

HS2

Supply Chain FAQs

www.hs2.org.uk



Frequently Asked Questions

As part of our ongoing market engagement, High Speed Two (HS2) Limited sought input from industry umbrella bodies and trade associations that represent supply chain organisations. Our aim was to poll a good sample of these organisations and ascertain questions the supply chain would like answered about the HS2 project. We have categorised those frequently asked questions and provided our responses in this document, which are updated on a periodic basis.

Contents

| | |
|--------------------------------------------------------------------------------------|-----------|
| What are we buying? | 4 |
| 1 Design and Professional Services | 5 |
| 1.1 What are the design and professional services opportunities? | 5 |
| 2 Civil Engineering | 6 |
| 2.1 What are the civil engineering opportunities? | 6 |
| 3 Railway Systems | 8 |
| 3.1 What are the railway systems opportunities? | 8 |
| 3.2 How will HS2 Ltd ensure proper systems integration? | 8 |
| 4 Rolling Stock | 9 |
| 4.1 What are the rolling stock opportunities? | 9 |
| 5 Corporate Services | 10 |
| 5.1 What goods and services will HS2 Ltd be buying at a corporate level? | 10 |
| 5.2 How will opportunities be advertised? | 10 |
| 5.3 Are any categories of spend outsourced or out of scope for tender opportunities? | 10 |
| 6 What Operational Services will we be providing? | 11 |
| 6.1 Railway Operations | 11 |
| 6.2 Who are we buying from? | 12 |
| 6.3 When are we buying? | 14 |
| 7 How are we buying? | 16 |
| 7.1 Contract Opportunities | 16 |
| 7.2 Contracting Approach | 16 |
| 7.3 Conflicts of Interest | 18 |
| 7.4 Project Insurances | 19 |
| 8 What is important to HS2 Ltd? | 20 |
| 8.1 Our Strategic Goals | 20 |
| 8.2 Our Culture | 20 |
| 8.3 Collaboration | 21 |
| 8.4 Innovation | 22 |
| 8.5 Sustainability | 23 |
| 8.6 Health and Safety | 24 |
| 8.7 Whole Life Cost | 25 |
| 8.8 Fair Payment | 26 |

| | | |
|----------|-----------------------------------------------------------------------------|-----------|
| 8.9 | Skills, Education and Employment | 27 |
| 8.10 | National College for High Speed Rail | 28 |
| 8.11 | Equality, Diversity and Inclusion | 30 |
| 8.12 | Community Engagement | 31 |
| 8.13 | BIM | 33 |
| 9 | What can suppliers do now? | 37 |
| 9.1 | View our supply chain resources | 37 |
| 9.2 | Register to hear about HS2 contract opportunities | 37 |
| 9.3 | Update your details, sign up to our supply chain bulletin and stay in touch | 37 |
| | Useful links | 38 |

What are we buying?

What are the main categories of procurement?

HS2 Ltd needs a full range of works, goods and services to deliver the programme. The main categories we are focusing on to deliver Phase One include:

- Design and Professional Services
- Civil Engineering (tunnels, surface route, stations)
- Railway Systems
- Rolling Stock

For Phase Two the opportunities may include the following types of services:

- Ground Investigation Surveys
- Utility Diversions
- Delivery Partner
- Professional Services
- Enabling Works
- Civil Engineering (tunnels, surface route, stations)
- Railway Systems
- Rolling Stock

It is expected that a number of indirect supply chain opportunities will arise from our direct Tier 1 contracts. In order to gain sight of these opportunities, it is recommended to register on **CompeteFor** where indirect supply chain opportunities will be advertised. Further direct HS2 opportunities will be published on **Contracts Finder** and also on **Tenders Electronic Daily** (TED) where applicable.

1 Design and Professional Services

1.1 What are the design and professional services opportunities?

1.1.1 Phase One – Engineering Delivery Partner (awarded)

In 2016 we appointed our Engineering Delivery Partner (EDP) to support the development of the anticipated next stages of Phase One of the project. The EDP is assisting HS2 Ltd with technical approvals, design verification and interdisciplinary design assurance as part of contract management.

1.1.2 Phase Two – Professional Services Contracts (awarded)

These are contracts that are designed to assist HS2 Ltd in preparing materials for submission of Hybrid Bill documents for Phase 2a (Birmingham to Crewe) and Phase 2b (Crewe to Manchester and Birmingham to Leeds).

For Phase 2a, we have appointed consultants for the engineering and environmental design work. For Phase Two, we have awarded a framework to deliver railway systems design work. Both have some potential for sub-consultant opportunities.

Combined engineering and environmental design contracts have been awarded for Phase 2b. These comprise of three geographically-based contracts.

1.1.3 Phase 2b – Development Partner (awarded)

This is a development partner contract which will provide project management and related skills to help HS2 Ltd prepare bill materials for Phase 2b.

Contact details for our chosen suppliers can be found in the **contract opportunities table**.

2 Civil Engineering

2.1 What are the civil engineering opportunities?

2.1.1 Enabling Works Contracts (awarded)

These are management contracts for Phase One under which a wide variety of enabling works activities are being delivered. The work is split into three geographic contracts: area south; area central; and area north. Each contains roughly one-third of the work, with a total contract value of £900 million (£300 million in each area).

The Enabling Works Contractors will employ thousands of people on site and in the supply chain, preparing the ground for the start of major civil engineering. Supply chain opportunities for example may relate to surveys, ecological and archaeological works, utility diversions and preliminary earthworks.

Contact details for our chosen suppliers can be found in the **contract opportunities table**.

2.1.2 Main Works Civils Contracts (awarded)

Phase One involves 140 miles of new infrastructure; it will take up to eight years to construct. We are using a two-stage design and build (D&B) approach to deliver affordable best value for our Main Works Civils Contracts. We believe that establishing the delivery team early (contractor, designer and key supply chain) supports the development of integrated team-working and collaborative relationships, with incentives to focus on best-value delivery, within budget, throughout the design and construction stages.

There are seven civils packages covering the surface route and tunnels: three in area central; two in area north; and two in area south. There is also an option to run a mini-competition amongst these suppliers to deliver Phase 2a, from Birmingham to Crewe. Supply chain opportunities may relate to surveys, piling works, earthworks and supply of materials including concrete and steelwork.

Contact details for our chosen suppliers can be found in the **contract opportunities table**.

2.1.3 Stations

Phase One involves four new stations. The procurement approach reflects that each station has different requirements:

- Curzon Street is in Birmingham city centre;
- Birmingham Interchange is a greenfield site;
- Old Oak Common is a brownfield site; and
- London Euston is an extremely busy operating station.

We are procuring two Construction Partner contracts for the southern (London) stations – procurement started in autumn 2017. The procurement approach for the northern (Birmingham) stations will be two design, build and construct contracts for which the procurement will commence in 2018/19.

We have already procured world-leading designers to help develop and refine the detailed plans for the four stations – more information can be found **here**.

In addition, we have appointed our **Master Development Partner** (MDP) for London Euston. They will work with the Greater London Authority and London Borough of Camden to develop a masterplan for the 54 hectare station site and take forward opportunities for sustainable mixed-use development once station construction is complete, which may unlock up to 4.84 million square feet of development space. In December 2016 we conducted a Stations Industry Day where the Design Vision Documents were shared as follows.

- <https://www.gov.uk/government/publications/hs2-design-vision>
- <https://www.gov.uk/government/collections/design-at-hs2>

We have also published a full recording of the event on our YouTube page. There are 5 separate videos:

1. Opening remarks and overview for the stations industry event.

<https://www.youtube.com/watch?v=SDWaYNU94Qo>

2. Design overview vision.

<https://www.youtube.com/watch?v=ibAVUYoDq0A>

3. Railway operations and the customer experience.

<https://www.youtube.com/watch?v=F7LPCwMu1Fo>

4. Scope and constraints of each station.

<https://www.youtube.com/watch?v=N8m1VHV0X0E>

5. Procurement approach for the design and construction of the Phase One stations.

<https://www.youtube.com/watch?v=6qUiza85Zvc>

For the latest procurement status and details of shortlisted and awarded suppliers, please see the **contract opportunities table**.

2.1.4 For the civil engineering works contracts, will you re-tender the works package at the end of Stage 1 of the two-stage D&B process?

The use of two-stage design & build (D&B) is a fundamental part of our Main Works Civils Contracts for Phase One. The two-stage D&B approach integrates design development and construction planning at a relatively early stage of delivery, which in turn permits the contractor, designers and key supply chain partners to develop innovative solutions.

Using two-stage D&B allows the design, development and construction planning (Stage 1) to be followed by the detailed design and construction (Stage 2). Progression from Stage 1 to Stage 2 will depend on satisfactory performance during Stage 1, which will include developing a cost-effective solution and agreeing an affordable target price reflecting a deliverable proposal for the construction.

2.1.5 What is HS2 Ltd's approach to scheme design, and why have these design stages been adopted as opposed to GRIP or RIBA?

