

H2HAUL

HYDROGEN FUEL CELL TRUCKS FOR HEAVY-DUTY, ZERO EMISSION LOGISTICS



Project ID	826236
PRR 2025	Pillar 3 - H ₂ End Uses - Transport
Call Topic	FCH-01-1-2018
Project Total Costs	28 110 126.80
Clean H ₂ JU Max. Contribution	12 000 000.00
Project Period	01-02-2019 - 31-12-2025
Coordinator Beneficiary	ENVIRONMENTAL RESOURCES MANAGEMENT LIMITED, UK
Beneficiaries	ELEMENT ENERGY, VDL SPECIAL VEHICLES BV, ERM FRANCE, DATS 24, PLASTIC OMNIUM NEW ENERGIES WELS GMBH, H2 ENERGY AG, AIR LIQUIDE FRANCE INDUSTRIE, VDL ENABLING TRANSPORT SOLUTIONS BV, VDL BUS EINDHOVEN BV, EOLY, FPT MOTORENFORSCHUNG AG, HYDROGENICS GMBH, IRU PROJECTS ASBL, FPT INDUSTRIAL SPA, AIR LIQUIDE ADVANCED TECHNOLOGIES SA, SPHERA SOLUTIONS GMBH, IVECO SPA, ELRINGKLINGER AG, ETABLISSEMENTEN FRANZ COLRUYT NV, WATERSTOFNET VZW, AIR LIQUIDE ADVANCED BUSINESS, TOTAENERGIES MARKETING DEUTSCHLAND GMBH, Powercell Sweden AB, ELEMENT ENERGY LIMITED, UNION INTERNATIONALE DES TRANSPORTS ROUTIERS (IRU), BAYERISCHE MOTOREN WERKE AKTIENGESellschaft, ROBERT BOSCH GMBH, HYDROGEN EUROPE

<http://www.h2haul.eu>

PROJECT TARGETS

Target source	Parameter	Unit	Target	Target achieved?
Project's own objectives	WtW CO ₂ emissions	kg CO ₂ /km	kg CO ₂ / vehicle km (per vehicle type, average across fleet)	

PROJECT AND GENERAL OBJECTIVES

H2Haul brings together two major European truck OEMs (IVECO and VDL) and three fuel cell stack/system suppliers (Plastic Omnium, Bosch and PowerCell) to develop and demonstrate fleets of heavy-duty trucks in day-to-day commercial operations in four sites across four countries. The overall objective of H2Haul is to prove that hydrogen trucks can be a practical zero-emission and zero-carbon solution for much of Europe's trucking needs and, in doing so, pave the way for the commercialisation of fuel cell trucks in Europe. The project is currently at the end of the planning and pre-deployment phase, and all trucks and HRS funded by the project are expected to be deployed in the next months.

NON-QUANTITATIVE OBJECTIVES

- H2Haul aims to develop long-haul heavy-duty (26 t and 44 t) fuel cell trucks that meet customers' requirements in a range of operating environments. The trucks' design and specifications are being finalised in alignment with specific customer requirements and mission profiles. The objectives are expected to be met.
- The project aims to homologate three fuel cell truck types to certify that they are safe to use on European roads. Original truck OEMs are working closely with hydrogen safety experts and the relevant certification bodies to secure all necessary safety approvals for using the trucks on public roads in Europe.
- The project aims to develop the business case for the further roll-out of heavy-duty fuel cell trucks. H2Haul will provide a valuable database of real-world performance information and insights into the next steps required for the sector's commercialisation. The business case will be developed based on fuel cell truck designs that meet customers' needs. The operation of fuel cell trucks and the subsequent data collection will high-

light the technology's costs. Analysis will be carried out to highlight the economics of more ambitious deployment of tens of vehicles or more.

- H2Haul aims to prepare the European market for the further roll-out of fuel cell trucks through (i) the development of innovative commercial models and (ii) the dissemination of information from the project to a wide audience of relevant stakeholders. H2Hauls dissemination activities will share key findings with relevant audiences to prepare the market for the wider roll-out of fuel cell trucks on a commercial basis.
- Communication activities in the first and second year of the project have stimulated significant interest from relevant audiences.

PROGRESS, MAIN ACHIEVEMENTS AND RESULTS

- The fuel cell truck technical specifications were finalised. Data were gathered on the technical specifications of the fuel cell trucks and hydrogen-refuelling stations (HRSs).
- All three project-funded HRSs were deployed.
- The second observer group meeting took place.

FUTURE STEPS AND PLANS

- H2Haul will deploy the VDL and Iveco trucks. The Iveco beta trucks are currently being assembled with fuel cells from Bosch and will serve as prototypes for the 12 gamma trucks which will be delivered to end users in France, Switzerland and Germany.
- The H2Haul will continue high-profile dissemination and lobbying work through attending and delivering presentations at key conferences and events. Other stakeholder engagement activities will also continue. The results will be disseminated extensively.