



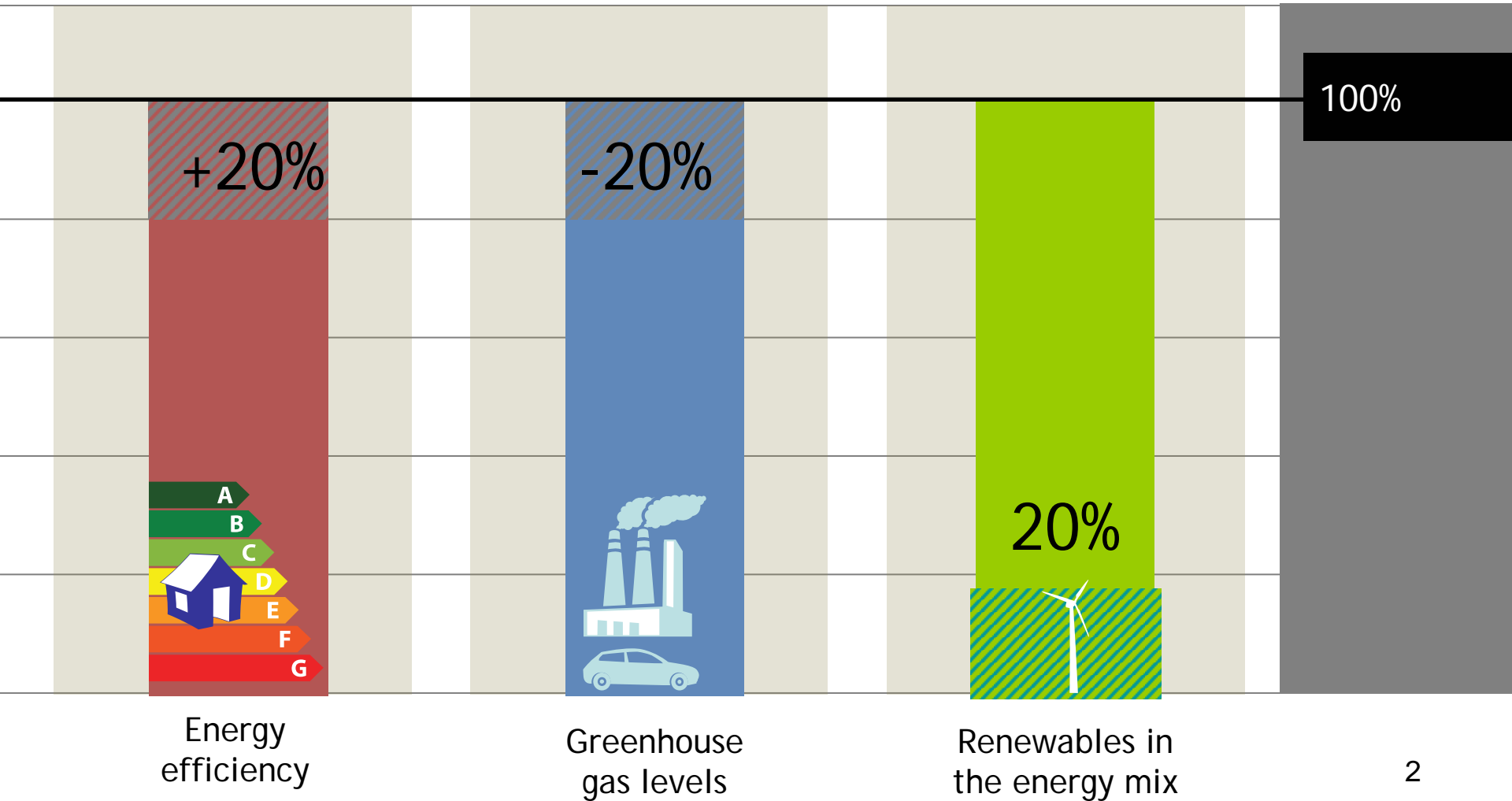
International Cooperation Aspects and Instruments of the European Union Strategic Energy Technologies (SET) Plan

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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

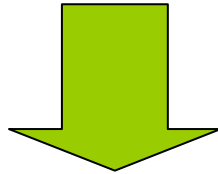


Technology Push

- 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 (**EIIs**)
 - 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 (EIs)

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, Ells 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



SET-Plan

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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