



2017–2020

# CORPORATE PLAN

HS2 LTD





## Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with constructing, managing and operating a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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OUR VISION

**TO BE A CATALYST FOR  
GROWTH ACROSS BRITAIN.**

OUR MISSION

We are building a new high speed railway to better connect people across Britain. As a high performing, innovative organisation, we will deliver value for money by applying the best in worldwide design and construction techniques. We will achieve new standards in infrastructure delivery, resilient operations and passenger experience.

OUR VALUES

**INTEGRITY**

**LEADERSHIP**

**RESPECT**

**SAFETY**

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## NETWORK MAP

- New station (Phase One)
- New station (Phase 2b)
- Destinations served by HS2 services on existing network
- HS2 line (Phase One)
- HS2 line (Phase 2a)
- HS2 line (Phase 2b)
- HS2 services on existing network

HS2 will serve  
**8** out of **10**  
of the UK's  
largest cities

**100**  
cities & towns  
could benefit from  
improved rail  
connections

HS2 construction  
will create  
**25,000**  
jobs and 2,000  
apprenticeships

**345**  
miles of new high  
speed track

HS2 will carry up to  
**300,000**  
passengers a day

A network  
**designed**  
for increased  
demand

Seats  
out of Euston  
**tripled**  
during peak hours

Up to  
**48**  
HS2 trains on  
the network  
per hour

Over  
**25**  
stations around  
the UK

Manchester  
to London  
**67 mins**  
2 hrs 7 mins  
now

Leeds to  
Birmingham Airport  
**46 mins**  
almost 2.5 hrs  
now

HS2 travel will be  
**200 times**  
more carbon efficient  
than the equivalent  
domestic flight



**Sir David Higgins**  
Chairman

2017 is an important year for HS2 Ltd: this year, for the first time, people will see us begin work on the ground. We are moving from concept to reality and in the next three years (the period covered by this plan) we will carry out that transition for Phase One – the section from Birmingham to London.

At the same time Phase 2a (from Birmingham to Crewe) will begin its journey through Parliament, whilst legislation for Phase 2b (from Crewe to Manchester and from Birmingham to Leeds) will be prepared to enter the parliamentary process in 2019.

But whilst this period will see a step change in activity, what will not change is the reason HS2 is being built, its core purpose. In part that is to address the historic shortfall in capacity on Britain's railways. But in part it is also to address another legacy of history: our unbalanced national economy, particularly between London, the Midlands and the North.

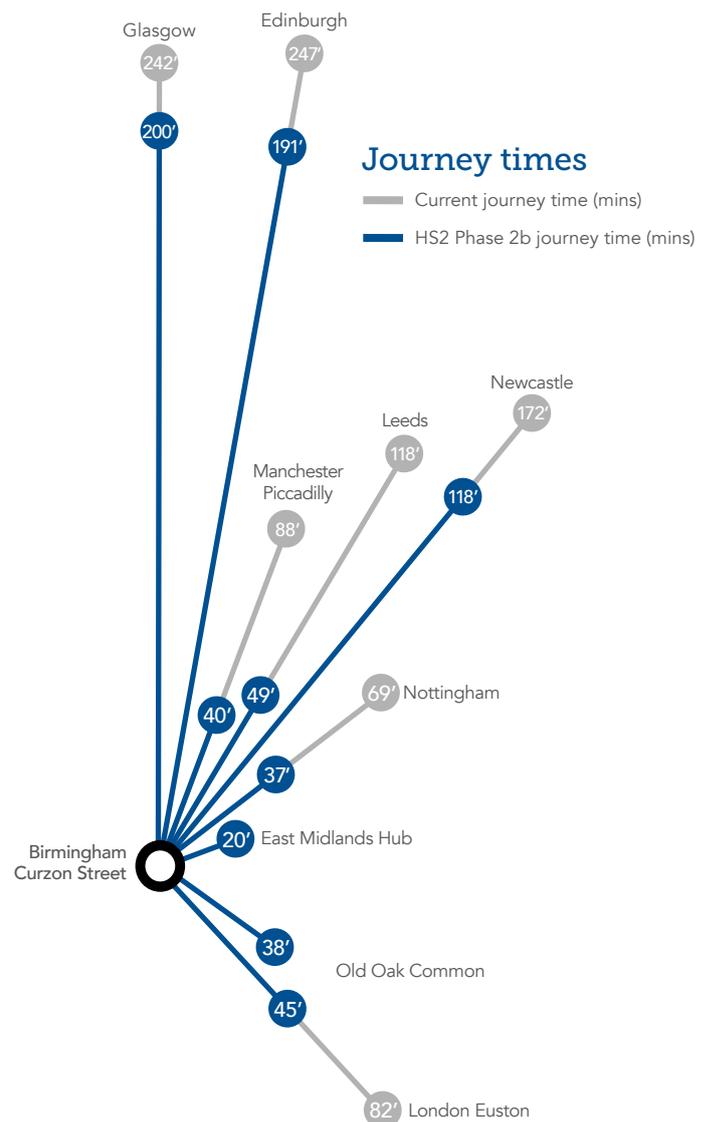
Part of the reason for London's success as a global city is that it is easy to get around. Quick journey times and multiple modes of transport means it has good connectivity. Part of the reason for the relative under-performance of the Midlands and the North is the reverse: poor connectivity, slow journeys and fewer options make it difficult to live and work in different places.

HS2 is designed to address that fundamental problem. Cutting the journey times, not just to London, but between our cities and towns in the Midlands and the North (see graphic), will make it easier for people, skills, goods and services to

move around the country. By bringing people closer to their markets in this country and elsewhere, HS2 will give individual people a choice about where they live, work and bring up their families – as well as helping to improve productivity in line with the Government's National Industrial Strategy.

That is why HS2 has been so overwhelmingly supported, not just by all parties at Westminster, but also by local authorities and businesses along the route. But we have to keep earning that support by showing that we are delivering on our core purpose: rebalancing Britain.

This plan sets out how we intend to do so for the next three years.



Current journey times are fastest typical times. HS2 journey times are estimates. 5 min interchange time is assumed at East Midlands Hub for Nottingham and Derby. HS2 Edinburgh times are shown to Edinburgh Haymarket.



**Mark Thurston**  
Chief Executive Officer

When I was appointed CEO earlier this year one thing immediately struck me – HS2 is different to any other project I, or my colleagues, have ever worked on before.

It isn't just the scale: 345 miles. Or the fact that it will be the first major railway north of London built in the past 150 years.

What really makes HS2 different is just how multi-faceted it is: different timescales for delivering different phases through different parts of the country with different impacts. For many, HS2 will bring real and tangible benefits, whether in terms of jobs and skills now, or a unique, once-in-a-generation opportunity to regenerate local economies. But for others, construction will in the short term impact their personal lives and in the longer term change the environment in which they live.

