



JTI born on 30 May 2008

Name: Fuel Cells and Hydrogen JU,
“New Energy World”

Fuel Cells and Hydrogen Joint Technology Initiative (JTI)

**National Contact Points meeting
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1. EU ENERGY CONTEXT CHALLENGES ACTIONS

EU Energy Context

TODAY

- Rising prices for oil and gas
- The EU **imports 50%** of the total energy consumed
- Energy accounts for **80% of all Green House Gases**
- Lower investments in Energy RTD in the EU compared to 1980

BY 2030, and with current policies,

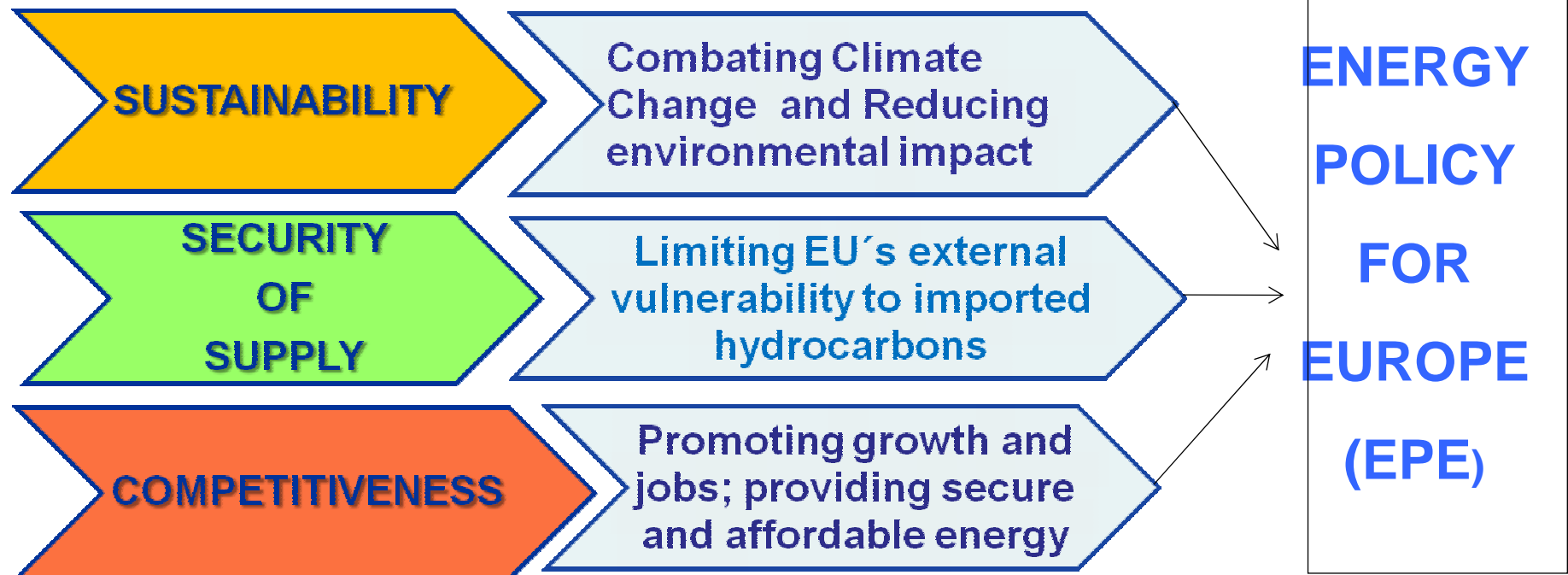
- **CO2 emissions** will increase by **5%** and GHG global emissions by **55%**
- **Energy imports** will jump to **65%** of total consumption (gas: from 57% to 84%; oil from 82% to 93%)
- **Electricity demand** will raise **1.5 % per year**

EU Energy Challenges

Challenges

Priorities

Need



EU Energy Action Plan

The first step of the European Energy Policy is the adoption* of a comprehensive Action Plan comprising measures to address the following priorities:

