



Horizon 2020

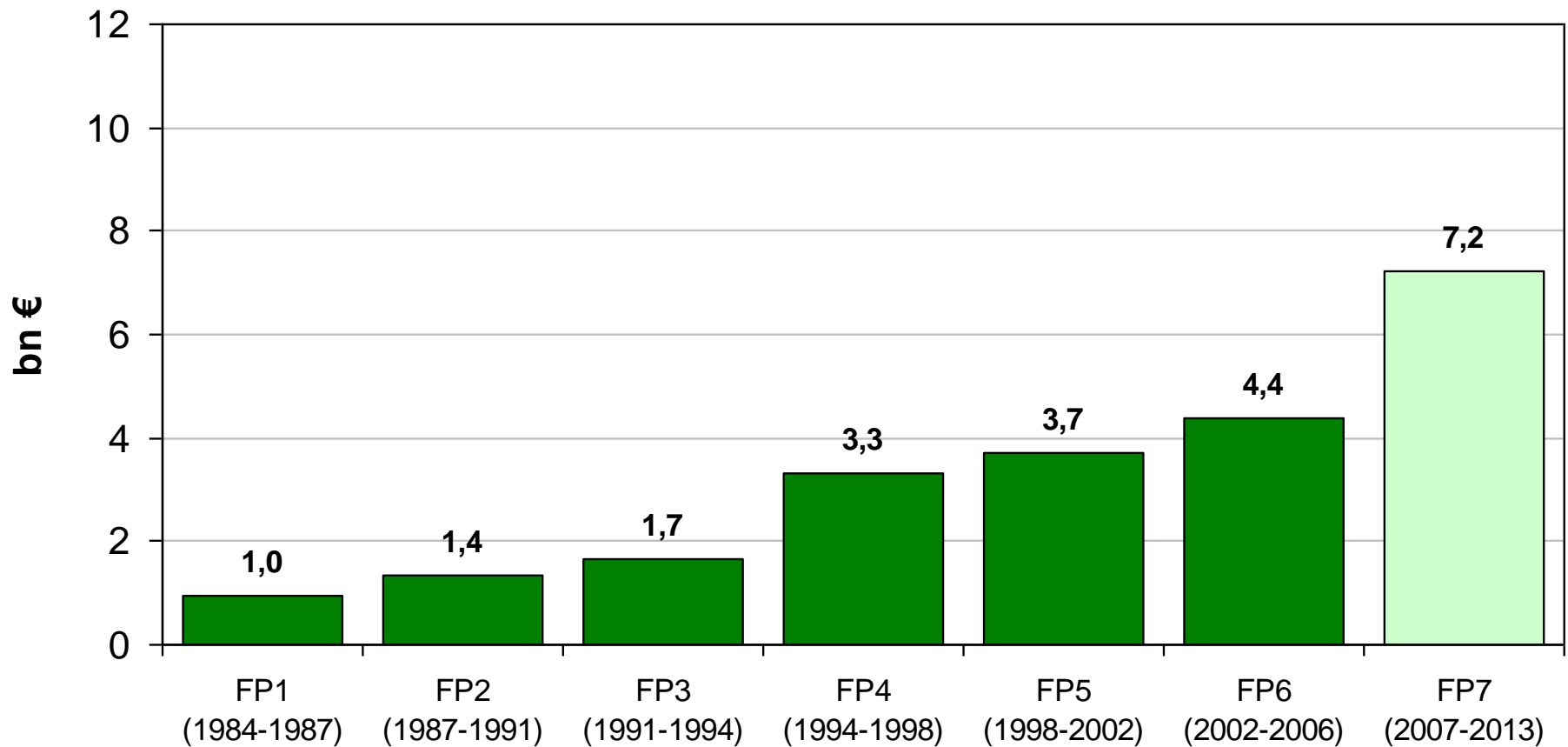
Agustin Escardino Malva

**Deputy Head of Unit
DG RTD K3: New and Renewable Energy Sources**

