

Overview of the FP7-2013 Energy calls:

- Research priorities**
- Objectives**

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Europe 2020 – smart, sustainable and inclusive growth

EU energy policy targets - sustainability, competitiveness and security of supply

Horizon 2020 - a Common Strategic Framework for research and innovation focusing on societal challenges, competitiveness and research excellence

Energy research and innovation

- **Strategic Energy Technology Plan (SET-plan)**
Joint programming, Public Private Partnerships (PPPs)

SET-Plan – the technology pillar of EU energy and climate change policy

Objective

To accelerate the development of a portfolio of low carbon technologies leading to their market take-off

Governance

Steering Group – European Commission and Member States
• supported by the SET-Plan Information System **SETIS**

Implementation

- 1) Innovation creation :
 European Energy Research Alliance (EERA)
- 2) Innovation development and demonstration :
 European Industrial Initiatives (EIIs) :
- 3) Financial and human resources:
 European Energy Education and Training Initiative



**Initiative by a number of leading European research institutes
(Oct. 2008)**

- *more than 1000 researchers from more than 70 research organisations*
- *European University Association (EUA) joined as an observer*

**Aim: to accelerate development of new energy technologies
through Joint Programmes (JPs):**

- *CCS, Nuclear, Bioenergy, PV, Smart Grids, Wind and Geothermal Concentrated Solar Power and Marine Energy*
- *The CCS Joint programme has 32 members, 12 MS, 270 py/year, two sub-programmes: CO2 Capture and CO2 storage*



European Industrial Initiatives (EII)

➤ **Launched**

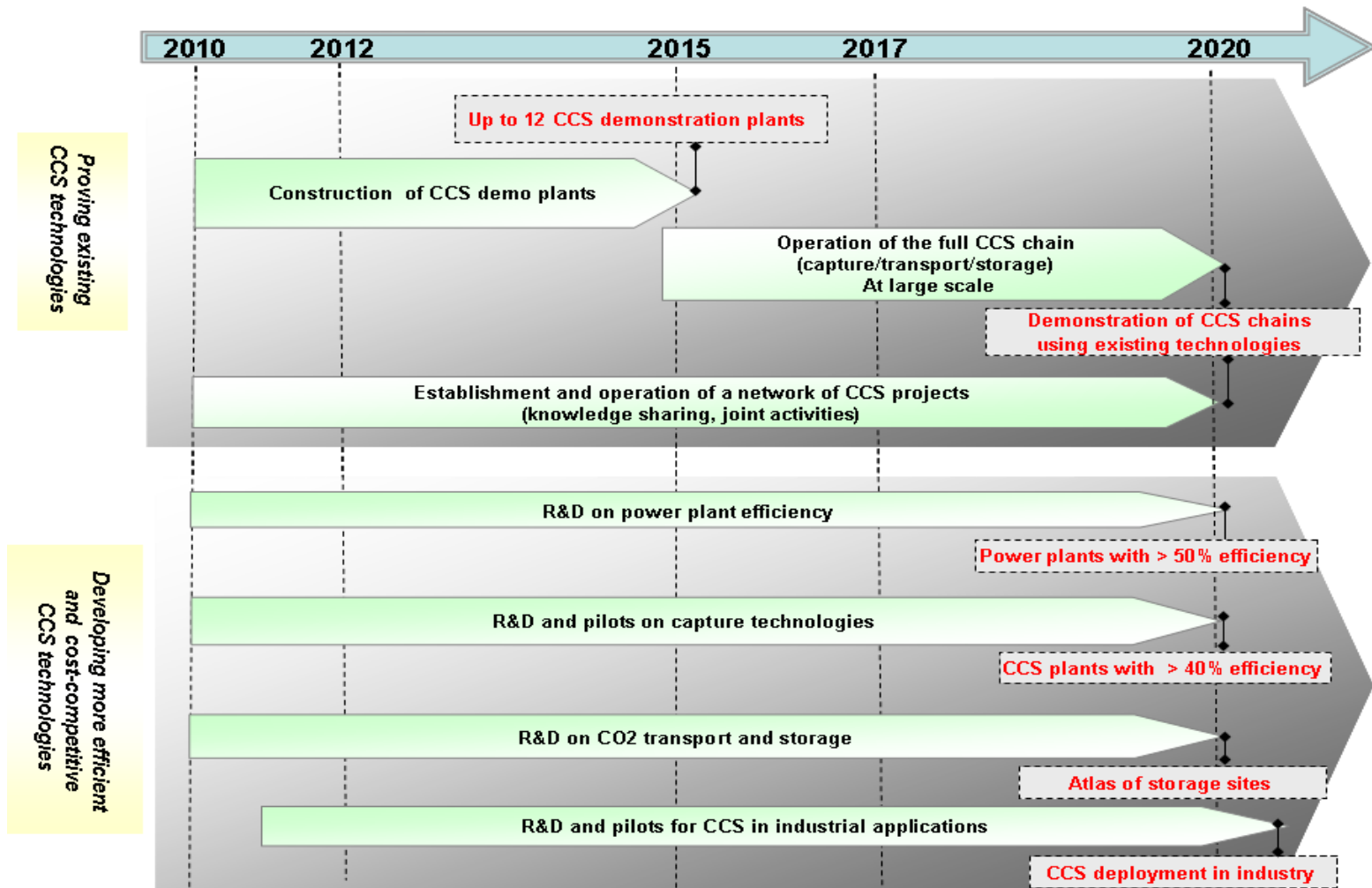
- **Wind, Solar, Bioenergy**
- **Electricity Grids**
- **Sustainable Nuclear**
- **Fuel Cells Hydrogen**
- **Smart cities and communities**
- **CCS - *Next CCS EII meeting 22 June 2012***

