# REVIVE

## REFUSE VEHICLE INNOVATION AND VALIDATION IN EUROPE

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| **Project ID** | 779589 |
| **PRR 2025** | Pillar 3 - $H_2$ End Uses - Transport |
| **Call Topic** | FCH-01-7-2017 |
| **Project Total Costs** | 9 760 023.65 |
| **Clean $H_2$ JU Max. Contribution** | 4 993 851.00 |
| **Project Period** | 01-01-2018 - 31-12-2024 |
| **Coordinator Beneficiary** | TRACTEBEL ENGINEERING S.A., BE |
| **Beneficiaries** | ERM FRANCE, GEMEENTE GRONINGEN, ERM FRANCE, GEMEENTE NOORDENVELD, ENGIE IMPACT BELGIUM, GEMEENTE GRONINGEN, SAVER NV, PREZERO NEDERLAND HOLDING BV, AZIENDA SERVIZI MUNICIPALIZZATI DI MERANO SPA, SEAB SERVIZI ENERGIA AMBIENTE BOLZANO SPA, SWISS HYDROGEN SA, RENOVA AKTIEBOLAG, E-TRUCKS EUROPE, ENVIRONMENTAL RESOURCES MANAGEMENT LIMITED, GEMEENTE BREDA, SYMBIO, STAD ANTWERPEN,WATERSTOFNET VZW, Powercell Sweden AB, ELEMENT ENERGY LIMITED, Proton Motor Fuel Cell GmbH, GEMEENTE AMSTERDAM, COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES |

https://h2revive.eu/

### PROJECT AND GENERAL OBJECTIVES

REVIVE will significantly advance the state of development of fuel cell bin lorries by integrating fuel cell power trains into eleven vehicles and deploying them at eight sites across Europe. The project will deliver substantial technical progress by integrating fuel cell systems from four major suppliers and by developing effective hardware and control strategies to meet highly demanding refuse truck duty cycles., All trucks are in operation.

### NON-QUANTITATIVE OBJECTIVES

- REVIVE aims to involve EU fuel cell suppliers. Currently, two EU fuel cell suppliers are involved in the project, Proton Motor and PowerCell Sweden. In addition, two trucks are equipped with Hydrogenics fuel cell systems.
- REVIVE aims to demonstrate a route to high utilisation of hydrogen refuelling stations to support the roll-out of $H_2$ mobility for light-duty vehicles. Even with limited running hours, the three trucks deployed in the project have already consumed 4.2 t of hydrogen during the project.

### PROGRESS, MAIN ACHIEVEMENTS AND RESULTS

- The first Proton Motor fuel cell system has been delivered and successfully integrated.
- The first REVIVE trucks have been deployed.
- A new electric driveline has been developed, tested and deployed.
- All trucks have been constructed and have obtained all the certifications required to be deployed.

### FUTURE STEPS AND PLANS

- Increase dissemination activities. To catch up following the delays experienced in 2020, a plan for dissemination will be developed.
- Decrease teething issues.
- Carry out an in-depth performance analysis of truck deployment and focus on completing the remaining deliverables.

### PROJECT SRIA TARGETS

| Target source | Parameter | Unit | Target | Achieved to date by the project | Target achieved? | SoA result achieved to date (by others) |
|---|---|---|---|---|---|---|
| Project's own objectives | FC Power | kW | >40 | 45 | ✓ | 90 |
| | Tank-to-wheel efficiency | % | 50 | 55 | | N/A |