Consequently, we have to deliver HS2 taking account of all these elements with an approach that achieves our core purpose whilst being sensitive to local communities and their environments. That is both a quantitative and qualitative challenge which in the next three years will include:

- » delivering the early stages of Phase One to budget and schedule, safely working with the supply chain to constantly apply and develop the lessons of other major projects both in this country and elsewhere;

- » working with individuals, communities and their representatives to minimise the immediate impact of construction, whilst maximising the long-term benefits in terms of economic regeneration, quality design and a sustainable environment;
- » initiating work on the Phase One stations, including Euston, whilst continually learning from our experience on Phase One in all its aspects as we take Phase 2a through the parliamentary process and prepare Phase 2b for the same; and
- » developing our understanding of both customer and operational requirements, and the implications for rolling stock procurement, as we plan a service that will deliver HS2's core purpose of rebalancing Britain.

Our Key Performance Indicators (pages 20 & 21) set out how we will start the process of measuring our success in delivering those objectives, but this is a first step. Year on year this plan will evolve and deepen as we develop the capability, the knowledge and experience we will need to deliver HS2 – and to do so in a fully integrated way.

## HS2 LTD'S STRATEGIC CONTEXT

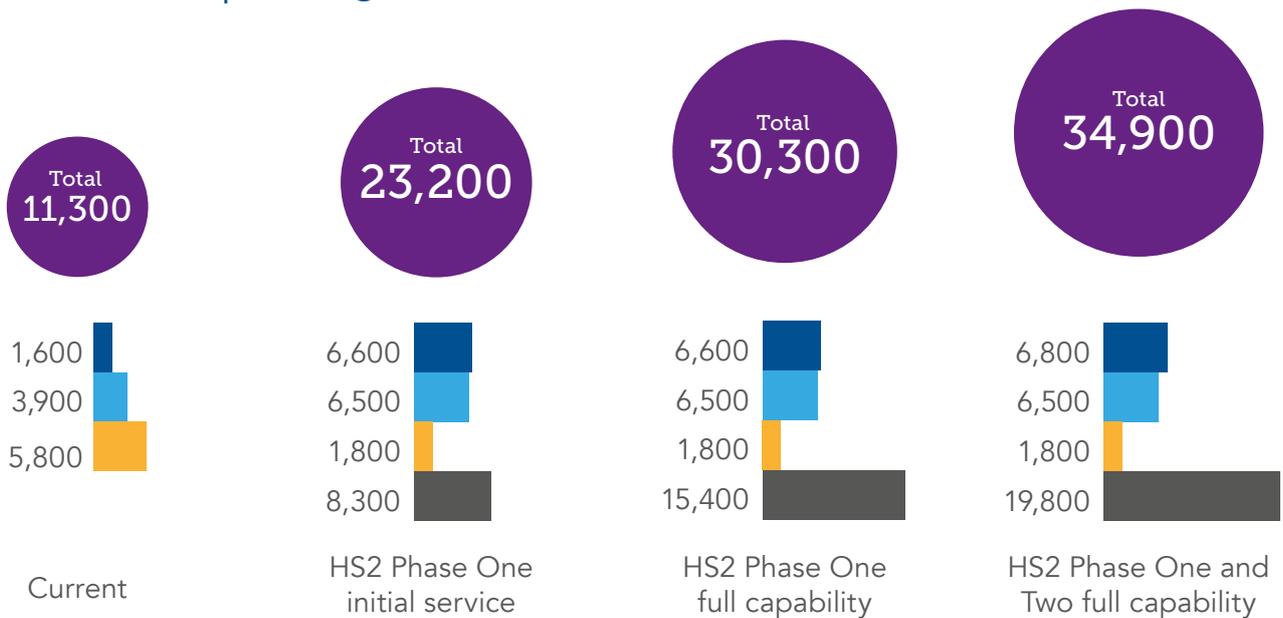
HS2 Ltd was set up by the DfT to bring transformational change to the UK by constructing, managing and operating a new rail network. To meet our core purpose, our goal is straightforward: to make it easier to travel in Britain by adding additional capacity to the existing, overstretched network and to improve connectivity between towns and cities, particularly in the Midlands and the North, by cutting journey times and improving reliability. Speed is a means to an end, rather than an end in itself.

But to deliver those goals HS2 has to be both fully integrated into the existing transport network and an integral part of the broader Government effort to rebalance the British economy and address the productivity gap between London, the Midlands and the North. HS2 is not a standalone project and, as such, we will work closely with other

agencies including Network Rail and Highways England, as well as playing our part in delivering the goals set out in the National Transport Strategy. That, in turn, means we need to align our work with the aims set out both in the Government's National Industrial Strategy and the local economic strategies being pursued by individual regions and their local authorities.

HS2 also has a vital role to play in both upskilling the British construction industry and helping equip it for the future. This will be achieved by driving forward innovation at both an industry level through using techniques such as Building Information Modelling, but also at an individual level by supporting people to develop the necessary skills through the work of the National College for High Speed Rail.

### More seats for passengers



#### PEAK PERIOD DEPARTING EUSTON



## OUR GUIDING PRINCIPLES

Three guiding principles help us make decisions, steer the way we work with others to shape and deliver our programmes and set the priorities for how the Company operates.

### Ensure value for money

In ensuring value for money for the taxpayer, we will ensure we manage our corporate costs efficiently and bear down on the cost of the programmes we deliver, while protecting our strategic goals and benefits. We and our supply chain must be disciplined and focused in our pursuit of value and the management of cost.

### Champion teamwork and collaboration

We will be a responsible client for the HS2 programme. This means we promote a truly collaborative approach, creating a sense of 'one team' with positive, constructive relationships between ourselves and our suppliers, and between ourselves and government.

### Respect communities

We will be good neighbours and respect the communities we impact. Our community engagement strategy will demonstrate our consideration for those that HS2 will affect along the route and will drive our thinking, actions and decision making, and those of our suppliers.

*Women in Engineering event*



## OUR STRATEGIC GOALS AND BENEFITS

Our seven strategic goals set out what we are seeking to achieve. In pursuing each strategic goal, the HS2 programme will both directly and indirectly deliver changes to the UK as a whole and local communities along the route.



### Catalyst for growth

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HS2 will increase investment around its new stations and depots, stimulating commercial, retail, leisure, housing and infrastructure development. This will provide new opportunities for jobs and for regenerating local environments, boosting economic development long term.

