places, and reducing our impact during construction through to operation.”

ANNA HUMPHRIES | TRU HEAD OF SUSTAINABILITY
AND SPONSOR FOR WORKING WITH OUR COMMUNITIES



WHAT CAN TRU ACHIEVE BY WORKING WITH OUR COMMUNITIES?

To deliver TRU, the programme has brought together an alliance of major, national and global companies to design, build, operate and maintain the route. The combined capacity, resource, and expertise of these organisations is vast. This presents an opportunity to work with them to provide added social value to communities across the route through skills and employment development, regeneration of spaces and places, and reduce the impact during construction through to operation.

Volunteering and engaging young people in inclusive education could provide a **lasting impact on spaces and places around the route** and will **improve community satisfaction**.

Through close cooperation with our community stakeholders along the route, we can understand local needs and implement solutions and mitigate the impact on local people.

How is TRU Working with our communities?

TRU is committed to protecting and enhancing communities along the route, and delivering wider socio-economic benefits, through design, construction and beyond. TRU will invest in inclusive education with tens of thousands of young people throughout our communities that focuses on their wellbeing, skills development, and safety to leave a positive impact on society.

Inspiring our communities:

TRU is developing an Inclusive Education programme to engage with over 100,000 young people. Our aim is to inspire a pipeline of diverse talent into the rail industry, connected to our Northern Jobs objectives.

TRU is working with Local Authorities, STEAM (Science, Technology, Engineering, Arts and Maths) hubs and local social inclusion charities, like Spear Leeds, to work directly with young people and to partner with education providers, prioritising economically deprived areas within 25 miles of the route.

TRU will work throughout the education spectrum, from primary schools through to colleges and universities to deliver targeted skills development workshops. As part of this we have been developing new, inspiring curriculum aligned resources with partners such as STEAM Learning, as well as innovative careers events such as Realising Rail. Alongside Local Authorities, TRU will target schools and organisations representing young people from underrepresented groups and align our internal practices so that TRU can be a catalyst for social mobility, as both an employer and an ally.

To support our inclusive education programme, TRU has committed to delivering a minimum of 25,000 hours of volunteering in the community during construction, reconnecting people with our spaces and places, at stations, compounds and along the route, through the train operating companies and Network Rail in order to sustain them into operation. Partnerships, like Transpennine Express' work with the Prince's Trust will ensure we can have a lasting impact and continue the programme's legacy on the community long into operation.

We want to make a difference together. If you would like to become a STEAM volunteer, or to suggest a school or community partner for volunteering support, contact OurGuidingCompass@networkrail.co.uk

Reducing and mitigating our impact:

Community engagement and volunteering will also be directed through forums and detailed Community Impact Assessments (CIA). For example, a CIA near Garforth inspired the programme to work with nearby Strawberry Fields Primary school to restore their vandalised nature area and hold 'Ecologist for the day' STEAM events.

These assessments produce mitigation plans that stand alongside our community engagement programme to ensure we continue to reassess, respond to and act upon local concerns and needs rapidly.

A catalyst for regeneration:

We are in the process of developing a new vision for volunteering linked to 'reconnecting people with our places'. We will create a lasting legacy through centring our Community Investment on a range of topics impacting communities around stations and compounds.

Transpennine Express works in conjunction with 24 Community Rail Partnerships (CRPs) across the North of England and into Scotland, providing funding through their budget to enable them to undertake

projects which support the Government's Community Rail Strategy. Transpennine Express and Northern attend regular meetings with each, providing business updates and assisting with steering groups, governance and events where possible.

The overall goal is to support CRPs in their delivery of the strategy, for example where they can improve upon growth and modal shift, and improvement of the railway environment.

Additionally, through our 'First and Last Mile' Strategy, TRU is already working with Local and Combined Authorities such as WYCA, North Yorkshire County Council, Selby District, Leeds City Council, Kirklees, Tameside, and Oldham, as well as Transport for Greater Manchester to set how to maximise usage of the railway network and our stations to be an asset for the local communities.

