

PRESS RELEASE
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REVIVE Project Concludes its Successful Demonstration of Hydrogen Fuel Cell Refuse Trucks Across Europe

Largest European deployment of hydrogen-powered refuse trucks highlights key learnings in decarbonising heavy-duty vehicles.

The REVIVE (*Refuse Vehicle Innovation and Validation in Europe*) project, co-financed by the Clean Hydrogen Partnership, is proud to announce the successful conclusion of its groundbreaking initiative.

With 11 hydrogen fuel cell refuse trucks deployed across seven European cities — Breda, Groningen, Noordenveld, Veldhoven, Arnhem (Netherlands), Antwerp (Belgium), and Gothenburg (Sweden) — the project has demonstrated the viability of hydrogen technology in decarbonising urban waste collection. Our fleet of REVIVE trucks can be seen below.



The REVIVE project represents the largest deployment of hydrogen-powered refuse trucks in Europe to date. This initiative has contributed valuable data on fuel cell performance, highlighting hydrogen's potential to support zero-emission waste collection while maintaining operational flexibility. The trucks have operated across diverse urban environments, helping to prove the viability and scalability of this technology.

Over the course of the project, REVIVE has achieved several key milestones such as:

- **Total Distance Covered:** >72,000 km driven by the fleet across all sites.
- **Waste Collected:** 13,140 tonnes of waste managed.
- **Environmental Impact:** Estimated 68 tonnes of CO₂ emissions avoided, contributing to the clean energy transition in urban areas.
- **Creation of new green jobs** related to hydrogen infrastructure and vehicle maintenance.
- **High visibility** of the trucks in cities, leading to public engagement and the promotion of hydrogen as a clean energy solution.

REVIVE's activities since 2018 have also led to significant learnings and recommendations for the sector. Despite the project's successes, it uncovered several lessons learnt which are crucial to the future deployment of hydrogen fuel cell refuse trucks. These were discussed during the [REVIVE Final Workshop](#) in Groningen in December 2024. The workshop underscored that while hydrogen faces cost and infrastructure challenges, it holds potential for large vehicles with high payload demands. Collaboration across regions, robust policies, and economies of scale, potentially led by Hydrogen Valleys, will drive market growth and technology improvements.

In 2024, REVIVE proudly presented [a video](#) on the project and the potential for hydrogen refuse trucks. Combining animation and interviews, it focuses on the advantages of these trucks, and follows one on its path through the city and harbour of Antwerp. The REVIVE trucks have been operating in the Antwerp neighbourhoods of Hoboken, Wilrijk and Kiel for almost two years, enabling low-noise and zero-emission waste collection, which means better air quality for waste collectors and citizens.

Throughout the project, REVIVE has collaborated with similar European projects deploying hydrogen fuel cell refuse trucks. REVIVE, HECTOR and LIFE 'N Grab HY! signed a letter of cooperation in December 2019, as an intention to share knowledge, experiences and spread awareness of the technology. The work on developing and deploying these trucks in projects funded by different European funding agencies highlights the importance of collaborative activities in the development of fuel cell hydrogen technology as a clean, low-emission energy solution. Knowledge and best practice, as well as data and results from deploying the trucks, were shared across the projects, enhancing the achievements of all projects and providing an important step towards the commercialisation of sustainable waste collection and the further scaling up of hydrogen technology for heavy trucks in Europe.

Dimitri Van Den Borre, Project Manager at Tractebel, Coordinator of REVIVE, said:

"We are delighted to call the REVIVE project a success after years of hard work and collaboration between the consortium partners. REVIVE has advanced the state of the technology and gained valuable insights into the potential for hydrogen to be used in the future for heavy-duty vehicles and in the waste industry."

The REVIVE project sets the stage for further adoption of hydrogen-powered vehicles in Europe. As cities continue to move towards zero-emission targets, hydrogen trucks can play a vital role in reducing emissions from heavy-duty vehicles.



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About REVIVE

[The REVIVE project](#) is an EU-funded project that aims to be the largest demonstration of hydrogen fuel cell refuse trucks to date, integrating fuel cell powertrains into 11 vehicles and deploying them across 7 sites across Europe. The project highlights the potential for the decarbonisation of heavy-duty vehicles and provides the operational flexibility required for urban waste collection.

REVIVE has received funding from the Clean Hydrogen Joint Undertaking under Grant Agreement No 779589. This Joint Undertaking receives support from the European Union's Horizon 2020 Research and Innovation programme, Hydrogen Europe and Hydrogen Europe Research.

About the Clean Hydrogen Partnership:

The [Clean Hydrogen Partnership](#) is supporting research and innovation (R&I) activities in hydrogen technologies in Europe. It aims to accelerate the development of advanced clean hydrogen applications ready for market, across end-use sectors such as energy, transport, building and industry, while strengthening the competitiveness of the clean hydrogen value chain. The members of the partnership are the European Commission, fuel cell and hydrogen industries represented by Hydrogen Europe and the research community represented by Hydrogen Europe Research.

For more information, please visit www.clean-hydrogen.europa.eu.

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