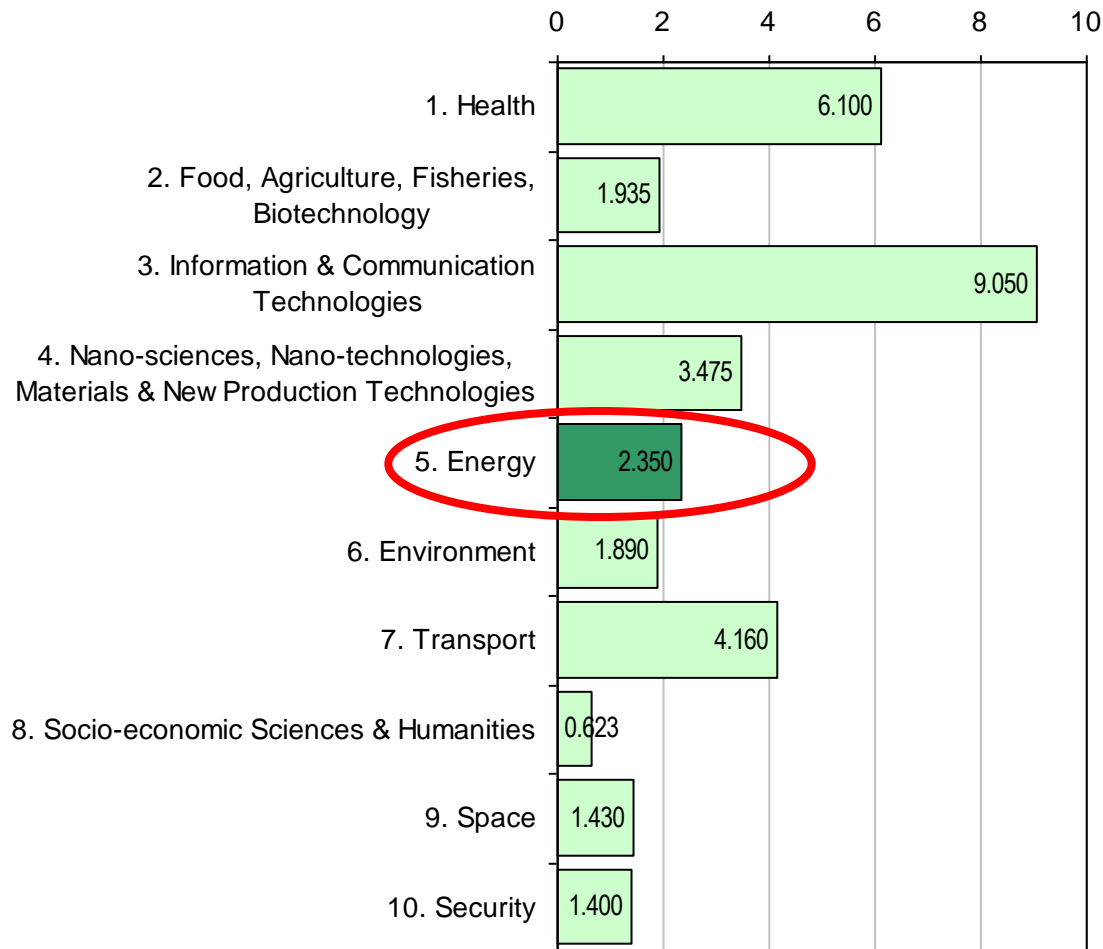
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EUROGIA2020 & RHC-PLATFORM JOINT EVENT – Paris, 16 September 2013

