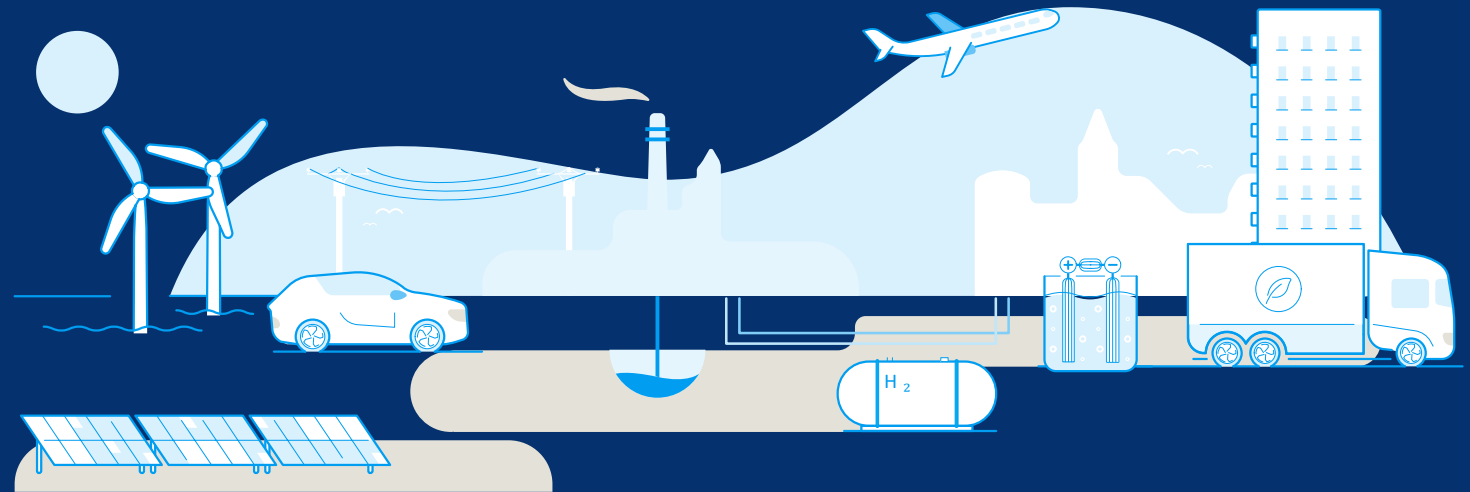


Balfour Beatty

HS2 Enabling Civil Works (ECW)

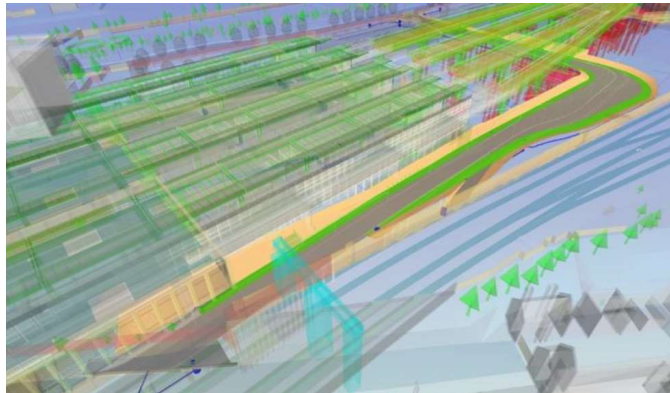


RAMBOLL

Bright ideas.
Sustainable change.

