



## Launch of REVIVE project - for the validation and deployment of fuel cell refuse trucks in Europe

The launch of a groundbreaking project targeting sustainable and clean urban waste transportation in Europe took place on the 17th of January 2018 in Brussels (Belgium): REVIVE, which stands for Refuse Vehicle Innovation and Validation in Europe.

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement No 779589. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and Hydrogen Europe Industry and Hydrogen Europe Research.

The project will be coordinated by Tractebel and is based on a partnership of fifteen members. Among them, the vehicle (E-Trucks) and fuel cell (Swiss Hydrogen, Symbio F-Cell) manufacturers will work together to develop a high-performance fuel cell refuse truck. Fifteen fuel cell trucks will be operated and tested in seven deployment sites: Antwerp in Belgium, Amsterdam, Breda, Groningen, Helmond (operated by SUEZ Netherlands) and Roosendaal (operated by Saver) in the Netherlands and South Tyrol (operated by SEAB SPA and ASM Merano-Stadtwerke Meran) in Italy. The local coordination of the trucks deployment will be addressed by WaterstofNet and Tractebel.

Through extensive monitoring and data analysis, project partner CEA will provide robust evidence of the viability of fuel cell technology in heavy-duty vehicles. The overall dissemination will be led by Element Energy who will ensure that the study results are well understood by the public, the wider industry, and the relevant policy makers. Likewise, the project will demonstrate how hydrogen refueling stations with large daily demands can be commercially viable. The full list of the fifteen REVIVE partners is provided below.

REVIVE's overall objective is to be the largest demonstration of fuel cell-range extender trucks to date, one of very few options for the decarbonization of heavy duty vehicles. For urban trucks, there is an increasing need for zero emission solutions to comply with upcoming access restrictions imposed by cities as part of pollution reduction strategies. The REVIVE project will serve as a major step towards the commercialization of fuel cell refuse trucks and developing technology ready for application to all truck types which is able to meet the needs of heavy duty transport operators.



This approach will enable a step change for truck manufacturers, unlocking the next wave of deployment of hydrogen fueled heavy duty vehicles. As such, the project is expected to prove instrumental in developing a technology able to address problems of both urban air and noise pollution.

By validating the fuel cell technology and producing material setting out the economic, environmental and business cases for further rollout and by raising public awareness of the technology, the REVIVE project will empower a crucial switch towards sustainable and clean waste collection.

The partners are: CEA, City of Antwerp, City of Amsterdam, City of Breda, City of Groningen, Element Energy, E-Trucks Europa, Saver, SEAB SPA, ASM Merano-Stadtwerke Meran, SUEZ Netherlands, Swiss Hydrogen, Symbio F-Cell, Tractebel, WaterstofNet.

Project coordinator, Pierre Schoeling reported "As part of this dynamic team, I'm proud to participate to this "game changing" project that will improve the air quality in the cities and reduce drastically the noise produced by those vehicles".

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