- Internal Market for Gas and Electricity
- Security of Energy Supply (for the EU as a whole and for each MS)
- International Energy Policy (“act with a common voice”)
- **Energy Efficiency and Renewable Energies** (set binding ambitious targets, e.g. the 20%’s by 2020)
- European Strategic Energy Technology Plan (**SET-Plan**)

(*) Brussels European Council (8/9 March 2007)

Energy Targets

- 20% reduction in greenhouse gas emissions compared to 1990 levels
- 20% reduction in global primary energy use (through energy efficiency)
- 20% of renewable energy in the EU's overall mix (minimum target for biofuels of 10% of vehicle fuel)

SET-PLAN*

- Joint strategic planning – Steering Group and information system
- Effective implementation through:
 - European Industrial Initiatives (i.e. JTIs)
 - **European Energy Research Alliance**
 - **Trans-European Energy Networks and Systems of the Future – transition planning**
- Increase in resources, both financial and human
- Reinforce international cooperation

(*) COM(2007)723- SET PLAN Communication

Why Fuel Cells and Hydrogen?

- Hydrogen is a flexible energy carrier that can contribute positively to **energy security** as it can be produced from any primary energy source and can also be used as a means of storing energy.
- Fuel cells are very **quiet, highly efficient**, energy converters capable of delivering substantial cumulative **greenhouse gases (GHG)** and **pollutant reductions**.
- Although Fuel cells and hydrogen offer advantages to society this is not perceived yet by the individual consumer. The long time to market these technologies weakens the ability of companies to secure returns on their investment and, **without public R&D support**, there is a **risk of market failure**.

2. JOINT TECHNOLOGY INITIATIVES:

Objectives
Criteria

JTI Objectives

- Establish long-term **public-private partnerships** in research at European level
- Co-ordinate research efforts and respond to **industry needs**
- Focus on fields of high **industrial and policy relevance**

JTI criteria

- Added value of **European-level** intervention
- Strength of commitment from **industry**, industrial lead
- **Scale of impact** on industrial competitiveness and growth
- Importance of contribution to broader **policy objectives**
- Capacity to attract **additional** national **support** and leverage industry funding
- **Inability of existing instruments** to achieve objective

3. Fuel Cells and Hydrogen JTI

Characteristics, Objectives, Financing, Members, Bodies, Projects

Chronology

- The Regulation for setting up the Fuel Cells and Hydrogen Joint Undertaking was adopted by the Competitiveness Council on 30 May 2008).
- The Regulation will enter into force the third day after its publication (expected by mid June)

Characteristics

- **Public –private** partnership supporting research, technological development and demonstration.
- Its main **goal** is to speed up the development of fuel cells and hydrogen technologies in Europe and enable their commercialisation between 2010 and 2020.
- The FCH JU is established under **Article 171** of the EC Treaty and it will operate in **2008 – 2013 (2017)**
- EC Budget of **470 M€** from the **FP7** Cooperation Programme (Energy, Transport, Materials and Environment) - **Matching budget** of at least 470 M€ from industry

Community body

- **Financial Regulation** of the Communities will apply (with some exceptions)
- Community **Staff Regulations** will apply (with some flexibility)
- Court of Auditors will carry out appropriate **controls to safeguard** the financial interests of the Community
- **Annual discharge** will be given by the European Parliament

Members

- The **Industry Grouping** and the **European Community**, represented by the Commission, are the **founding members**.
- The Research community has just established a **Research Grouping** that will become a member of the JU as soon as possible.