HS2 ECW Scope

- Permanent Highways
- Haul and Access Roads
- Site Compounds and Access
- Junction and highway improvements (construction vehicle access and safety improvements)
- Future Proofing
- Stakeholder Engagement
- RUK Noted Projects –
 - Burton Green Access Road
 - Kenilworth Greenway
 - A452 Park Lane
 - Curzon Street Station



Enabling works and infrastructure

HS2 Phase 1 Enabling Civils Works North

Multiple work packages

Proactive project management ensured all challenges were met with an associated continually emerging scope

Work packages included design, traffic modelling, surveys, and biodiversity net gain

Ramboll scope demonstrated opposite



32km of highways design



50No+ structures design



440No. pile design



52 hectares of landscape design



92km of utility design



Traffic modelling & design



25No junctions design including – signals & lighting



9No flood, watercourse & groundwater models



6000+ ecology surveys, mitigation design, method statements & assurance reports



120+ Arboriculture & agriculture surveys, mitigation design & planning



775No Demolition surveys & method statement assurance reviews

HS2 Enabling Civils Works North How we delivered sustainably

Green Corridor

Biodiversity
enhancements

Improved connectivity
for nature

Access to green-space
for communities

- Balancing material between work packages
 - Material Management Plan integrated with Remediation Strategy, Historic Environment works and Station design.
 - 65,000m³ material re-used at Curzon Street Station (including Made Ground) and 79,000m³ transported to BIS for re-use.
 - All earthworks delivered under the CL:AIRE DoW:CoP
- Cultural Heritage and Archaeology - Curzon Round House and Park Street Burial Ground
- Ecology –
 - eDNA data was used to support the licence application – a UK first!
 - Design and delivery of one of largest-scale species mitigation in UK history
 - Translocation of 20 ancient woodland sites

Biodiversity Net Gain

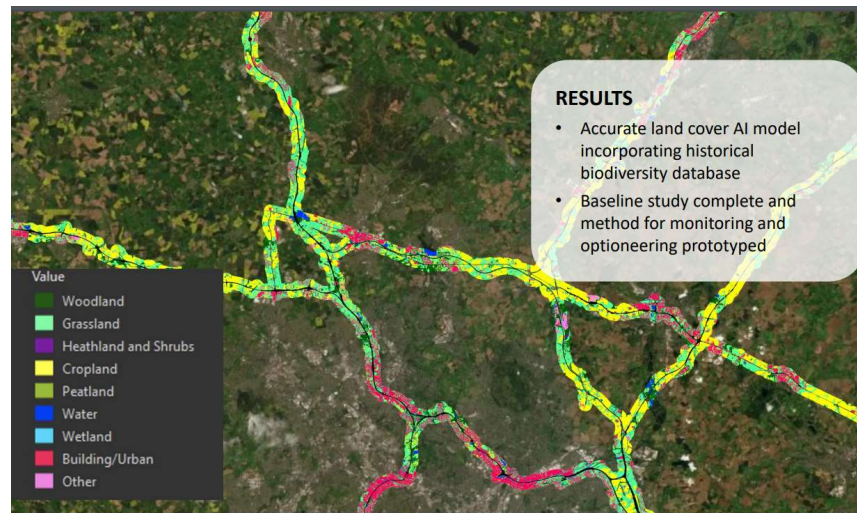
By November 2023 the BNG element of the Environment Act became mandatory

Biodiversity to be increased by 10% compared to pre-development levels

RUK collaborate with strategic infrastructure clients to determine impacts of existing and proposed assets on the natural environment

- Monitoring for change post construction
- Design of new / connecting existing ecosystems
- Supports planning applications

HS2 New Habitat Creation – Green Corridors:
“Soft asset” design, connecting existing ecosystems and creating new natural environments



National Highways Biodiversity Mapping:
Production of network-wide digital maps of landcover to monitor biodiversity across the strategic road network. Annual reviews provide BNG updates

PAS 2080 Standard

- PAS 2080 is a **globally-applicable standard** for managing carbon in building and infrastructure
- It looks at the **whole value chain** and aims to reduce carbon and cost through intelligent design, construction and use
- The standard incorporates five key themes:
 - **Integrated approach** to the built environment
 - **Systems thinking** and net zero
 - Taking a whole life view
 - Nature based solutions and resilience
 - **Collaboration**



We are PAS2080 accredited