

# European Strategic Energy Technology Plan



Towards  
a low carbon  
future

## Towards a new European Energy Technology Policy

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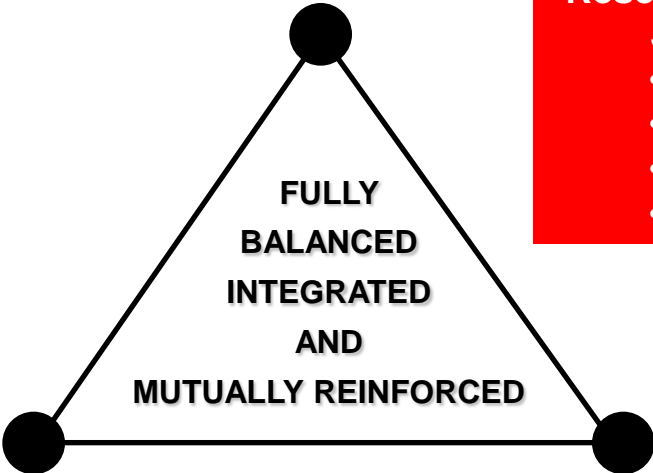
- ✘ Towards an Energy Technology Policy for Europe**
- ✘ A Combined Planning and Implementation Approach**
- ✘ Synergies at the Global level**

## Competitiveness "LISBON"

- Internal Market
- Interconnections (Trans-European Networks)
- European electricity and gas networks
- Research and innovation

### *SET-Plan*

- *Joint Strategic Planning*
- *Effective implementation*
- *Resources*
- *International Cooperation*



FULLY  
BALANCED  
INTEGRATED  
AND  
MUTUALLY REINFORCED

## Sustainable Development "KYOTO"

- Renewable energy
- Energy efficiency
- Nuclear
- Research and innovation
- Emission trading

## Security of supply „MOSCOW“

- International Dialogue
- European stock management (oil/gas)
- Refining capacity and energy storage
- Diversification

- ✓ **Technology is vital** to achieve the EU Energy and Climate Change policy objectives – *‘time is of the essence’*
- ✓ But today **we are falling short:**
  - ➔ Insufficient energy research budgets in the EU
  - ➔ Structural weaknesses in technology innovation
  - ➔ International competitors are already accelerating their efforts
- ✓ Intrinsic weakness in energy innovation

**There is a opportunity / need to use the ambition and the targets of the EU Energy Package to create a new European Policy for Energy Technology (SET-Plan)**

- ✓ **The SET-Plan Communication - COM(2007)723 - was adopted by the Commission on November 22, and endorsed by the European Council on 13 March 2008.**
  
- ✓ **Joint strategic planning** – New governance structure - align innovation efforts with energy policy goals
  
- ✓ **Effective implementation**
  - ➔ European large projects on technology development
  - ➔ Strengthening European energy research capacities
  - ➔ Transition Planning
  
- ✓ **Increased resources**, both financial and human
  
- ✓ **Reinforced international cooperation**

- ✓ **Steering Group on Strategic Energy Technologies**
  - ➔ High level representatives from MSs
  - ➔ Conceive joint actions and make resources available
- ✓ **Information system (SETIS)**
  - ➔ Technology Map (potentials? impacts? barriers?)
  - ➔ Capacities Map (who does what? and internationally?)
  - ➔ Monitoring & Review Framework (KPIs) for initiatives/sectors
- ✓ **Energy Technology Summit:**
  - ➔ In the first half of 2009; to take stock, to engage industry, researchers and international partners

## ***European Industrial Initiatives:***

- ✓ European Wind
- ✓ Solar Europe
- ✓ Bio-energy Europe
- ✓ European Electricity Grid
- ✓ European CO<sub>2</sub> Capture, Transport and Storage  
(forthcoming Communication)
- ✓ Fission (Gen IV)
- ✓ Fuel cells and Hydrogen (JTI on-going)
- ✓ Fusion (ITER on-going)