We found that the usual stages of other plans of work (such as GRIP and RIBA) could not adequately cover the stages of our activities. Therefore, we have written our own system to track design stages for each discipline. Our approach tracks the design from its parliamentary stages, through specification design and scheme design (which produces a single approved, buildable scheme), to the detailed design (which will typically be carried out by our contractors' designers).

3 Railway Systems

3.1 What are the railway systems opportunities?

Following structured market engagement to seek feedback on our proposed procurement approach, we have based our procurement strategy around procuring large, network-wide packages covering Phase One (London to West Midlands) and Phase 2a (West Midlands to Crewe). This will ensure that continuity and standardisation of assets is maintained. The core disciplines include:

1. Track and Overhead Catenary System (OCS)
2. Tunnel and Open Route Mechanical & Electrical Fit out and ventilation
3. HV Power Distribution (including Traction Power Infrastructure – Lineside Auto Transformer Stations (ATS) and Auto Transformer Feeder Stations (ATFS))
4. Telecommunications (including Data Transmission network and Emergency Services Radio Network)
5. Command Control Signalling & Traffic Management
6. Network Integrated Control Centre (NICC) Building & Washwood Heath Depot (WWH)

For the latest procurement status and details of shortlisted and awarded suppliers, please see the [contract opportunities table](#).

3.2 How will HS2 Ltd ensure proper systems integration?

We understand the importance of a robust and comprehensive approach to systems integration. We are the systems integrator, assisted by our contractors. In developing our strategies, we are considering the optimal approach for the systems integration role and specific requirements of our future suppliers. We have already engaged potential suppliers on the most appropriate mechanisms to encourage collaboration to assist us in system integration of the railway systems packages, and will include contractual mechanisms to support collaboration and integration across the HS2 programme.

4 Rolling Stock

4.1 What are the rolling stock opportunities?

The rolling stock that operates on the HS2 infrastructure will be one of the most visible forms of the service offering. It must be designed for the future passenger to ensure a seamless, accessible and dependable experience for decades to come. It must also meet our design and performance aspirations and the highest international standards for passenger experience, reliability, noise reduction, whole-life value and environmental sustainability, while maximising the opportunities for developing skills, employment and economic growth.

The rolling stock strategy has been informed by feedback from the market and by other railway operations across the world, following a comprehensive set of engagements. We have also drawn upon lessons learnt from recent UK projects, including the Intercity Express Programme, Thameslink, Crossrail, and major international high-speed rail projects. In March 2017, we held an industry event – the presentation material from the day and our Pre-Qualification Technical Summary can be found [on our website](#).

We will buy an initial fleet of ‘conventional compatible’ trains, capable of operating on both the high-speed network and ‘conventional’ infrastructure. This will include a maintenance provision of at least 12 years and the supply of on-board signalling. HS2 Ltd will be responsible for delivering a new depot at Washwood Heath, Birmingham, as part of our Railway Systems category.

The rolling stock procurement presents a significant opportunity for the supply chain at all levels, including UK suppliers and SMEs from various disciplines including; design, engineering, technology and customer experience, during the manufacturing, service entry and maintenance phases. The first trains will be supporting testing and commissioning from 2024, before their introduction into service from 2026.

5 Corporate Services

5.1 What goods and services will HS2 Ltd be buying at a corporate level?

We will need corporate and professional services for our day-to-day operations, ranging from legal advice and management consultancy to IT and creative services. Generally, anything that is not construction, railway systems or rolling stock is classified as corporate services.

5.2 How will opportunities be advertised?

All qualifying opportunities over £10,000 are advertised on **Contracts Finder** (and for higher value opportunities, also on **Tenders Electronic Daily** (TED)), with the tender process undertaken using the HS2 e-Sourcing system **Bravo Solutions**. Our upcoming opportunities can be found on our **contract opportunities table**.

5.3 Are any categories of spend outsourced or out of scope for tender opportunities?

No, but we will use other existing government frameworks where these are appropriate, for example, our IT requirements are generally sourced via the Crown Commercial Services G-Cloud Frameworks or other Crown Commercial Services frameworks such as the Management Consultancy framework, Digital Outcomes & Services (DOS), Network Services and Technology Services 2, if appropriate for the requirement. For further information on these frameworks, and how to apply for these roles, visit the **Crown Commercial Services website**.

6 What Operational Services will we be providing?

6.1 Railway Operations

6.1.1 What will it be like to travel on HS2?

We plan to deliver to our customers a level of journey experience that sets new global benchmarks for service excellence – resulting in a situation where passengers, and the wider communities that are served, take an ongoing pride in the service and spontaneously advocate travelling by HS2.

The first passengers will travel on HS2 in 2026 – that’s still quite a long way off and we know that customer needs and expectations, as well as the technologies that enable delivery of services to meet those needs, will continue to evolve in the intervening period. However, we will work to the following principles:

- **Everything starts and ends with people.** The customer is at the heart of the service design.
- **The way that HS2 operates is simple and sensible.** Every effort must be made to reduce complexity, from the ticketing process, to where to find the toilets, to changing seats and how to move around the station.
- **Offering the choice and flexibility that people want.** We know that consumers of every type of service are demanding more control of their experiences, meaning greater choice of channels and individual touch-points, whether self-guided or supported.

6.1.2 What does this mean for the design and supply of goods and services?

To be successful, the goods and services we procure must be:

- **Safe and secure**
Delivered by people whose passion for service delivery is matched by our commitment to their wellbeing.
- **Intuitive, personalised and easy to use**
The customer’s experience will be one of civilised calmness where they have placed well-founded trust in HS2 and its people to deliver.
- **Very reliable**
The target is to average less than 30 seconds delay accrued on the HS2 infrastructure for any train (measured as a moving annual average) at any destination. All other aspects of the total journey also need to be delivered with corresponding levels of reliability.
- **Well-maintained**
The operational railway and its trains will need to be well-maintained in order to maximise the availability of the infrastructure or trains for customer services, especially as megatrend data confirms an increasing move towards a 24/7 economy.

- **Integrated**

Whilst HS2 is a system that will set new standards and generate national pride, it will integrate seamlessly with other transport operations to ensure customers are able to make the best choice for their overall journey.

6.1.3 How will you ensure that your service offer is coherently designed and delivered?

We are putting in place a 'service design' approach to continuously review and define what experience the customer should expect. Together with our supply chain, we will be carrying out market research and finding out from a customer point of view what they expect the experience to be. We will look at the experience from an 'end-to-end' perspective, thinking about and integrating all parts of the journey including those parts not taken on the HS2 train or station, and considering the 'digital journey' that will be increasingly prominent in coming years.

Many elements of the customer experience will be supported by technology, processes and other innovations that do not currently exist or are at a low level of maturity. In these cases, we will apply the principle of 'last responsible moment' decision-making in determining final specifications for the detailed design of these elements – although engagement with the supply chain will be ongoing to ensure that there are no surprises.

6.1.4 Will HS2 Ltd be procuring the supply of goods and services for when commercial operations have commenced?

Whilst the start of commercial operations is still some way off, we are already planning to ensure that there is a smooth transition from the construction phase of the programme to operations. We are responsible for planning and delivering the HS2 infrastructure, and we are taking a whole-life value approach to the design, build, operation and maintenance of all elements.

In 2016, the government confirmed that the next operator of the West Coast Main Line franchise will also operate the first HS2 services. The new **West Coast Partnership** franchisee is expected to be in place by 2019. In the meantime, we are responsible for acting as the "Proxy Operator", ensuring that plans are developed and are capable of being implemented for all aspects of train operations, including the testing and commissioning, trial operations and full commercial service phases of the project.

6.2 Who are we buying from?

6.2.1 Who are HS2 Ltd buying from?

For each main category of works, we are buying a relatively small number of high-value, direct contracts. However, other large UK infrastructure projects, including the Olympics and Crossrail, have shown that for every direct contract the client buys, many more indirect opportunities are created.

We estimate that for every ten direct (Tier 1) contracts, tens of thousands of supply chain opportunities are likely to be generated. These are the opportunities that will be of most interest to SMEs, being the best match for their scale of operations and their specific capabilities.

6.2.2 Does HS2 Ltd propose to engage directly with SMEs?

There will be opportunities for businesses of all sizes to get involved. We will ensure that all potential suppliers (including SMEs) are engaged, informed and prepared to compete

for the business opportunities most suited to them. We will actively encourage SMEs to participate in the delivery of the project.

There will be an ongoing and sustained requirement for corporate services to support the delivery of the project (in areas such as marketing, consultancy and finance), as well as in supporting the development of the plans and proposals for Phase Two. These may present further opportunities for SMEs.

