



Roadmap to growth

An introduction to skills,
education and employment on
the Lower Thames Crossing

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About this document

This book describes the long-term benefits we will bring to communities close to the Lower Thames Crossing, through new jobs and work, higher skills and education. It also explains how we aim to set a new standard for construction in a low-carbon world.

Introduction

The Dartford Crossing is one of the UK's most vital roads, linking people and businesses, and moving essential goods and products to every corner of the country. But it cannot keep up with demand, and congestion causes misery to tens of thousands of people every day.

The proposed Lower Thames Crossing will ease that congestion by taking millions of vehicles off the Dartford Crossing every year, while offering a huge opportunity to the region, including work for more than 22,000 people.

A project the size of the Lower Thames Crossing needs a diverse range of people to build it. This creates a huge opportunity to make a real difference within our local communities through new work, jobs, skills and education.

It comes at a pivotal time for the UK and the region. We're among a number of major infrastructure projects in the pipeline for the Thames Estuary, giving a multi-billion-pound boost to the economy and creating huge demand for people with the right skills.

A legacy of green skills

It's a critical time to reduce carbon and do things differently and we're in a prime position to drive change across the region and in the construction sector.

The Lower Thames Crossing is being designed to be the greenest road ever in the UK, and as a pathfinder project exploring carbon neutral construction we can act as a catalyst for green skills.

Our ambitious plans – such as our Carbon Academy – will support the Government's economic growth agenda by unlocking green skills, higher skills and higher paid jobs. This is a chance to create a workforce that can help the UK make its way to net zero in 2050.

But work doesn't start when the spades hit the ground; we're already out talking to local communities. We've already got 700 businesses registered on our Supply Chain Directory and are engaging with 24 different schools and colleges.

This is only the start. I truly believe that together we can build the workforce of tomorrow by creating opportunities today.

"The Lower Thames Crossing creates a huge opportunity to make a real difference within our local communities through new work, jobs, skills and education."



Matt Palmer,
Executive Director for the Lower Thames Crossing

The Lower Thames Crossing will be key to unlocking growth within the Thames Estuary, the UK's biggest Government-backed growth opportunity. The Thames Estuary Growth Commission predict that, by 2050, the estuary will create 1.3 million new jobs, generate £190 billion additional GVA and at least 1 million new homes.

About the Lower Thames Crossing

The Lower Thames Crossing is a proposed new road connecting Kent, Thurrock, Essex and Havering through a tunnel beneath the River Thames.

Dartford – a vital link

The Dartford Crossing is one of the most strategically vital roads in the UK, connecting people to jobs, businesses to customers, and some of the country’s biggest ports and distribution hubs. But it cannot keep up with unprecedented demand.

Despite being carefully managed 24/7, the huge number of vehicles that use it make it one of the country’s most unreliable roads, causing misery for millions of motorists and acting as a handbrake on the economy.

The Lower Thames Crossing would offer a new, reliable connection – easing congestion on the Dartford Crossing and improving journeys across the South East.

A reliable new connection

As the world’s third largest road tunnel, the Lower Thames Crossing will almost double road capacity over the Thames east of London, bringing communities together and giving millions of people more flexibility and choice for where they live, work and learn.

It will unlock economic growth locally and nationally by creating a reliable new connection between the south east, midlands and the north that brings people closer to jobs and businesses closer to their customers and suppliers.


We’re designing the road to be the greenest ever built in the UK and that will create bigger, better and more connected habitats to leave the local community and the environment better off than when we arrived.