But by also better connecting cities and regions across the UK, HS2 will open up new markets for businesses, helping to improve national productivity in line with the Government’s National Industrial Strategy. Small and Medium-sized Enterprises (SMEs) will be able to gain access to the diverse workforce, professional services, skills, knowledge and supply chains that they need to grow. They will have new opportunities to connect with larger businesses as they become part of our wider supply chain. Through partnering and innovation, SMEs and larger suppliers will share economic benefits.

### Capacity and connectivity

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HS2 passengers will benefit from more frequent, faster and more reliable train services, with greater choice and convenience across the rail network. HS2 will bring more destinations within easy reach, increasing employment and leisure options. As travellers switch to HS2, the existing rail network will also see benefits: crowding will reduce and capacity for freight will increase, taking lorries off busy roads. Improved passenger confidence will encourage more rail users.



### Value for money

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Ticket sales and commercial development in and around stations will generate revenue streams, in turn delivering value for money to the taxpayer.

Innovation in the UK rail and construction sector as a result of HS2 will make these industries more competitive and reduce the cost of future rail investment.

### Passenger experience

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HS2 will offer improved accessibility to trains, stations and depots and increased choice and flexibility of service to meet individuals’ needs. This will allow more people to travel by rail, widening employment and leisure opportunities. HS2 will provide an excellent customer experience throughout the journey, ensuring convenience, comfort and enjoyment from ticket booking to onward connection.





## Skills and employment

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Delivering HS2 will create approximately 25,000 jobs across the construction industry and supply chain, followed by sustained employment opportunities from operating the railway. We will enable people to improve their skills (e.g. offering 2,000 apprenticeships), and access the best talent by increasing diversity in the workforce. By more people reaching their full potential, we will boost individual earning power and the economy, and improve the national skills base, meeting the future needs of the rail, construction and engineering industries and enabling the UK to be more competitive internationally.

## Achieving new standards

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Improved health, safety and security standards and culture during development, design, construction and operation will reduce personal and social loss from injuries and sickness, and help cement the UK's reputation as a place where employers are responsible and employees are safe and well. We will design for the needs of our diverse audiences to enable customer satisfaction and community pride in the local development.



## Sustainability and being a good neighbour

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The HS2 project will leave an environmental legacy by conserving, enhancing, restoring or transforming areas along the route, as appropriate. By reducing CO<sub>2</sub> emissions when operational, we will contribute to meeting the UK's climate change targets. HS2 will increase use of sustainable transport by attracting people to rail and by being fully integrated with cycle routes, trams and transport schemes. The new line between London and the Midlands and the North will add long-term resilience to the rail network. It is being designed to withstand adverse weather and remain operational in a one-in-1,000-year flood, to avoid personal and business costs associated with transport disruption.

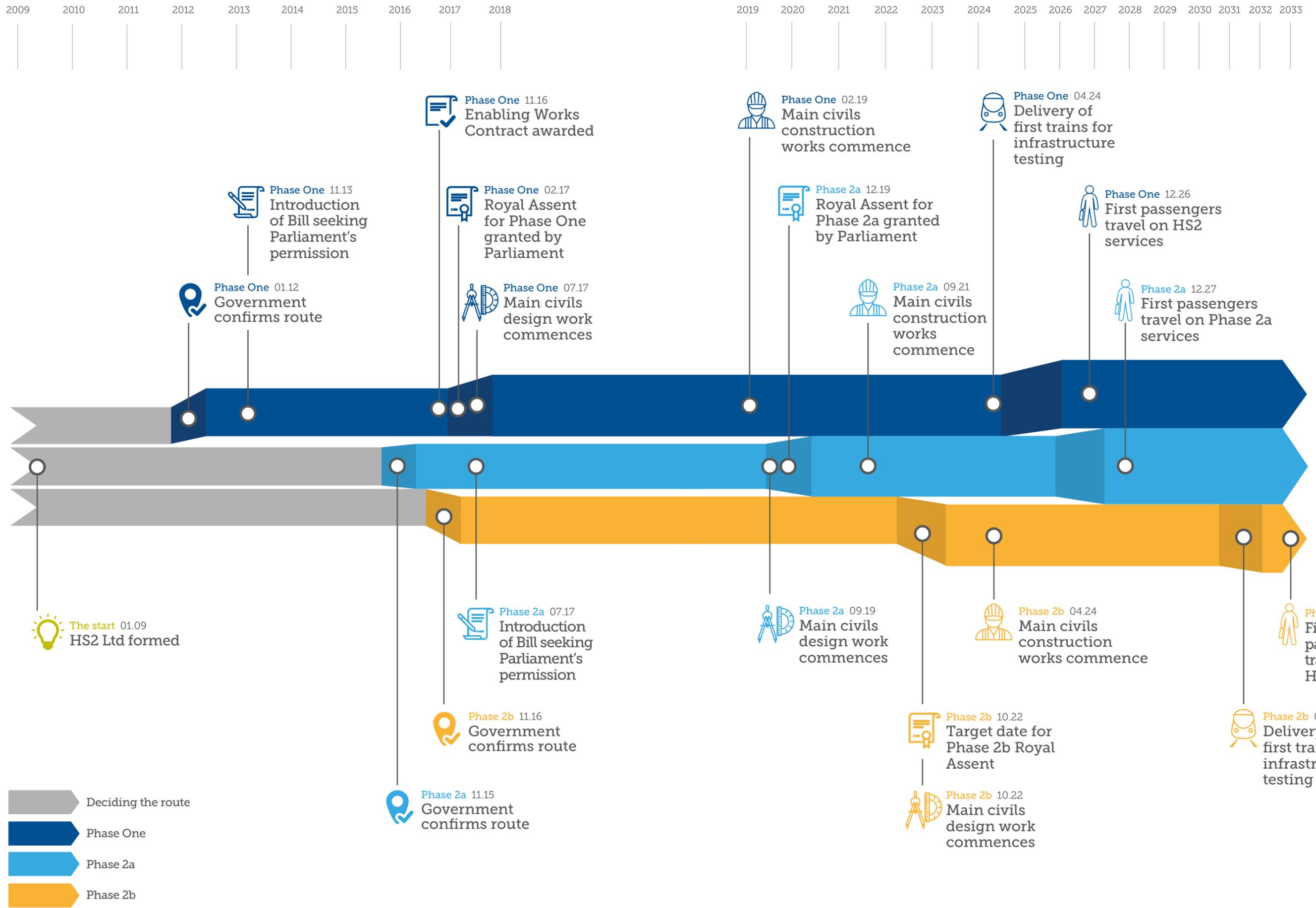
## CONSTRUCTION AND OPERATION IMPACTS

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There will be some unavoidable disruption on the existing rail and road network while we build HS2 and we acknowledge that there may be impacts on some local communities. We will strive to mitigate these effects, for example by providing noise mitigation for residents, minimising disruption

to the existing transport network and planting millions of trees. We will continuously work with local communities to look at ways to minimise and mitigate the impacts of HS2 and ensure residents and businesses are supported throughout.