We have adopted a range of initiatives to facilitate SME involvement in the project, such as:

- Providing guidance on our website. See [hs2.org.uk](https://www.hs2.org.uk), to view our supplier guide, FAQs, contract opportunities table and conference material.
- Hosting national and regional roadshows to update local businesses on the project's progress, so that SMEs can get ready to respond to future and forthcoming opportunities.
- Working with trade associations, local enterprise partnerships, British Chambers of Commerce and national enterprise agencies (including the Welsh Assembly Government, Scottish Enterprise and Invest Northern Ireland) to ensure that SMEs are made aware of how to access emerging opportunities.
- Mandating all our Tier 1 suppliers to advertise all appropriate supply chain opportunities on [CompeteFor](#).
- Requiring Tier 1 suppliers to hold regular 'Meet the Contractor' events that will maximise the transparency of opportunities for SMEs.

6.2.3 How will HS2 Ltd engage with SMEs who are active in high speed rail technology and provide the springboard for further work overseas?

We have an extensive programme of market engagement with SMEs. Our programme focuses on communicating HS2 Ltd's requirements early in order to prepare industry to successfully deliver HS2 and develop skills that can be exported.

We are continuing to work closely with organisations such as the Rail Supply Group, who aim to "increase the capability and promotion of the UK Rail supply chain to bid for and win progressively larger major international projects". In February 2016 they launched their [sector strategy](#) for productivity and growth in the UK rail supply chain.

6.2.4 Will there be any consolidation of supply, particularly of unique rail or other specialist materials, to ensure cost-effective delivery and effective materials-planning?

We are working closely with our supply chain to support and manage peaks and troughs during the delivery phase. As a publicly funded organisation, we must be able to demonstrate that we have achieved value for money. This means demonstrating our values and what is important to us: how we will deliver lasting benefits, measure our progress and realise our vision.

6.2.5 How will HS2 Ltd leverage expertise in the supply chain?

We are continuing to work collaboratively with industry, sharing the scope of our requirements at the earliest possible opportunity. We use open procurement tools, such as [Contracts Finder](#) and [CompeteFor](#), to ensure transparency of business opportunities.

We have conducted a comprehensive market engagement programme at an earlier stage than ever seen before on major UK capital projects. This has been designed to encourage and attract the best companies and talent from across industry, and enable them to prepare their business to compete for the thousands of opportunities HS2 will generate.

Our approach to contracting is also helping to leverage the right expertise. For example, our two-stage design and build approach to our Main Works Civils Contracts allows integrated designer and contractor teams to spend longer in design and planning, using the time to engage with and mobilise a supply chain, and in doing so embed their ideas and ingenuity early in the delivery phase.

6.2.6 How will HS2 Ltd ensure opportunities are filtered through the supply chain?

We require our Tier 1 suppliers to advertise all appropriate supply chain opportunities on **CompeteFor** and hold annual 'Meet the Contractor' events to maximise the transparency of opportunities. This is the case for all our direct suppliers on the construction-related contracts.

'Meet the Contractor' events provide opportunities for specifically targeted businesses of all sizes to get direct contact with our Tier 1 suppliers as matched to their forward pipeline of demand. This ensures that appropriate potential suppliers (including SMEs) are engaged, informed and prepared to compete for the business opportunities most suited to their capabilities.

We liaise with leading Trade Associations, Growth Hubs, Local Enterprise Partnerships, Chambers of Commerce, Chartered Institutes, etc. to identify and engage the most suitable potential suppliers. Therefore, the 'Meet the Contractor' events are facilitated by HS2 Ltd but led by our Tier 1 Contractors. They communicate their supply chain requirements to the HS2 Supply Chain Team and they in turn work with established business networks to identify and invite potential suppliers to 1-2-1 meetings, workshops and networking at these events.

Please ensure you are registered on **CompeteFor** to be alerted to immediate opportunities as they emerge.

6.3 When are we buying?

6.3.1 When are HS2 awarding Tier 1 contracts?

We have already procured a significant proportion of our direct (Tier 1) contracts as part of Phase One. For example, our Ground Investigations and Engineering Delivery Partner contracts have been awarded, as well as three Enabling Works Contracts, one for each of the three geographical areas along the Phase One line of route, and seven Main Works Civils Contracts.

We will continue to award Tier 1 contracts until completion of Phase One in 2026. Many of the major works packages under each category will be procured between 2015 and 2019.

For Phase Two, we have awarded the following contracts:

- Professional Services Contracts for engineering and environmental services (Phase 2a).
- Contracts for railway systems, engineering and environmental services (Phase 2a and 2b).

- Development Partner contract (Phase 2b), which was announced in April 2017.

For the latest procurement status and details of shortlisted and awarded suppliers, please see the **contract opportunities table**.

6.3.2 When will the first contracts for Tier 2 and below be awarded?

There is typically a time lag from when major direct contracts are awarded to when supply chain opportunities become available. However, supply chain opportunities are continuing to arise via our Enabling Works contractors and Main Works Civils Contractors in particular. The timetable for procurement will be driven by the Tier 1 suppliers.

Details of direct opportunities and the procurement stage for each opportunity are published on our **contract opportunities table**. This lists our direct opportunities along with details of organisations who have been invited to tender for contracts, including their contact emails.

7 How are we buying?

7.1 Contract Opportunities

7.1.1 Where and when will opportunities be advertised?

For direct procurement opportunities (i.e. opportunities with HS2 Ltd), details of live and forthcoming opportunities are published on:

- The **business section** of our website, as opportunities develop and when it is appropriate to do so; and
- **Tenders Electronic Daily** (TED), as Contract Notices are published; and
- The UK Government's **Contracts Finder**.

Indirect opportunities at Tier 2 level and below are communicated and advertised by the direct (HS2 Tier 1) suppliers via **CompeteFor**, at HS2 'Meet the Contractor' events, trade body events and other Tier 1 contractor-led events.

Please ensure you register on **CompeteFor** to receive the new opportunity alerts.

7.2 Contracting Approach

7.2.1 How does HS2 manage the tender process?

All tenders are run and managed via the **HS2 Bravo e-Sourcing Portal**.

7.2.2 What forms of contract will HS2 use?

We are using the New Engineering Contract, third edition (NEC3) suite of contracts for most project requirements. The NEC3 is widely used across the construction sector, and engagement with the market has found that this form of contract is supported and understood by the industry. The NEC3 promotes a collaborative approach, which has a consistent record of delivering projects on time and on budget.

Specifically, we typically use the Professional Service Contract (PSC) for consultancy services opportunities and the Engineering and Construction Contract (ECC) for the works contracts. However, NEC3 may not be suitable or appropriate in some cases, for example, the rolling stock contract(s). We will remain flexible in our choice and use of standard forms of contracts. For our Main Works Civil Contracts, we will use the NEC3 Option C (Target Cost) form of contract.

Corporate contracts will be let, in the majority of cases, under the Crown Commercial Service (CCS) Standard Terms and Conditions for Services.

7.2.3 How will HS2 Ltd ensure that high-level contract terms are cascaded down the supply chain?

We seek consistency of contract terms throughout the supply chain, where appropriate, in order to ensure our suppliers can be broadly aligned in their objectives but without importing risk. We will mandate certain terms within our contracts to be cascaded through the supply chain, for example the use of open procurement tools such as **CompeteFor**.

Where we use the NEC3 suite of contracts, we also promote the use of NEC3 for our Tier 1 suppliers' own subcontracts, the wording for which will be pre-approved for use on our

contracts (provided that they are not unnecessarily or significantly amended). We expect a cascading of similar terms and conditions through our Tier 1 suppliers' contracts, particularly those provisions that relate to fair payment.

We want suppliers to see these opportunities as they arise so that they can compete for them, win work and become part of our supply chain. That is why we require our Tier 1 contractors to use **CompeteFor** to advertise all appropriate opportunities, and for them to cascade this requirement down through their own supply chains.

7.2.4 Will HS2 Ltd specify the pre-qualification process to be used by the supply chain?

We endeavour to use a pre-qualification process based on Publicly Available Specification 91 (PAS91), as developed by the British Standards Institute (BSI) for our Tier 1 (direct) contracts. We are also working with industry bodies to consider the possibility of cascading a similar approach through other tiers of the supply chain; we would prefer to achieve this through agreement with the supply chain rather than by imposition.

PAS91 is freely available from the BSI through the following link (registration is required to access the document): <http://shop.bsigroup.com/Navigate-by/PAS/PAS-91-2013/>.

HS2 Ltd is a 'utility company' as defined in the Utilities Contracts Regulations 2006 and 2016. As such, any procurement actions that are subject to the provisions of the regulations will be administered in compliance with them (or with any amendments or updates to the regulations that may be enacted prior to starting a procurement).

7.2.5 Will separate pre-qualification questionnaire (PQQ) applications be required for each separate work package?

Wherever possible, we endeavour to group contracts together as 'lots' under a single Contract Notice to be advertised in the Official Journal of the European Union (OJEU). This helps to make procurement more efficient, allowing for greater simplification of the PQQ process, and assists with managing the pre-qualification process for the suppliers.