1 mile For every
we will provide almost
3 miles of new or improved walking,
cycling or horse riding pathways



During construction

 **22,000**
people supported

 **100s**
of **businesses** given **new work**

 **100s**
of **apprenticeships** and **graduate** opportunities

 **£ billions**
added to the **UK economy** by helping unlock the **huge potential** of the **Thames Estuary**

 **Pathfinder**
exploring **carbon neutral** construction

1,000s

of opportunities for **local people** to access **higher skills** and **better employment**



1,000s

of **young people** benefiting from **hours of support**



22,000

volunteering hours to make a **real difference** within our communities



Green skills

a **new workforce** that drives a **low carbon** future





UK's greenest road


standards set using new **innovative materials** and **technologies**




When open for traffic

 **Quicker**
more **reliable journeys**

 **Millions**
of people given **more flexibility** and **choice** where they **live, work** and **learn**

 **Reduced**
congestion at the **Dartford Crossing**

 **40-miles**
of new **walker, cyclist** and **horse rider routes**

2 new public parks

and a **new community woodland**



1 million+

trees planted and **400 hectares** of **new woodland**



Bigger

and more **connected wildlife** and **habitats**



400,000 jobs

within an **hours** commute of **local** communities



A future full of opportunity

Our skills, education and employment strategy

We have ambitious plans for the Lower Thames Crossing to have a positive impact on the lives of local people and construction industry.

To build the Lower Thames Crossing we'll need a diverse workforce ranging from engineers, architects and designers to caterers, sign makers and IT support.

Over the six-years of construction, the Lower Thames Crossing will provide work for more than 22,000 people – including those employed directly to build the project and thousands more through the supply chain.

We want to create opportunities for local people to benefit, including supporting educators and delivering activities that will excite and inspire the next generation.

Our local communities

The Thames Estuary is a diverse mix of rural and urban areas, with some communities among the most prosperous and others identified as among the most deprived.

The area is home to some of the country's most important ports, airports, and road and rail infrastructure, which is key to the UK's economy and supply chain. Providing a gateway to the rest

of the UK and the world, this area is vital to keeping people, goods and services moving and enabling international trade.

Despite this, Kent and Essex have struggled to keep pace with the scale of employment growth in London. The area has a high proportion of adults with no formal qualifications, and skill levels are below the national average. Wages in this area are also the third lowest in the UK, half that of London and lower than seven of the eight English regions.¹

In addition, due to COVID-19, there has been a large increase in those receiving benefits across the region.²

However, there are an extraordinary amount of major projects on the horizon, including the Lower Thames Crossing. These will play a fundamental role in the drive to unlock economic growth, creating new opportunities for businesses and higher skilled workers, and better, more reliable, infrastructure.

¹ Thames Estuary 2050 Growth Commission report: 2050 vision
² South East Local Enterprise Partnership (SELEP) Major Projects Skills and Employment 2021

