



HIGH SPEED TWO

PHASE 2a INFORMATION PAPER

E23: APPROACH TO SUSTAINABILITY

This paper outlines HS2 Ltd's approach to sustainability.

It will be of particular interest to those potentially affected by the Government's proposals for high speed rail.

This paper was prepared in relation to the promotion of the High Speed Rail (West Midlands-Crewe) Bill which is now enacted. It was finalised at Royal Assent and no further changes will be made.

If you have any queries about this paper or about how it might apply to you, please contact the HS2 Helpdesk in the first instance.

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Version 1.1

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E23: APPROACH TO SUSTAINABILITY

1. Introduction

- 1.1. High Speed Two (HS2) is the Government's proposal for a new, high speed north-south railway. The proposal is being taken forward in phases: Phase One will connect London with Birmingham and the West Midlands. Phase 2a will extend the route to Crewe. Phase 2b will extend the route to Manchester, Leeds and beyond. The construction and operation of Phase One of HS2 is authorised by the High Speed Rail (London – West Midlands) Act 2017.
- 1.2. HS2 Ltd is the non-departmental public body responsible for developing and promoting these proposals. The company works to a Development Agreement made with the Secretary of State for Transport.
- 1.3. In July 2017, the Government introduced a hybrid Bill¹ to Parliament to seek powers for the construction and operation of Phase 2a of HS2 (the Proposed Scheme). The Proposed Scheme is a railway starting at Fradley at its southern end. At the northern end it connects with the West Coast Main Line (WCML) south of Crewe to allow HS2 services to join the WCML and call at Crewe Station. North of this junction with the WCML, the Proposed Scheme continues to a tunnel portal south of Crewe.
- 1.4. The work to produce the Bill includes an Environmental Impact Assessment (EIA), the results of which are reported in an Environmental Statement (ES) submitted alongside the Bill. The Secretary of State has also published draft Environmental Minimum Requirements (EMRs)², which set out the environmental and sustainability commitments that will be observed in the construction of the Proposed Scheme.
- 1.5. The Secretary of State for Transport is the Promoter of the Bill through Parliament. The Promoter will also appoint a body responsible for delivering the Proposed Scheme under the powers granted by the Bill. This body is known as the 'nominated undertaker'. The nominated undertaker will be bound by the obligations contained in the Bill and the policies established in the EMRs. There may be more than one nominated undertaker.
- 1.6. These information papers have been produced to explain the commitments made in the Bill and the EMRs and how they will be applied to the design and construction of the Proposed Scheme. They also provide information about the Proposed Scheme itself, the powers contained in the Bill and how particular decisions about the Proposed Scheme have been reached.

¹ The High Speed Rail (West Midlands – Crewe) Bill, hereafter 'the Bill'.

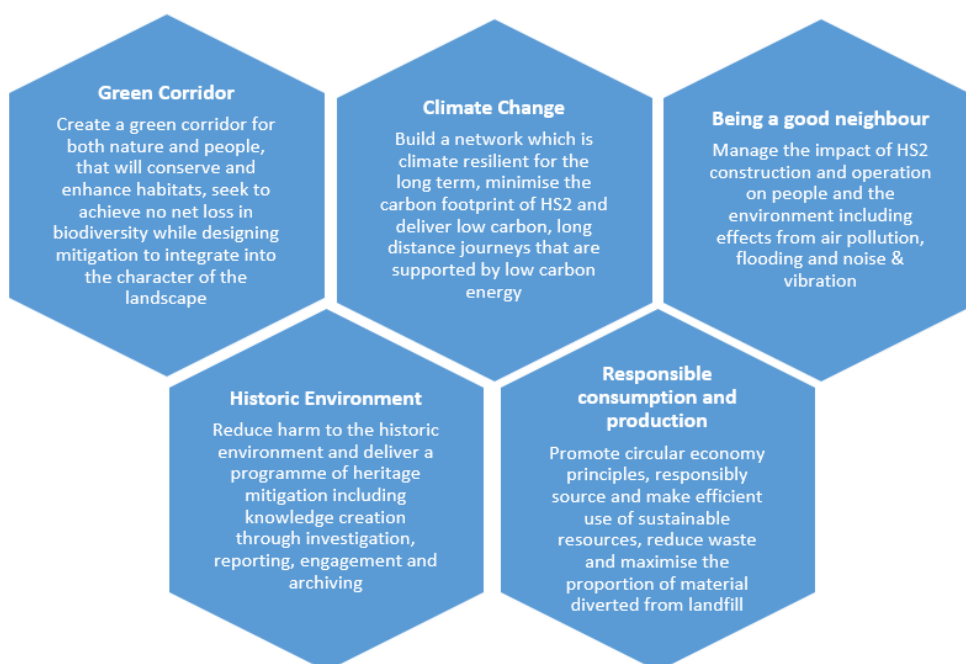
² For more information on the EMRs, please see Information Paper E1: Control of Environmental Impacts.