All parties committed to support:

- **Technology Roadmaps 2010-2020**
- **Implementation Plans 2010-2012**
- **new Implementation Plans for 2012-2015**

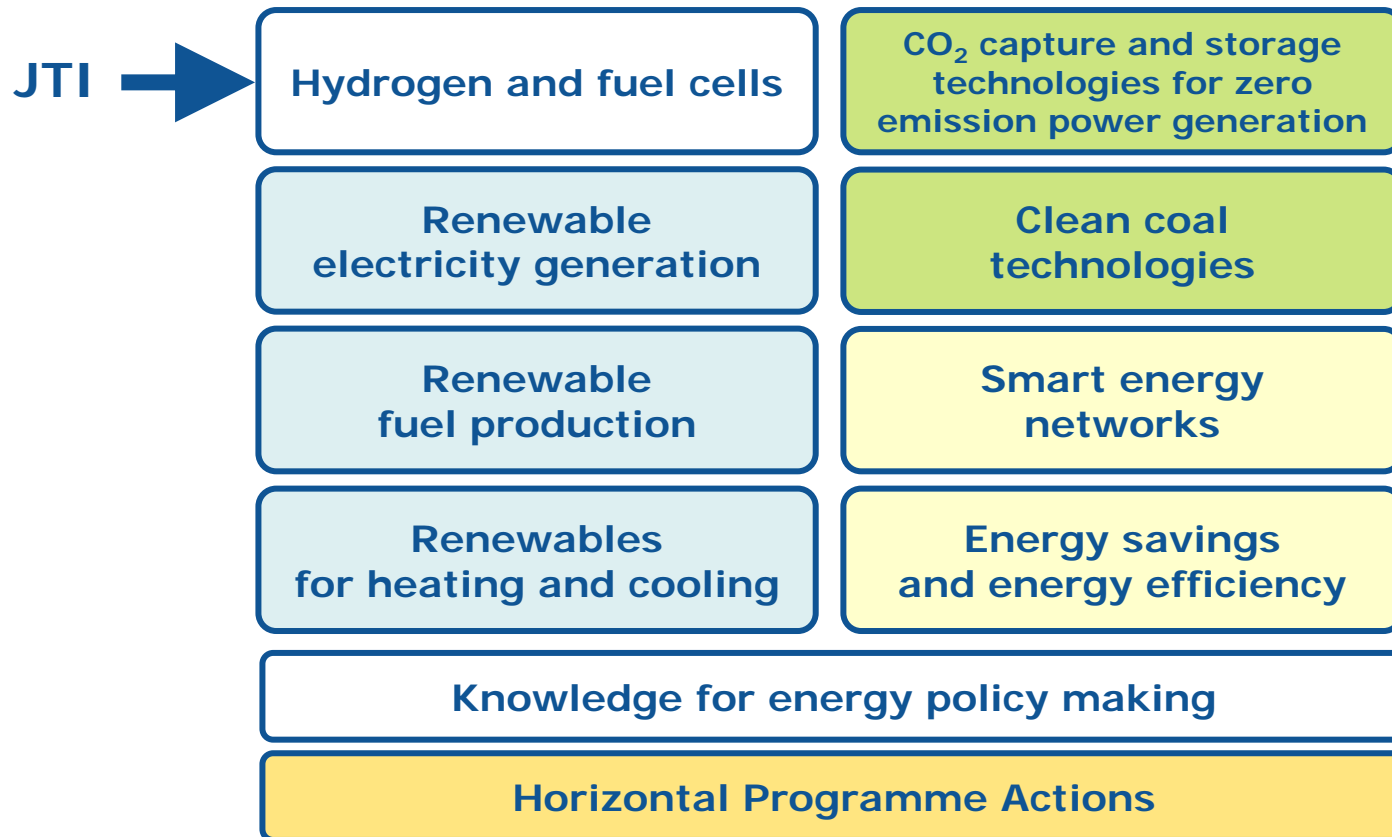
EII on CCS – Technology Roadmap 2010-2020

