

SEII workshop

Implementation Plan 2013-2015

Regulatory Framework and Financial Tools

Greg Arrowsmith



RES-E policy

- Targets post-2020?
- Harmonisation of support schemes?
- “Development and improvement” of the internal electricity market
- 200 bn EUR on transmission infrastructure
- Scenario: Energy Roadmap 2050
- 6 Sept 2012: EU agrees to launch anti-dumping probe on Chinese PV imports

The Energy Roadmap 2050: a basis for developing a long-term policy framework

Ref: COM 2011 885

Aim of the Roadmap

EU objective for 2050 – GHG emissions down to 80-95% below 1990 levels

A low-carbon 2050 strategy

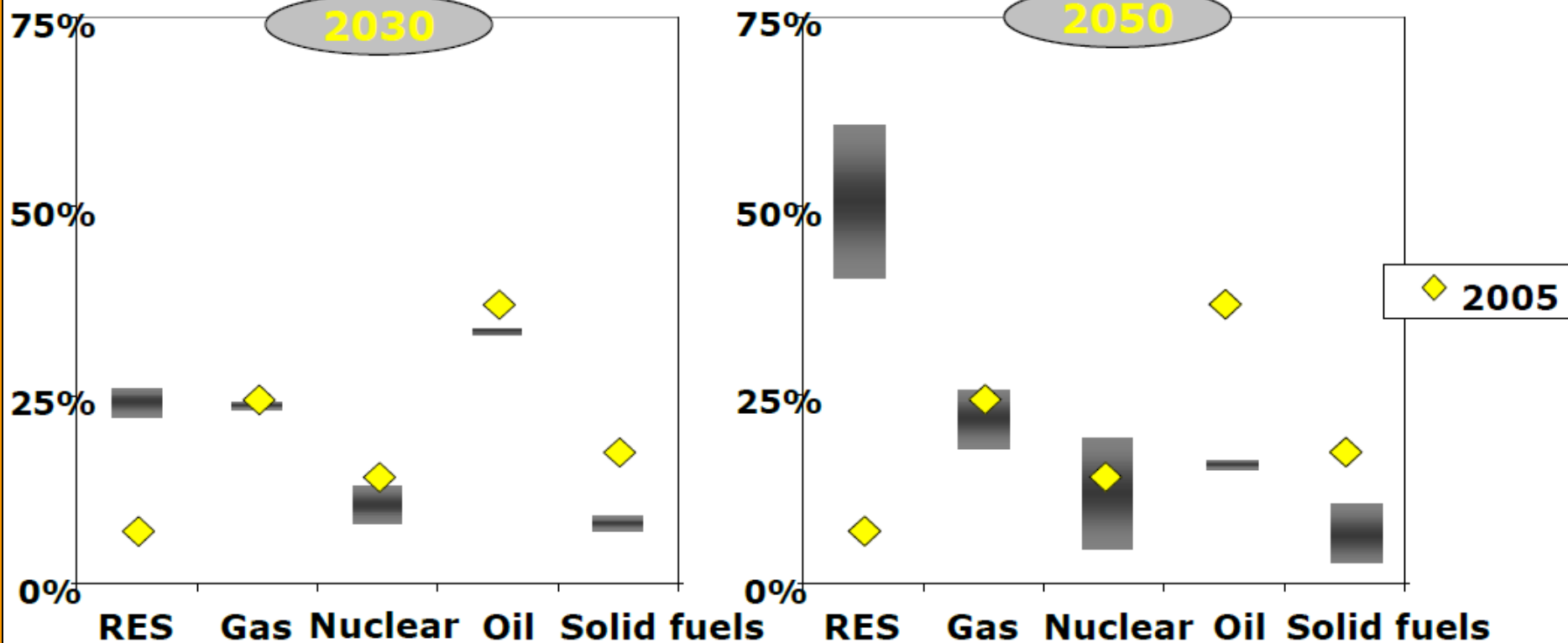
A framework for longer-term action in energy and related sectors