2. Sustainability Policy

- 2.1. This information paper explains HS2 Ltd's approach to sustainability.
- 2.2. HS2's Sustainability Policy (which is included in Appendix 1), sets out the five sustainability themes for the HS2 programme. These five themes are:
 - **Spreading the benefits:** economic growth and community regeneration
 - **Opportunities for all:** employment and education
 - **Safe at heart:** health, safety and wellbeing
 - **Respecting our surroundings:** environmental protection and management
 - **Standing the test of time:** design that is future-proof
- 2.3. These Sustainability Policy themes are further described in our Sustainability Approach Document³.

3. Environmental Policy

- 3.1. The HS2 Ltd Environmental Policy fulfils our strategic goal of creating an environmentally sustainable solution and being a good neighbour to local communities.
- 3.2. The policy sets out five objectives that seek to guide and manage our potential environmental impacts.



- 3.3. These Environmental Policy objectives are further described in Appendix 2.

³
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/621219/hs2_sustainability_approach.pdf

4. The Circular Economy

- 4.1. The circular economy is an alternative to the traditional linear economy – a world of make, use, dispose. It's where resources are kept in use and at their highest value for as long as possible. It can therefore thrive in the long term. It does this by decoupling economic growth and development from the consumption of finite resources.
- 4.2. 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 reduce these to achieve the best whole-life outcome.
- 4.3. HS2 Ltd has adopted a holistic strategy to realising the benefits of adopting circular economy principles which consists of:
 - establishing principles
 - embedding and communicating the principles
 - coordinating an approach to realising opportunities
 - recording and reporting outcomes
- 4.4. It's circular economy principles, to be observed throughout the programme are:
 - Keep resources in use for as long as possible;
 - Recover and regenerate resources at the end of use;
 - Keep resources at their highest quality and value at all times.
- 4.5. These principles are complemented by an over-arching ambition to "Promote circular economy principles, responsibly source and make efficient use of sustainable resources, reduce waste and maximise the proportion of material diverted from landfill" in the HS2 Environmental Policy.
- 4.6. The circular economy principles are set out in Appendix 3 of this Information Paper.

5. External Sustainability assessment

- 5.1. To monitor the commitments made within the Sustainability and Environmental Policies, HS2 Ltd will be assessing the design and construction of the maintenance facility (to be constructed as part of the Proposed Scheme) under BREEAM (Building Research Establishment Environmental Assessment Method) New Construction Non Domestic standard. BREEAM sets the standard for best practice in sustainable design and has become the de facto measure used to describe environmental performance of buildings.

- 5.2. HS2 Ltd has set a target that all its Stations, Depots and other railway buildings to be design and constructed for the HS2 project will achieve a minimum of an Excellent rating in this standard.
- 5.3. To ensure that our infrastructure is designed and constructed to a similar high standard, HS2 Ltd plans to use a recognised environmental rating system to assess its infrastructure works – Enabling Works, Main Works Civils and Rail Systems.