Innovation development and demonstration



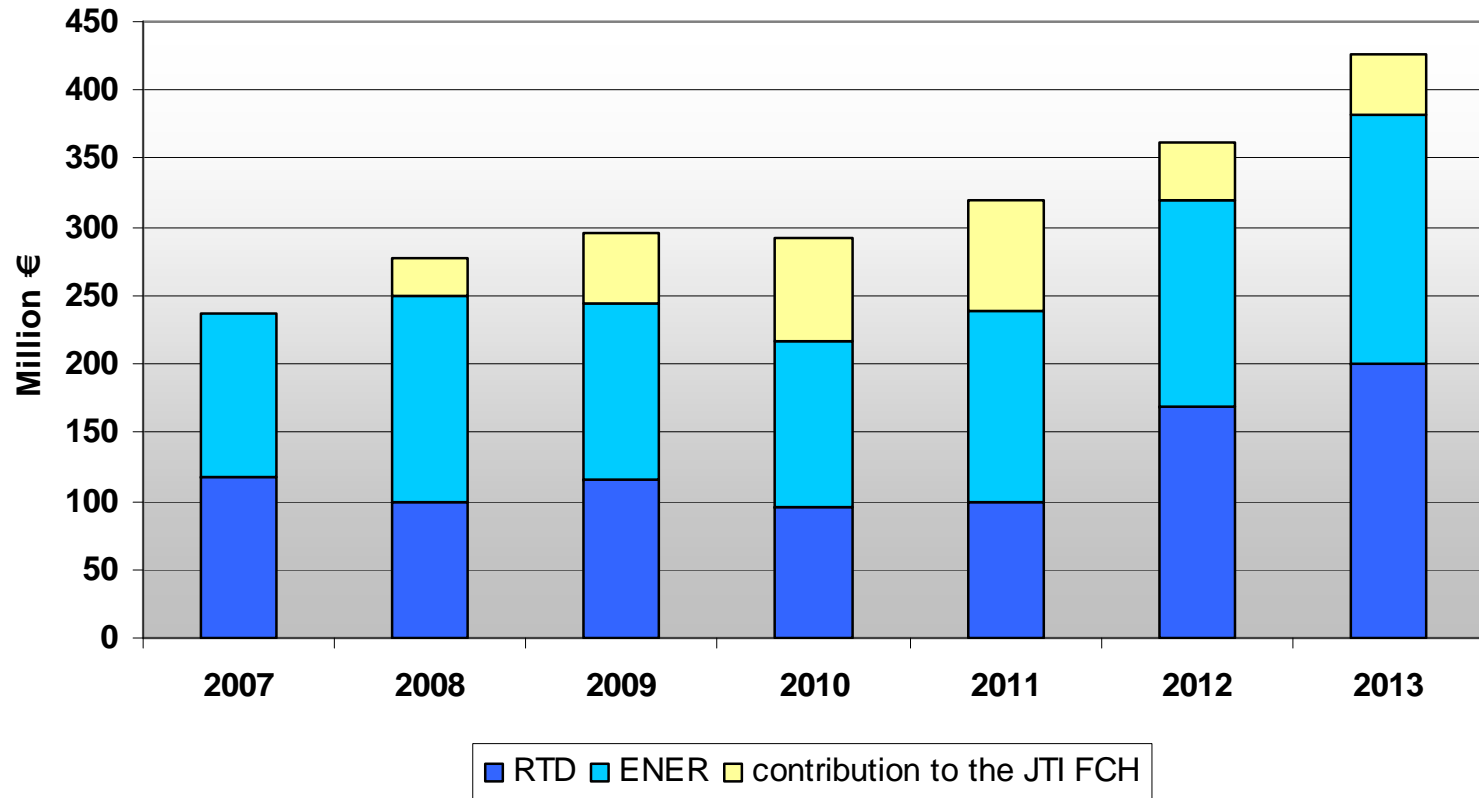
FP7 Framework Programme

Non nuclear energy in FP7: €2.3 bn for 2007-2013
→ implemented jointly by DG RTD and DG ENER



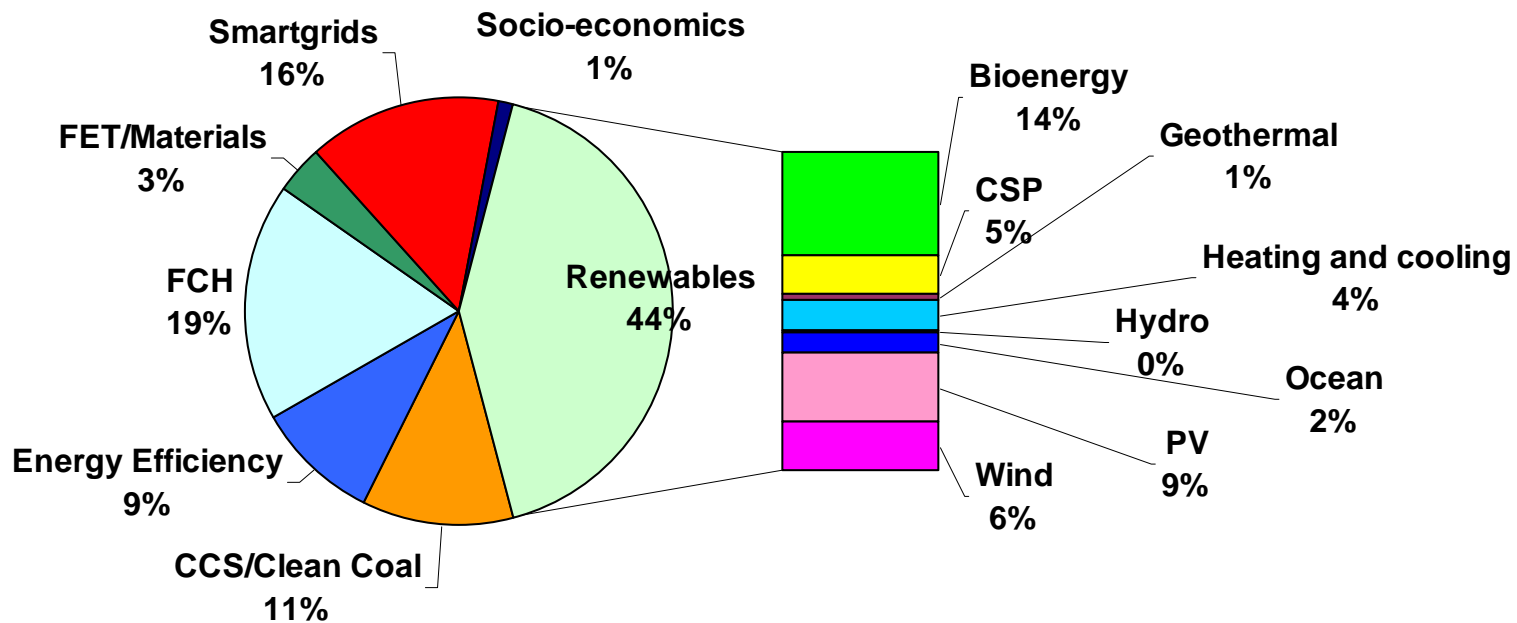
FP7 budget (RTD & ENER)