- *Gives more certainty to governments and investors*
- *Explores routes towards a low-carbon energy system by 2050 considering competitiveness and security of supply*
- *Basis for developing the 2030 policy framework and concrete milestones with MS, EP and stakeholders*

EU Energy Roadmap 2050

Primary EU energy consumption in %



→ need for a wide range of new generations of energy technologies to achieve the transition to a sustainable and secure energy sector

Conclusions relevant to IP 2013-2015

- Rapid cost reduction important and expected
- More exposure of all generators to demand signals
 - interface of RES-E to DSM and smart grids
 - storage options
 - own-consumption of electricity
- Must IP 2013-2015 factor in protectionism?

Research policy

➤ Horizon 2020 to start in 2014

- Externalisation (PPPs? Devolve money to MS? Exec Agencies)
- Increase “priority” to ocean, storage, adv materials and manufacturing for RES but scope to further promote existing SET Plan technologies “should be explored” ([RES a major player](#) Communication)
- More money on demos ([Smart Cities Communication](#))
- More money on storage (*draft* Storage Communication)



➤ [Communication on energy technology policy](#) Q1 2013

- ???

Research policy trends

➤ New ideas

- (EP amendments to Horizon 2020:) Earmarked budgets and “fast-track to innovation” – a tool for funding EII projects.
- IRPs: an experiment in self-governance in EERA JPs.

➤ Communication on ERA

- Competition vs cooperation. Both recognised as important
- Further integration of national programmes

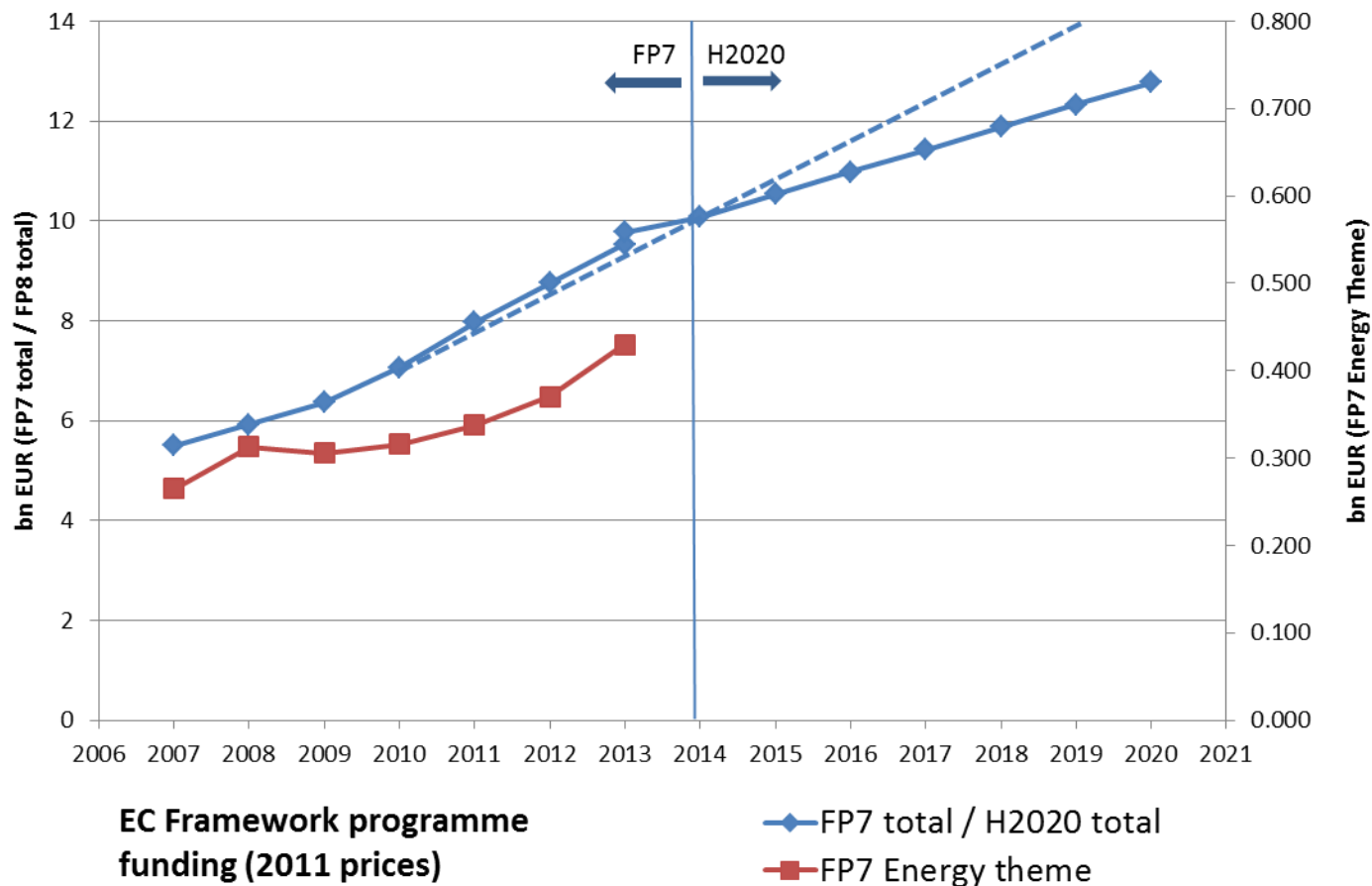
➤ Redefinition of the function of Technology Platforms

