



Hydrogen Europe: European Hydrogen & Fuel cell Project Database

Project 3EMOTION

Environmentally Friendly, Efficient Electric Motion

The 3EMOTION project will provide policymakers and financing institutions with the necessary arguments to invest in Fuel Cell Buses (FCB) as a cost effective strategy to accelerate the reduction of harmful local emissions while offering attractive co-modality options for commuters. By leveraging the experiences of earlier FCB demonstrations in overcoming the last technical and economic barriers, as well as significantly increasing the number of bus operators involved with FCBs, the project will support the achievements anticipated in the upcoming FCH-JU Bus Commercialisation Study, 2014. More specifically, the project will:

- Lower H₂ consumption for FCB's to less than 9kg/100km (a 30% improvement over the FCH JU targets)
- Integrate latest drive train, fuel cells & battery technologies to lower the TCO and increase their actual lifetime
- Ensure Availability >90% without the need of permanent technical support, a major advance compared to that achieved under current FCH-JU projects
- Increase warranties (>15,000 hours) and improved delivery times of key components
- Reduce bus investment costs to 850K€ for a 13m bus (a reduction of 35% over the current generation of vehicles)

A pan-European consortium of public & private actors will achieve these challenging targets and objectives by:

- Operating 27 FCB in 5 leading EU cities: London, Rome, Flanders, Rotterdam, Cherbourg (6 already existing)
- Developing 3 new Hydrogen Refuelling Station (HRS)
- Conducting an evaluation assessment of the use of FCB & HRS (environment, economic, social) using the existing MAF
- Identifying the transferability model for accelerating the commercialisation of FCB's in the EU by comparing their latest performances with conventional/alternative technologies
- Consolidating and extending the network of H₂ Bus Centres of Excellence to the project sites, in collaboration with the H₂ Bus Alliance Global H₂ Bus Platform and UITP.

Project Information

Type of project : Demonstration

Timing : 01/01/2015 > 31/12/2019

Project website: <http://www.3emotion.eu/>

Project Budget : 41.891.578 €

Funding

European Union through FCH JU: Grant agreement 633174 - [CORDIS link](#)

Project partners

Coordinator :[Van Hool NV](#)**Partners :**[Ballard Power System Europe A/S \(Previously Dantherm\)](#)[AIR LIQUIDE ADVANCED TECHNOLOGIES SA](#)[CEA - Commissariat à l'énergie atomique et aux énergies alternatives](#)[WaterstofNet vzw](#)

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Sub project(s)**Sub project 1****Country:** Belgium**Address:**

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Sub project categories

Demonstration

Project Id: 1116

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