Available annual budget for FP7 Energy



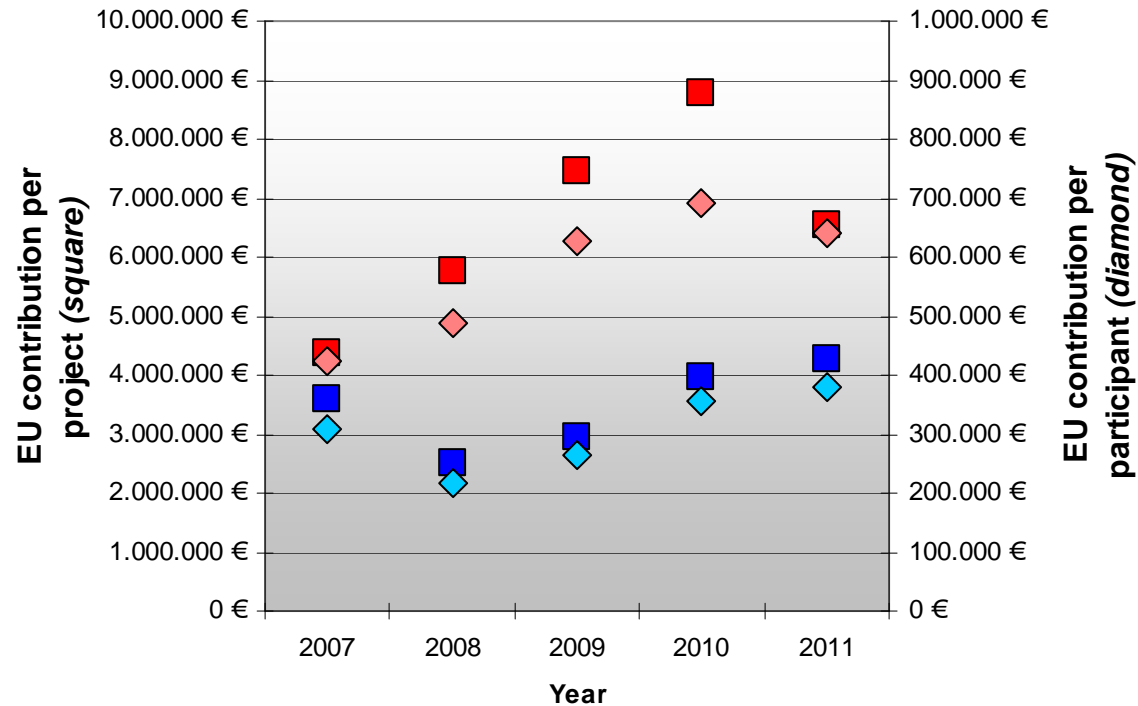
FP7 coverage (RTD & ENER)

Distribution of budget (projects and contributions 2007-2011)



Project characteristics (RTD & ENER)

Project characteristics (Energy Theme, 2007-2011)