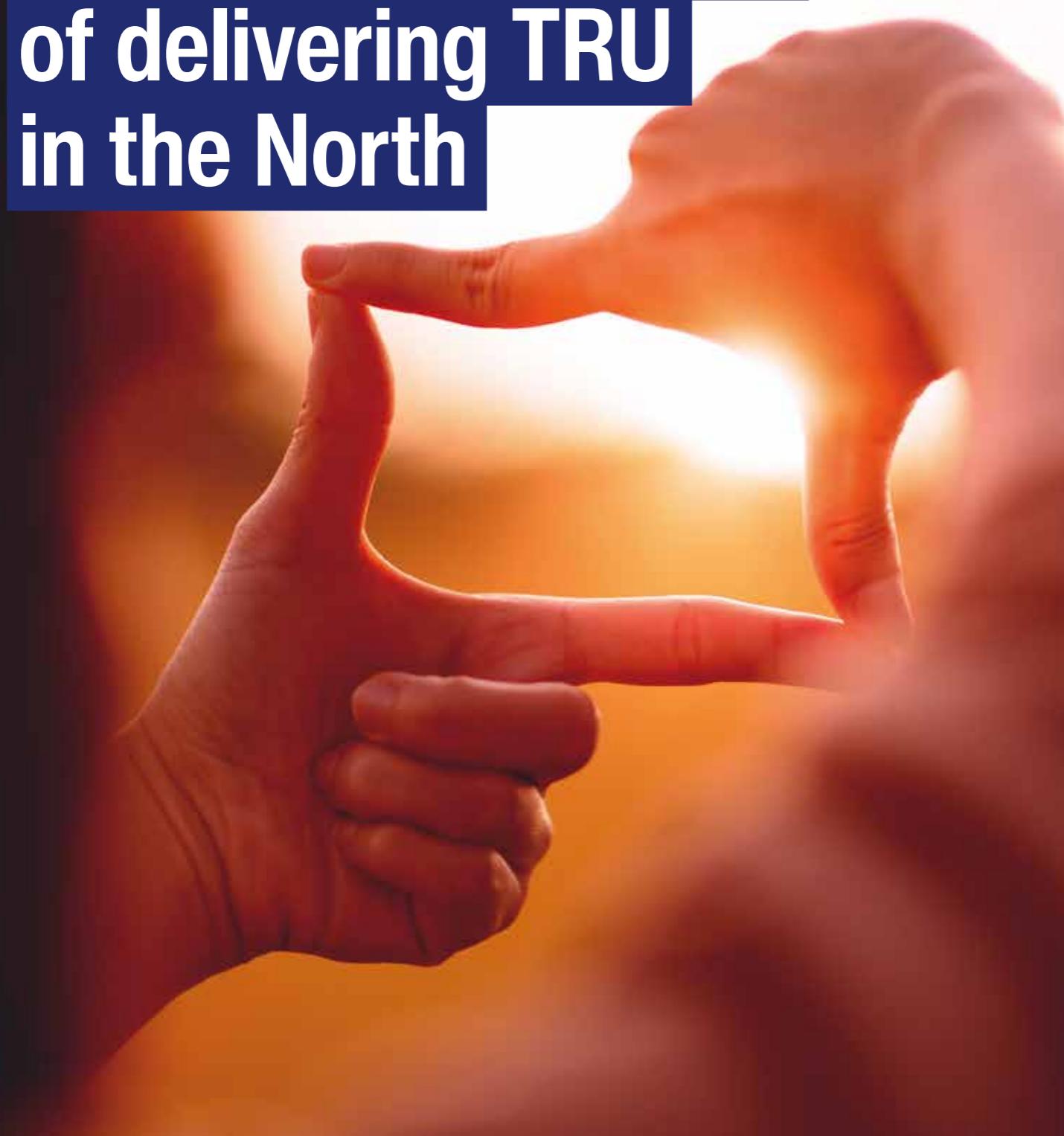
Our volunteering programme will look for opportunities like the disused Micklefield Bowling Green, which we developed into a wildflower meadow, providing a beautiful, peaceful public space, and providing a 40% net gain in biodiversity.

