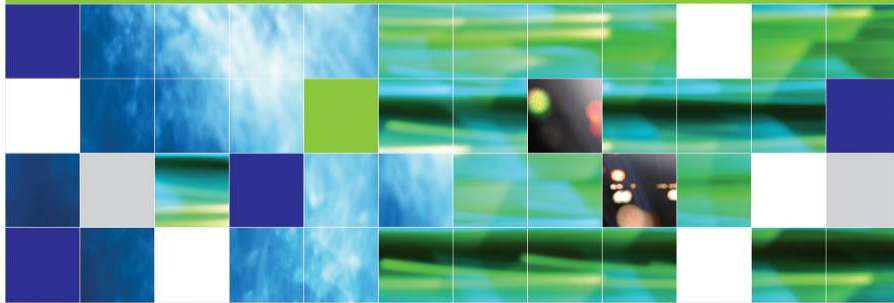


## Research Opportunities FP7 Energy

Matthew Kennedy, National Delegate FP7 Energy



### Agenda

- Framing FP7
- Ocean Technology Research Opportunities in FP7
- Oceans of Tomorrow call
- Research Infrastructures Call
- ERANets

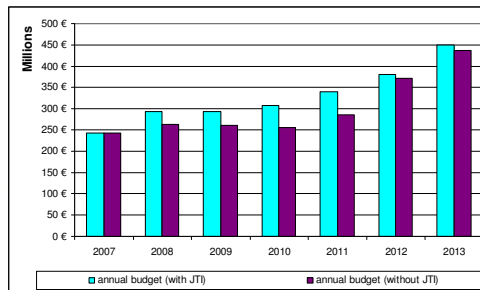
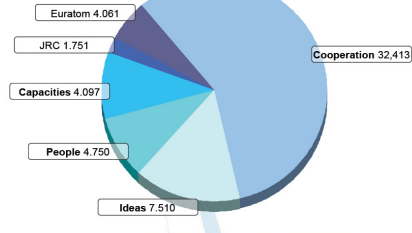




## Energy Budget Breakdown...

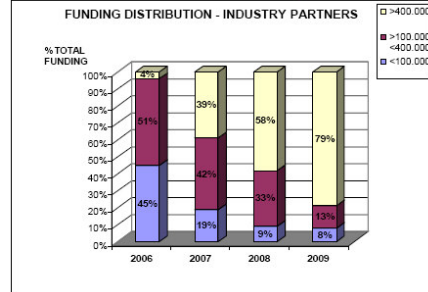
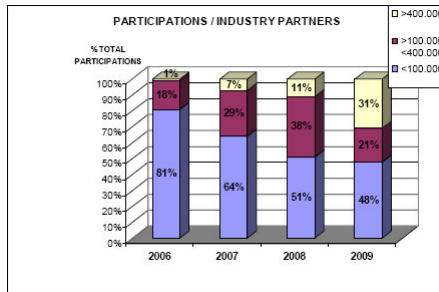


**FP7 structure and budget**  
**FP7: 50,521 M€**  
**Euratom: 4,061 M€**



## Changes in the Industry Constituency (TREN)

- Have a greater impact with industry led projects
- Helping the transfer from fossil to renewable energy sources





## Programme Instruments

- ◆ **Cooperation** – To leverage recent state investments in R&D;
  - ◆ Through establishing projects & facilitating the established techno platforms

- ◆ **Ideas** – To achieve innovation and foster excellence- frontier research, advanced investigator and independent researcher grants

- ◆ **People** – To exploit academic and industry collaboration through establishing Marie Curie networks and individual fellowships

- ◆ **Capacities** – To build a cross-programme SME strategy by exploiting infrastructures, regions of knowledge & SME specific research



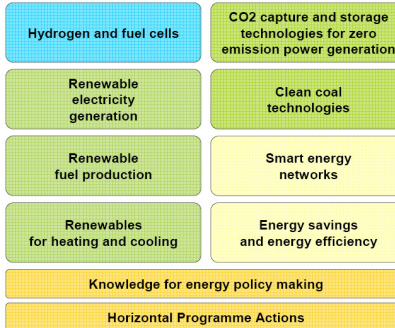
## Renewable electricity generation

### AREA ENERGY.2.6: OCEAN

RD&D of integrated technologies for electricity production from renewables to raise substantially the share of renewable electricity production in the EU.

- Standpoint (Wavebob) Standardisation of Point Absorber Wave Energy Convertors by Demonstration (EU contribution €5.097m)- TREN
- Cores (UCC, UL and Marine Computation Services Ltd) New components and concepts for ocean energy converters (EU contribution €3.448m)- RTD
- Equimar (UCC as partner) Pre-normative research for ocean energy

Note : 10 "activities" implemented jointly by DG RTD and TREN



Ocean: demonstration of innovative full size systems

Deep off-shore multi-purpose renewable energy conversion platforms for wind/ocean energy conversion

Coordination action on off-shore renewable energy conversion platforms



## FP7 Energy Work programme 2010

Concentration on objectives in line with priorities of the SET Plan:

- ◆ European Industrial Initiatives:
  - Wind, Grid, Solar, Bioenergy, CCS, Energy Efficiency
- Grid for example focuses on integration of RES-E into the distribution grid : Tests of Smart Energy Networks; integration of storage: Research on networks

Coverage of other areas foreseen in specific programmes

- ◆ Promising Renewable Energy Sources, e.g. ocean
- ◆ Cross thematic topics: joint call Directorates G of DG RTD on energy material and USA
- ◆ Future and Emerging technologies and International Cooperation



## Oceans of Tomorrow Call

- A European Strategy for Marine and Maritime Research<sup>7</sup> (COM (2008) 534), (taken on board by the Competitiveness Council of 2 Dec 2008)

To build the knowledge base for a sustainable growth of sea-based activities

- help understanding of marine ecosystems' response to a combination of natural/anthropogenic factors
- a scientific foundation for feasible, sustainable management measures supporting policies
- assess how rapid environmental changes will affect the goods and services provided by the oceans.