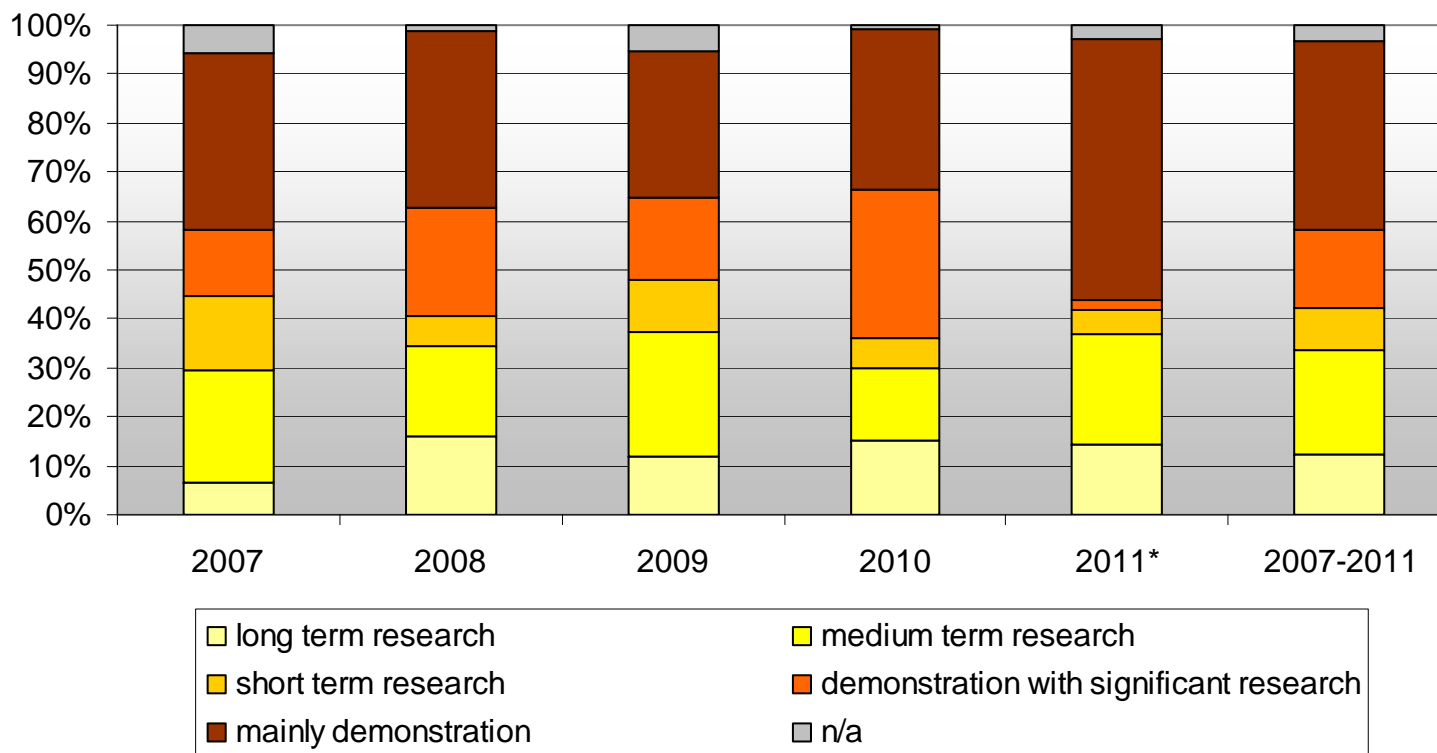


- Demo projects: average EU contribution / project
- Research projects: average EU contribution / project
- ◆ Demo projects: average EU contribution / participant
- ◆ Research projects: average EU contribution / participant



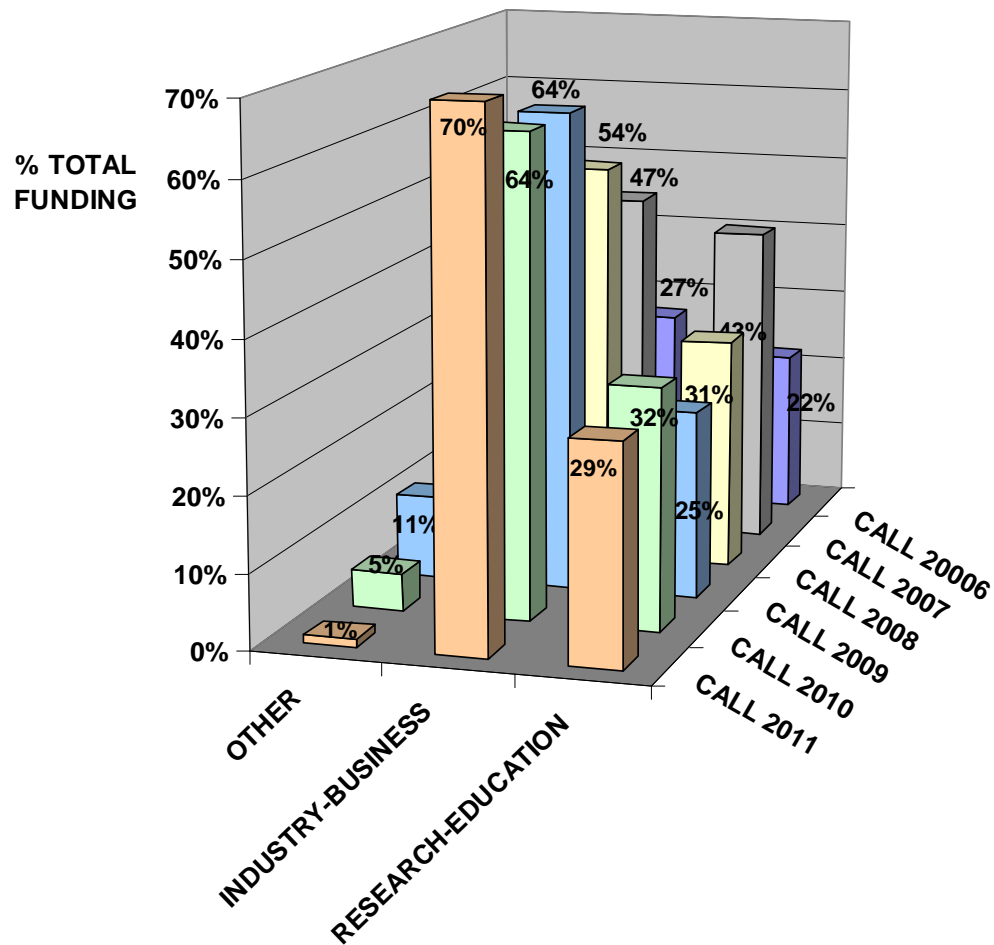
Balance of long- and short-term oriented RD&D