# OUR JOURNEY TO OPERATION



- Deciding the route
- Phase One
- Phase 2a
- Phase 2b

### MANAGING UNCERTAINTY

To be successful we have to effectively manage a number of significant risks and uncertainties. Some of these will be exacerbated by the length of the project and its complexity.

With safety in our core values we will not tolerate any risks that could result in injury or loss to the public, passengers or our workforce. Our reputation is influenced by our ability to manage public funds wisely and deliver HS2 on time and within budget and we will only accept low levels of risk in these areas.

However, where it can offer opportunities to accelerate, or increase confidence in, programme delivery, reduce cost or enhance the passenger experience, we are prepared to accept commercial and operational risks. These include stimulating innovation, challenging industry and promoting best practice, both within the Company and our supply chain.

Our main strategic-level risks are:

- » Building, developing and maintaining our organisational capability and capacity.
- » Aligning governance approvals and decision making across all government departments; maintaining transparency and operating effectively.
- » Achieving necessary powers from Parliament at appropriate stages for each phase of the programme.
- » Achieving the effective overall integration of the programme to deliver the objectives through areas such as design, land acquisition and overall system integration.

- » Engaging an effective supply chain, appropriately incentivised with capacity, skills and structure to achieve the strategic goals.
- » Ability to develop control and deliver the programme within the time constraints and funding envelopes.
- » Supporting achievement of wider programme integration and benefits realisation.
- » Managing the underlying uncertainties in the environment for such a long-term programme. For example, possible inflationary effects or impacts on the supply chain.
- » Maintain appropriate and effective engagement with the significant range of stakeholders.

There are also underlying uncertainties in the environment for such a long-term programme. These include:

- » political and legislative changes;
- » technology (including disruptive) changes and their effects on forecasting benefits; and
- » changing demands and demographics.

We have designed the way the Company operates to mitigate these risks and our approach is supported by our risk management policies, strategy, processes and procedures. Tools such as horizon scanning and scenario planning are used to expand understanding and the capability to respond.

## HOW WE OPERATE

Our Board sets the strategic direction of HS2 Ltd, manages the long-term vision and risks, and oversees our performance as a company.

Our company approach focuses on three programmes: Phase One, Phase Two and Railway Operations. Each is led by a Managing Director who is accountable for delivering the programmes to schedule, cost and quality requirements, and ensuring they realise their benefits.

The Managing Directors' work is supported and shaped by our Technical Directorate and the corporate functions, who provide specialist advice and skills, defining strategy and setting technical standards; in addition the Technical Directorate is the ultimate system integrator across the programmes and acts as the environmental and engineering Technical Authority for HS2.

The Chief Financial Officer oversees the purchase and management of the land and property required for the railway and commercial development around all stations (including the Euston Over Site Development Programme).

The Phase One and Phase Two programmes lead on the planning and development of all infrastructure and systems needed to deliver an operational railway. Railway Operations delivers HS2's rolling stock. The Railway Operations team will also manage the railway infrastructure and assets once operations start, and are responsible for designing and implementing that function.

We have incorporated the remits for each programme from the DfT Sponsor's Requirements set out in the Development Agreement and built in requirements from other stakeholders, including undertakings and assurances for Phase One given in Parliament.

## Board members at June 2017



**Sir David Higgins**  
Non-executive Chair



**Mark Thurston**  
CEO



**Steve Allen**  
CFO



**Richard Brown, CBE**  
Non-executive Board Member



**Mel Ewell**  
Non-executive Board Member



**Christine Emmett**  
Non-executive Board Member



**Neil Masom, OBE**  
Non-executive Board Member



**Roger Mountford**  
Non-executive Board Member



**Alison Munro, CBE**  
Executive Board Member



**Duncan Sutherland**  
Non-executive Board Member



**Baroness Jo Valentine**  
Non-executive Board Member

### THE COMPANY'S JOURNEY

As HS2 Ltd's role changes with each programme stage, our company capabilities need to evolve. This is reflected in our relocation to Birmingham. During the early stages of the programme it was appropriate to be located in London near the DfT, Ministers and Parliament. Now, as Phase One moves into design and construction we have moved the headquarters to Birmingham to be at the heart of the network.

We established a Capability Programme (formerly called the Business Transformation Programme) in 2016, to manage the Company's growth and broadening capabilities. The programme was designed to ensure our organisational capabilities are implemented at the right time to deliver Phase One and Phase Two, and to meet the obligations in the Development Agreement. Since it started we have built a whole new organisation around the original advisory body, this includes:

- » growing our workforce from 341 employees in April 2014 to 1,499 in April 2017, adding our Railway Operations capability and strengthening programme management, programme controls, commercial and procurement expertise;

- » strengthening our client capability to manage ground investigation contracts and the enabling works along the route;
- » restructuring the Company into the matrix organisation described above to focus on programme delivery and Railway Operations; and
- » introducing the strategies for programme delivery and a comprehensive Management System covering the policies, strategies, and processes we have put in place to control our work.

The Capability Programme will be completed by the end of 2017. We will continue to develop the Company to respond to our maturing programme, but these enhancements will be delivered as 'business as usual' activities to develop our people, systems and processes.

Public information event



# THE STAGES OF OUR PROGRAMMES

Each of our programmes goes through a number of stages, and with each stage our role and focus evolves.

## Deciding the route

At the start of each programme, our role is advisor to the DfT, supporting the Government to develop proposals for the railway. Our technical, economic and community engagement work is forefront as we develop and assess proposals on behalf of the DfT. Keeping focused on our vision, strategic goals and guiding principles is vital. This stage ends once the Government announces the preferred route.

## Getting permission

Once the route is decided, our role changes. While still advisor to the DfT, we move from assisting Government to make a route decision, to implementing that decision. First, we add all necessary detail to the proposals so that the Government can seek permission from Parliament and, once in Parliament, defend the proposals. This stage ends with Royal Assent of the Parliamentary Bill and securing powers to implement the proposals.

## Procuring our suppliers

During the later stages of getting permission we must also prepare for design and construction. Our role changes considerably as we move to DfT's delivery body. Now our commercial and procurement capabilities come to the fore as we select and engage the supply chain to deliver our work.

## Design & construction

With the award of the first main works contract our role changes again, as we become a responsible client to our supply chain. This is a long programme stage. Our guiding principles and values drive the way we act, and our strategic goals and benefits define the outcomes we seek.

## Testing & operations

A period of testing and commissioning takes place before passenger services start, to ensure we operate safely and reliably. Trial running of services allows us to test the train operating systems alongside staff training. When passenger services start, our role changes again; we become the infrastructure manager for the network. We work collaboratively with the passenger services operator and the DfT to deliver excellent customer experience and taxpayer value for money.