## EU Strategic Energy Technology Plan

### European Industrial Initiatives

**Instruments**  
(JTIs, Coalitions,  
Demonstration projects)



**Implementation**

**ETPs,  
Stakeholders**

**SET-PLAN  
Information System**

Vision Documents  
Strategic Research Agendas  
Implementation Plan

Technology and Capacity  
Mapping

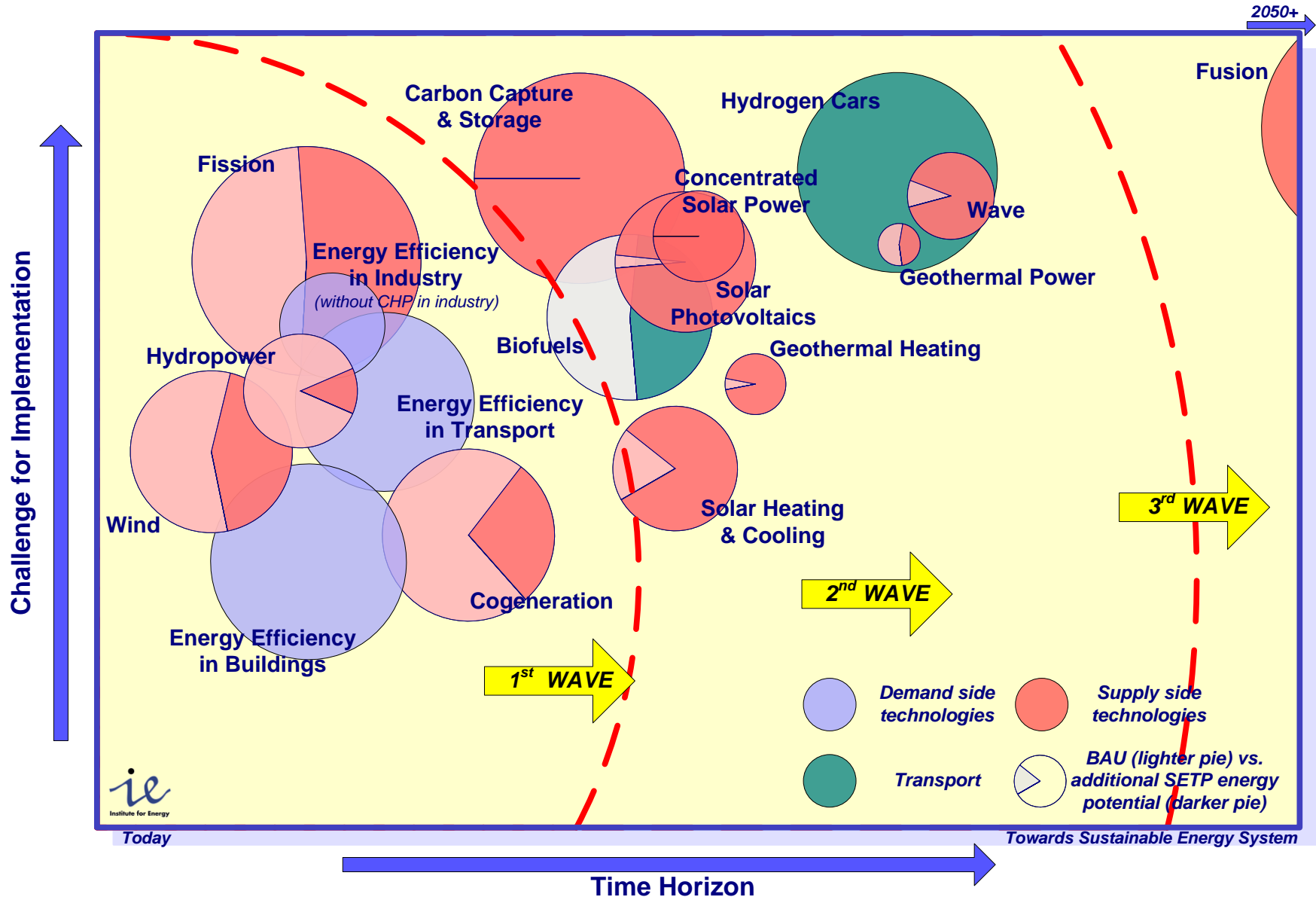
*Roadmapping*



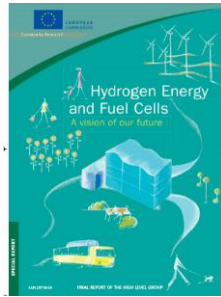


**MISSION:** *To support the European Energy Technology Policy, in providing regular and sound knowledge on energy technologies – a tool for decision making*

1. **Key-Objective 1:** To establish a robust open-access information system on energy technologies and their innovation aspects geared to supporting an effective strategic planning, monitoring and assessment of the *European Strategic Energy Technology Plan*.
2. **Key-objective 2:** To develop an integrated approach for information and data exchange on energy technologies and capacities for innovation with the Member States, international organisations and energy sectors.



