



## Project Summary

### DEPLOYMENT OF INNOVATIVE LOW POWER FUEL CELL VEHICLE FLEETS TO INITIATE AN EARLY MARKET FOR HYDROGEN AS AN ALTERNATIVE FUEL IN EUROPE

#### HYCHAIN MINI-TRANS

**Action Line:** Alternative motor fuels  
**Contract Type:** Integrated projects  
**Activity area:** Hydrogen for Transport

#### Coordinator:

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#### Project details

<b>Reference:</b>	AMFhy/020006/2005	<b>Start Date:</b> 15/01/2006
<b>Status:</b>	Execution	<b>End Date:</b> 15/01/2011
<b>Project Cost (€):</b>	37.652.928	<b>Duration (months):</b> 60
<b>Project Funding (€):</b>	17.000.000	

#### Summary

The HYCHAIN MINI-TRANS project will deploy fleets of innovative fuel cell vehicles in four regions in Europe (France, Germany, Spain, Italy) operating on Hydrogen as an alternative fuel. The fleets are based on similar modular technology platforms in a variety of applications with the main objective to achieve a large enough volume of vehicles (180) to justify an industrial approach to lower costs and overcome major cross sectional barriers. Addressing early adopters for transport, the first sustainable business cases for hydrogen based fuel cells in Europe will be initiated where they will have the best chances to continue and grow beyond this project.

Following a four step approach the project will start from existing prototypes of seven low power fuel cell applications that (1) are optimised in design and functionality. (2) Pre-commercial manufacturing lines will be set up to reduce costs and (3) the required hydrogen distribution logistics and services (transport, distribution, dispensing) will be established based on an innovative refillable storage solution (4) A network of comparable subprojects using the common demonstration vehicles will be implemented in the four regions of Europe. The deployment will enable a large and wide variety of end users to be attained in a cost effective way, providing favourable conditions for achieving a significant reduction both in manufacturing and operating costs.

Technical deployment is complemented by socio-economic research targeted at increasing public awareness and overcoming the main current barriers, such as poor public acceptance, lack of certification, training, etc. Dissemination and exploitation activities provide the framework for maintaining the momentum and triggering a sustainable market growth.

The project will open up the path to achieving mass deployment of hydrogen used as an energy carrier and fuel cells as an efficient energy converter, responding to the activity 6.1.3.1.3, Alternative Motor Fuels.



## Partners

1	Air Liquide S.A.	FR
2	AXANE Fuel cell Systems	FR
3	BESEL S.A.	ES
4	COMMISSARIAT A L'ENERGIE ATOMIQUE	FR
5	Institut National de l'Environnement et des Risques	FR
6	INSTITUT NATIONAL POLYTECHNIQUE DE GRENOBLE	FR
7	PaxiTech SAS	FR
8	Association de Surveillance et de Contrôle de la Pollution Atmosphérique de la Région Grenobloise	FR
9	AL AIR LIQUIDE ESPAÑA,S.A.	ES
10	Centro de Investigaciones Energeticas, Medioambientales y Tecnologicas	ES
11	NACIONAL MOTOR S.A.U	ES
12	Rücker Lypsa, S.L.	ES
13	Universidad San Pablo-CEU	ES
14	EDICIONES Y SERVICIOS ESCOLARES DOMÉNECH,S.A.	ES
15	IBERDROLA S.A.	ES
16	Wuppertal Institute for Climate Environment Energy	DE
17	WiN Emscher-Lippe Gesellschaft zur Strukturverbesserung mbH	DE
18	Air Liquide Italia Service s.r.l.	IT
19	ENKAT GmbH	DE
20	Masterflex AG	DE
21	DemoCenter Centro Servizi per l'Innovazione s.c. a r.l.	IT
22	Air Liquide GmbH	DE
23	MORONI AUTOSERVICE SRL	IT
24	Federazione delle Associazioni Scientifiche e Tecniche	IT