## Lessons learned

In this stage it will be confirmed that the relevant phase(s) has been delivered and that operational performance is stable, also that the Business Case has been satisfied. We set out any necessary activities for transitioning into operation. We also identify any need to assess benefits realisation in the future. We incorporate any lessons into our organisation learning and communicate any that may help future programmes through the HS2 Learning Legacy.

# HOW WE WILL DELIVER THE PROGRAMMES

With regard to the approach to the design and construction stage of our programme, we agreed key decisions with the Government in 2015.

Our delivery strategy will evolve with our plans as the design of the railway matures and as changes occur in Government policy and the economy over the coming years.

To develop our strategy, we have drawn on expertise and experience from Crossrail, Thameslink, the London Olympics and other major UK infrastructure programmes. We have also benchmarked and learned from high speed rail in Europe, China and Japan, and from other industries such as aerospace and defence.

The core of our delivery strategy is our role and focus as a responsible client and our commercial strategy for Phase One.

### Client role and focus

- » We will be the top level integrator for HS2. Most delivery work will be contracted out to specialist suppliers but we will manage the contracts and their integration, developing and protecting the integrity of the rail system.
- » We have established a Railway Operations team, to ensure we achieve long-term cost control and deliver the required outcomes for both passengers and the future operation of the railway.
- » We have established a new Sponsor Function, to be custodian of the Business Case and ensure HS2 obligations under the Development Agreement are adhered to within the delivery teams.

### Commercial strategy

- » We will develop our designs sufficiently before tendering. The degree of design development we lead will vary for different aspects of the programme, depending on complexity and risk. We will use early contractor involvement for relatively straightforward components such as civil engineering, but will do more in-house design for complex assets with high impact on how the system operates, such as stations.
- » We will use fewer and larger contract packages (see the chart on page 19). To reduce the contract interfaces and reduce risk, we have divided the main works into a small number of packages, either for the whole Phase One provision of a component (such as rolling stock) or based on geography (e.g. for civil engineering).
- » We will resource our company flexibly. This will enable us to respond appropriately to different requirements and priorities as they emerge. We will use professional service frameworks (i.e. pre-approved suppliers), Engineering Delivery Partners and third-party, area-based integrators to augment our in-house capability.

We need to make further high-level delivery decisions as the programmes move forward, including the commercial approach to Phase Two delivery, the commercial development around stations, and the passenger service offering.

We will reach agreement with the DfT in a clear, transparent way.

**The Phase One contract structure**

The Enabling Works Contracts have been procured in delivery areas, split into the three geographical parts of the Phase One route (South, Central and North). This approach enables the contractor to maintain a secure site for all sub-contractors, to co-ordinate consent with local authorities and statutory bodies (e.g. regarding utility connections to the site) and to engage with local communities.

There are seven Main Works Civils Contracts (S1, S2, C1, C2, C3, N1 and N2) and they divide the whole tunnel and surface route of Phase One into seven approximately equal packages of work. Splitting this type of civils work geographically has similar benefits to those described above for the Enabling Works Contracts.

Engineering Delivery Partner	Client-side						
Network Rail On-Networks Works	Euston / Old Oak Common / East West Rail / Water Orton / Handsacre						
Utilities	Utility Company Delivery Agreement						
Enabling Works	North		Central			South	
Main Works Civils	N2	N1	C3	C2	C1	S2	S1
Stations	Curzon		Interchange		OOC	Euston	
Rail Systems	Including: Track, Tunnel Services & Ventilation, Power Signalling, Communications, Depots						
Rolling Stock	Rolling Stock						

**The role of HS2 Ltd is to act as an integrator and manage the interfaces between these contracts at a local and route-wide level.**

*HS2 Ltd staff visit Thameslink construction site*



## MEASURING OUR PERFORMANCE

This Corporate Plan sets the overall strategic direction of HS2 Ltd for the next three years. We will track our performance across a range of measures that cover delivery of the benefits, delivery of the programmes and the health of the Company. We have identified 13 key performance indicators (KPIs) for 2017/18 that the Company will use with our Board and DfT Sponsor to monitor our performance, shown below and on page 21.

We will review our performance against these targets throughout the year and report our progress quarterly to the DfT. At the end of the financial year, in an update to this Corporate Plan, we will publish our progress against the 2017/18 performance measures and set targets for future years.

KPI	Target in 2017/18
<p><b>Benefits 1:</b> Contribution by contractors to benefits delivery, for example, number of apprenticeships relative to workforce number</p>	<p>Report on progress against all relevant measures and put in place mitigations for any targets or benchmarks that are off track.</p>
<p><b>Benefits 2:</b> Contribution by HS2 Ltd to benefits delivery, for example, number of apprenticeships relative to workforce number</p>	<p>Report on progress against all relevant measures and put in place mitigations for any targets or benchmarks that are off track.</p>
<p><b>Health and Safety:</b> Enterprise-level Health and Safety Index</p>	<p>The average across all measures in the index is <math>\geq 2.2</math>.</p>
<p><b>Cost performance 1:</b> Projected programme costs</p>	<p>All works to remain within overall Spending Review funding envelope and the target price for each phase.</p>
<p><b>Cost performance 2:</b> Budget management</p>	<p>Target for annual spend to be within 1% of annual budget, as adjusted at Q3.</p>
<p><b>Schedule performance 1:</b> Milestone performance</p>	<p>Deliver to the plan of annual milestones as set out in the Level 0 schedule.</p>
<p><b>Schedule performance 2:</b> Phase One Main Works Civils Contract design progress</p>	<p>All main works civils contractors to deliver Stage 1 designs as per agreed schedule.</p>



Public information event

## KPI

## Target in 2017/18

**Quality Performance 1:** Percentage of technical requirements and guidance formalised in the Programme Requirements Specification (PRS) and specified into contractual documentation

100% of necessary requirements, tested at Phase One, Phase Two and Railway Operations programme gates and specified into contractual documentation.

**Quality Performance 2:** Percentage of PRS technical requirements and guidance adopted into programmes and procurement. Percentage Design Panel recommendations acted on relating to agreed benefits

100% of requirements, tested for compliance at Phase One, Phase Two and Railway Operations and overall programme gates. Acted on 80% of Design Panel recommendations relevant to the 2017/18 period.

**Community Engagement:**  
Community Engagement Index

Establish a Community Engagement Index agreed with the Board and begin reporting.

**Equality Diversity and Inclusion:**  
Percentage of staff with each protected characteristic

Report on all protected characteristics. Exceed industry benchmarks where available: women (13%); black, Asian and minority ethnic (BAME) (6%); and disability (3%).