OUR OBJECTIVES

Deliver a skills legacy

Create new jobs

Inspire future careers

Support business growth

OUR AMBITIONS

Recruit local workforce



45% from within 20 miles of the project



Raise skills levels

2,000+ people given the tools to access higher skilled jobs

Develop green skills



100% of our people trained to do their jobs more sustainably

Support returners to work



1,100+ people work-ready or in employment

Inspire future careers



7,000 hours spent working with local schools and colleges

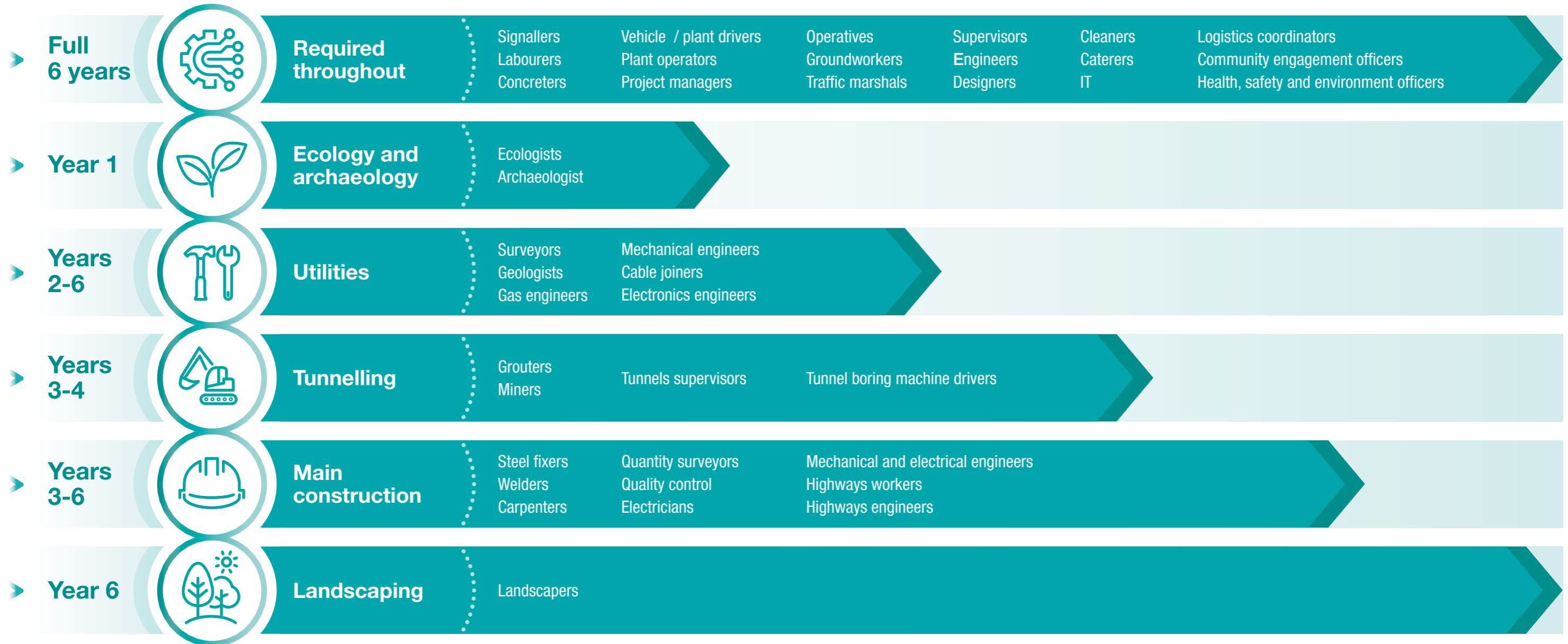
Drive economic growth



£1 in every £3 of construction budget spent with SMEs

We'll need a range of people and skills throughout the six years of construction.

The timeline below gives an idea of the jobs and when we anticipate needing them.



Deliver a skills legacy

We want to create a higher-skilled community and improve training standards for building world-leading low-carbon infrastructure.

We're working with other infrastructure projects to coordinate jobs and training, so local communities can take advantage of what will be on their doorstep.

The project also offers a game-changing opportunity to deliver a workforce with new green skills to build infrastructure in a net zero future, so we'll be making sure everyone is trained to do their job more sustainably.

Raising skills

Ahead of construction, we're exploring local skill levels and mapping future demands so we can:

- give local people the opportunity to help address the skills gap
- provide local people with the tools to access higher skilled jobs

- drive green skills forward by supplying the tools and influencing people's knowledge and values to support a more sustainable society.

We'll be offering training to local people, such as the Construction Skills Certification Scheme (CSCS) and CITB-accredited courses.

We will also our workforce by supporting them with industry specific qualifications such as National Vocational Qualifications (NVQs), health, safety and leadership qualifications and the future skills needed to deliver a greener economy.