Financing tools – Framework Programme

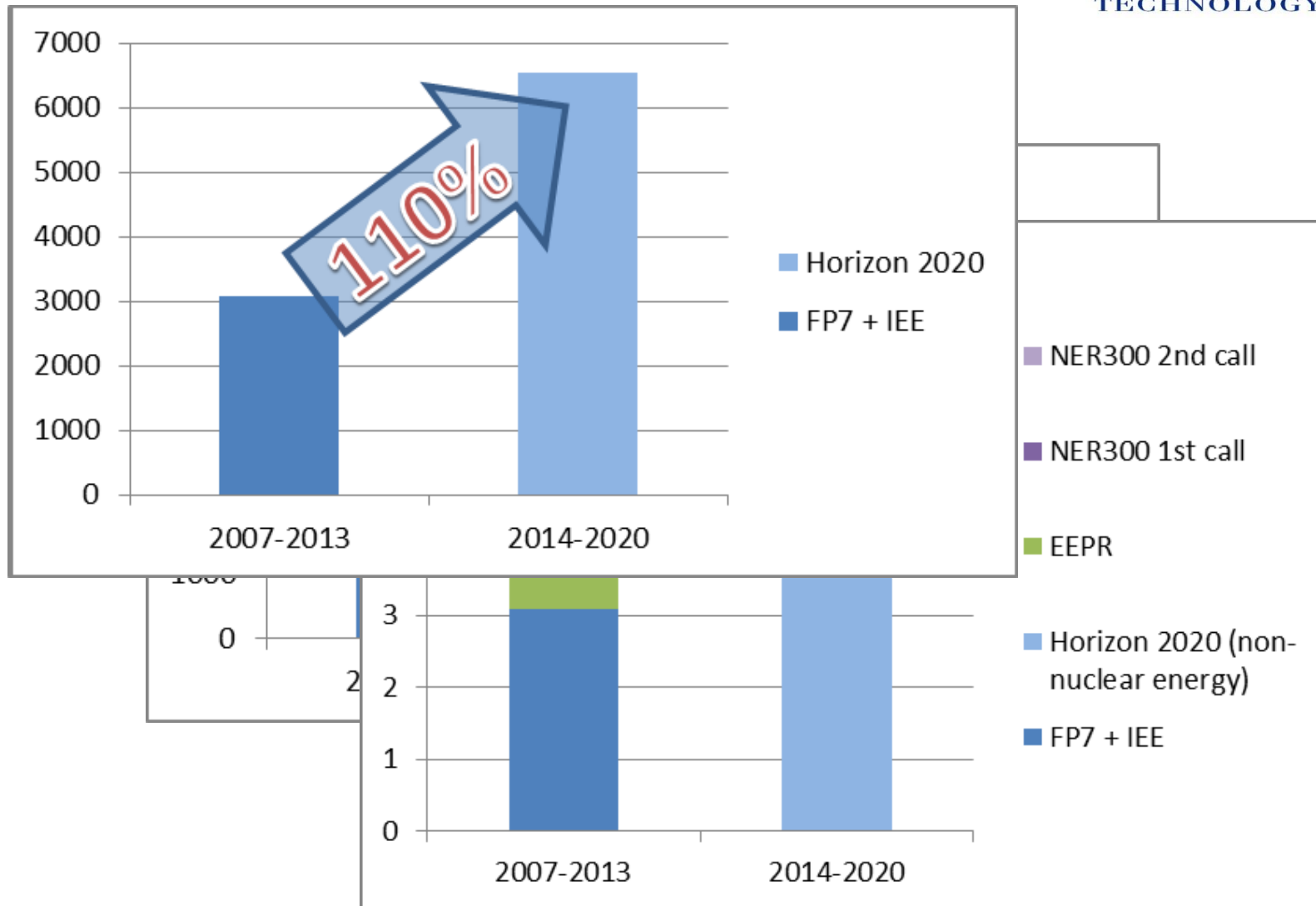


- EU Framework Programmes for RDI (e.g. FP7, Horizon 2020); EC presentation on 28/09/2012: 6E0.1.4 (topics selected from WP 2012 call).
- Annual calls for proposals in defined R&D topics. Grants are awarded competitively.
- Accounts for 15-20% of all EU public funding for PV, and much greater share of competitively-awarded funding. (next slide: funding trends)
- Also funds networking. Special case: “ERA-NET” projects:
 - Solar ERA-NET funding for Member States to launch transnational calls independently of the EC
 - EC funds the organisation of the calls
 - 2013-2016: yearly call offering 10 M € of Member State money