With this approach, TRU can use our knowledge, skills and resources to engage directly with the people in our communities to develop skills, spaces and add value to the areas where we operate.



The disused bowling green in Micklefield now transformed into a stunning wildflower meadow.

Measuring the value of delivering TRU in the North



TRU is embracing new methods to measure the impact of social value by using cutting edge, innovative tools to calculate the impact of our sustainable development activities and the impact of the delivery of the programme into a monetary value.

This means TRU can measure the carbon reduced in operation and estimate how much society is benefiting due to cleaner air, reduce costs to government, business, or communities in dealing with pollution and climate change.

TRU can employ an apprentice and calculate how much the economy has gained through their earnings and tax, but also reduction in worklessness, reduction in isolation, improvements in confidence, and development of vocational skills.

Measuring the value of delivering TRU:

TRU is pioneering the use of a new tool to measure the social value created by our sustainable development approach by using the Rail Social Value Tool (RSVT), developed by the RSSB with industry partners, to capture our activities across a range of social impacts.

This online tool has been developed specifically for the rail industry in the UK, in line with HM Treasury Green Book Principles, to conduct valuations of the social value generated for individuals and society.

What value will Our Guiding Compass bring to the North?

By applying our TRU sustainable development targets to the new Rail Social Value Tool, we estimate the contributions of our work in delivering Our Guiding Compass will deliver up to £4.28bn in social value.

This would be above and beyond the benefits of increased capacity and line speed improvement. This value generated consists of social and economic benefits generated by actions instructing the design and construction through delivering this strategy in addition to TRU's wider economic impact assessments.

"This £4.28bn delivered in social value would be an additional value created from the TRU programme."

How are we delivering £4.28bn in social value?

-  **Up to £715m** from buying goods and services from local business within a 25-mile radius
-  **Up to £1.6bn** from creating and safeguarding jobs and employing local people
-  **Up to £29m** through employing apprentices
-  **Up to £338m** through engaging students in inclusive education and routes into rail
-  **Up to £1.5bn** through reducing operational carbon by electrifying the route and shifting away from cars on the road

Impact of TRU on wellbeing in the North

Major programmes like TRU have hugely profound impacts on people's wellbeing. Commutes impact our disposable income, our free time with family and friends, our levels of stress and so much more. To measure this, TRU has also undertaken a new, cutting edge economic assessment called a 'WELLBY Assessment' in order to understand what we are delivering is improving the lives of our communities.

This WELLBY Assessment was made to estimate the potential value of the wellbeing improvements in delivering TRU in addition to TRU's wider economic impact assessments.

Broadly speaking, wellbeing is about how people feel as individuals and communities. For measurement purposes, personal wellbeing is defined by the Office for National Statistics (ONS) as being about "people evaluating their own lives". In practical terms, the

Activities and events influence an individual's wellbeing

E.g. gaining **employment** increases an individual's wellbeing by approximately **0.3** on a 1-10 scale

Monetary equivalent causes the same impact on an individual's wellbeing

E.g. gaining **£3,900** increases an individual's wellbeing by approximately **0.3** on a 1-10 scale

Value of employment: £3,900

ONS proposes four measures to assess an individual's wellbeing:

- Overall life satisfaction
- Feeling things that they do in life are worthwhile (sense of purpose)
- Rating yesterday's happiness levels
- Rating yesterday's anxiety levels.

A WELLBY Assessment estimates the impact of the change to wellbeing by calculating the amount of additional income a person would need to receive to then experience the same change in wellbeing.

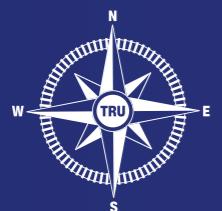
The diagram below gives a brief example of how this works:

How we can contribute towards an estimated **£4.9bn** in wellbeing impacts?

