

HYDROGEN HGVS IN CONSTRUCTION



MARKET ANALYSIS AND STRATEGIC BUSINESS CASE FOR ALTERNATIVE FUEL (HYDROGEN) FOR HGVS IN UK CONSTRUCTION

Gathering multiple stakeholders together to address the challenges and common issues, particularly aimed at stimulating supply and demand.



HS2's extensive innovation programme is aimed at supporting the transition from diesel to zero emissions by developing and trialling alternative technologies to inform future solutions. The hydrogen sector will play an important role in decarbonising construction, and will help HS2 meet our stringent objectives to avoid and reduce emissions on-site as well as improving local air quality.

Andrea Davidson, Air Quality Lead, HS2 Ltd



THE CHALLENGE

The UK government's Hydrogen Strategy sets out the importance of low carbon hydrogen in decarbonisation by providing greener, more flexible energy. A key challenge in construction is a heavy reliance on diesel, so the government has launched a Red Diesel Replacement Competition to fund the development of innovative technologies to switch from red diesel to hydrogen or other low carbon fuels.

HS2 is working to meet the UK Government's target to bring all greenhouse gas (GHG) emissions to Net Zero by 2050 and is supporting the transition from diesel to zero emissions by working with partners to develop alternative technologies. As part of this, HS2 is, through the HS2 innovation programme, investigating the use of Hydrogen as an alternative fuel, starting with a dual fuel system.

A COLLABORATIVE APPROACH

The route to meeting this challenge, in working through the HS2 innovation programme, 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 involving 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 National Hydrogen Hub round table events to share lessons learned across all industries.

2.4%

Of GDP commitment by UK Government for R&D investment by 2027

↓ 50%

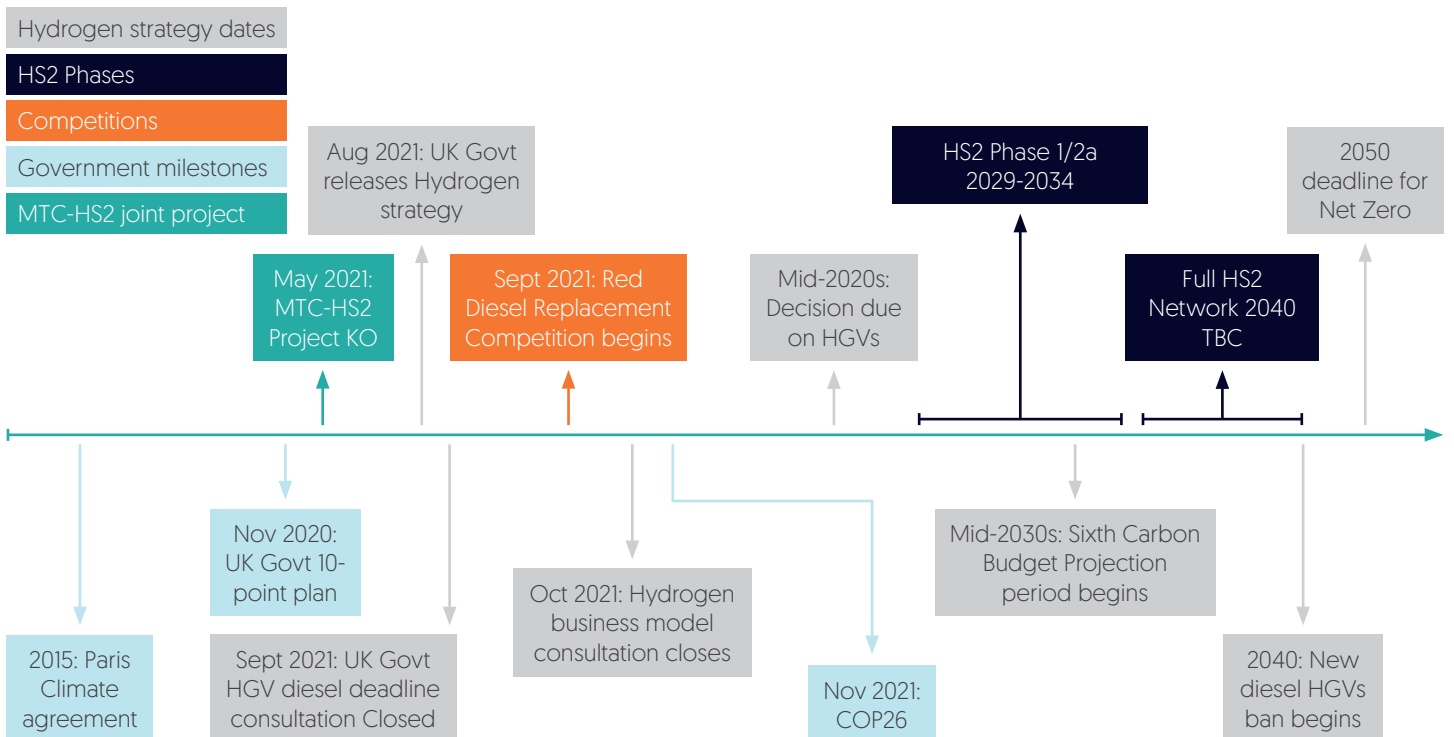
Carbon Reduction target Main Works Civil Contractor, Stations and Rail System Contractors

3 HGVs

Retrofitted to demonstrate the Dual-Fuel technology in construction activities

THE BRIEFING DOCUMENT IS AVAILABLE HERE.

Key



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