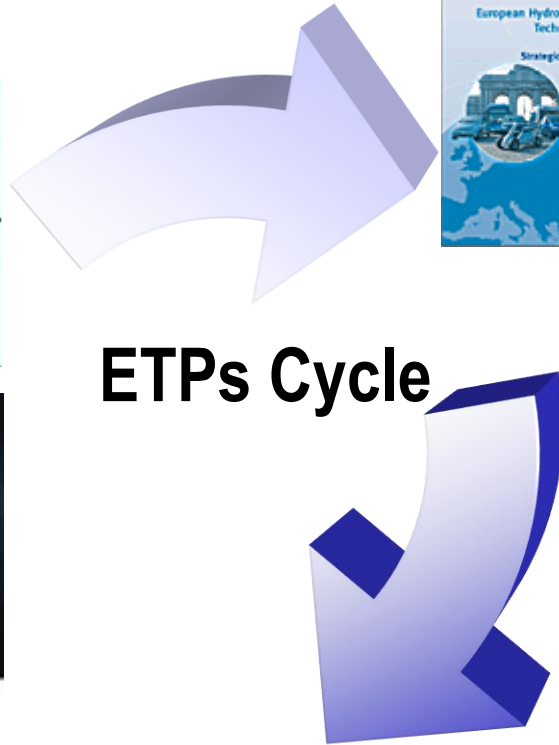
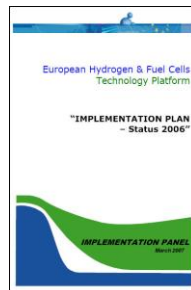
**VISION**  
Hydrogen Energy  
and Fuel Cells  
(2003)