**Staff engagement:**  
Staff engagement index

Improve on previous year's score in the staff survey, 63% in 2016.

**Company capabilities:**  
Delivery of the Capability Programme

Complete the Capability Programme workstreams by end December 2017.

The following pages give detailed information on how our programmes are progressing. A review of the financial year 2016/17 and plans for the next three years set out what we will deliver for the agreed budget and resources.

2016/17

June 2016

## Company development

We developed our company capabilities sufficiently to invite tenders for Main Works Civils Contracts (MWCC). We have continued to mature, with a new organisation design and operating model, and strengthened how the Board operates.

June

## Phase One main works civils

We invited suppliers to bid for the MWCC on Phase One after developing the scope for 8,400 permanent, temporary and environmental works along the route.

September

## Phase 2a design

Progress towards Bill deposit was marked by a public consultation on the design in Sept–Nov and subsequent enhancements to help mitigate impacts. Over the year more than 5,500 environmental surveys were carried out and mitigation options assessed.

December

## Integrating with the existing network

HS2 Ltd, DfT and Network Rail signed an agreement to deliver works on the existing network, setting out how we will work together while Network Rail continues other vital work.

November

## Phase One enabling works

We awarded £900m of Enabling Works Contracts, allowing the first physical work along the line of route to begin, preparing for early construction, environmental mitigation, archaeology and other work to start following Royal Assent of the Phase One Bill.

November

## Phase 2b Route decision

The Government confirmed the preferred route for the majority of Phase 2b, a significant milestone on the way to preparation of the necessary environmental and legislative documents. Before the announcement, we rigorously tested costs through Sir Jeremy Heywood's review.

January 2017

## Planning for Operations and realise benefits

Our proxy operator strategy confirmed our approach to meeting the aspirations of future passengers and operators. Our infrastructure management strategy set out how we will ensure that design and construction supports safe and efficient maintenance of the railway in the future.

January

## Rolling stock

Our rolling stock strategy confirmed our approach to buying the trains needed for Phase One and their high level requirements. We also secured approvals for the £2.75bn rolling stock procurement activity to begin in April 2017.

February

## Phase One Royal Assent

We secured Royal Assent of the Phase One hybrid Bill. The huge milestone marked the end of three years and four months of Parliamentary scrutiny and our work to respond to 3,408 petitions in that time, significantly faster than Crossrail or High Speed One achieved.

March

## Phase 2b consultation

After the route decision we launched a consultation on seven changes to the route. Around 20,000 people attended information events before the consultation closed in March. This work will inform the Government's final decision on the remaining parts of the 2b route.

March

## Phase 2b design

We awarded engineering and environmental design contracts to deliver the hybrid Bill documents and support the engagement activities.

February

## Safe at Heart

We launched our Fair Culture ethos, adding to progress in our health and safety approach from the roll out of our H&S brand 'Safe at Heart', launched in March 2016.

Over the year

## Working with property owners

We acquired 118 residential properties along the route and provided cash payments to 46 affected homeowners within the Rural Support Zone.

Over the year

## Working with communities

As well as the Phase 2b consultation events, we held hundreds of community meetings and sent out more than a million letters and invitations to people along the route explaining our plans and the support available to those affected.

## By the end of 2016/17 our progress has been

### Phase One

We have spent  
**9%**  
of the budget

We are more than  
**5 yrs**  
into the 15yr  
programme

### Phase 2a

We have spent over  
**3%**  
of the budget

We are more than  
**1 yr**  
into the 12yr  
programme

### Phase 2b

We have spent under  
**1%**  
of the budget

We are in the  
**1<sup>st</sup> yr**  
of the 17yr  
programme

### Progress with our strategic goals

The route decision on Phase 2b and Royal Assent of the Phase One Bill were huge strides in realising our goals to add capacity and connectivity to the transport system and to be a catalyst for sustainable and balanced growth across the UK. We have made significant progress to move the Phase 2b cost estimate towards the budget, but further work is needed through the next stage of design to reduce costs and meet international benchmarks. We have also moved closer to establishing new standards in passenger experience with the completion of the rolling stock and proxy operator strategies.

Procurement of main works suppliers for Phase One and getting ready to client the main works contracts have taken longer than anticipated, but we expect to make up this time during design and construction. The start of work on the ground is a significant step, beginning permanent changes to landscapes and communities. Embedding our expectations and requirements for how our suppliers work contributes to our goals for health

and safety, to create a sustainable solution and be a good neighbour.

Part of being a good neighbour was the establishment of the Community Engagement Directorate this year. This team supports our staff and suppliers in two-way engagement with impacted communities, helping to build respectful, long-term and trusted relationships.

Our commitment to apprenticeships and promoting a more diverse and inclusive workforce will create opportunities for skills and employment. To support this, the construction of the National College for High Speed Rail is nearly completed and will begin to enrol students.

The contract award to plant and grow seven million trees is a major step in ensuring that the immediate impacts of building a new railway are mitigated in the long term. We will establish over 650 hectares of new woodland between London and Birmingham, reducing the visual impact of the line, creating new wildlife habitats, and improving the preservation, conservation and enhancement of environmental assets.

## Resources

To deliver this work, we spent  
**£843.5m**  
(on HS2 budgets and land and property)

To deliver this our workforce was  
**1,499**  
in March 2017  
(full-time equivalents)

## 2017/18

April 2017

### Rolling stock procurement

We closed out preparation for the main design and construction of Phase One rolling stock. In addition to starting the procurement, we prepared the reference train design and technical and commercial documents ready for next year's invitation to suppliers to bid to design and build our Phase One rolling stock.

May

### Phase 2b Bill development

We confirmed and brought on board our Development Partner to support the Phase 2b hybrid Bill preparations and Parliamentary scrutiny.

July

### Company development

We will complete our company restructure and be ready to manage the Main Works Civils Contracts. By the year end, we will complete remaining company preparations for Phase One design and construction. Implementation of a new ERP system will follow in 2018.

July

### Euston Station development

We will begin to unlock the development opportunities for the 54-acre site around Euston station, issuing invitations to suppliers to become our master development partner.

July

### Phase 2a Bill preparation

We will complete the work necessary for the Government to bring forward a Phase 2a Bill as soon as the legislative programme permits. We will have completed initial designs for 60 km of railway to set out the route, how it will be constructed, the environmental affects and our mitigations, and the communities affected.

July

### Design & construction starts

Another huge landmark in the programme is the award of the contracts for Phase One civils. This marks the start of the design and construction programme stage.

September

### Community Engagement strategy

We will release our strategy explaining how we will plan and deliver community engagement activities to help HS2 Ltd work in a co-ordinated and cohesive way to be a good neighbour. This will form the cornerstone of building good relationships with communities that will be impacted by the new railway.