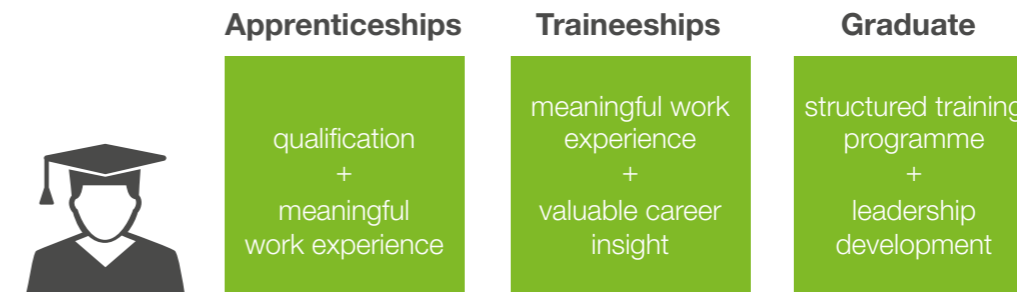
Early careers


We will have hundreds of opportunities for local people to kick-start their careers via apprenticeships, traineeships and graduate programmes.

These will be in a wide range of disciplines, from site-based roles such as steel fixers and electricians, to office-based ones like accounting and engineering.

We'll also be championing career progression, with apprenticeships from intermediate to degree level and graduate programmes designed with leadership skills.

These opportunities will be for everybody, from young people who've finished school, to adult learners who may be wanting to get back into work or those looking for something new.





The Carbon Academy will help the Government's ambition to create two million skilled green jobs by 2030 and build back greener

Case study: The Carbon Academy

To explore low-carbon innovation and to put green skills at the forefront of the UK's construction industry, we're going back to the classroom.

The infrastructure and construction industries must continue to innovate and adapt to net zero. Our Carbon Academy will work with industry professionals and local education and training providers to help create a workforce with the skills and capability to build and maintain infrastructure in a way that protects our environment.

Our ambition is that the Carbon Academy will:

- set new building standards for a green economy
- upskill the industry
- futureproof businesses
- create a behavioural change in the construction industry

Through an online hub, the Carbon Academy will bring our industry together to develop new ways of working, share best practice and shape a new future for construction. It will also provide training and e-learning opportunities to grow the workforce of tomorrow.

As a pathfinder project, we are developing a low-carbon strategy to look at exactly how we can build the project with the lowest emissions.

This includes looking at what materials to use and exploring the current market for resource and innovation.

We're going to set the standard for the future of construction and develop the workforce of tomorrow

Next steps

For more information on upcoming opportunities go to: <https://nationalhighways.co.uk/our-roads/lower-thames-crossing/jobs-skills-and-education>

Create new jobs

We want to create new opportunities by breaking down barriers to employment and providing new and inclusive jobs.

Our goal is for more than 45% of our workforce to be made-up of local people. To tackle barriers into employment, we'll be ensuring our recruitment processes are inclusive and accessible throughout our supply chains and that they:

- help to address long-term unemployment
- attract and retain people from a range of backgrounds
- are open and transparent and consider and understand diverse needs

Maximising opportunities for all

We'll be designing pre-employment programmes for disadvantaged and underrepresented groups within our community. These will give those people the

support and skills they need to be work-ready. We've also committed to offer job interviews to local applicants from these groups that meet the minimum application criteria.

Disadvantaged and unrepresented groups include:

- Women returners
- Care leavers
- Ex-offenders
- Not in Education, Employment or Training (NEET)
- Homeless, or at risk
- Ex-military
- Adult learners
- Special Educational Needs and Disabilities (SEND)



We'll be breaking down barriers to employment opportunities





"I would encourage anyone looking for a challenge or change in direction to explore this pathway and road to a better future."

Nina Weatherly

Case study: Our apprentices

The first group of local apprentices have started working on the project.

Anna Prescott is a quantity surveying degree

apprentice from Kent. She says:

"University was the only route talked about in school, but now I'm studying for my degree part-time and loving earning my own money too."

The group are all on higher apprenticeships studying foundation or degree-level qualifications, all while being paid a salary and gaining valuable on-the-job experience.

A former teacher from Medway, Nina Weatherly is an apprentice project manager. She says:

"I would encourage anyone looking for a challenge or change in direction to explore this pathway and road to a better future."