Financing tools – Framework Programme

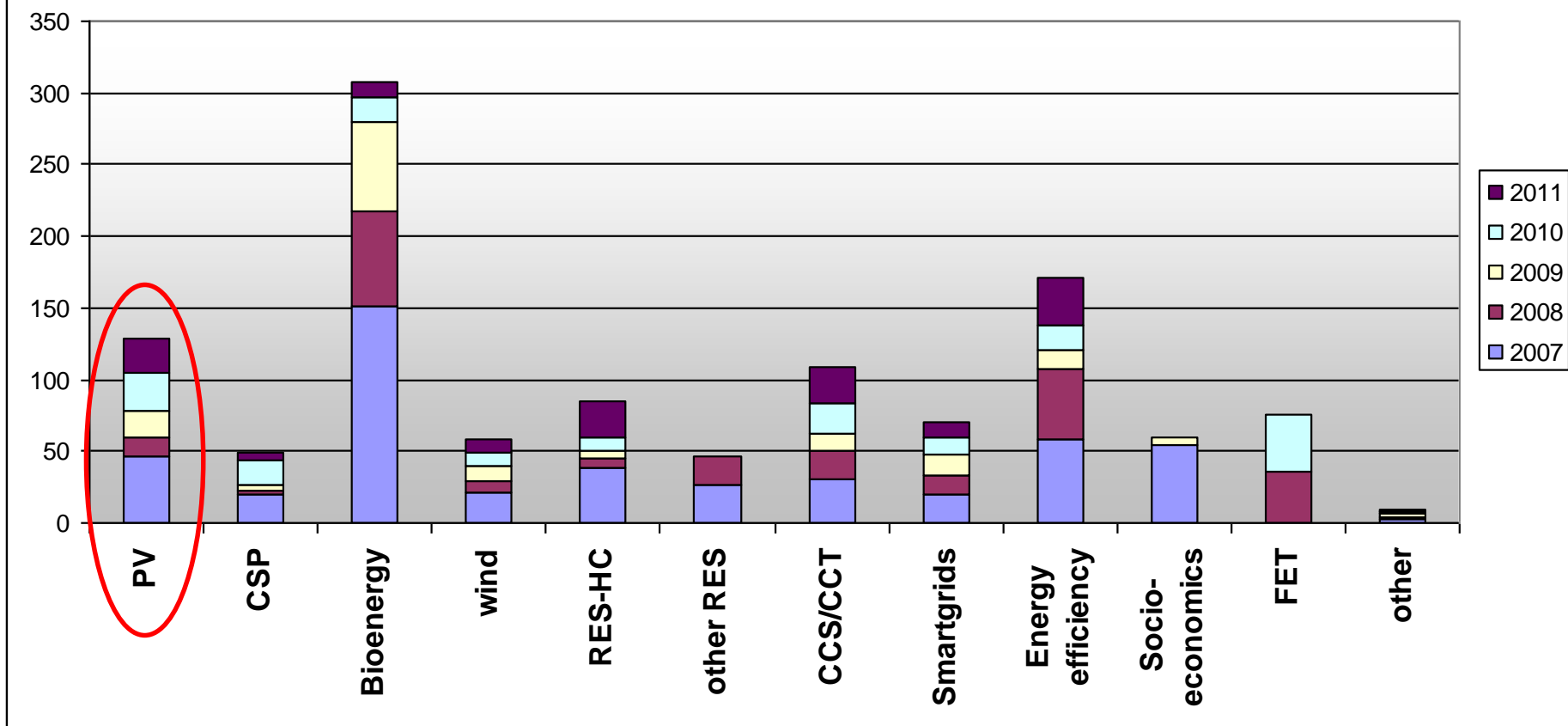


Financing tools – H2020