Financing

- **Administrative costs** shall be shared 50/50 between the Industry Grouping and Community plus Research Grouping (cash contributions)
- **Operational costs** (project funding) shall be shared between the Community and the legal entities participating in the activities (cash contributions and in-kind contributions respectively)
- Close follow-up of in-kind contributions to monitor the principle of **50/50 financing** between the Community and industry

The bodies of the JTI

- **Executive bodies:**
 - Governing Board
 - Executive Director

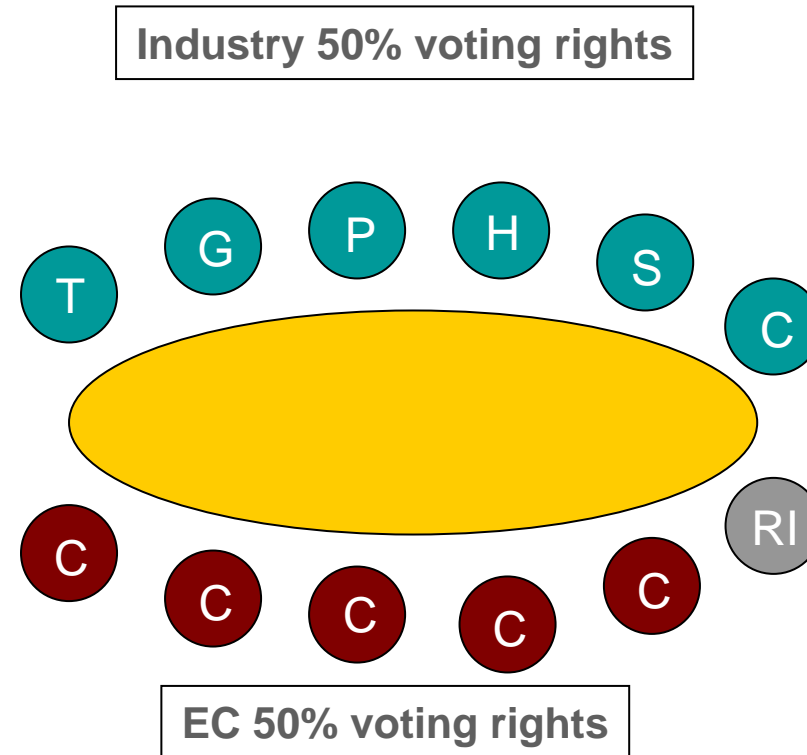
- **Advisory bodies:**
 - FCH States Representatives Group
 - Scientific Committee
 - Stakeholders' General Assembly

Governing Board

12 Members

6 Industry Grouping

6 EC but 5 when the
Research Grouping will
become a member



Governing Board

- **Decision making** by consensus, but
 - If not possible by $\frac{3}{4}$ majority
- **EC votes** are indivisible
- One seat in the Governing Board of the FCH JTI is foreseen to represent **SMEs**
- **Observers** and experts can be invited to the meetings

Executive Director

- Will be the chief executive and the legal representative of the JU
- Will be appointed for 3 years (+ 4 years)
- Will have a Temporary Agent contract

Scientific Committee

- SC is an advisory body to the Governing Board
- SC is composed of up to nine members
- World class expertise from academia, industry and regulatory bodies
- Advise on the scientific priorities for the Annual Implementation Plan, scientific achievements
- Members appointed by the GB and FCH States Representatives Group is consulted

FCH States Representatives Group

- SRG is an advisory body to the Governing Board
- SRG is composed of one representative per Member State and Associated country (elects its own chair)
- Review information and provide opinions on:
 - programme progress, respect of targets;
 - updating of strategic orientation, links to FP, calls for proposals, involvement of SMEs;
 - interface to JTI activities to relevant national research programmes, identification of potential areas of co-operation, dissemination and communication events at national level.