Distribution of funding between long/short-term oriented RD&D



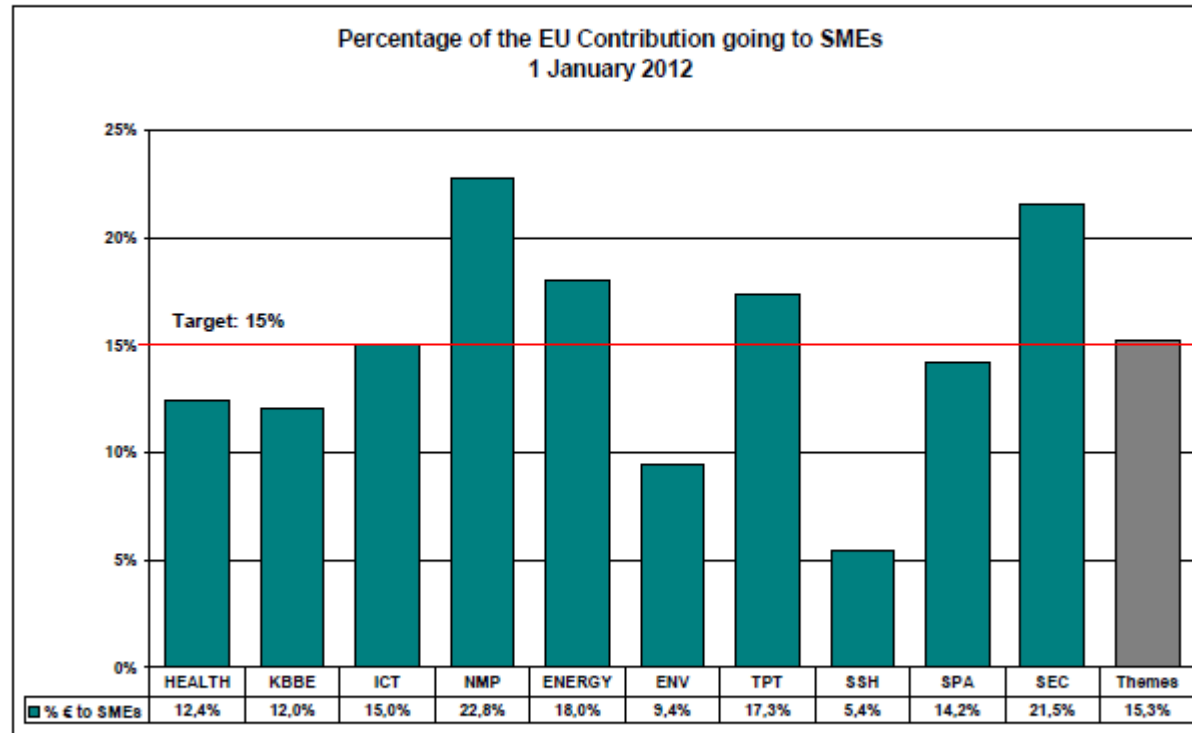
Industry participation – Demo projects

FUNDING DISTRIBUTION BY ORGANISATION TYPE



SME participation (RTD & ENER)

*EU Contribution going to SMEs, per Theme, versus the 15% target
Grant agreements signed during the years 2007 to 2011*



Graph 1: The share of the EU Contribution going to SMEs,
for each Theme within the Cooperation Programme (2007-2011)



Horizon 2020

- Commission proposal for a 80 billion euro research and innovation funding programme (2014-20) ~ 5. 8 b€ for Secure, clean and efficient energy
- Following and extending the ideas of FP7
- Fosters the EU's strategy for growth and job creation
- Innovation Union Flagship Initiative supports Horizon 2020
- Research and innovation are the key drivers
- A huge technology shift is necessary to meet the targets of 2020 and moreover 2050



Priorities for WP Energy 2013 (1)

- European approach to energy research and innovation
- Work Programme 2013 provides a smooth transition towards Horizon 2020 as it directly supports
 - the objectives of Europe 2020,
 - the Innovation Union Flagship,
 - the EU's Energy and Climate policies (including the Energy Roadmap 2050),
 - the SET-Plan
- Special emphasis on a cross-cutting approach supporting the new European Innovation Partnership on **Smart Cities and Communities**



Priorities for WP 2013 (2)

- **Renewable energy sources (budget: €145 mio)**

Increase the competitiveness of renewable energies to support the 2020 targets by addressing

- Renewable electricity generation (**Activities 2 and 10**),
- Fuels (**Activities 3 and 10**),
- Applications in the heating/cooling sector (**Activity 4**)

- **Smart grids and energy storage (budget: €81 mio)**

Increase efficiency, flexibility, safety, reliability and quality of European electricity systems and networks within the context of a more integrated European energy market

(**Activities 2 [topic 2.7.1], 7 and 10**)



Priorities for WP 2013 (3)

- Carbon capture and storage (CCS) (budget: €28,5 mio)
 - Increase the efficiency of capture technologies and the reliability of geological CO₂ storage (Activity 5)
 - Reduce CO₂ emissions from coal use through research on combining CCS and Underground Coal Gasification (Activity 6)
- Further activities
(included in the budget of other activities)
 - Oceans of the future
 - Raw materials
 - Bio-resource efficiency
- Horizontal activities (budget: €4,7 mio)



Priorities for WP 2013 (4)

- **Smart Cities and Communities**

(budget: €115 mio)

- Integration of energy, transport and ICT solutions
- Increase energy efficiency in urban environments
- Create new markets for the industry
- Provide new or enhanced services to the end users and the citizens

