THE CHALLENGE

HS2 is working to meet the UK Government’s target to bring all greenhouse gas (GHG) emissions to Net Zero by 2050. In addition to these targets, HS2 Corporate has existing KPIs on carbon reduction, but it has ambitions to go beyond these objectives to leave a legacy for future generations beyond the railway. Using traditional diesel-powered HGVs to transport goods and equipment to create the HS2 line would have a large environmental impact. To mitigate this impact, HS2 are investigating the use of Hydrogen as an alternative fuel starting with a dual-fuel system.

MTC’S SOLUTION

The route to meeting the challenge involves:

- Engaging with Stakeholders from across the construction and hydrogen sectors,
- Producing a Market Analysis of the existing hydrogen landscape and related supply chain
- Developing a Strategic Business Case for the use of hydrogen in HGVs, risk and benefits of entering into an emerging Market.

All of this activity paves the way for a new collaborative hydrogen innovation hub.
THE OUTCOME

A Stakeholder Briefing & Workshop Session was held in September 2021 gathering several organisations. Outputs included:

- A commitment was made to create a multi-organisation demand profile for large scale engagements across the UK over the next 10-15 years.
- Suggestion of the creation of a national Hydrogen Hub round table regular meeting to share lesson learnt across all industries.

BENEFITS TO THE CLIENT

- Reduce time taken to engage with the hydrogen industry and bringing innovation to market
- Carbon emissions associated with the construction phase of HS2 could be significantly reduced
- Support decision making on costing with better access to information, allows for more environment-aware logistics choices

THE BRIEFING DOCUMENT CAN BE DOWNLOADED HERE.

Key

- Hydrogen strategy dates
- HS2 innovation projects
- Competitions
- Government milestones
- MTC-HS2 joint project

Key dates:

- Aug 2021: UK Govt releases Hydrogen strategy
- Sept 2021: Red Diesel Replacement Competition begins
- Mid-2020s: Decision due on HGVs
- 2029-2033: HS2 Phase 1 operation starts
- 2036-2040: HS2 Phase 2a/b operation starts
- 2050 deadline for Net Zero
- 2015: Paris Climate agreement
- Sept 2021: UK Govt HGV diesel deadline consultation closes
- Nov 2020: UK Govt 10-point plan
- Mid-2030s: Sixth Carbon Budget Projection period begins
- 2040: New diesel HGVs ban begins
- Oct 2021: Hydrogen business model consultation closes
- 2020: COP26
- May 2021: MTC-HS2 Project KO
- 2021: COP26
- 2020: COP26

To be a part of this activity or future engagements, get in touch