Stakeholders General Assembly

- SGA has an advisory role in the JU
- SGA shall be open to all public and private stakeholders, international interest groups from Member States, Associated countries, as well as from third countries
- SGA shall be informed of the activities of the FCH JTI and shall be invited to provide comments
- First SGA meeting scheduled for 14-15 October 2008

Participation in projects



- Open **calls for proposals**
- Minimum **3** independent legal entities from **different MS/AC**
- At least **one legal entity** belonging to the **Industry Grouping** or **Research Grouping** in each project
- **All** legal entities and international organisations **can participate**
- As a rule, **third country** participants are **not eligible for funding**
- In general, **co-ordinator** will be **IG/RG** member

Legal environment

- **Grant agreement** will be signed with the Joint Undertaking
- **Consortium agreement** will be mandatory
- **Intellectual property rights** policy will follow principles of FP7

Interim measures

- A "**bridging structure**" (a Co-ordination and support action under FP7) has been put in place with the Industry Grouping to ensure a quick start-up of the activities.
- During the **interim phase**, the **Commission shall be responsible** for the establishment and initial operation until the JTI has the operational capacity to implement its own budget.

What is next?

- The Multi-Annual Implementation Plan and the **2008 Annual Implementation Plan** should be commonly agreed by the Commission, the Industry and Research Grouping by this summer.
- The first meeting of the **Governing Board** is planned for July.
- First **call for proposals** is expected to be launched in September 2008 (28,1 M€). Publication in CORDIS
- Evaluations will be carried out by independent experts

Energy - Staying informed

Energy Research web site and Energy Helpdesk

http://ec.europa.eu/comm/research/energy/index_en.html

rtd-energy@ec.europa.eu

Energy Policy

http://ec.europa.eu/comm/energy/index_en.htm

Seventh Framework Programme

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

Calls for proposals

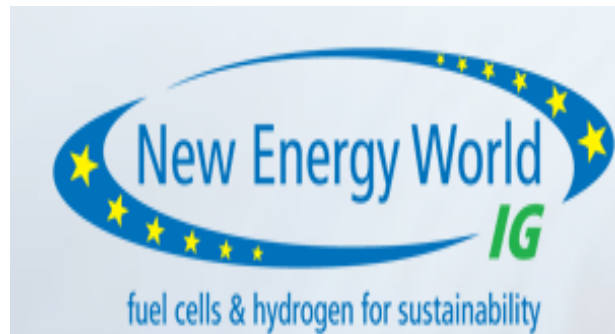
<http://cordis.europa.eu/fp7/>

Further Information



European Hydrogen and Fuel Cells Technology Platform (HFP)

<https://www.hfpeurope.org/>



New Energy World Industry Grouping (NEW-IG)

<http://www.fchindustry-jti.eu/>

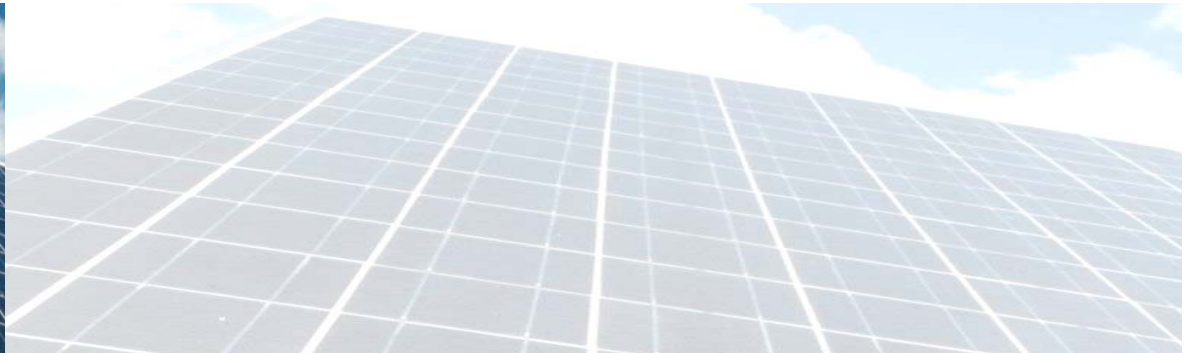
4. CONCLUSION

CONCLUSION



The Fuel Cells and Hydrogen JTI is just born,
Soon it will start crawling, learning from the «older» JTIs,
In September, it is expected to start walking,
In the first half of year 2009, it hopes to be autonomous.

The challenge is in front of us!



**Thank you
for your attention**

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