



# Hydrogen Europe: European Hydrogen & Fuel cell Project Database

## Project FluMaBack

Fluid Management component improvement for Back up fuel cell systems

The FluMaBack (Fluid Management component improvement for Back up fuel cell systems) project aims at improving the performance, life time and cost of balance of plant (BOP) components of back up fuel cell systems specifically developed to face back-out periods of around 1,000h/year for specific markets: USA, Africa and North Europe where hard operative conditions are present (high and low temperatures). The improvement of system components addressed in this project will benefit both back-up and CHP applications. The project focuses on new design and improvement of BOP components for utilization in PEMFC based stationary power applications, aimed at: - improving BOP components performance, in terms of reliability; - improving the lifetime of BOP component both at component and at a system level; - reducing cost in a mass production perspective; - simplifying the manufacturing/assembly process of the entire fuel cell system. While in recent years the performance and durability of the PEMFC have increased and the cost has decreased at the same time, performance, durability and costs of BOP components have basically stayed the same. So, for improvements on performance, durability and cost of the fuel cell system, R&D dedicated on BOP components have become essential. The project is focussed on the most critical BOP components with the largest potential for performance improvement and cost reductions: - Air and fluid flow equipments, including subcomponents and more specifically blower and recirculation pumps - Humidifier - Heat exchanger Specific targets in terms of efficiency, lifetime and cost have been pointed out for each BOP component to be developed. The project will have a duration of 3 years to guarantee the achievement of all project targets. The consortium consists of large and small entities which are R&D centres, BoP components developers and manufacturers, fuel cells stack and fuel cell system developers and manufacturers. Partners are located throughout the EU: Italy, Spain, The Netherland and Slovenia.

## Project Information

**Type of project :** Research

**Timing :** 01/07/2012 > 30/06/2015

**Project website:** <http://www.flumaback.eu/>

**Project Budget :** 3.999.005 €

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## Funding

European Union through FCH JU: Grant agreement 301782 - [CORDIS link](#)

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## Project partners

**Coordinator :****ELECTRO POWER SYSTEMS****Partners :****Aragon Hydrogen Foundation - Fundación para el Desarrollo de las Nuevas Tecnologías del Hidrógeno en Aragón**  
**Nedstack fuel cell technology B.V.**

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

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**Sub project categories**

Research

Project Id: 971

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