To develop measures to mitigate or adapt to these changes.

Contributing Themes :

Environment – Transport – Energy – Food & Fisheries – Science –  
Economy and Society with an EC contribution: 34 M€



Topic 1 – Quantify climate change impacts on economic sectors in Arctic

Topic 2 - Vectors of changes in marine life, impact on economic sectors

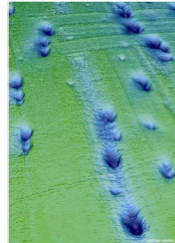
Topic 3 – Sub-seabed carbon storage and the marine environment



- ✓ Improved understanding of mechanisms inducing changes in marine life (invasive species, outbreaks, changes in fish distribution), including those from transport, energy devices, exploitation of living resources, discharges
- ✓ Assessment of the impacts from changes in marine life and issues affecting public perception on related economic sectors e.g. ocean and off-shore wind energy devices, in several regional seas of major interest to the EU
- ✓ Contribution to formulating feasible adaptive management strategies for the EU
- ✓ EC contribution: 12,5 M€



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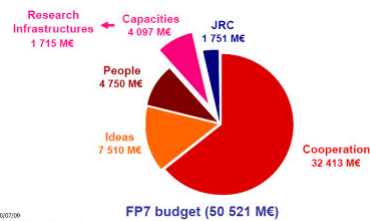


- ✓ Directive on Geological Storage of Carbon Dioxide which sub-seabed storage of CO<sub>2</sub> (EU Climate-Energy package)
- ✓ The project will address the potential impact of sub-seabed CO<sub>2</sub> storage on marine ecosystems
- ✓ Cross-sectoral and multi-disciplinary: marine ecosystems, monitoring technologies, economics, public acceptance, international collaboration
- ✓ Participation from storage operators; cooperation with Japan, US or Australia
- ✓ EC contribution: 10,5 M€



Research Infrastructures Call

**Identifier:** FP7-INFRASTRUCTURES-2010-1  
**Publication Date:** 30 July 2009  
**Budget:** € 217m



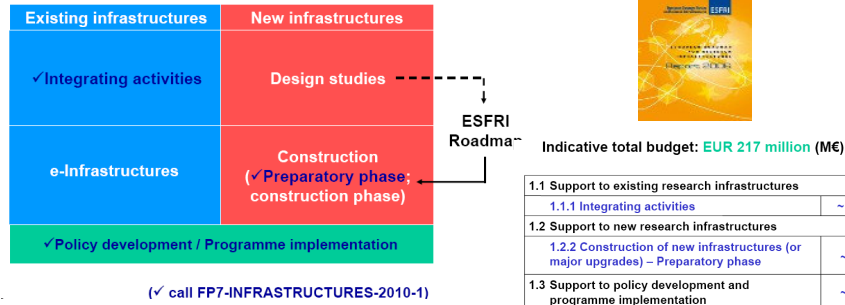
**Deadline:** 3 December 2009

Facilities, resources, and related services used by the scientific community for conducting top-level research, including:

- ☐ Major scientific equipment or set of instruments
- ☐ Scientific collections, archives and structured information
- ☐ Enabling ICT-based “e-Infrastructures”
- ☐ “Single-sited” or “distributed”



## Infrastructures Action & Budget



Objectives: bring together & integrate key research infrastructures (RIs) in a given class, in order to promote their coordinated use and development-- Networking activities, Transnational access and/or service activities and Joint research activities

### 23. RIs for offshore renewable energy devices: ocean-, current-, wave- and wind energy.

Preparatory phase has funding available from 3 to 6 M€ (max.)



## ERA-NETs

- Two topics
- ▣ INFRA-2010-3.1: ERANET supporting cooperation for RIs in all S&T fields-- to develop and strengthen the cooperation and coordination of national programmes and policy actions for RIs
- Focus on Structuring specific science and technology fields not yet fully organised at EU level (development of joint visions / Roadmaps) & the regional dimension of RIs (1 to 2 M€)
- ▣ INFRA-2010-3.2: Studies, conferences and coordination actions supporting policy development, including international cooperation in all S&T fields (0,2 to 1 M€)

Ensure to review:

- Work programme FP7 (Capacities) – Call fiche
- Eligibility conditions and evaluation criteria



## Reasons to participate?

### For companies:

- access to research results of the whole consortium
- contacts can be used for further business relations and exploring new markets
- SMEs without research capacities: support for contract research

### For research institutes:

- Exchange of knowledge and experience and international comparison of own performance
- Support institutional change towards a “Europeanisation” (Networks of Excellence)
- Exchange of researchers to establish new competencies

### For individual researchers:

- Pursue an international research career via the Marie Curie fellowship schemes
- Become the “principal investigator” in a frontier research project
- Invaluable experience of working in an international and multidisciplinary environment