7.2.6 What is HS2 Ltd's view on use of joint ventures (JVs) and consortia?

We recognise that JVs and consortia may be essential for delivering the larger works packages and we welcome the establishment of appropriate JV and consortia. Compliant expressions of interest or PQQ applications received from JV and consortia will be treated on an equal basis to submissions from single-entity organisations.

7.2.7 What is the approach HS2 Ltd takes to risk management?

We recognise the importance of adopting a collaborative approach to risk management and of working closely with all our supply chain, demonstrated by other comparable large-scale projects. We have implemented an Enterprise Risk Management Framework to support the organisation, its supply chain and other third party partners in identifying, analysing and managing risks identified throughout the project delivery.

Risks are fairly allocated through the supply chain to parties best placed to take ownership, ensuring that the level of risk-taking is appropriate for them. In addition, there is a shared expectation that every player will take ownership of the risks they could create for anyone downstream in the supply chain from them – we recognise that risks are very rarely an isolated event within a supply chain network on this scale.

We therefore see collaboration as being the absolute foundation for risk management in the supply chain. Ongoing openness and trust is critical to enable parties to come together, to identify and assess inter-company risks that would otherwise be missed.

7.2.8 Will any incentivisation mechanisms be developed collaboratively and be linked to the delivery of the project objectives?

We have developed and are deploying a range of incentive mechanisms. For example, for our Main Works Civils Contracts (MWCC) we have incentives that operate at three main levels:

- within each individual contract;
- within geographical areas; and
- across Phase One Tranches.

The incentivisation mechanisms that we deploy take into account the feedback we have obtained from market engagement and research exercises. For MWCC, they are intended to encourage and financially reward successful outcomes at the three main levels as appropriate and as described above.

We expect that our suppliers will develop innovative approaches to deliver successful outcomes that respond to incentivisation mechanisms, and these approaches are considered as a part of the award criteria during the tendering stage of a procurement.

We plan a range of financial and non-financial incentives aligned to the project objectives, while promoting and rewarding continuous improvement, with risk being apportioned fairly and appropriately.

7.3 Conflicts of Interest

7.3.1 How will HS2 Ltd deal with potential conflicts of interest in relation to suppliers?

We define a conflict of interest as: any situation where there is an actual, potential or perceived conflict, either commercially or professionally, between the interests or duties of HS2 Ltd and any party engaged (or in the process of being engaged) by HS2 Ltd.

Engagement may be either direct (i.e. a supplier or contractor) or indirect (i.e. a sub-contractor to a supplier). A conflict may also arise through HS2 Ltd employee spouses, partners, children and friends. It also extends to circumstances in which a conflict may be reasonably perceived to exist by either stakeholders of HS2 Ltd or a member of the general public. A conflict may also arise where a person or organisation may be in a position to misuse confidential information of HS2 Ltd to give unfair advantage to a bidder in a Procurement.

A broader conflicts of interest definition and guidance can be found in the **HS2 Supplier Guide**. We have put in place rules to ensure transparency is achieved in relation to managing conflict of interest matters, including convening a bi-monthly Conflicts of Interest Panel to provide recommendations for the management of potential conflicts. The management of the Panel is undertaken by Commercial Compliance, which is independent of any procurement process.

Many of the designers and consultants that are likely to provide advice to HS2 Ltd may also be engaged in advising our Tier 1 suppliers, leading to potential, perceived or actual conflicts of interest – some of which will be unacceptable.

We have a dedicated email address, compliance@hs2.org.uk, to allow reporting of potential, perceived or actual conflicts to the Compliance Manager(s). Suppliers with HS2 contracts should initially raise conflicts queries directly with their HS2 contract manager.

We actively encourage suppliers to inform us if they believe a conflict of interest has or may occur.

During an HS2 Ltd procurement, detailed conflict of interest information is provided to participating suppliers including definitions, declaration and management. All dialogue regarding conflict of interest matters must be communicated via the **HS2 e-procurement system**.

All HS2 Ltd staff are trained in procurement processes, including compliance with the Probity Policy, which sets out the physical, behavioural and technology standards that all involved in the procurement process will adhere to, with particular emphasis on tender evaluation, where additional training is provided.

7.4 Project Insurances

7.4.1 Will HS2 Ltd provide any insurance cover for suppliers?

For the Main Works Civils Contracts (MWCCs) and their subcontracts let in 2017 or later, we have purchased an Owner Controlled Insurance Programme (OCIP), which provide the following insurance covers for all contractors and subcontractors through the supply chain – subject as always to the insurance policy limits of indemnity, excesses, exclusions and other terms and conditions:

- Construction All Risks;
- Public and Products Liability;
- Environmental Impairment Liability;
- Terrorism.

Please note that at present we provide no insurance cover for contractors and subcontractors working on contracts awarded prior to the MWCCs in 2017.

7.4.2 What insurances do suppliers need to hold and maintain themselves?

Contractors and subcontractors working under Main Works Civils Contracts let in 2017 or later are required to procure and maintain the following insurances themselves, in line with the terms of their individual contracts:

- Professional indemnity insurance to the level stated in their contract;
- Property damage insurance in respect of their construction equipment;
- Public liability insurance for their off-site and non-construction-related risk exposures;
- Statutory insurances, such as Employers Liability and Motor insurances.

Please note that contractors and subcontractors working under contracts awarded prior to the award of the MWCCs will not have the benefit of the insurance covers that we have purchased, at present. They will therefore need to procure and arrange those further insurances in line with the terms of their individual contracts.

8 What is important to HS2 Ltd?

8.1 Our Strategic Goals

8.1.1 What are the HS2 Programme's strategic goals?

The HS2 Programme has seven strategic goals that help to translate our vision and mission into more specific plans and activities. They are long-term goals, drawn from the business case for the programme, and shared by HS2 Ltd, DfT and other government departments, which provides a basis for collaboration.

The seven strategic goals are that HS2 will:

- Be a catalyst for sustained and balanced economic growth across the UK;
- Add capacity and connectivity as part of a 21st century integrated transport system;
- Deliver value to the UK taxpayer and passenger;
- Set new standards in passenger experience;
- Create opportunities for skills and employment;
- Create a railway designed, built and operated with world-class health, safety and security standards; and
- Create an environmentally sustainable solution and be a good neighbour to local communities.

8.1.2 How will we implement our strategic goals?

The strategic goals form the basis of contract-specific supplier scorecards. During procurement and delivery, we will evaluate suppliers' performance against our strategic goals and against a number of criteria, weighted to reflect the contract requirements.

We are developing supplier scorecards to establish metrics for testing during delivery, while our 'enablers' are practical ways of working with our supply chain to assist in delivering value. They are written into our procedures and contracts with suppliers, and reflected in the way we do business.

We also encourage our Tier 1 contractors to consider supplier scorecards when procuring their own suppliers and managing supplier performance. The measures reported in supplier scorecards will be aggregated and used by ourselves and DfT to report overall progress in delivering the benefits, or long-term outcomes, expected from the programme.

For further information about our supplier scorecard, view our [Supplier Guide](#).

8.2 Our Culture

8.2.1 What type of culture does HS2 Ltd have?

We believe that a high-performing culture underpins the successful delivery of our programme and the success of our role as a client to our supply chain.

We value sustainability – be it environmental, social or economic. And not just in what we build but how we build it, by being innovative and working collaboratively.

Our values of leadership, respect, integrity and safety, combined with how we do things every day, sustainably, innovatively and collaboratively, form our culture.

- **Sustainability** means how we create a legacy for the UK from HS2 – in its broadest sense – socially, economically and environmentally.
- **Innovation** means how we create space for and support new solutions to deliver lasting benefits.
- **Collaboration** means how we work together across our supply chain to deliver this.

8.2.2 Will only those businesses with a similar culture to HS2 Ltd win work?

To work successfully with our supply chain, we are creating a shared vision of what we can achieve together, aligning our values so that we have a common understanding of how we do things from day to day. Having a shared culture will help us all create the maximum value for the programme.

We expect our supply chain to help build this shared culture throughout the life of their contracts. We also expect suppliers to live our values with us, and encourage behaviours demonstrating leadership, integrity, respect and safety in their staff and across their own supply chains.

8.2.3 What is HS2 Ltd's approach to business gifts and hospitality?

We recognise that modest, occasional gifts and hospitality are commonly used to build goodwill and strengthen working relationships. Providing or accepting occasional gifts or hospitality may be appropriate in certain circumstances. However, if offers are frequent or above nominal value (individually £15), they may create a perceived or actual conflict of interest or illicit payment that does not reflect the HS2 culture.

When considering the appropriateness of giving or receiving a business gift or hospitality, HS2 staff always think about:

- the value (should be of minimal value);
- the sum of gifts and hospitality to or from an entity over time (normally one year);
- the suitability of the gift or hospitality given the respective positions of the provider and recipient;
- the impact of the gift or hospitality at a given time (e.g. giving or receiving prior to or during a procurement process is not acceptable); and
- how the gift or hospitality might look to an outsider.

