International Cooperation
Aspects and Instruments of the European Union Strategic Energy Technologies (SET) Plan

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The 20-20-20 EU policy
By 2020
General Policy Framework

- **Energy Strategy 2020**
  November 2010

- **Energy Efficiency Action Plan**
  March 2011

- **Proposal for a Directive on Energy Efficiency**
  June 2011
Technology Push

- EU FP7 Energy Programme 2007-2013 (and the future Energy Societal Challenges in Horizon 2020) now mainly designed to support the European Strategic Energy Technology Plan (SET Plan)

- **SET Plan** - Technology contribution to achieve the objectives of the EU Energy Policy
  - Joint strategic RD&D planning between EU Member States, Industry, Research Community and the EC
  - Main Action Lines for ‘effective’ implementation
    - European Industrial Initiatives (EII)
    - European Energy Research Alliance (EERA)

- EU international RD & D cooperation supports the SET Plan
Technological Perspectives of Renewable Energy

Maturity and Appropriateness

- Wind
- Solar
- Bioenergy - Biofuels
## SET-Plan
### European Industrial Initiatives (EIIs)

### New Public-Private-Partnerships

- **European Wind Initiative**
- **Solar Europe Initiative (PV and CSP)**
- **Bio-energy Europe Initiative**
- **European Electricity Grid Initiative**
- **European CO2 capture, transport and storage Initiative**
- **Sustainable fission Initiative (GEN IV)**
- **Smart Cities**

### Existing PPP Initiatives

- Fuel Cells Hydrogen JTI
- Energy Efficient Buildings
- Green Cars
European Industrial Initiatives

- European Wind Initiative - Launched in June 2010
- Solar Europe Initiative - Launched in June 2010
- European Electricity Grid Initiative – Launched in June 2010
- European CO2 capture, transport and storage initiative – Launched in June 2010
- Bio-energy Europe Initiative - Launched in Nov. 2010
- Sustainable fission initiative (Gen IV) - Launched in Nov. 2010
- Smart Cities- Launched in June 2011

Illustrative examples:

- Fuel cells and hydrogen (JTI on-going)
- Fusion (ITER on-going)
International Cooperation Framework

• The EU R&D international cooperation framework is in support of the SET Plan main action lines, EIIIs and EERA

Examples:

• The US-EU Energy Council dedicated RD & D Working Group with 9 subgroups, encouraging reciprocity, lab to lab cooperation and facilitating collaboration on:
  - Bioenergy, CCS, Hydrogen and Fuel Cells,
  - Solar, Energy Efficiency in Buildings,
  - Advanced Energy Materials, Smart Grids,
  - Nuclear fusion, Nuclear Fission

• Also, the EC has around 20 S & T bilateral cooperation agreements all including an energy theme
The 7th Research Framework Programme of the EU and International Cooperation

- FP7 Work Programmes (WP) are also designed to support the SET Plan and international cooperation.
- In WP 2012 a specially designed call for twinning with China on CSP, linked to the Solar Industrial Initiative.
- Another topic on CCS is specifically recommended to the US, China and Canada.
- SET Plan priorities are also translated into the energy content of Horizon 2020 (the future EU research framework programme).
- ALL CALLS are open to international participation.
- Current calls were launched on 20 July, 2011.
European Energy Research Alliance (EERA)

- Alliance of leading research institutes in Europe
- Harmonisation of European national R&D labs and EU R&D programmes funded activities
- Strengthen, expand and optimise research capabilities
- Mature technologies to hand over to industry driven research
- SET Plan International Cooperation also increasingly addressed by EERA
- EERA has own its own international cooperation strategies and target countries
European Energy Research Alliance

Launch of the first Joint Programmes (JPs) in June and
November 2010 on:

- PV,
- Smart Grids,
- Wind
- Geothermal
- CO2 Capture and Storage two sub-programmes
- Material for Nuclear
- Bioenergy

More in preparation, e.g. Concentrated Solar Power, Basic
science for energy...
Security of Supply and International Cooperation

- European Commission Communication on security of energy supply and international cooperation

  **September 2011**

  - A comprehensive strategy for the EU's external relations in energy.
  - Improved coordination
  - Recognising Russia’s uniquely important role in Europe's energy market
The European Union and Russia

- Cooperation and promotion of energy efficiency and renewable energy.

- **Instruments**
  - Energy dialogue with Russia
  - Agreement on science and technology cooperation
  - Energy Efficiency is a priority
  - Research and Technology Framework
  - EU-Russia Modernisation Partnership
THANK YOU FOR YOUR ATTENTION!

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