As the project progresses, we will continue to recruit more apprentices with new ideas and energy to help us design, build and operate the project.



Anna Prescott

Next steps

For more information on upcoming opportunities go to:

<https://nationalhighways.co.uk/our-roads/lower-thames-crossing/jobs-skills-and-education>

Inspire future careers

We want to assemble the next generation of talent through effective engagement with local students and educators.

We want to help young people to reach their full potential and believe we can inspire the next generation of construction professionals by focusing our education programmes to encourage a love of science, technology, engineering and maths (STEM).

Engaging local students

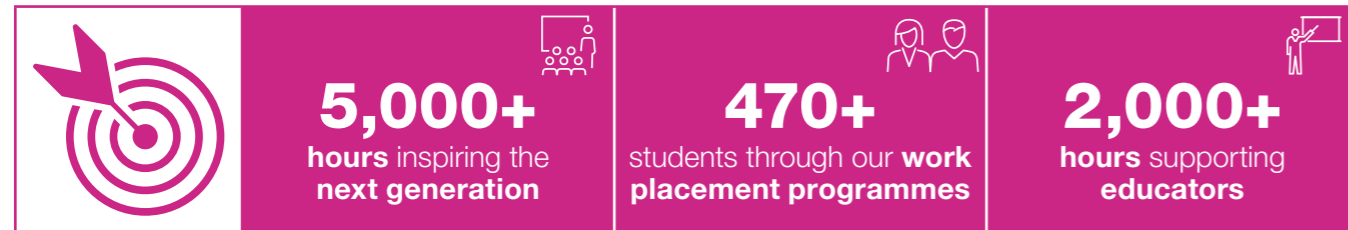
We've teamed up with STEM Learning and The Careers and Enterprise Company (CEC) to deliver an education programme that brings these subjects to life, while demonstrating their value in careers. It will include mentoring, workshops, activities and careers advice. It will be tailored to students from primary to secondary school, plus people with special education needs and disability and those in further and higher education.

On top of work experience, we'll be offering T Level industry placements. T Levels are equivalent to three A-Levels with 80% of the student's time spent in the classroom and 20% within the workplace.

Tackling the tutor shortage

There is a need for more tutors in technical subjects, such as construction and engineering, across the South East region, particularly those who are able to teach emerging and evolving skills*.

Working with the South East Local Enterprise Partnership (SELEP) and other infrastructure projects, we intend to help tackle this by releasing employees for teaching.



* Emerging skills refer to those forecast by infrastructure projects across the South East region. Evolving skills refer to new technologies and working methods such as those relating to solar, hydrogen, carbon.



Our target is to spend more than 7,000 hours inspiring young minds and supporting educators – equivalent to 875 working days.

“We all need to ensure that the UK remains at the forefront of innovation, research and development in STEM fields, so we’re delighted to be working with a major infrastructure project like the Lower Thames Crossing.”

Dr Ajay Sharman, Regional Network Lead for STEM Learning in the South East



STEM Learning is the UK’s largest provider of STEM education and careers support.

“We are proud to name the Lower Thames Crossing as a Cornerstone Employer, showing its commitment to helping young people, parents and carers, and teachers understand the local skills market and improve careers education across the region.”

Hyla Grimwade, Strategic Hub Lead for the CEC Greater Essex Careers Hub



The CEC is the national body for careers education in England. We’re officially a CEC Cornerstone Employer in Greater Essex and Kent and Medway.



“Omg yes!”

Student, when asked if they enjoyed playing the games

Case study: Minecraft

We’ve teamed up with popular gaming company Minecraft to recreate the Lower Thames Crossing in two new games.

Students can explore building one of the world’s largest tunnels and see what is involved with keeping a busy road safe.

The games have been designed for both KS2 (7 to 11-year olds) and KS3 (11 to 14-year olds) groups to learn about the range of skills needed to deliver a large road project.

