

Towards
a low carbon
future

SET Plan

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EUROPEAN
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Sustainability

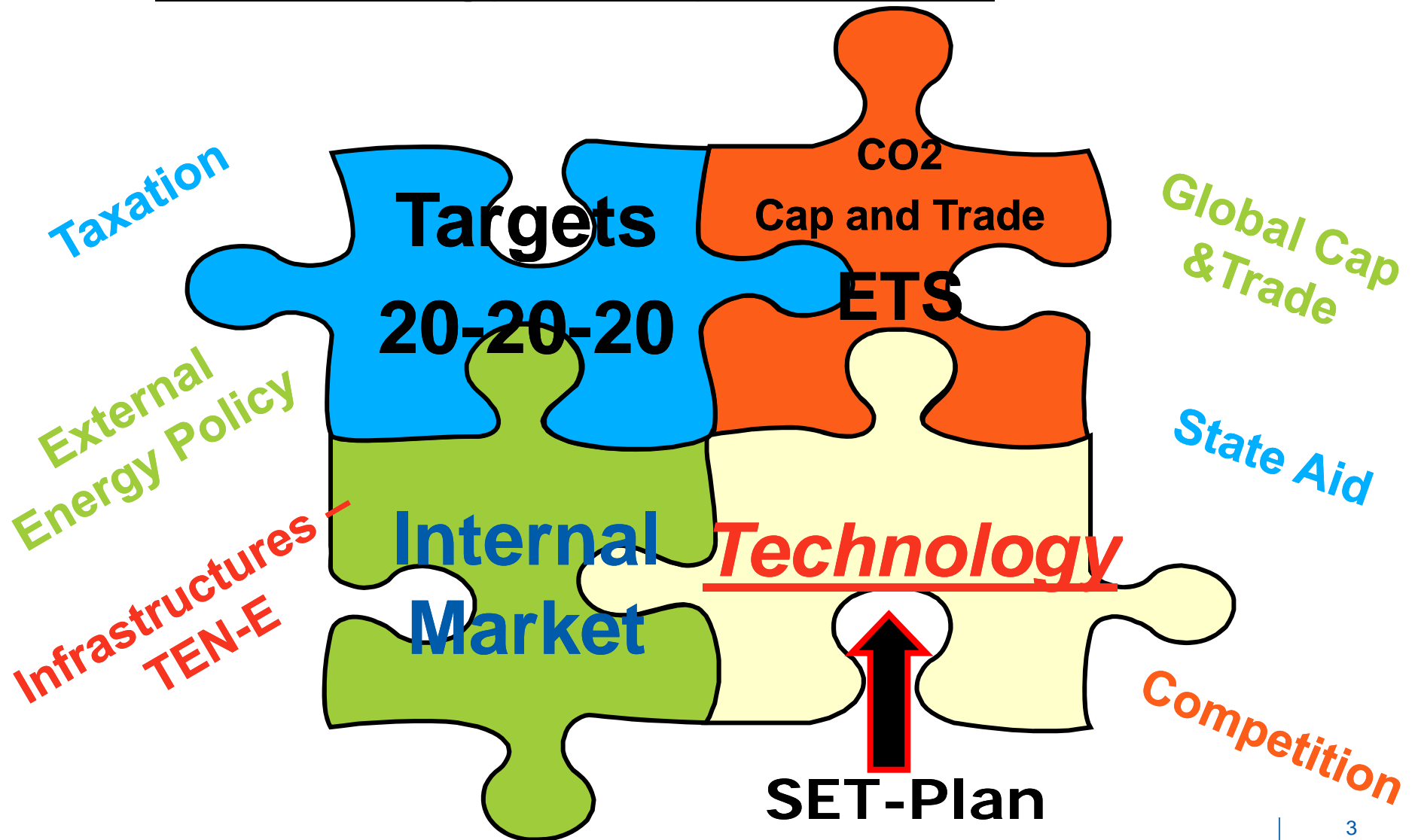
Security of supply

*Goals of
EU energy policy*

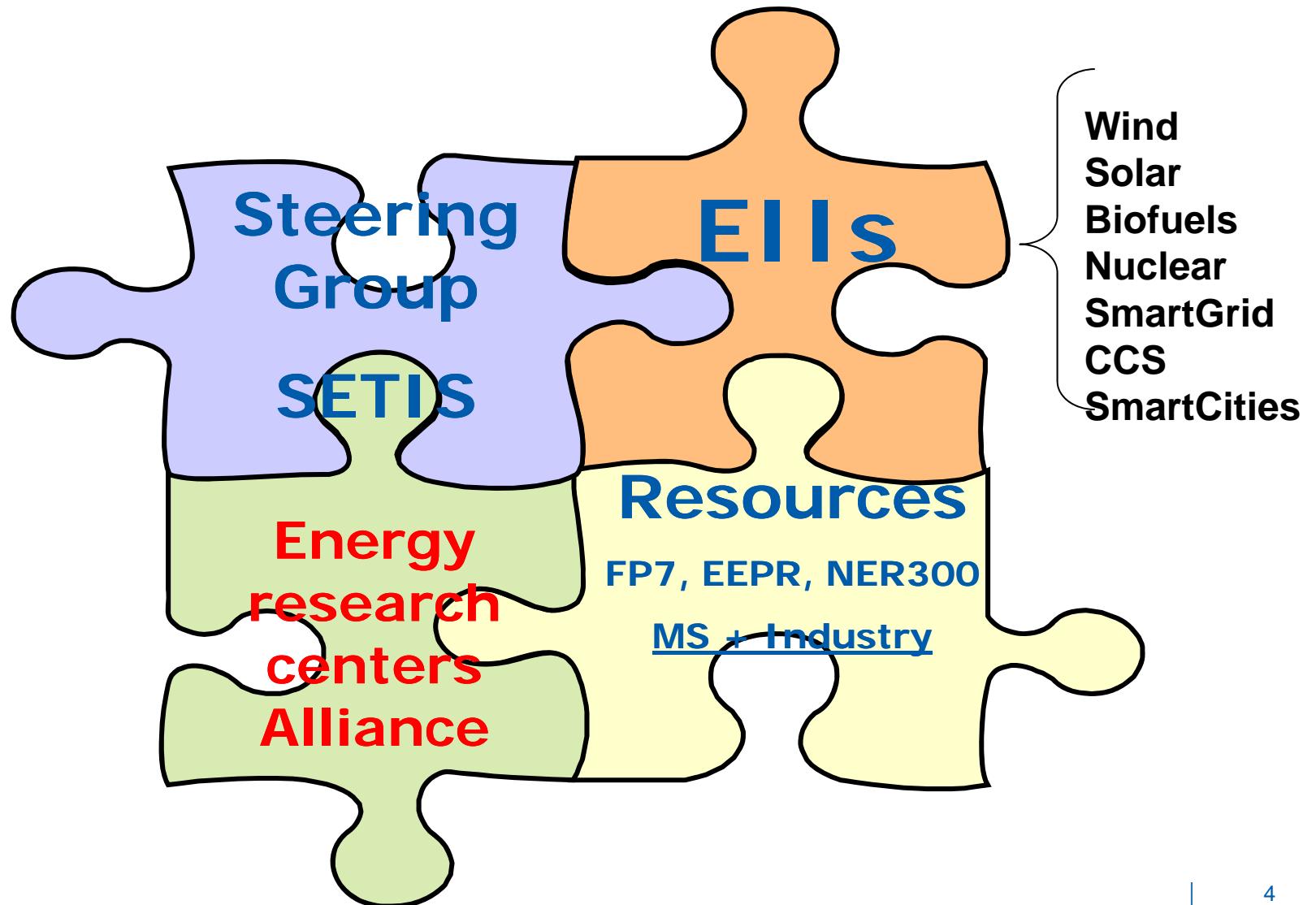
Competitiveness



- EU's energy policy JIGSAW



SET-Plan lines of action



● Technology challenges - next 10 years

2020

- 2nd generation biofuels
- Commercialisation CCS
- Larger wind turbines
- Large scale PV and CSP
- Smart & single electricity grid
- Unlock energy efficiency
- Nuclear waste management