- ✓ **£2.8bn** as better connectivity improves job satisfaction when people can access better employment opportunities
- ✓ The programme is anticipated to generate greater satisfaction with neighbourhoods, as better access to tourism and less noise will generate **£893m** in value
- ✓ New access to better active travel is expected to generate **£156m** in value
- ✓ **£636m** through reduced air pollution
- ✓ **£617m** in value through the shift in travel away from cars towards more environmentally friendly options

"The largest contributions are derived from **employment and **job satisfaction**; both of these factors represent broader impacts across the community rather than only on train users."**





Beyond our compass

By working with our colleagues, our communities and key industry partners we can ensure that all 17 of the UN Sustainable Development Goals are incorporated into our plans to ensure TRU are embracing and

contributing to sustainable development at all levels.

Below, we give examples of how TRU is contributing to the global agenda on sustainable development.

Sustainable development goals and our contributions



TRU is committed to Fair and Ethical Work practices through our work charter, ensuring good pay and conditions for all involved in our supply chain for the delivery of the programme. We also work closely with community groups and charities to focus our skills and education approach on areas of high socio-economic deprivation.



Through our community volunteering and engagement, TRU works directly with charities such as The Mustard Tree in Manchester to support homeless people.



Safety of our people and our communities along the route are of paramount importance. Our approach to First and Last Mile in customer satisfaction will provide new features to make our stations and surrounding areas a better place. By engaging with local people through community impact assessments, TRU will identify opportunities to improve the health and wellbeing along the route. For example, going further to drive down pollution and improve air quality.



Our approach to inclusive Education is designed to work with educational institutions along the route to harness the talent and skills of our people to deliver great STEAM sessions and inspire the next generation of the rail industry.



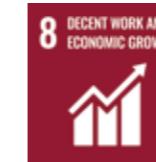
Gender Equality is a core part of our equality, diversity and inclusivity plans, where TRU is working to introduce fair practices but also encourage better gender parity in our industry.



During design and construction, we have the responsibility to assess flood risks and mitigate drainage issues to ensure that communities are not negatively impacted by poor water quality or sanitation issues as a result of the programme.



Through First and Last Mile, TRU will invest in Electric Vehicle Charging points and will review renewable energy opportunities at our stations.



Our focus on creating jobs for the North and developing a talent pipeline will help deliver the programme, but also develop skills to leave a legacy of employment in the regions we work – driving long term growth.



As a major infrastructure programme, TRU is a key part of the UK's approach to greening our transport network. The electrification of the route will reduce carbon by encouraging a shift away from road transport, and implementing innovations to reduce the carbon impact of our construction are just two of the many ways TRU is taking action.



Our approach to employment and talent is to focus on under-represented groups to ensure that when we recruit or engage educational institutions, we have the greatest impact by helping groups in need of support and investment. While our station regeneration work will look to make rail travel more accessible to all.



Our focus on investing in local businesses will drive growth across the region. TRU will also work closely with community groups, focusing on the more deprived areas to enhance spaces and places, while also improving access to rail travel for vulnerable groups and actively promoting rail travel for all generations.



Resource efficiency in production and local procurement is key to reducing our impact on the environment and keeping carbon emissions as low as possible. TRU is creating a circular economy to make the most of our natural resources and minimise avoidable waste.



From carbon management to biodiversity, action on climate change is one of the core principles of the programme. Reducing emissions and air pollution will drive the agenda on a national scale. We also work to design the route for the future by implementing a detailed approach to Weather Resilience and Climate Change Adaptation to ensure the trains can operate for generations to come.



TRU will be delivered across 70-miles of track, encountering many bodies of water; our approach to biodiversity aims to protect these ecosystems and prevent damage.



TRU will deliver a minimum of 10% net gain in biodiversity on the programme, to ensure we provide a positive impact on the ecosystems surrounding the route.



As a major project funded by the Government, engagement with all levels of government, national institutions and collaborating with stakeholders is core to how we operate.



TRU brings together some of the biggest organisations in the North for the greater good. Our Guiding Compass directs our engagements with major sustainable development stakeholders, like The Wildlife Trust, and represents our commitment to being a partner for the UN Sustainable Development Goals.



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