September

### Enhanced security mobilised

We will procure a specialist security services provider to monitor and respond to risks, enhancing our ability to ensure the safety of construction teams, HS2 assets, and the communities in which we work.

December

### Preparing for Rail Operations

By end-2017 we will develop operational requirements for the Traffic Management, Command & Control Systems; complete the customer proposition to the detail required to inform rolling stock and station design; confirm our Asset Information Management Systems strategy; and set the contracting model for Infrastructure Management.

January

### Commercial development at Euston

We will select the organisation that will be Master Development Partner for the site around Euston station. During the year ahead we will work with them to prepare a masterplan for the site.

January

### Phase One Railway systems

We will complete development of our requirements for the track and power systems and launch the procurement of this last main element of the Phase One design and construction programme.

January 2018

### Phase One stations design starts

Our work on stations will take a large step forward with award of the contract to design the four Phase One stations. By the end of 2017 we will also have issued invitations to suppliers to bid for stations partnership that will build Euston and Old Oak Common stations.

February

### Industry-wide Health & Safety Passport

Working with industry partners to shape the direction, we will begin a step change in H&S performance by launching the development of a 'H&S Passport' to manage site access competence, fitness for work, fatigue and health exposure.

Over the year

### Acquiring the land needed

We expect to buy over 20% of the land for the Phase One route, with acquisitions centred on the London and Birmingham areas. We will work with property owners in a way that meets the Government's commitments for these acquisitions.

## By the end of 2017/18 our progress will be

### Phase One

We have spent over **14%** of the budget  
We are more than **6 yrs** into the 15yr programme

### Phase 2a

We have spent over **5%** of the budget  
We are more than **2 yrs** into the 12yr programme

### Phase 2b

We have spent **1.6%** of the budget  
We are nearly **1 1/2 yrs** into the 17yr programme

### Progress with our strategic goals

The award of the Main Works Civils Contracts and station design contracts will mark the start of a huge increase in the people employed in our supply chain. As an organisation we will need to adapt to our role as client, managing the interfaces between our various contractors. With this increasing supplier base we will be making significant progress with our goals of creating opportunity for skills and employment (initially through the development of the scheme design); creating a railway designed, built and operated with world-class health, safety and security standards; and creating an environmentally sustainable solution and being a good neighbour to communities every single day, being sensitive to their needs and taking our responsibilities seriously.

This year will also see a step change in the land and property we buy. This will make us a direct neighbour to more individuals and communities. At all times we will work a way that delivers our goal of being a good neighbour to people from London to Birmingham.

Depositing the Phase 2a Bill in Parliament is an important step in accelerating the benefits of HS2 to the North and rebalancing the economy.

We will build on the knowledge and expertise gained from the Phase One Bill and the lessons learned from that process.

We also anticipate that the Government will confirm the remaining route decisions for Phase 2b in the summer. Together with starting the design and construction stage on Phase One, these are major programme landmarks that move us closer to realising our goals of adding capacity and connectivity, and being a catalyst for growth. Similarly, selecting the designer for all four stations along the Phase One route and setting our requirements for the rolling stock will take us forward with our goal to deliver new standards in passenger experience.

As with every year, all our work will be carried out in a way to support our goal of delivering value to the UK taxpayer and passenger.

### Resources

To deliver this we will spend  
**£1,843m**  
(nominal prices)

To deliver this we have assumed our workforce will not need to exceed  
**1,650**  
(full-time equivalents)

2018/19

April 2018

## Rolling stock procurement

We will invite suppliers to bid to design and build the Phase One rolling stock.

April

## HS2 Art Strategy

In April we will publish the HS2 Art Strategy with the aim of completing our art approach guidance documents in the summer and opening our design studios in Birmingham and Doncaster before the end of the year.

May

## Preparing for Operations

Two milestones in our preparation for Operations will be achieved as we finalise the customer-focused requirements for the railway systems and we define the Operations plans for the Network Integrated Control Centre.

July

## Phase One rail systems

We will move to the next stage of procuring the rail systems suppliers, by issuing the formal invitation to bid for the work.

June

## Phase 2b Bill preparation

Initial Preliminary Design of the Phase 2b hybrid Bill will be completed and inform the Draft Environmental Statement. Interim Preliminary Design will then be completed in February, which informs the design for future hybrid Bill deposit.

June

## Phase 2b Environment Consultation

From June–Sept, we will consult on a Draft Environmental Statement, setting out the environmental impacts of the scheme and proposed mitigations.

September

## Phase One London stations

We will select the Contracting Partner for Euston and Old Oak Common and mobilise the contract team ready to start final design and construction of these two stations next year.

September

## Phase One Birmingham stations

We will start the procurement of the main works contractor for the Birmingham stations, the last of our main contractors required for Phase One.

December

## Phase One benefits

We will support the Government to complete the Full Business Case for Phase One, reconfirming the benefits to the country and the target price for Phase One. To support clarity in decision making we will develop the baseline for the whole life costs and benefits.

March

## Phase One civils construction starts

Having confirmed in February the target price the contractor will be expected to deliver the work for, we will issue the first 'notice to proceed' on the civils contract, and confirm the scheme design. This will mark the start of the detailed design, plus main construction work and tunnelling.

March 2019

## Benefits enhanced

Building on the benefits baseline produced in late 2018, by the end of the financial year we will have rolled out a benefits control framework enhancing our ability to protect the Business Case for our programmes.

December

## Health and Safety Passport goes live

By the end of 2018 we will deploy the new H&S Passport, making a step change in H&S management and sharing of risk data.

Over the year

## Acquiring the land for Phase One

Over the year we expect to acquire around 50–60% of the land needed for the Phase One route. Our plans will be refined to align with the design and construction of the railway but we expect acquisitions will be spread across the route with the majority being in the central section.

Over the year

## National College for High Speed Rail

This year construction of the National College for High Speed Rail will be completed and campuses in Doncaster and Birmingham will take in their first students. When running at full capacity they will offer courses to 1,000 students a year.

## By the end of 2018/19 our progress will be

### Phase One

We have spent over  
**24%**  
of the budget

We are over  
**7 yrs**  
into the 15yr  
programme

### Phase 2a

We have spent over  
**7%**  
of the budget

We are over  
**3 yrs**  
into the 12yr  
programme

### Phase 2b

We have spent  
**2.5%**  
of the budget

We are  
**2 1/2 yrs**  
into the 17yr  
programme

### Progress with our strategic goals

The beginning of the main civil engineering construction will require the companies that design and construct HS2 to invest in skills and apprenticeships. These companies will start training their contribution to the 2,000 apprentices the project has committed to. These main works, along with the ongoing land and property acquisitions and enabling works, mean we will be increasing the presence of teams within communities on the route.