We hold a register of gifts and hospitality provided, received or declined, which our staff must maintain in order to comply with organisational policy.

8.3 Collaboration

8.3.1 How will HS2 Ltd promote collaboration across the supply chain?

We are seeking business relationships that are formed by committed organisations to maximise joint performance, deliver mutual objectives and create additional value.

This means working pro-actively with others in an integrated way, so we achieve truly shared goals, encourage innovation and sustainability, and make the best use of resources for efficient delivery of activities.

We demonstrate our commitment to collaboration through selected principles and tools, and by undertaking certification to a strategic framework based on BS 11000, leading to ISO 44001. Against this background, we promote collaboration by engaging continuously and regularly with the supply chain, looking to share innovation, ideas and best practice.

We seek to appoint integrated delivery teams early and to identify collaborative procurement opportunities. We also plan a range of financial and non-financial incentives aligned to the project objectives, while promoting and rewarding continuous improvement, with risk being apportioned fairly and appropriately.

8.4 Innovation

8.4.1 What does innovation mean to HS2 Ltd and what are you doing to encourage it?

Innovation is critical to the success of HS2. We will need to innovate in order to deliver against the strategic goals and objectives of the project. At HS2, innovation relates to delivering something differently to provide a benefit beyond that which could be considered industry best practice. Innovations are not limited to technology and can be related to products, materials, people or processes/methods.

We have developed an innovation strategy to maximise the potential benefits of innovation and to ensure risk is managed appropriately. This includes an innovation process that will provide the ability to crowd source suggestions, and ultimately develop, test and prototype ideas ahead of potentially selecting them for use in the project.

8.4.2 In what areas does HS2 Ltd want innovation?

We will use innovation to support and enable the delivery of a wide range of benefits, aligned to the strategic goals and objectives of the project. These have been split into six areas of innovation, namely:

- **Safety** – caring for our workforce, our passengers and the public, by creating an environment where no one gets hurt;
- **Robust operations** – ensuring reliability of rail operations whilst maximising the value of the network for its 120-year design life;
- **People/ passenger experience** (placing people at the heart of our design to set new standards in passenger experience and customer service);
- **Sustainability** – balancing social, economic and environmental priorities;
- **Design & aesthetics** – maximising the benefits of great design thinking and integrated solutions by using our three core design principles of people, place and time; and
- **Excellence in delivery/ construction** – driving value for money during construction whilst minimising disruption during the works.

Innovation will be used to deliver demonstrable improvements over what can be considered current best practice in each of these areas.

8.4.3 How will innovative ideas be shared?

We have launched a cloud-based ideas management platform, **The Innovation Hub**, for all HS2 Ltd employees and Contracting Partners, to encourage collaboration around specific innovation challenges and to share good ideas for use on the project. To supplement this virtual collaboration space, innovation forums will be conducted to share emerging ideas and celebrate successes in innovation.

8.4.4 How will innovation be encouraged within the supply chain?

The procurement process will aim to identify management capabilities for innovation within potential supplier organisations and their supply chains. We will proactively

source innovative solutions using a variety of collaborative mechanisms. Contractual arrangements will incentivise delivery of innovative ideas and their potential benefits whilst appropriately managing risk.

8.4.5 Why is attracting innovative suppliers so important to HS2?

Innovation is critical to the successful delivery of HS2. We want to encourage innovative suppliers to help deliver a world class high speed railway for the UK, drive value for money and help move the industry forward. We are interested in accessing expertise and capability from adjacent markets and targeting innovative companies, including SMEs, which will support the delivery of our strategic goals and objectives.

8.5 Sustainability

8.5.1 What does HS2 Ltd mean by sustainability and what is your approach to sustainability?

Our vision is to be a catalyst for growth across Britain, to do more than just build and operate a rail network. It's about ensuring we deliver social, environmental and economic benefits in the shorter and longer term. We have set out our approach to sustainability in our publication – *Transforming lives, building for the future*, available on our [supplier guide page](#). Our approach groups our work into five themes that support our vision and strategic goals. These themes are:

1. Spreading the benefits: economic growth and community regeneration.
2. Opportunities for all: skills, employment and education.
3. Safe at heart: health, safety and wellbeing.
4. Respecting our surroundings: environmental protection and management.
5. Standing the test of time: design that is future-proof.

8.5.2 What is supply chain sustainability and why does HS2 Ltd care about it?

Sustainability is at the centre of what we do at HS2 Ltd. We are committed to working with suppliers and partners that share our values regarding sustainability. Suppliers need to demonstrate their sustainability credentials in the tendering process and deliver against our sustainability requirements in the contract, and even try to outperform these.

During procurement and delivery, we evaluate suppliers' performance against our strategic goals, including sustainability. Our supplier scorecard sets out what is important to us, how we measure our progress and realise our vision. For more information, see our [Supplier Guide](#).

8.5.3 What are the benefits of collaborating with the supply chain to address sustainability?

As a thin client, we know that we need to collaborate with our supply chain in order to meet our commitment to being an exemplar project and delivering a sustainable railway; we believe that together we will deliver social, environmental and economic benefits in the shorter and longer term. Innovation is key to delivering sustainable solutions and we know that good ideas and innovations come from all tiers within the supply chain – we will nurture these.

8.5.4 Will suppliers be required to report on sustainability performance and what type of information will they need to report?

Yes, our suppliers are required to submit data on a number of sustainability metrics including carbon footprint, waste, vehicle emissions and materials.

8.5.5 Our company is classed as an SME. How does sustainability apply to us?

SMEs will play a vital role in us meeting our sustainability aspirations. As with any supplier, we will expect SMEs to adopt our sustainability approach and strategies, which will in turn benefit the supply chain and ultimately the HS2 programme as a whole.

8.5.6 How is HS2 Ltd engaging with suppliers on sustainability issues?

As sustainability is embedded in our working ethics, through our mission, vision and values, we promote how we think about sustainability through a number of different avenues. From our supplier conferences to being a partner of the Supply Chain Sustainability School (SCSS) we have, and will continue to, engage with suppliers on sustainability issues.

8.5.7 What is HS2's definition of the Circular Economy and, as a supplier, what do I need to do?

We have defined the circular economy as an alternative to the traditional linear economy (make, use, dispose) whereby resources are kept in use and at their highest value for as long as possible. It can therefore thrive in the long term by decoupling economic growth and development from the consumption of finite resources.

The circular economy is more than simply recycling; it involves looking at the entire life cycle of any process, creating and optimising value by reconsidering what might be seen as waste or system losses and identifying opportunities to achieve the best whole-life outcome.

We are asking that our suppliers identify and realise opportunities to embed the **HS2 Circular Economy Principles** throughout the delivery of the programme. Therefore you should consider how what you offer can help us achieve these principles and articulate this when you are putting forward your proposition to us or others in our supply chain.

Some useful resources relating to the circular economy include:

- **Top Tips for Embedding Circular Economy Principles in the Construction Industry**
- **Building Blocks of a Circular Economy**
- **Circularity in the Built Environment Case Studies**
- **BS 8001:2017 Framework for implementing the principles of the circular economy in organizations**

8.6 Health and Safety

8.6.1 What is HS2 Ltd's approach to health and safety?

Health and safety is all about caring for our collective workforce, our passengers and the public by creating an environment where no one gets hurt. This is manifested by us:

- Making safety our first consideration
- Acting now to mitigate risks wherever and whenever they occur
- Speaking up and intervening if something is unsafe

- Taking responsibility for our own and others' health, safety and wellbeing.

As part of our strategic approach we have identified seven areas, or themes, of activity – those areas where we believe we can make the most difference and where the greatest areas of risk lie. These are:

- Workforce safety
- Public and neighbour safety
- Occupational health and wellbeing
- Safety by design
- Safe supply chain management
- Operations safety
- SMART assurance.

8.6.2 Will Construction Skills Certification Scheme (CSCS) cards (or cards carrying the CSCS logo) be required by all personnel on HS2 Ltd projects?

Yes – all personnel working on, or regularly visiting, our projects will be required to hold a CSCS card of the appropriate level.

8.6.3 Will supply chain members be required to join Constructing Better Health (CBH)?

We do not require the supply chain to be members of CBH. We are committed to caring for our collective workforce, our passengers and the public by creating an environment where no one gets hurt. We think that CBH sets a great standard, but that we can go further to set new standards for Health and Safety in the construction of HS2.

We are developing minimum occupational health standards that suppliers will be required to comply with. We will also require suppliers to use a Safety Passport database on which certain occupational health information will be held.

8.6.4 Will HS2 Ltd require specific occupational health requirements or monitoring of workers' health?

Yes, we will set specific health requirements and approaches, such as health by design, along with controlled exposure (from working shift patterns through to potential exposure to carcinogens) and continuous monitoring requirements.

8.7 Whole Life Cost

8.7.1 How will HS2 Ltd ensure a whole-life costing approach?

We are committed to delivering Whole Life Value (WLV) and we are progressively monitoring the development of the HS2 scheme in WLV (which includes Whole Life Benefits and Whole Life Cost) terms using a suite of tools and models.