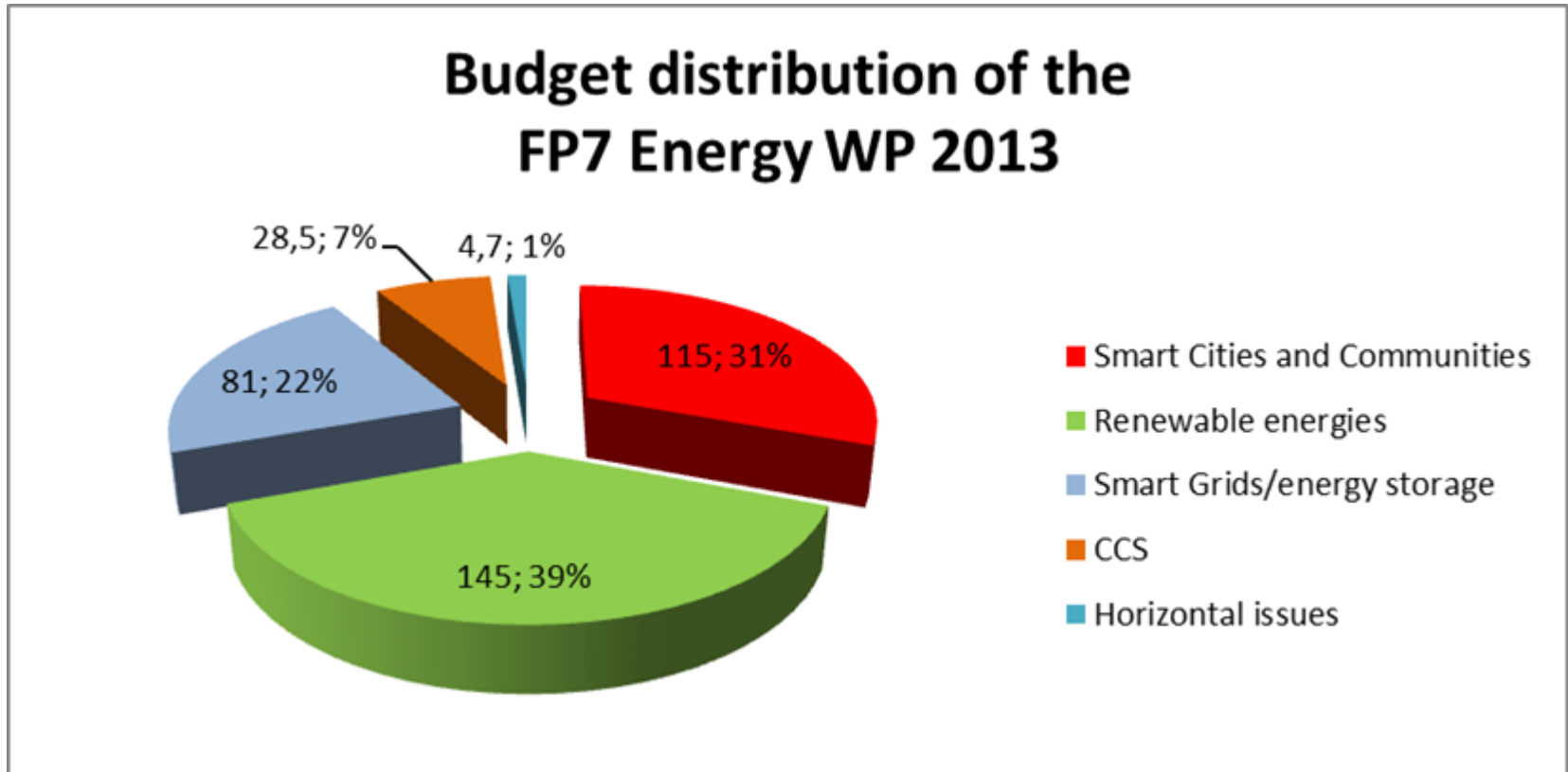
Industry-led large-scale demonstration of integrated, innovative and replicable solutions for

- more efficient buildings,
- Electricity distribution grids
- heating/cooling systems (**area 8.8**)
- complemented by research on distribution grids and electric vehicles (**topics 7.1.1, 7.3.1 and 7.3.2**)

Further support to this initiative can be found also in other parts of the FP7 work programme 2013: Themes ICT, Transport and NMP



Calls for 2013 - budget



Total foreseen budget: €343,2 million



FP7-2013 Energy Calls

- **FP7-ENERGY-2013-1:** a general call focusing on research with a long-term horizon
- **FP7-ENERGY-2013-2:** a general call focusing on research with a short-term horizon and on demonstration
- **FP7-SMARTCITIES-2013:** a call in the framework of the SET-Plan Smart Cities and Communities Initiative
- **FP7-ENERGY-2013-IRP:** a call to support integrated research programmes in the energy field
- **FP7-ERANET-2013-RTD:** a joint call on ERA-NETs
- **FP7-2013-OCEAN:** a cross-thematic call on marine and maritime research including an energy topic (Innovative transport and deployment systems for the offshore wind energy sector)



Call Fiche – FP7-ENERGY-2013-1

Deadline: 28 November 2012

Indicative Budget: 107,5 M€ - 18 topics

Collaborative Projects – Single Stage Evaluation

Challenges	Areas	Nbre of topics	Indicative budget (M€)
Renewable energies	Geothermal Low/medium temperature solar thermal energy Ocean energy, Photovoltaics, Wind Cross-cutting issues	8	51,0
Renewable energies	Bio-energy	1	4,0
Smart grids / energy storage	Hydro energy Smart Energy Networks	5	24,0
Carbon capture and storage	CCS for zero emission power generation Clean coal technologies	4	28,5



Call Fiche – Information to note

Only information provided in part A of the proposal will be used to determine whether the proposal is eligible with respect to budget thresholds and/or minimum number of eligible participants.