Our goal of delivering skills and employment opportunities will be helped by the award of our Stations Design Partner Contract for Euston and Old Oak Common and the further opportunities our supply base will bring. We will begin to see the ambitious plans for Euston taking shape as we bring on board the Master Development Partner and work with them on the masterplan.

We will look for opportunities to create a space in which customers enjoy spending time, whilst maximising growth and investment opportunities to help realise the ambitious local regeneration plans. As with the previous year, we will deliver our work in a way that progresses our goal of delivering an environmentally sustainable solution and being a good neighbour to communities.

Progress on stations, rolling stock and preparing for Operations will all help to deliver new standards in customer experience.

These milestones will continue to move us closer to realising our goal of being a catalyst for growth, and adding capacity and connectivity to the UK's transport network.

As with every year, our focus on delivering value to the UK taxpayer and customer will run through everything we do.

### Resources

To deliver this we will spend  
**£2,910.4m**  
(nominal prices)

To deliver this we have assumed our workforce will not need to exceed  
**1,650**  
(full-time equivalents)

2019/20

Q1

## Preparing for Operations

We will begin preparing the technical specification for the equipment needed to maintain the infrastructure for the new railway. By the end of 2019 we will implement our asset information management system.

Q1

## Commercial development

The Euston Master Development Partner will begin the process of securing planning permission for redevelopment work around Euston station.

Q1 & Q2

## Phase One stations construction starts

Q1 we will start construction at Euston, with Old Oak Common construction then starting in Q2. Construction on the Birmingham stations will begin towards the end of 2020.

Q2

## Phase 2b hybrid Bill progress

We will complete the necessary materials to allow a Phase 2b hybrid Bill to be brought forward when Parliamentary time allows. This will be the largest Bill ever presented in Parliament.

Q2

## Phase 2a main works award

Subject to progress of the Parliamentary Bill, we will award the contract for the 37.3 miles (60 km) of Phase 2a main works civils, adding to the ongoing design and construction work on Phase One.

Q2

## Phase One tunnels

We will start boring the 9.8 mile (15.8 km) Chilterns tunnel, beginning just inside the M25 motorway and ending just north of Great Missenden in Buckinghamshire. Towards the end of 2019/20 (Q4), we will launch tunnel boring machines for the 1.7 mile (2.8 km) Bromford tunnel on the approach to Birmingham Curzon Street, which will pass under the M6, two A-roads and numerous buildings.

Q3

## Phase One systems contract award

We will select the suppliers for the design and construction of the railway systems, this includes the tracks, overhead line equipment and control system for the railway.

Q3

## Rolling stock contract award

Reaching another major programme milestone, we will select the supplier for the rolling stock, concluding a nearly two-year international search for the best firm to design and build the Phase One rolling stock.

Q3

## Phase 2a Royal Assent

Parliamentary time permitting, we will secure Royal Assent of the Phase 2a Bill by the end of 2019. This is a landmark moment in the programme and will mark the end of the 'getting permissions' stage of Phase 2a.

By the end of the year

## Acquiring the land for Phase One

By the end of the year we expect to have bought around 80–90% land needed for the Phase One route. Our plans will be refined to align with the design and construction of the railway, but we expect acquisitions to spread across the route, bridging the remaining requirements for land and property.

## By the end of 2019/20 our progress will be

### Phase One

We have spent **42%** of the budget  
We are over **8 yrs** into the 15yr programme

### Phase 2a

We have spent over **10%** of the budget  
We are over **4 yrs** into the 12yr programme

### Phase 2b

We have spent over **3%** of the budget  
We are nearly **3 1/2 yrs** into the 17yr programme

### Progress with our strategic goals

We will be launching the tunnel boring machines to start the construction of the longest tunnel on Phase One – the 9.8 mile Chilterns Tunnel. At the same time we will be starting detailed design and construction on the London stations at Euston and Old Oak Common. Individually these are significant engineering undertakings, and demonstrate the scale of the project.

Our new standards in customer experience will be an unmistakeable feature of our stations and delivering value to the UK taxpayer will, as always, run through everything we do. This year, as we approach a complete route design and environmental analysis for the Phase 2b Parliamentary Bill, we will update the Business Case for Phase 2b. In doing so, we will demonstrate to the Government's satisfaction that our Phase 2b proposals are cost competitive against international benchmarks and will deliver value for money.

Royal Assent of Phase 2a will be another landmark moment in accelerating the benefits of HS2 to the North. This will support our goals to add capacity and connectivity to the network and be a catalyst for sustained and balanced economic growth across the UK.

By 2020 the initial intake at the National College for High Speed Rail will be finishing their three-year apprenticeship and many will be looking to put their new skills into practice working on the construction of HS2.

Construction will also see the start of the physical environmental mitigation and ecological works that will reduce impacts on communities from the railway, contributing to our goals of creating an environmentally sustainable solution and being a good neighbour to local communities. We will continue to have two-way conversations with our communities, both talking and listening to all those affected and demonstrating how their views are taken into consideration in the design and delivery of the railway.

## Resources

To deliver this we will spend  
**£4,803m**  
(nominal prices)

To deliver this we have assumed our workforce will not need to exceed  
**1,650**  
(full-time equivalents)

### THE LONGER TERM

While the three years to April 2020 will see a huge change in our work on Phase One and great progress on Phase Two, the following three years will see an even greater volume and complexity of work.

The construction work on Phase One will continue building to a peak in the early 2020s, with 2021 and 2022 seeing construction work the length of the Phase One and Phase 2a route on tunnels, bridges, embankments and vital environmental mitigations. In addition to this civil engineering and environmental work, we will be overseeing design for the railway systems including train controls, signals, power and depot construction.

At the same time, in the early 2020s we will also be making decisions that will materially impact customer experience and the places we will create at stations, as we work through detailed design and construction of the stations, design of the rolling stock and development of the proposals

for Railway Operations. By 2023 we will be undertaking our role as Infrastructure Manager, supporting the mobilisation of the operator and starting driver training ahead of testing and commissioning work in 2024 and 2025, with the first train arriving for testing in 2024.

While this is happening on Phase One and Phase 2a, Phase 2b will be growing in complexity and making rapid progress in the early 2020s. We will close out the Parliamentary scrutiny of our proposals (parliamentary time permitting), start to procure our suppliers for construction and assemble the land needed for Phase 2b.

Looking beyond the early 2020s, Phase One and Phase 2a construction will start to wind up. Testing and commissioning, the start of operations on Phase One and the construction of Phase 2b infrastructure will continue to broaden our focus, and our engagement with communities along the route.

*Snow Hill, Birmingham*



hs  
2

 Safe  
at heart