2050

- Next generation of renewables
- Breakthroughs in storage
- Hydrogen fuel cell vehicles
- Gen-IV
- Complete ITER
- New vision of the systems
- Breakthroughs in science: materials, nano-science, ICT, bio-science and computation

● European Industrial Initiatives

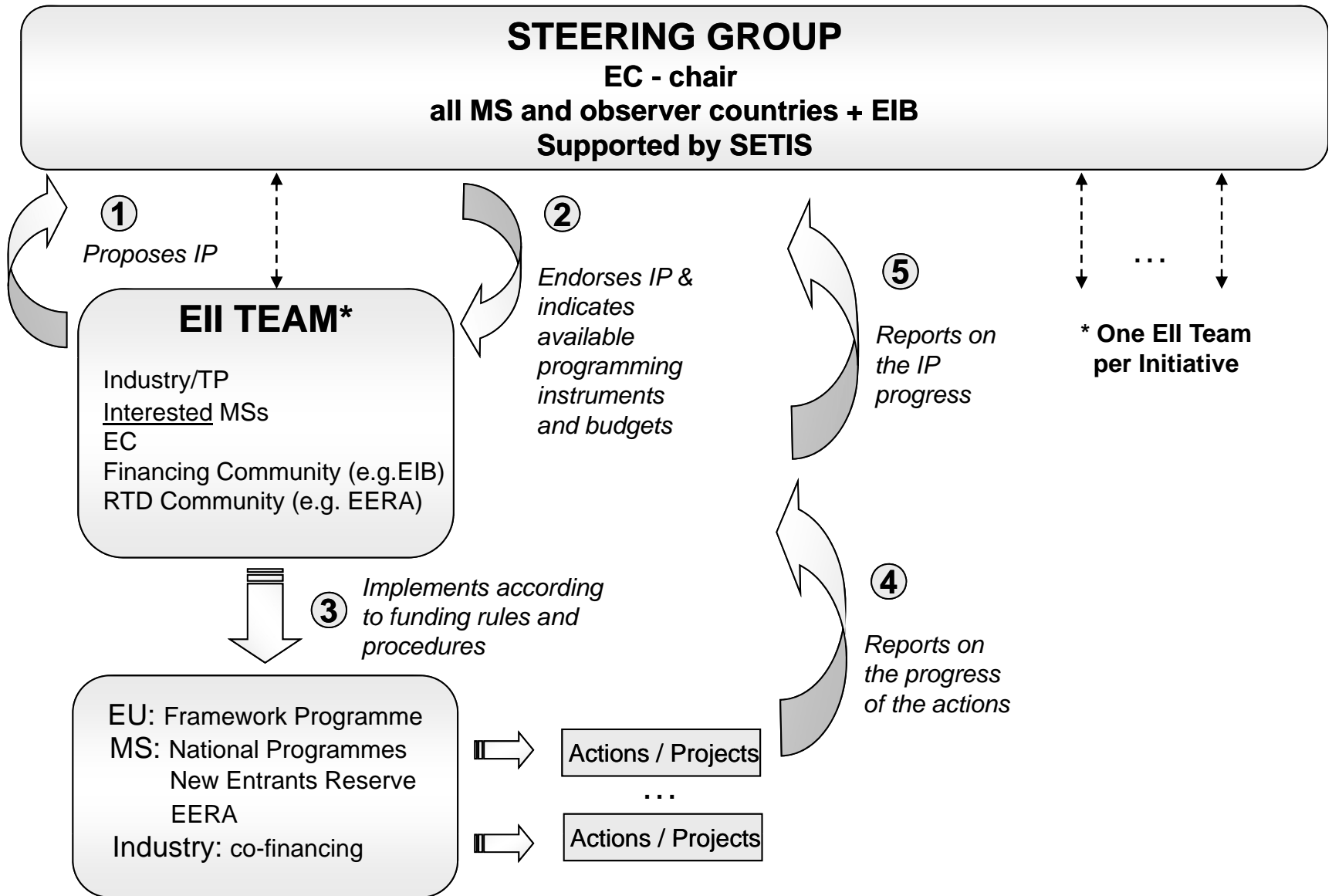
Achieved

