



EUROPEAN
COMMISSION

Community Research

Joint Technology Initiative: a new way to implement RTD on Fuel Cells and Hydrogen in the EU

Wiktor Raldow

Energy Conversion and Distribution Systems, DG RTD



NOT LEGALLY BINDING



EUROPEAN
COMMISSION

Community Research

Introduction

- **Joint technology initiatives are public - private partnerships**
- **They were proposed in early conception of FP7, based on the work of Technology Platforms**

The aim is to contribute to the Lisbon strategy

NOT LEGALLY BINDING



Legal basis

Article 171 of the Treaty:

- *“The Community may set up joint undertakings or any other structure necessary for the efficient execution of Community research, technological development and demonstration programmes”*

Examples of previous Joint Undertakings (JUs):

- Galileo, ITER, SESAR (*Single European Sky*)

NOT LEGALLY BINDING





EUROPEAN
COMMISSION

Community Research

Identification criteria

Needs for a new approach due to slow progress

Substantial impact on industrial competitiveness and growth

Contribution to broader EU policy objectives

Degree and clarity of definition of objectives and scope

Financial and resource commitment from industry

Capacity to attract additional support and funding leverage



NOT LEGALLY BINDING



EUROPEAN
COMMISSION

Community Research

Five on-going JTIs

**Innovative Medicines
Initiative ('IMI')**

**Aeronautics and Air
Transport ('Clean Sky')**

**Fuel Cells and
Hydrogen ('FCH')**

**Embedded Computing
Systems ('ARTEMIS')**

**Nanoelectronics
Technologies
('ENIAC')**



NOT LEGALLY BINDING



EUROPEAN
COMMISSION

Community Research

Fuel cell and hydrogen technologies

A clear market failure

Energy market is dominated by conventional technologies and locked-in investments

New infrastructure – hydrogen supply, vehicles and energy equipment have to develop together

Benefits, in terms of sustainability and energy security, not perceived by consumers

NOT LEGALLY BINDING





EUROPEAN
COMMISSION

Community Research

Fuel Cells and Hydrogen JTI

More efficient, integrated, industry-led action

Focused and optimised FP7 funding

Potential to contribute to security, sustainability, and competitiveness of the EU's energy system

Strong commitment from industry (additionality declared to be in the range of 600 M€)

Capacity to attract national and regional support

NOT LEGALLY BINDING





EUROPEAN
COMMISSION

Community Research



Fuel Cells and Hydrogen JU – important milestones



NOT LEGALLY BINDING





EUROPEAN
COMMISSION

Community Research

Expected outcome

Time to market shorter by between 2 and 5 years

Increased confidence of private and public investors due to the long-term commitment and a clear-cut budget

At least 600 M€ more research investment from industry as compared to “business as usual”

Increased efficiency of RTD funding

Earlier gains for the energy system

European leadership



NOT LEGALLY BINDING