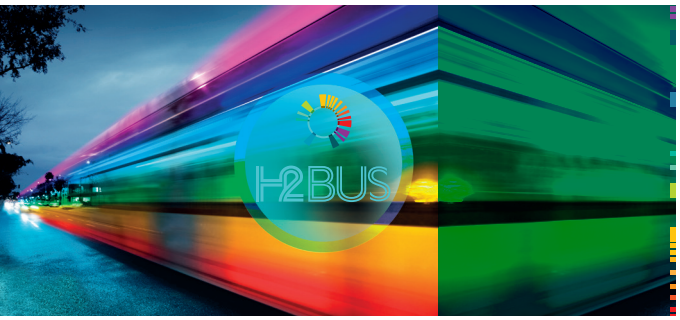
May 2021

Ballard Power Systems Europe A/S

Project collaborations

Ballard takes part in development and demonstration projects to validate the viability of fuel cell technology. We foster partnerships across the European eco-system to accelerate the commercialization of zero-emission fuel cell buses, trucks, trains, and marine vessels, as well as backup power systems to improve resilience of critical infrastructure.



The H2BusEurope consortium, brings together industry members committed to deploy at least 1000 hydrogen fuel cell electric buses, along with supporting refueling infrastructure, in European cities at commercially competitive rates.

Through the **H2 Truck project**, we will together with a number of companies in the transport sector, energy sector and hydrogen fueling providers work to get at least 100 hydrogen trucks on the roads in Oslo, Norway by 2025. The H2 Truck project is financed by Viken county and Oslo through its Climate and Energy Fund.

The FCH-JU funded FLAGSHIPS project aims to raise the readiness of zero-emission waterborne transport by deploying two commercially operated hydrogen fuel cell vessels. The demo vessels include the world's first commercial cargo transport boat operating on hydrogen, plying the river Seine in Paris. Commercial operations are set to commence in 2021. The other demo vessel is a passenger and car ferry operating for Norled in Stavanger, Norway. Both vessels will be powered by fuel cells from Ballard.

In 2018, Ballard Power Systems signed a Memorandum of Understanding (MoU) with ABB on developing the next-generation fuel cell power system for sustainable marine e-mobility. Together we will leverage the existing kilowatt-scale fuel cell technologies and optimize them to create a pioneering megawatt-scale solution suitable for powering larger ships. This will help ship-owners meet the increasing demands for clean marine operations.

Ballard has collaborated with Eltek on the project Trollstigen in the mountains of Norway, installing an off-grid power solution that integrates solar, wind, fuel cells from Ballard, and batteries to ensure continuous operation and connectivity of a remote telecom network site. The fuel cells provide backup power to the site, when no alternative sources are available and ensures constant connectivity.