- Technology Roadmaps, Implementation Plans: to structure EU efforts (EC, MS, industry)
 - » Industry leads
- Monitoring through KPIs
- EIs launched: wind, solar, CCS, Electricity grids, Bioenergy and Nuclear – 2010

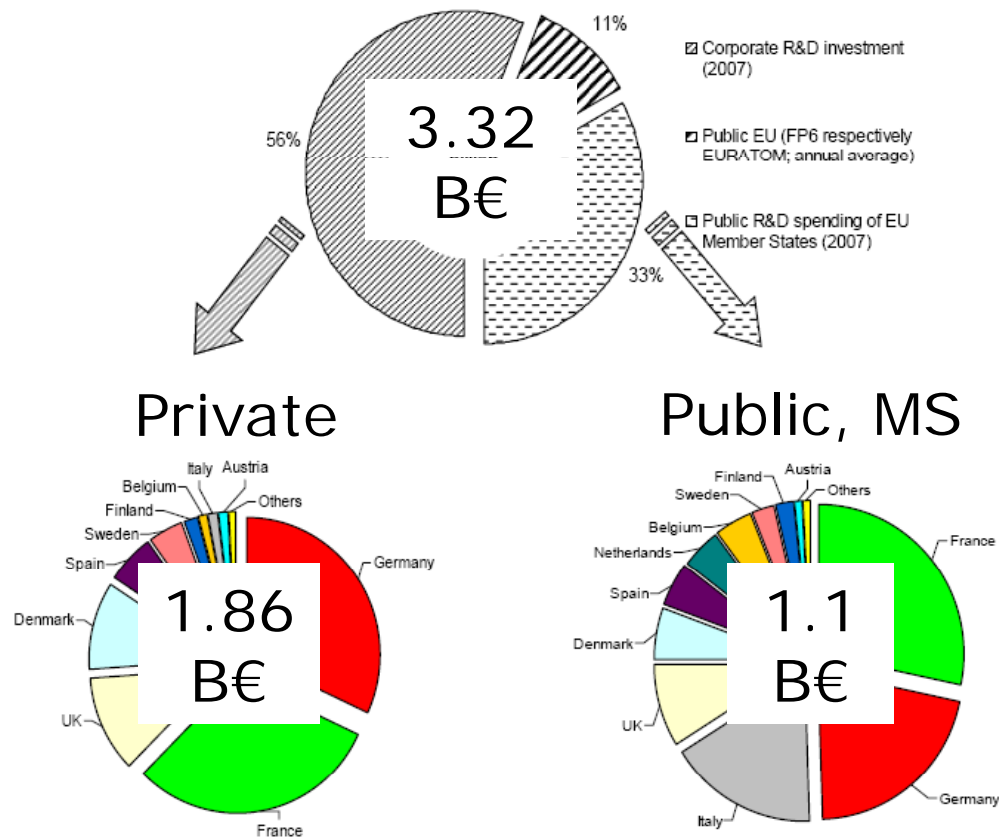
To come

- » Smart Cities - 2011
- Resource from existing instruments
 - » more should come ...