Call Fiche – Information to note

Limit in the number of projects to be funded

- **Up to 1 project:** ENERGY.2013.2.1.1, ENERGY.2013.2.3.1, ENERGY.2013.2.3.2, ENERGY.2013.2.4.1, ENERGY.2013.2.6.1, ENERGY.2013.2.7.1, ENERGY.2013.2.9.2, ENERGY.2013.3.7.1, ENERGY.2013.6.1.1 & ENERGY.2013.7.2.1
- **Up to 2 projects:** ENERGY.2013.2.9.1

Additional Eligibility Criteria

- **Max. 3M€:** ENERGY.2013.2.9.2
- **Max. 8M€:** ENERGY.2013.5.1.1

Special Funding Scheme

- **SICA (2MS or AC AND 2 MCP):** ENERGY.2013.2.9.1



FP7-ENERGY-2013-1

Renewable Energies

Area Energy.2.1: Photovoltaics

- *Topic ENERGY.2013.2.1.1: High efficiency c-Si photovoltaics modules*

Area Energy.2.3: Wind

- *Topic ENERGY.2013.2.3.1: Advanced aerodynamic modelling, design and testing for large rotor blades*
- *Topic ENERGY 2013.2.3.2: Small to medium size wind turbines*

Area Energy.2.4: Geothermal

- *Topic ENERGY.2013.2.4.1: Exploration and assessment of geothermal reservoirs*

Area Energy.2.6: Ocean

- *Topic ENERGY.2013.2.6.1: Design tools, enabling technologies and underpinning research to facilitate ocean energy converter arrays*

Area Energy.2.7: Hydro

- *Topic ENERGY.2013.2.7.1: Optimisation of water turbines for integration of renewables into the grid*

Area Energy.2.9: Cross-Cutting Issues

- *Topic ENERGY.2013.2.9.1: Research cooperation and knowledge creation in the area of renewable energy with Mediterranean partner countries*
- *Topic ENERGY.2013.2.9.2: Methods for the estimation of the Direct Normal Irradiation (DNI)*

Area Energy.3.7: Cross-Cutting Issues

- *Topic ENERGY.2013.3.7.1: Support to the sustainable delivery of non-food biomass feedstock at local, regional and pan-European level*



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Area Energy.5.1: CO2 Capture

- *Topic ENERGY.2013.5.1.1: Scale-up of advanced high-efficiency capture processes*
- *Topic ENERGY.2013.5.1.2: New generation high-efficiency capture processes*

Area Energy.5.2: CO2 Storage

- *Topic ENERGY.2013.5.2.1: Mitigation and remediation of leakage from geological storage*

Area Energy.6.1: Conversion Technologies for Zero Emission Power Generation

- *Topic ENERGY.2013.6.1.1: Combined Underground Coal Gasification and CO2 Capture and Storage*

Area Energy.7.2: Pan-European Energy Networks

- *Topic ENERGY.2013.7.2.1: Advanced concepts for reliability assessment of the pan-European transmission network*
- *Topic ENERGY.2013.7.2.2: Advanced tools and mechanisms for capacity calculation and congestion management*
- *Topic ENERGY.2013.7.2.4: Ensuring stakeholder support for future grid infrastructures*

Area Energy 7.3: Cross Cutting Issues and Technologies

- *Topic ENERGY.2013.7.3.3: Understanding interfaces in rechargeable batteries and super-capacitors through in situ methods*



SET PLAN

Evaluation Overview

Single Stage Evaluation

- **Deadline: 28 November 2012 at 17:00 Brussels time**
- **Submission:**
 - Full Proposal → Complete, precise & concise
 - New IT Tool for submission
- **Evaluation: December 2012 – January 2013**
 - Full set of evaluation criteria
 - Marks of 0 to 5 with possibility of ½ mark

Thresholds:

S&T quality
Implementation
Impact
Overall

3
3
3
10



out of 5

out of 15



FP7-ENERGY-2013-IRP: a call to support integrated research programmes in the energy field (EERA)

- **Deadline: 8 January 2013 at 17.00.00, (Brussels local time)**
- **Indicative budget : EUR 37.5 million from the 2013 budget**

- *Topic ENERGY.2013.10.1.5: Integrated research programme in the field of photovoltaics*
- *Topic ENERGY.2013.10.1.6: Integrated research programme in the field of wind energy*
- *Topic ENERGY.2013.10.1.7: Integrated research programme in the field of bioenergy*
- *Topic ENERGY.2013.10.1.8: Integrated research programme on smart grids*
- *Topic ENERGY.2013.10.1.9: Integrated research programme on electrochemical storage*
- *Topic ENERGY.2013.10.1.10: Integrated Research Programme in the field of Concentrated Solar Power (CSP)*

- *Topic ENERGY.2013.10.1.4: Mobilising the research, innovation and educational capacities of Europe's universities*

- *ENERGY.2013.2.1.2: Support to key activities of the European Photovoltaics Technology Platform (TP PV)*
- *ENERGY.2013.3.7.2: Support to key activities of the European Biofuels Technology Platform (EBTP)*

FP7-ERANET-2013-RTD: a joint call on ERA-NETs

Deadline: 28 February 2013 at 17:00:00

(Brussels local time)

Indicative budget: EUR 27 million from the Theme Energy

- *Topic ENERGY.2013.10.1.1: ERA-NET Plus – Bioenergy: Demonstrations of the European Industrial Bioenergy Initiative*
- *Topic ENERGY.2013.10.1.2: ERA-NET Plus – European wind resources assessment*
- *Topic ENERGY.2013.10.1.3: Supporting the coordination of national research activities of Member States and Associated States in the field of OCEAN energy (ERA-NET)*

Some Advice

- Look at the EU “List of Projects” and the Technology Platforms reports
- Be aware that drafting a proposal and establishing the right consortium takes time, particularly as a coordinator
- Read carefully the Work Programme (topic, funding scheme, expected impact, etc.) and other documents (e.g. guides)
- Do not assume that the independent evaluation experts know everything you know
- You can watch the presentations of the Info day of 4 July on :
<http://webcast.ec.europa.eu/eutv/portal/index.html>

Thank you for your attention !





Thank you for your attention!

Gateway to information:

<http://cordis.europa.eu/en/home.html>