6. More information

- 6.1. More detail on the Bill and related documents can be found at: www.gov.uk/HS2



Sustainability policy

Purpose

This policy sets out HS2 Ltd's ambition to build the most sustainable high speed railway of its kind in the world. We want a high speed railway network which changes the mode of choice for inter-city journeys, reinvigorates the rail network, supports the economy, creates jobs, reduces carbon emissions and provides reliable travel in a changing climate throughout the 21st century and beyond.

Principles

Sustainability at HS2 is about delivering social, environmental and economic benefits. This includes delivering value to the UK taxpayer and passenger through taking decisions that seek to get the best value for money through the whole operating life of the railway.

Our sustainability approach at HS2 groups our work into five themes reflecting the economic, environmental and social aspects of sustainability. These themes support the HS2 vision of being a catalyst for growth across Britain and our mission, which includes being an exemplar project in our approach to engagement with communities, sustainability and respecting the environment.

Our five sustainability themes are:



**Spreading the benefits:
Economic growth and community regeneration**

Being a nationwide catalyst for regeneration and economic growth through development of an integrated transport system, maximising the benefits to communities and individuals and minimising negative impacts.



**Opportunities for all:
employment and education**

Providing rewarding jobs and careers that are open to all in society, setting new standards for equality, diversity and inclusion and providing a legacy of skills, learning, expertise, and experience.



**Safe at heart:
Health, safety and wellbeing**

Creating a world-class 'safe at heart' culture where no one gets hurt, and which prioritises the health and wellbeing of those who build, operate, use and host HS2 services and infrastructure.



**Respecting our surroundings:
Environmental protection and management**

Breaking new ground wherever possible on environmental standards including resource use, waste, carbon minimisation, the protection of the natural and historic environment and safeguarding communities.



**Standing the test of time:
Design that is future-proof**

Building a network that is resilient to climate change in the long term, adaptable to future trends and demands, and built around the needs of the people who will use it, in line with our Design vision.

We will only be successful in this huge undertaking if sustainability is embedded in our DNA. Sustainability is a way of working within the HS2 culture, alongside innovation and collaboration. We will promote innovation to find sustainable solutions focusing on ideas and technologies for improving sustainability. We cannot deliver our ambition alone; we will work with our contractors to engender a collaborative culture to ensure we get the innovation we need to deliver a sustainable railway.

Executive Owner:

The Infrastructure Director is the Executive Owner of this policy and is responsible for maintaining the accuracy and relevance of its contents and for periodic review and update to reflect changing circumstances.



Approved on: 22nd August 2019

Mark Thurston
Chief Executive Officer
HS2 Ltd



Environmental Policy

Purpose

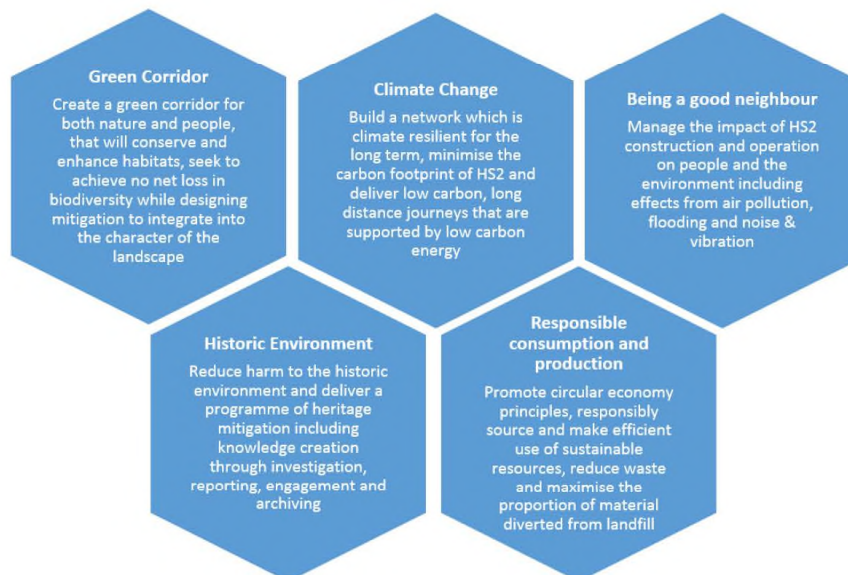
This policy provides a framework for environmental protection and management for HS2 and its operations. It acts to elaborate on the Sustainability Policy theme “respecting our surroundings: environmental protection and management” and our strategic goal of “creating an environmentally sustainable solution and being a good neighbour to local communities”. This framework is underpinned by a comprehensive set of detailed policies contained in Information Papers¹.