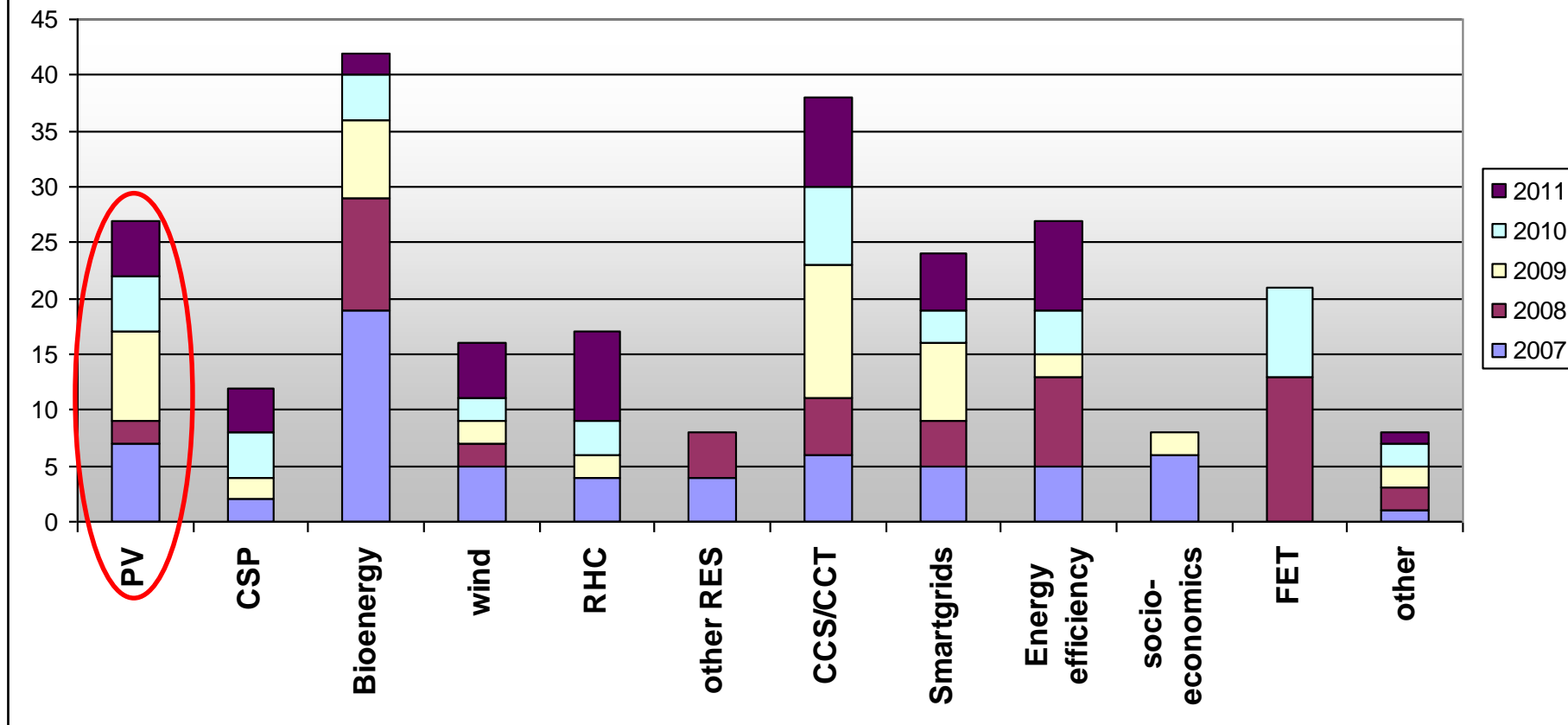
Financing tools

Number of proposals per activity/area (2007-2011, FP7 Energy Theme)