EU Framework Programme for R&D Annual Budget



FP7 (2007 – 2013) Cooperation €32.413bn



What is next? Horizon 2020

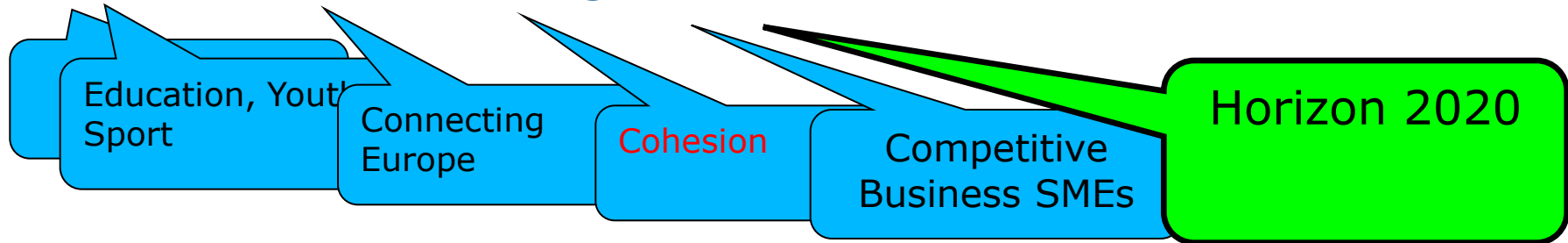
- *Commission proposal for a 72 billion euro research and innovation funding programme (2014-20)*
- *Aim: build an economy in Europe based on knowledge and innovation*
- *Focus on societal challenges facing EU society, e.g. health, clean energy and transport*
- *Coupling research to innovation - from research to the market, all forms of innovation*
- *Secure, Clean and Efficient Energy: 5.7 bn Euro*

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The Multiannual Financial Framework (MFF)
2014-2020:

1. Smart & inclusive growth



2. Sustainable growth, natural resources
3. Security and citizenship
4. Global Europe
5. Administration

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Three priorities:

- 1 Excellent science
- 2 Industrial leadership
- 3 Societal challenges:

- *Health, demographic change and wellbeing*
- *Food security, sustainable agriculture, marine and maritime research and the bio-economy*
- *Smart, green and integrated transport*
- *Climate action, resource efficiency and raw materials*
- *Inclusive, innovative and secure societies*
- *Secure, clean and efficient energy*

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Industrial Leadership – Access to risk finance (proposed funding 3.5 Beuro)

- Remedy market deficiencies in accessing risk finance for research and innovation
- **Debt facility**: loans, guarantees, counter-guarantees,...
 - demand-driven component: first come, first served
 - policy-driven component: focusing on key sectoral policies of the Union
- **Equity facility**: equity finance
 - start-up window: focus on early stage
 - growth window: expansion and growth stage investments in conjunction with Equity Facility for Growth of COSME
 - primarily demand-driven, possibility of earmarking for particular policy goals
- Further implementation details in Specific Programme

Horizon 2020 - Energy

Progress

- Budget for energy? ~ 5,7 billion EUR
- Categories? – challenge oriented approach
- First Call? – beginning of 2014

Horizon 2020 - Energy

Draft Work Programme – Outline

- Call for Energy Efficiency
- Call for Competitive Low-Carbon Energy
- Call for Smart Cities and Communities

Focus Area Competitive Low-Carbon Energy

- Renewable electricity & Heating/cooling
- Grids
- Storage
- Biofuels & sustainable alternative fuels
- CCS and efficient fossil fuel generation
- Socio-economic research and cross-cutting issues

Focus Area Competitive Low-Carbon Energy

Approach based on Technology Readiness Levels (TRLs), for example:

- New knowledge and technologies (TRL 2 to TRL 3-4)
- Developing the next generation technologies of renewable electricity and heating/cooling (TRL 3-4 to TRL 4-5)
- Demonstration of renewable electricity and heating/cooling technologies (TRL 5-6 to TRL 6-7)
- First-of-a-kind, commercial-scale industrial demonstration (TRL 8) ?
- Market uptake

Technology Readiness Levels

- TRL 0: Idea
- TRL 1: Basic research
- TRL 2: Technology formulation
- TRL 3: Applied research
- TRL 4: Small Scale Prototype Development Unit
- TRL 5: Large Scale Prototype Development Unit
- TRL 6: Prototype system
- TRL 7: Demonstration system
- TRL 8: First of the kind commercial system
- TRL 9: Full commercial application



**Thank you for
your attention**