HS2 Ltd. is committed to developing an exemplar project through seeking environmental enhancements and benefits whilst limiting negative impacts through design, construction and operation of the railway.

HS2 Ltd. commits to protecting the environment through the avoidance and prevention of pollution and meeting all compliance obligations. We seek to continually improve environmental performance.

Objectives

In order to guide and manage our potential environmental impacts, we will seek to achieve the following objectives:



¹ Phase One Environmental Information Papers: <https://www.gov.uk/government/publications/hs2-information-papers-environment>
Phase 2a Environmental Information Papers: <https://www.gov.uk/government/publications/environment-hs2-phase-2a-information-papers>
Phase 2b Environmental Information Papers will be available on submission of the hybrid Bill. Factsheets can be found here: <https://www.hs2.org.uk/documents/collections/hs2-phase-2b-factsheets/>

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High Speed Two (HS2) Limited, registered in England and Wales.

Registered office: Two Snowhill, Snow Hill Queensway, Birmingham B4 6GA. Company registration number: 06791686. VAT registration number: 181 4312 30.

Executive Owner

The Infrastructure Director is the Executive Owner of this policy and is responsible for maintaining the accuracy and relevance of its contents and for periodic review and update to reflect changing circumstances.



Approved on: Monday, 21 October
2019

Mark Thurston
Chief Executive Officer
HS2 Ltd

Appendix 3 HS2 Ltd.'s Circular Economy Principles

HS2 Circular Economy Principles
Document no.: HS2-HS2-SU-STR-000-000007
Revision: Po1

1 Introduction

1.1.1 HS2's vision is to be a catalyst for growth and we believe that adoption of circular economy principles can play a key role in delivering this through stimulating new approaches, products and services, and by creating employment opportunities.

2 Definition

2.1.1 The circular economy is 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.

2.1.2 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.

3 Benefits

3.1.1 Implementing circular economy principles within HS2 could deliver efficiencies, economic, environmental and social benefits including:

- lower capital and operational costs;
- increased whole life value;
- an avenue to resilient growth for the UK;
- reduced virgin non-renewable material use;
- reduced waste, carbon emissions, water use and environmental impact;
- improved health (of supply chain workforce and general public);
- greater opportunities for collaboration; and
- new job opportunities throughout the supply chain.

4 Principles

4.1.1 To achieve the benefits we need to observe the following principles:

- keep resources in use for as long as possible;
- recover and regenerate resources at the end of each use; and

- keep resources at their highest quality and value at all times.

4.1.2 These are complemented by our over-arching principle to use resources efficiently, as stated in the HS2 Sustainability Approach Document (HS2-HS2-SU-STR-000-000006).

4.1.3 Resources are thought of in terms of materials, water, energy and carbon, as well as natural and social capital.

4.1.4 These principles are relevant to everything we and our supply chain do.

5 Implementation

5.1.1 These principles need to be proactively considered throughout specification, design, procurement, construction and operation.

5.1.2 We wish to collaborate with our supply chain to explore and develop solutions which implement these principles and realise the benefits.