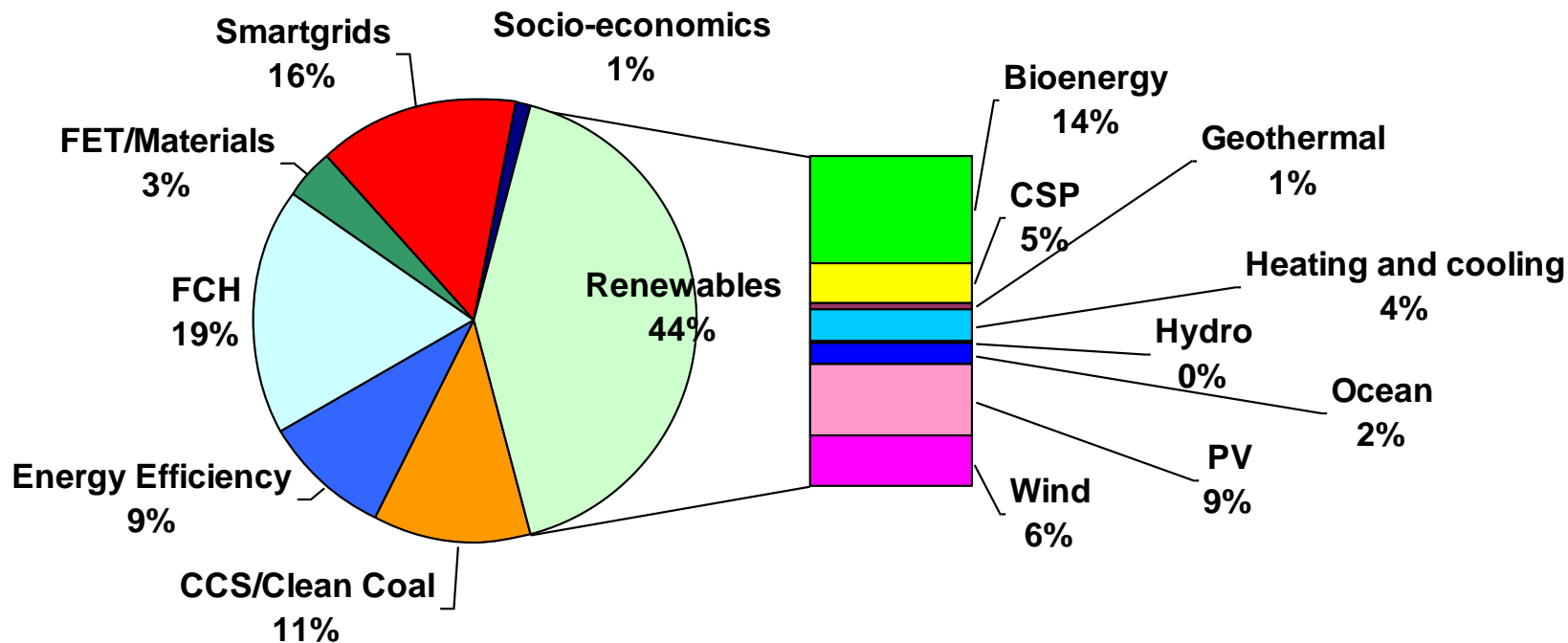
Financing tools

Number of projects per activity/area (2007-2011, FP7 Energy Theme)



Financing tools

Distribution of budget (projects and contributions 2007-2011)



➤ Loans and guarantees

- EC-EIB joint management
- 7.5 M € for direct EIB involvement
- First-come first-served
- ≤ 50% of costs

➤ Risk

- Secured against assets
⇒ suitable for innovative projects?

Moody's	S&P and Fitch
...	...
A1	A+
A2	A
A3	A-
Baa1	BBB+
Baa2	BBB
Baa3	BBB-
Ba1	BB+
Ba2	BB
Ba3	BB-
B1	B+
B2	B
B3	B-

RSFF Risk Coverage Range

Signature Year	RSFF energy project name	Total /M€
2007	Abengoa RDI loan	49
	Andasol Solar Thermal Power	60
	Andasol Solar Thermal Power II	60
	Solucar Solar Thermal Power	50
2008	Gamesa Wind Power RDI II	140
	Solnova1&3 concentrated solar power	110
2009	Acciona RDI	185
	Gamesa Wind Power RDI II	60
	Thermosolar Gemasolar Spain	80
2010	Borkum West II Offshore Windpark	100
2011	Global Tech I Offshore Windpark	100
	Ingeteam Green Energy Tech RDI	45
2012	Eldepasco Northwind Offshore Wind	133
Total		1172

- Effectively a FiT top-up for large-scale projects using innovative technology
 - 3 topics in PV opened in Nov 2010:
 - CPV – min 20 MW, $\eta \geq 25\%$
 - a-Si – min 40 MW, $\eta \geq 10\%$
 - CIGS – min 40 MW, $\eta \geq 12\%$
 - Next call expected late 2013 / early 2014, possibly ultra-thin wafer-Si