As the programme matures and the scope becomes better defined at a more disaggregated level we are developing an increasing level of understanding of performance and operating and maintenance costs. This allows us to set out standards and project requirements which enhance WLV.

To help deepen this understanding we are working with suppliers to build consideration of WLV into our contracts and, where appropriate, we are seeking specific input from suppliers to help enhance WLV performance through good collaborative working arrangements and incentive mechanisms.

8.7.2 How does HS2 Ltd plan to deliver the project within the budget constraints?

We have an agreed funding position and have developed a robust budget to deliver to a specific scope and schedule within that funding envelope. We have established project and financial controls which allow us to manage emerging scope and schedule conflicts within the constraints of the available funding.

The core budget provides a baseline against which we will control and manage costs. Any changes to this baseline must be justified via the change control mechanism.

8.8 Fair Payment

8.8.1 What is the HS2 Ltd Fair Payment approach?

Payment terms within our contracts will be aligned to UK government policy and will meet all statutory and mandatory requirements. We are working to:

- Ensure prompt payment of the supply chain;
- Help protect suppliers – particularly SMEs – from poor payment practices; and
- Support adherence to the commitments in the Supply Chain Payment Charter.

Furthermore, we will monitor the payment performance of our Tier 1 suppliers to ensure that they adhere to the fair payment requirements in their agreements with us.

We are monitoring the introduction of any future amendments to the procurement regulations that may permit us to make direct payments to sub-suppliers in the event that it is appropriate to do so, and when the commitments set down in the Supply Chain Payment Charter are not being adhered to.

We will agree payment terms with our supply chain on a case-by-case basis and we are committed to pay promptly and fairly. As a default, we commit to pay all suppliers within 30 days, in line with government guidelines. However, in certain circumstances, payment terms may be less than 30 days.

8.8.2 Does HS2 Ltd support the commitments in the Supply Chain Payment Charter (published by the Construction Leadership Council)?

Yes. We will develop a bespoke Fair Payment Charter for Construction based on the principles of the Office of Government Commerce (OGC) Fair Payment template.

8.8.3 Will HS2 Ltd specify the payment terms throughout the supply chain?

Yes – for certain aspects of the project, HS2 will specify payment terms that will flow down through sub-contracts to the entire supply chain.

8.8.4 Will HS2 Ltd withhold retention from its Tier 1 suppliers? Will Tier 1 suppliers be required to implement the same terms with their sub-suppliers?

We are committed to having no cash retentions and will cascade this requirement through the supply chain via our Tier 1 contracts.

8.8.5 Will HS2 Ltd establish a whistleblowing process?

Yes – for certain aspects of the project, we will establish a supply chain whistleblowing process to enable any member at any tier of the supply chain to report persistent breaches such as failures to pay fairly and within the Fair Payment charter terms. These reports will be investigated by HS2 Ltd and where necessary taken up with the offending

party. We will accept reports direct from individual suppliers or made through the organisation's trade associations, if this is preferable.

8.8.6 Will HS2 Ltd audit payments through the supply chain?

For certain aspects of the project, e.g. for Tier 1 construction contracts, we will ensure that the NEC3 contract wording – regarding right of audit of payment quantum and performance – is included in all Tier 1 contracts, alongside a Key Performance Indicator to require regular reporting of adherence to payment terms down the supply chain.

8.8.7 Will HS2 Ltd use project bank accounts (PBAs) and, if so, will they be used throughout the supply chain?

We have considered the use of Project Bank Accounts, conducting extensive research with exemplar projects and the market. We are passionate about prompt payment and fair treatment of the supply chain at all levels.

We consider that value and fairer treatment at all levels of the supply chain is better served by generally cash flow-neutral payment terms, contractualisation of fair payment charter provisions and mandatory contract flow-downs, together with monitoring of prompt payment metrics and a “whistle-blowing” hotline direct to HS2 for any suppliers experiencing payment or cash flow difficulties.

8.9 Skills, Education and Employment

8.9.1 How is HS2 Ltd working to address current and future skills shortages?

Creating opportunities for skills and employment is one of our seven strategic goals and is integral to our vision to be a catalyst for sustained and balanced growth across the UK.

We, along with the transport, engineering and infrastructure industry as a whole, are expecting to face a significant skills challenge in finding the required numbers of people with the type and level of skills needed. In addition to meeting our obligations through our supply chain, we are addressing this challenge through our support for a number of employment, skills and educational initiatives.

We are working closely with the rail industry to support the National College for High Speed Rail, which will help address Britain's engineering and construction skills shortage and build a more diverse workforce (see more information about the National College for High Speed Rail below).

And even before young people begin professional training, we are working with them to improve skills and drive interest in transport infrastructure careers through the HS2 Education Programme (see more information about the education programme below).

A Job Brokerage Service will be established to support the supply chain. This will enable the supply chain to have ready access to a talent pool of people looking for work. We are working with the Department for Work and Pensions (DWP) to develop a delivery model for this service.

8.9.2 What measures and targets will HS2 Ltd set regarding employment and skills?

Employers throughout the supply chain need to invest in skills. For the companies that design and construct HS2, investing in the skills of their workforce will not be a discretionary activity.

Our successful contractors are required to meet Skills, Employment and Education (SEE) outputs for diverse groups, young people and local people. These outputs include:

apprenticeships; unemployed people into work; support for the National College for High Speed Rail (NCHSR); and schools engagement.

We are aligned with Government's **Transport and Infrastructure Skills Strategy**, and use procurement to drive skills development and deliver a significant increase in the number of apprenticeships right through our supply chain, setting ambitious targets using the most appropriate approach to achieve the highest number of apprenticeships.

8.9.3 How many jobs will HS2 Ltd create and what type of jobs will they be?

According to our most recent forecasts, we expect to create and sustain 25,000 jobs during construction. Over 3,000 permanent jobs will be created by the operation and maintenance of the HS2 railway and its rolling stock. We are committed to creating at least 2,000 apprenticeships during construction.

Jobs and apprenticeships will be created across a broad range of disciplines and levels, in areas as diverse as engineering, archaeology, transport planning and ecology, plus a wide range of roles in business, design and technology.

8.9.4 How can we use HS2 Ltd to inspire more young people to explore opportunities in engineering and construction?

Through our education programme we aim to use HS2 to present a new and modern image for the transport infrastructure sector, one that is user-focused, technology-driven and engineering-led.

Children and young people can explore what interests them and understand how it relates to the opportunities available right across infrastructure in the UK and elsewhere. It provides them with a clear line of sight to possible careers and an understanding of the progression routes that will be available to them, as well as building key skills that will help them into employment.

The programme is supported by 'Education Ambassadors': HS2 employees and representatives of the supply chain who are passionate about their profession and have volunteered to help attract the next generation. They support a range of activities with schools to help tell the story about the diversity of jobs and skills that are required to plan, build and operate HS2. In particular, they aim to stimulate young people's interest in Science, Technology Engineering and Maths (STEM), and related careers. Our Education Ambassadors are registered as part of the national STEM Ambassador programme. To get involved, please email skills@hs2.org.uk.

8.10 National College for High Speed Rail

8.10.1 What's the National College for High Speed Rail (NCHSR)?

Open since September 2017 and operating across two state-of-the art purpose-built campuses, the NCHSR is a new type of college. It's all about providing the higher technical skills required to build HS2 and upgrade the UK transport network.

It offers new technical and professional pathways to people who are starting a career in transport infrastructure, looking to switch careers, or upskill as a member of the existing transport infrastructure workforce. Its courses also teach learners the wider skills needed, such as problem-solving, commercial awareness and the ability to lead and motivate.

8.10.2 Why do we need the NCHSR?

The UK has brilliant engineers and technicians – but we don't have enough of them. UK businesses need 186,000 people with engineering skills annually through to 2024. On top of this, the current generation of rail technicians and engineers need to upgrade their skills, especially in digital technologies, advanced manufacturing and modern methods of construction.

Around half of the rail workforce is semi-skilled, with only 16% working as higher-level technicians or professional engineers. In the next 3-5 years, 77% of UK businesses expect to need more employees with higher-level skills; just 3% expect to need fewer.

Without the NCHSR, the skills gap will grow. One in five rail engineers are over 55. They will begin to retire just as demand really starts to grow.

8.10.3 Who will study at the NCHSR?

Students will be 18 or over and will be school leavers, career-changers and current rail professionals. The courses will start at Level 4 (post-A-level). The NCHSR will offer advanced apprenticeships and a Certificate of Higher Education in High Speed Rail and Infrastructure (Cert HE). Shorter courses will cover everything from digital railway systems and sustainability to leadership and management.

8.10.4 How will the NCHSR work?

The College has brand new campuses at Birmingham and Doncaster, and is linked with other colleges, universities and training providers. Full-time and part-time courses will combine classroom teaching and virtual learning. Students will also spend around one-third of their time in the workplace, putting their learning into practice.

