

The Fuel Cells and Hydrogen Initiative (FCH)

Objectives, milestones and deliverables

With growing concerns about climate change issues, increasing prices of oil and gas and Europe's strong dependence on imports, the development of a policy for a sustainable and secure energy system is a top priority for Europe.

Hydrogen, as an energy carrier, and fuel cells, as efficient energy converters, may play an important role in this respect. However, a number of technical and non-technical barriers must be addressed before these technologies can become commercially available.

While significant funds have been invested in research and development in this sector, coordination between the relevant industrial sectors, as well as between national and European programmes, is limited.

The Fuel Cells & Hydrogen (FCH) Joint Technology Initiative (JTI) aims to define and implement a target-oriented research and development programme to support the broad market introduction of these technologies. The work will build on the strategic documents produced by the industry-led European Hydrogen and Fuel Cell Technology Platform (HFP), particularly in its *Implementation Plan*.

The overall objective of the JTI is to speed up the development of hydrogen supply and fuel cell technologies with up to 5 years to the point of commercial take off for early market applications (e.g. handheld devices, portable generators); for stationary applications (domestic and commercial Combined Heat and Power); and for mass market roll-out of transport applications.

The setting up of a JTI in this field has a number of advantages:

- Pre-defined budget of sufficient critical mass and 7-year time horizon. This will raise confidence of public and private investors and allow long term planning.
- Stimulation of industry to contribute with substantial additional funding.
- Shorter time to market (by approximately two to five years).

Together with the other measures presented in the EU's '*Strategic Energy Technology Plan*' (SET-plan), the FCH JTI has the potential to contribute to substantial reduction of greenhouse gas emissions and local air pollutants, to enhanced security of energy supply and to increased employment by creating the conditions for the growth of a strong and competitive industry.

Membership and Structure

The founding members of the FCH Joint Undertaking, which is the body set up to implement the JTI, are the European Community and the JTI Industry Grouping, a not-for profit organisation which brings together the sector's industrial key players and which is open to any private legal entity sharing the objectives of FCH JTI. After the formal establishment of the Joint Undertaking a Research Grouping, open to any research organisation, university research centre etc. has become a member.

The Joint Undertaking is composed of three main bodies:

- **Governing Board:** composed of representatives of the members. The Board has overall responsibility for the operations of the Joint Undertaking.
- **Executive Director:** supported by the Programme Office, the Executive Director is the legal representative of the Joint Undertaking and is responsible for its day-to-day management.
- **Scientific Committee:** is a high level scientific group with world class expertise from academia, industry and regulatory bodies. It provides advice to the Governing Board.

The **Member States** will closely follow the activities via the FCH States Representatives Group. A **Stakeholders General Assembly**, which is open to all public and private stakeholders, is also held on an annual basis to exchange information on ongoing and planned research activities.

Calls for proposals are open to any organisation able to contribute to the research theme in question. Consortia formed by the contractors are open to all successful applicants. In principle, research is performed in Europe.

Full title:

Fuel Cells and Hydrogen Joint Technology Initiative

Founding members:

- European Community (represented by the Commission)
- European Fuel Cell and Hydrogen Joint Technology Initiative Industry Grouping

Member:

- New European Research Grouping on Fuel Cells and Hydrogen

Budget (2008-2017) is minimum €940 million

European Community: €470 million

Private sector: Min. €470 million

Further information:

<http://ec.europa.eu/research/energy>

<http://cordis.europa.eu/fp7/jtis>