**VISION**  
Wind  
(2006)



**IMPLEMENTATION**  
Implementation Plan  
(2007)



**STRATEGY**  
Strategic Research Agenda  
Deployment Strategy  
Strategic Overview

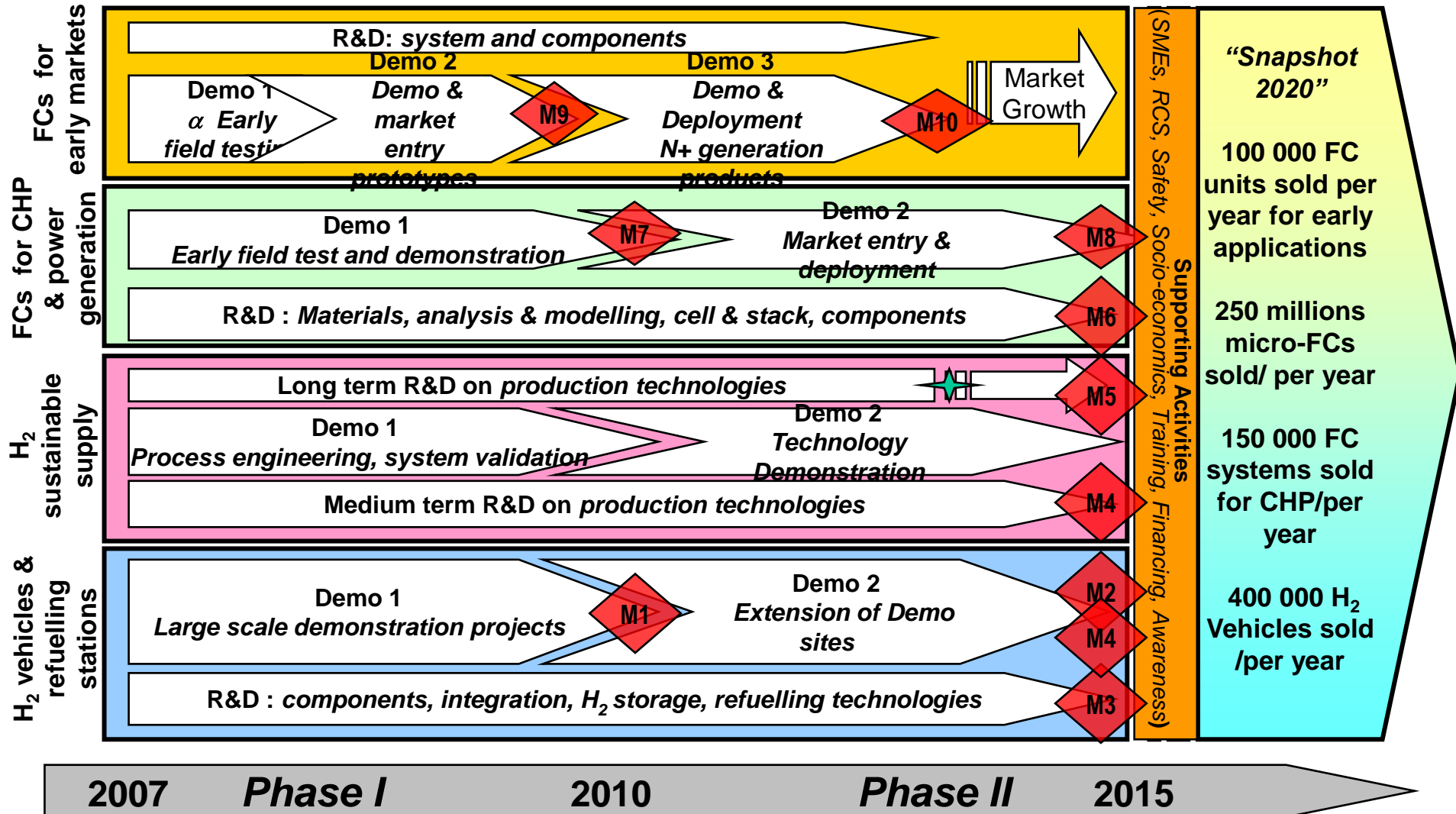


(2005)



(2008)

<b>Technology Platform</b>	<b>Vision</b>	<b>SRA &amp; DS</b>	<b>Implementation Plan</b>	<b>Proposed EU Initiatives</b>
<b>Hydrogen &amp; Fuel Cells</b>	2003	2005	2007	On-going – Fuel Cells & H2 JTI
<b>Biofuels</b>	2006	2008		In preparation - 2 <sup>nd</sup> Generation Biofuels
<b>Wind</b>	2006	2008		In preparation - Large Scale Turbines & Systems
<b>CCS</b>	2006	2006	2008	In preparation – up to 12 -Demonstration Projects
<b>PV</b>	2005	2007	2008	In preparation - within a broader Solar Initiative (incl. CSP, Buildings, RESHC..)
<b>Smart Grids</b>	2006	2006		In preparation - Energy network Infrastructure
<b>Nuclear Fission</b>	2007	On-going		In preparation, Generation IV Forum
<b>Nuclear Fusion</b>				ITER Initiative



- ✓ **Establishment of the EU Information System on Energy Technologies (SETIS)**
  - ➔ Systemic Modelling Capacities
  - ➔ Stakeholder Integration Framework
  - ➔ Web-based Portal
  
- ✓ **Kick-off of the EU Governance**
  
- ✓ **Establishing European Industrial Initiatives (EIs)**
  - ➔ A Communication on financing energy technologies
  - ➔ Preparing work-programmes of EU Initiatives

## A integral part of the SET-Plan Initiative

**Developed, Developing and Emerging economies – safety, public acceptance, longer-term frontier research, promoting sustainable development and creating opportunities for EU industry:**

- Networking energy technology centres;
- Large-scale demonstration projects;
- Global Energy Efficiency and Renewable Energy Fund;
- Clean Development Mechanism post-2012
- etc...



**Needs for a coherent and synergetic Strategic Planning accounting for regional specificities – Road-mapping, Exchange of Information**

- ✓ The EU follows a combined Strategic Planning and Implementation Approach
- ✓ A Common Assessment and Planning Framework is being set-up, Roadmapping is a key element of this Strategic Planning
- ✓ Importance of Interfacing, not only with EU Member States, but at the Global Level



# AN ENERGY POLICY FOR EUROPE



**Thank you for  
your attention**

*energy for a changing world*

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<http://ec.europa.eu/dgs/jrc/index.cfm>