Extensive consultation has taken place with a wide range of employers to support the NCHSR in developing a curriculum that addresses skills needs. It is focused on ensuring that individuals undertaking courses are work-ready.

8.10.5 What courses will the NCHSR offer?

The curriculum will look to address skills, knowledge and personal attributes across the breadth of the rail industry so that participants get a broad and deep understanding.

The College offers a range of courses, all developed with industry employers, and taught by specialists in the subject. The curriculum has been designed to set new standards in technical training. It will also provide transferable skills and real-world project experience to ensure students are in a prime position to start work when they complete their course. Students will build their core skills with rail, engineering and management courses followed by a specialist subject, like civil engineering, or track systems, and train in the technologies of the future.

Higher Apprenticeships

The college offers a Level 4 Higher Apprenticeship (High Speed Rail and Infrastructure Higher Technician), with six specialist options, and a Level 5 Higher Apprenticeship in Operations and Departmental Management. The curriculum will comprise a 12-week core that all learners must complete before progressing onto a specialist pathway. It will focus on key attributes and knowledge needed, regardless of the specialist discipline followed, and will include aspects such as service design, asset management and project management. On completion of the core, a learner will select a specialist pathway to follow to achieve the detailed skill base and competency level needed.

Certificate of Higher Education in High Speed Rail and Infrastructure (Cert HE).

For students looking for a non-apprenticeship route into rail, the College's Cert HE might be the answer. It still enables students to focus on learning by doing – as they will spend a third of their time on a work placement and will be mentored by someone from the industry. The college's Cert HE will be a Level 4 qualification similar to completing a first year of study at university. It's a course that will provide an introduction to the high speed rail sector and a great foundation on which to choose a specialism.

Continuing Professional Development

The College will offer professional development modules to current industry employees, which may comprise either core or specialist units from the apprenticeships and Cert HE. The College is currently working with employers to identify the exact CPD training that would best benefit their employees and will advertise those online when they become available.

For the latest information on the curriculum on offer at the NCHSR please visit <http://nchsr.ac.uk/courses/>

8.10.6 What's the role for industry in the NCHSR?

The college is dedicated to the health and prosperity of the rail engineering industry as we move towards delivering new types of projects. To succeed and deliver long-lasting, transformational change, the College needs the same dedication from partners in the industry. Only industry can tell students what it's really like to innovate on the grand scale of a railway. Or what it takes to get new technology from drawing board to successful implementation. Or how to lead a change programme so you take people with you and achieve your ambitions.

Industry is therefore a fundamental partner in the development of the College. Employers are part of the College's governing body. They are helping to set the standards and develop the curriculum, which will mean students are learning skills that employers actually need. These partners will provide experts to teach and mentor students, and will also provide work placements for them. Industry will recruit apprentices through the NCHSR as well as send their existing workforce to the college for short courses and continuing professional development.

For further information on how you can get involved with the NCHSR please visit <http://nchsr.ac.uk/industry/>

8.11 Equality, Diversity and Inclusion

8.11.1 Why does equality, diversity and inclusion (EDI) matter to the HS2 programme?

EDI is part of the solution to resolving skills and talent shortages that currently exist in this sector. Evidence shows that organisations with a diverse workforce can help to nurture creativity, promote innovation and increase profitability.

For the infrastructure sector to compete with other sectors in attracting the best diverse talent, we need to ensure that the HS2 programme delivers exemplary industry-wide practices and standards. We want to work with our supply chain to build a stronger, more sustainable construction and rail industry.

8.11.2 What is HS2 Ltd's EDI expectation of the supply chain?

When organisations are contracted to carry out a public function on behalf of HS2 Ltd, it becomes their responsibility to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations in relation to the function being carried out. This means that the organisations we engage to deliver services on our behalf should be considering and implementing EDI as part of their decision-making processes and encouraging those in their supply chains to do the same. Our requirements include:

- Removing barriers to inclusive recruitment practice;
- Developing a diverse base of suppliers;
- Monitoring and promoting workforce diversity;
- Delivering effective training opportunities;
- Using **CompeteFor** to advertise all appropriate subcontractor and supplier opportunities; and
- Advertising opportunities more widely via organisations which promote supply chain diversity such as **MSDUK**, **SEUK** and **WEConnect**.

8.11.3 What support can we expect from HS2 Ltd to help us deliver on EDI expectations?

We currently have a number of ways to support our supply chain to develop EDI practices. This includes the '**Shape of things to come**' and '**Get on board**' videos, signposting contractors to existing support, guidance and information on embedding EDI, and a Supplier Communities Forum to share good practice.

We will expect our Tier 1 suppliers to actively engage with their supply chains and provide opportunities to build their supply chains' EDI capacity as well as making opportunities as widely available as possible.

8.11.4 I am an SME / micro-business and I have limited resources – what will HS2 Ltd expect from me in terms of EDI?

Good practice will be different for organisations of different sizes. For example, it would not be reasonable to expect a micro-sized business to adopt the same policies, procedures and practices as a medium-sized or large business.

However, as employment and EDI legislation applies equally to all organisations regardless of size, there is an expectation that all organisations engaged by us will have adopted relevant and proportionate policies and practices, which will help them meet their responsibilities.

There are a number of free resources available that can assist SME/micro-businesses to meet our requirements, an example of which is the Supply Chain Sustainability School Fairness, Inclusion and Respect (FIR) Toolkit available at:

<https://www.supplychainschool.co.uk/default/fairness-inclusion-and-respect/fir-toolkit.aspx>

8.12 Community Engagement

8.12.1 Why is community engagement important to HS2 Ltd?

HS2 affects the lives of thousands of people. The benefits will be huge, but the impact will be huge too. Our aspiration is to be a good neighbour every single day, by respecting

the people and communities we impact and being sensitive to their needs. In order to build the railway, we must earn the trust and credibility to do so. We need to demonstrate that we understand local concerns, and that we have taken all reasonable steps to address issues that have been raised, whilst continually looking to lessen the impacts of the project.

Our success will depend on our ability to talk to local communities and act on what they tell us. Of course, we will not always be able to do what some people or groups want us to do. When this happens we will be upfront, explaining why we cannot do it and what can be done instead.

8.12.2 What is HS2 Ltd's approach to community engagement?

We will be judged not only by what we deliver, but by the way in which we deliver it.

We will demonstrate our values of Leadership, Respect, Integrity and Safety in the way we and our suppliers behave. We want the community to be able to recognise an HS2 person – whether they are a member of staff, a contractor or a supplier – because they are delivering these engagement behaviours every day:

- **Leadership:** We will be transparent in our decision-making, and ensure we fully understand the impact of all our decisions. We will be open and accountable, and show we understand the needs and views of local communities. We will be collaborative and consistent in our engagement and communications.
- **Respect:** We will listen, build trust, minimize surprises and anticipate concerns and address them up front. We will create a sense of community ownership and awareness of feelings and opinions. We will respond to communities and stakeholders in a timely and accessible manner.
- **Integrity:** We will be open and honest when sharing information. If we are not able to make a requested change we will explain why. We will deliver on our promises and do so collaboratively. We will report on our discussions and consultations fairly.
- **Safety:** We will create safe environments and prioritise the health, safety and wellbeing of communities and our workforce. We will identify impacts and feed them back into the business.

8.12.3 What is HS2's Community Engagement Strategy (CES)?

The Community Engagement Strategy was released in September 2017 and sets out our approach to community engagement and what it means for those who either live or work within the communities along the line of the new railway. The strategy includes ten commitments that we will use as the basis to measure our success. The strategy will help support our thinking, actions and decision making of both our people and our supply chain.

The Community Engagement Strategy can be found [via this link](#).

8.12.4 What must suppliers adhere to?

All of our employees, suppliers and their workers must adhere to the principles and requirements of our Community Engagement Strategy, the Code of Construction Practice (CoCP) and the Community Engagement Framework. Whilst the CoCP and Community Engagement Framework comprise part of the approvals for Phase One of the programme, they also set the minimum standard required for all Phases.

The CoCP reflects best practice for major infrastructure schemes in the UK and places a range of responsibilities on its contractors to reduce the effects of construction. The CoCP covers everything from reducing site traffic and noise, to keeping residents informed of work plans, right down to keeping work sites tidy and litter-free.

The Community Engagement Framework has been written in line with the CoCP and supports any specific assurances given during the Parliamentary process to be applied by us, and which our contractors (and their subcontractors) must adhere to during the construction of the project.

Our contractors will have to provide on-the-ground community relations representatives and will be required to produce Community Liaison Plans and further develop the Local Environmental Management Plans, which show how they will apply the CoCP principles in the areas in which they work.