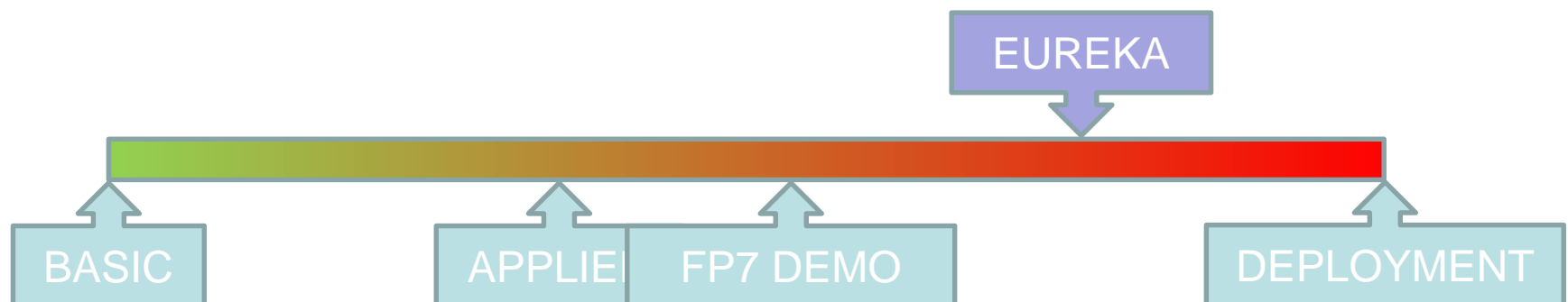
- 1 project in line for funding
 - 20 MW 3-junction CPV (Soitec using Concentrix technology)
 $\eta=38\%$
 - Beja, PT

EUREKA

➤ 3 flavours:

- Eureka (bottom-up)
- Eurostars (bottom-up with EC contribution and greater certainty of funding)
- Eurogia+ cluster accepts non-nuke l.c. energy with 2 cut-offs:

➤ Innovation chain target:



(EUREKA) EUROGIA+

- Spent 100 M € on 26 projects since 2009
- Typical project
 - 3-5 years
 - 5-10 M EUR total budget (MS contribution of 50%)
 - 3-4 partners, min 2 countries (typical: 2-3)

➤ Active countries in Eurogia+:

• FR	• NO	• DE
• ES	• IL	
• TR	• BE	

➤ Example:

- “Sol-Ion” (SAFT, Tenesol and Voltwerk): 20-yr Li-ion battery

Structural Funds

- Member State control, but aligned with an overall EU strategy (Europe 2020, “smart specialisation”)
- Debt/equity possibility
- Need State Aid check if investment aid > 7.5 M EUR

- Suggested changes
 - Use them for innovative energy tech demos
 - Identify them through competitions
 - Allow private-only co-finance and regional pooling

Structural Funds – how much?

Annual Implementation Reports 2010 – Renewable energies – Project selection

EU allocated decided amount								Last Annual Implementation Report selected	
Categories / MS	SF Community amount (€)	39	40	41	42	EU Allocated decided amount (€)	Intensity of total %	39	40
AT	1.204.478.581	65.000	6.037.555	18.366.689	568.164	25.037.408	2,1%		261.180
BE	2.063.500.766		11.851.495			11.851.495	0,6%		4.184.381
BG	6.673.628.244	27.760.748	37.462.047		3.999.972	69.222.767	1,0%		3.735.704
CY	612.434.992		5.950.000			5.950.000	1,0%		5.222.562
CZ	26.249.695.624	27.783.963	75.938.938	344.560.166	106.380.075	554.663.140	2,1%		4.459.784
DE	25.488.616.290	25.648.723	67.539.323	81.145.261	68.982.486	243.315.793	1,0%	38.748.743	35.643.242
DK	509.577.239								
EE	3.403.459.881	0			0	0	0,0%		
ES	34.857.733.981	3.436.208	111.160.719	58.318.161	6.869.981	179.785.069	0,5%	23.357	8.283.893
FI	1.595.966.044	796.879	787.530	13.210.281	5.887.557	20.682.247	1,3%	528.328	106.480
FR	13.449.221.051	32.730.589	129.320.494	156.264.342	57.919.631	376.235.036	2,8%	8.820.944	72.059.211



Amount committed to solar energy in this column. Click [here](#) to see full table.

Structural Funds – table extract

- 1.1bn € allocated to solar by the MS in the period 2007-2013.
- 1/3 had been committed by 2010

Country	Budget remaining 2011-2013 incl / M€
IT	190
BG	34
CZ	70
ES	100
...	...

- Lobby opportunity towards your national governments this year for 2014-2020