Pupils at East Tilbury Primary in Thurrock and St George’s CE Secondary School in Gravesend helped to develop the games by piloting them and providing their feedback.

Lotti Coldwells, a teacher at East Tilbury Primary, said:

“Both the pupils and staff involved were really impressed by the scope of the games. They were fun to play but also very educational. It was interesting for the pupils to learn about the wide variety of jobs and skills required for the construction of a tunnel under the Thames and how much technology is used.”

The Minecraft games also include lesson plans aligned to the national curriculum, showcasing skills such as archaeology, ecology, civil engineering, communications technology, and coding to engage young people in planning and the environment.

Next steps

For more information, including access to our Minecraft games, go to:

<https://nationalhighways.co.uk/our-roads/lower-thames-crossing/jobs-skills-and-education/education/>



Support business growth

We want to provide local businesses and small and medium enterprises (SMEs) with the tools to win new work and maximise economic benefits during and after construction.

We want local businesses and SMEs at the heart of our supply chain.

We've already hosted a range of events, workshops and training sessions to give businesses the skills they need to be in the best position to tender for work on the project. Workshops have covered topics ranging from carbon to social value and have attracted over 500 attendees.

During construction, we will continue to upskill businesses within our supply chain with advice and mentoring through a supply chain support programme.

To create a strong supply chain, we'll be paying our partners invoices within a maximum of 30 days.

We've held 27 events to engage local businesses with the Supply Chain Sustainability School

Next steps

You can register your business with the Supply Chain Sustainability School to find out about future events, along with a range of free resources: <https://www.supplychainschool.co.uk/>



	<p>£1 in £3 spent with SMEs</p>	<p>30 days supply chain invoices paid</p>	<p>1,000+ businesses upskilled</p>
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We will create a legacy of skilled and capable businesses ready to service the Lower Thames Crossing and other major projects within the region and beyond.



Over 700 businesses are already registered

Case study: Supply Chain Directory

To help local businesses and SMEs access work opportunities on the project we've developed a Supply Chain Directory.

This is a list of businesses and their specialisms that will be given to our delivery partners making it easy for them to build a supply chain with local businesses and SMEs at the core.

We're asking them to tell us:

- business name and company registration number
- type of trade, goods or services their business offers
- number of employees
- what makes them unique or special.

Next steps

Sign up to our directory at:

<https://nationalhighways.co.uk/our-roads/lower-thames-crossing/supply-chain/supply-chain-directory/>

Your business can play a crucial role in delivering the most ambitious road project in the UK in almost 35 years

Do you have a business?
Tell us what sets **you** apart from other businesses and register today

By signing up you will also begin to receive our supply chain newsletter updates

Achieving our ambitions

We're committed to working with stakeholders, other major projects in the region and our delivery partners so we can make the most of opportunities for local communities and the wider industry. We will ensure the project sets the standard for providing skills, employment, training and career development.

Monitoring and incentives

To meet our ambitions, we've set a number of targets that are based on the estimated values of our contracts, as well lessons learnt from other large infrastructure projects. They will be written into contracts and key performance indicators will be set as the overall minimum target.

All delivery partners and supply chain partners will be required to complete a regular report that monitors target outcomes and impacts during construction. The findings from these will be published annually.

We will revise our skills, education and employment strategy bi-annually to keep on top of changing needs and priorities within our communities, as well as emerging Government initiatives.

We're working closely with stakeholders, including local authorities, the SELEP and other infrastructure projects within the region to raise local skill levels, provide new jobs and educate young people.

Financial incentives will be written into contracts to not only meet but exceed important targets.



“The major projects within the region represent a significant scale of growth, jobs and skills – more than anywhere else in the UK, so for us, working together is our key priority for tackling challenges and maximising the benefits to our local communities.”

Adam Bryan

CEO of SELEP and Chair of SELEP's Major Projects Group



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