8.12.5 How will suppliers' community engagement performance be measured?

Every six months we will publish progress reports which measure our progress against our **10 Community Commitments** (see page 16). As well as providing transparency about our performance, these reports will help us to continuously learn and improve. The reports will show how well we and our contractors are performing across a range of indicators, including:

- How well we handle enquiries;
- How well we handle complaints;
- Our progress against our Strategy and our Local Engagement Plans;
- Our contractors' progress against their engagement delivery plans;
- How well we are informing communities about works taking place in their area;
- How well we demonstrate that we are continually looking to lessen the impacts of the programme;
- What long-term benefits our investment programme is delivering in communities;
- Evidence that our staff and contractors understand, and are behaving consistently with, the Community Engagement Strategy; and
- Review and analysis of the feedback on how we are doing.

We have developed a set of Key Performance Indicators (KPIs) that measure a supplier's performance and approach to community engagement. Community surveys will seek to record the local community's attitude towards the impact of the works on the community and the project's commitment to improving community relations.

8.13 BIM

8.13.1 What is BIM or Building Information Modelling?

We have defined BIM as a process involving the collaborative production and management of our railway digital assets. Simply, BIM comprises two key components: data management and data modelling. Data management is about structuring our data sets consistently and ensuring we are capturing the right information contractually, and data modelling is the exploitation and interrogation of data more effectively, using appropriate tools/technology.

8.13.2 Why does HS2 want to achieve BIM capability?

The importance of BIM and the benefits it could bring has been highlighted in a number of Government reports, and as a result the Government Construction Strategy (published in 2011) mandates the use of BIM on all publicly procured projects from April 2016.

We want to provide BIM capability at Level 2 and beyond, not only because it's a government mandate but because we have acknowledged there are clear benefits to be gained. Our BIM strategy closely aligns with the Government's strategy and aims to unlock savings through realising value from our digital assets. The values and benefits we want to achieve have been mapped out as part of our BIM implementation and we plan to work collaboratively with our supply chain to help achieve these.

What is HS2 Ltd's strategic approach to implementing BIM?

Our BIM strategy focuses on three key themes:

- **Leadership**

We will be proactive in developing and implementing BIM standards, methods and procedures in the industry. We will work closely with professional institutes and thought leaders across different industries to ensure that best practice approaches to data management and information modelling are being adopted and continually improved.

- **Upskilling**

We will provide our supply chain with access to the right educational materials and maintain a bold presence in regional and national BIM groups.

- **Future-proofing**

We will adopt a data-centric and software-neutral approach to delivery through the development of open data standards. At the same time, we will keep an eye on future developments in the fields of big data, smart cities, machine learning and cognitive computing.

8.13.3 What do I need to know and do now to implement BIM?

A good starting point is to familiarise yourself with the BIM standards and the general requirements set out by the Government in the **Construction Strategy**. To ensure the industry is fully prepared to meet the required level of maturity as set out by the Cabinet Office (BIM Level 2) and deliver our BIM requirements, we have created a BIM upskilling platform, providing educational materials to the whole supply chain at **BIMupskilling.com**. If you have any questions about BIM and HS2, please email: **BIM@hs2.org.uk**.

8.13.4 Does our company need to be BIM Level 2 compliant to work with HS2?

As of April 2016, the Government required all construction suppliers of centrally-procured projects to be working at BIM Level 2. At HS2, Level 2 means having:

- A consistent approach to data management;
- Clear contractual requirements for data procurement;
- Information models which provide reliable data for decision making;
- The exchange and management of multiple data sources in a common data environment;
- Connected data, which is efficiently accessed and interpreted; and

- Importantly, that we buy data over drawings.

Adopting BIM Level 2 is a journey that can only be achieved by working collaboratively with our supply chain and we appreciate everyone is not at the same stage of adoption. We will be expecting the most from our Tier 1 suppliers. As part of the procurement process and during delivery, Tier 1 suppliers will need to provide evidence of their own and their supply chains' capacity and capability to deliver BIM Level 2 in line with HS2 and industry BIM standards.

We expect Tier 1 suppliers to actively engage with their supply chains to help build BIM capability, making opportunities as widely available as possible. Smaller suppliers should collaborate with the firms they supply, to understand the implications and work together to plan how to deliver our BIM requirements.

Further Information on how HS2 intends to implement BIM Level 2 is on our **BIM upskilling platform**. This will continue to be updated as our approach to BIM matures and more detailed, project-specific requirements are provided.

8.13.5 How will BIM be incorporated through the tiers of the supply chain?

It's important that we focus our attention on the supply chain as well as internally, to implement BIM consistently across the programme and unlock efficiencies. To achieve the capability internally, we have identified four key enablers: people, process, information and technology. We need to make sure people have the right set of skills, make sure we have established the right set of processes, make sure we have a clear and well-defined data architecture, and make sure we are using the right tools/systems to interrogate data more effectively.

Externally we need to ensure our data requirements are captured and consistently communicated through all our contracts. Through upskilling, we can help our supply chain achieve the required levels of capability and maturity, as set out in the **Construction Strategy**.

8.13.6 How will HS2 collect standardised data through BIM?

We will ensure efficient and accurate exchange of information across the whole project lifecycle through the use of a Common Data Environment (CDE) in line with the principles introduced in British Standard BS 1192:2007 and extended within Publicly Available Specification PAS 1192-2.

The CDE is a set of defined and managed procedures to ensure that appropriate data is shared, as a single instance, from multiple data sources. This collaborative environment is managed through specified controls, states and processes, which are outlined in HS2's CDE Strategy, with the information and data held and controlled within an integrated environment.

Further information on our CDE and the information process is available at **BIMUpskilling.com**. Contract specific details of the CDE Strategy will be made available as part of contract documentation.

8.13.7 Will HS2 dictate the use of a specific software? If not, how will HS2 Ltd standardise BIM requirements and address the issue of interoperability?

Our aim is to provide flexibility around the use of software platforms for our supply chain. We understand that flexibility in the use of preferred tools and systems mean improved smart thinking and innovation. Therefore, a key aspect of our strategy focuses

on adopting a data-centric and software agnostic approach through the development of open data standards.

8.13.8 What types of information and data will HS2 be collecting?

We will require graphical data, non-graphical data, documents captured during the design and construction activities and those handed over at the end of construction to form a complete Asset Information Model.

The specific information requirements are determined by the type of contract that a supplier is working on and will be specified as part of the procurement documentation and through ongoing consultation and collaboration post contract award. Further information on the management process and our Employers BIM requirements is available at [BIMupskilling.com](https://www.bimupskilling.com).

9 What can suppliers do now?

We are asking interested suppliers to do three things:

9.1 View our supply chain resources

To view our supplier guide, contract opportunities table and other information and guidance, visit www.hs2.org.uk/supply-chain.

9.2 Register to hear about HS2 contract opportunities

Register on Contracts Finder for direct HS2 and other government opportunities – www.gov.uk/contracts-finder.

Register on **CompeteFor** for HS2 supply chain and other indirect opportunities – www.competefor.com/hs2.

9.3 Update your details, sign up to our supply chain bulletin and stay in touch

Enter your contact details and sign up to our supply chain bulletin and to hear about possible future events or market engagement – www.smartsurvey.co.uk/s/HS2supply/.

Share your questions, comments and ideas by emailing our Supply Chain Communications mailbox – scc@hs2.org.uk.

Useful links

| | |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BIM Task Group | http://www.bimtaskgroup.org/ |
| Bravo Solutions | https://hs2.bravosolution.co.uk/web/login.html |
| CompeteFor | http://www.competefor.com/hs2 |
| Contracts Finder | https://www.gov.uk/contracts-finder |
| Contract Opportunities Table | https://www.hs2.org.uk/contract-opportunities/ |
| HS2 BIM Upskilling | https://www.bimupskilling.com/ |
| HS2 Supplier Guide | https://www.hs2.org.uk/documents/hs2-supplier-guide/ |
| National College for High Speed Rail (NCHRS) | http://nchsr.ac.uk/ |
| PAS91 | http://shop.bsigroup.com/Navigate-by/PAS/PAS-91-2013/ |
| Rail Supply Group Sector Strategy | http://www.railsupplygroup.org/sector-strategy/ |
| 'Shape of things to come' EDI video | https://www.youtube.com/watch?v=8TyAIAx_s24 |
| Stations Industry Day | Stations Industry Day Design Vision Documents: https://www.gov.uk/government/publications/hs2-design-vision https://www.gov.uk/government/collections/design-at-hs2 |
| Supply Chain School Fairness, Inclusion and Respect (FIR) Toolkit | https://www.supplychainschool.co.uk/default/fairness-inclusion-and-respect/fir-toolkit.aspx |
| West Coast Partnership | https://www.gov.uk/government/publications/west-coast-partnership-franchise-prospectus |

What can you do now?



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Update your details, sign up to our supply chain bulletin and stay in touch

Send us your contact details, sign up to our supply chain bulletin and register to hear about possible future events or market engagement

www.smartsurvey.co.uk/s/HS2supply/

Share your questions, comments and ideas by emailing our Supply Chain Communications mailbox

scc@hs2.org.uk