Orientation level
 Planning and programming level
 Implementation & operational level



● RTD investment in low-carbon technologies in the EU (2007)



Approximate R&D investment in SET-Plan priority technologies (nuclear and non-nuclear) by Member State

Source: JRC-IPTS, rounded numbers

● Investment has to increase

An additional investment of 50b€ - next 10 years

Today

EU programmes and initiatives:

- Seventh Framework Programme ~ **€400 m / year** (2011-2013)
- European energy programme for recovery ~ **€1600 m** (2010 for Wind and CCS)
- ETS – NER300 ~ **€4 bn** (award decisions 2012)

Joint actions between EC and MS – under discussion

SET-Plan Financing Framework

Common EU Roadmap and Implementation Plan

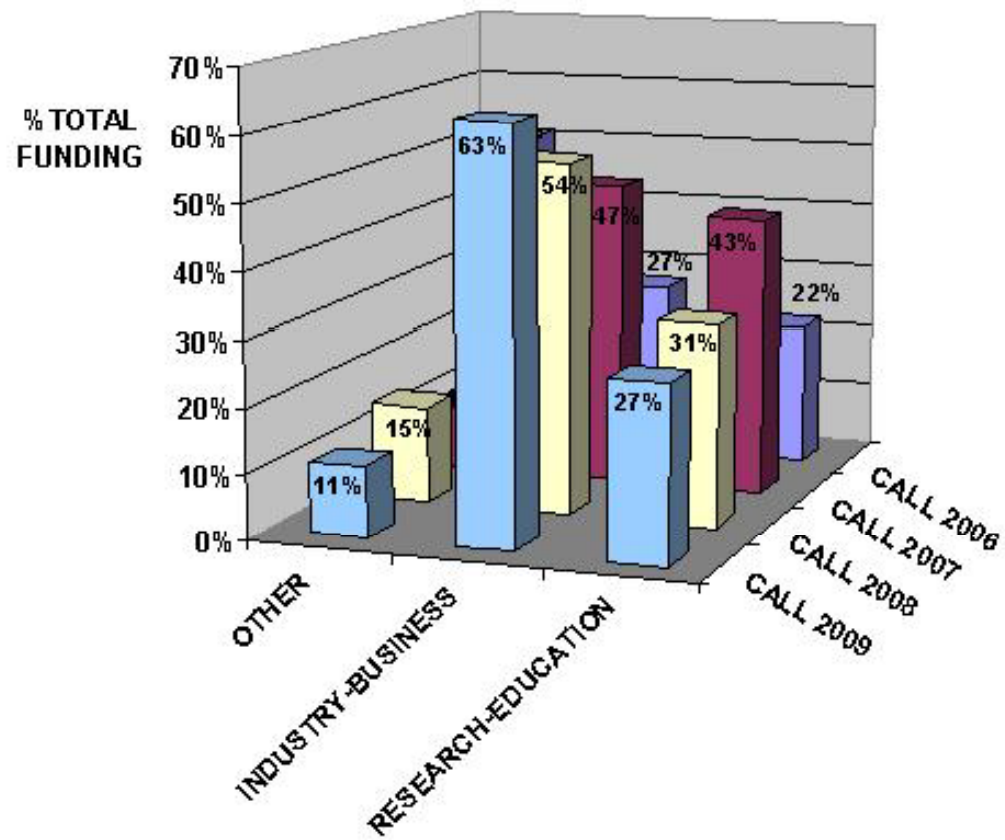
- ➔ 'public (MS)-public (EC)-private partnerships' with a variable geometry, open architecture
- ➔ share objectives, planning, monitoring and reporting tools and implementation instruments

Public funding partners	Project typology	Instruments
EC	High EU added value	FP, CIP-IEE, EEPR
EC and MS	Large projects, EU added value, shared interests	FP (ERA-NET+, Third party financing), Art 185 and 187
MS and MS	Localised shared interests	EERA, NER300, ad-hoc arrangements, joint or coordinated calls and alignment of programmes
MS	Supporting domestic industry	national programmes, structural funds, ETS, NER300
EIB	Very large projects	EIB loans, RSFF, guarantees, equity, ...

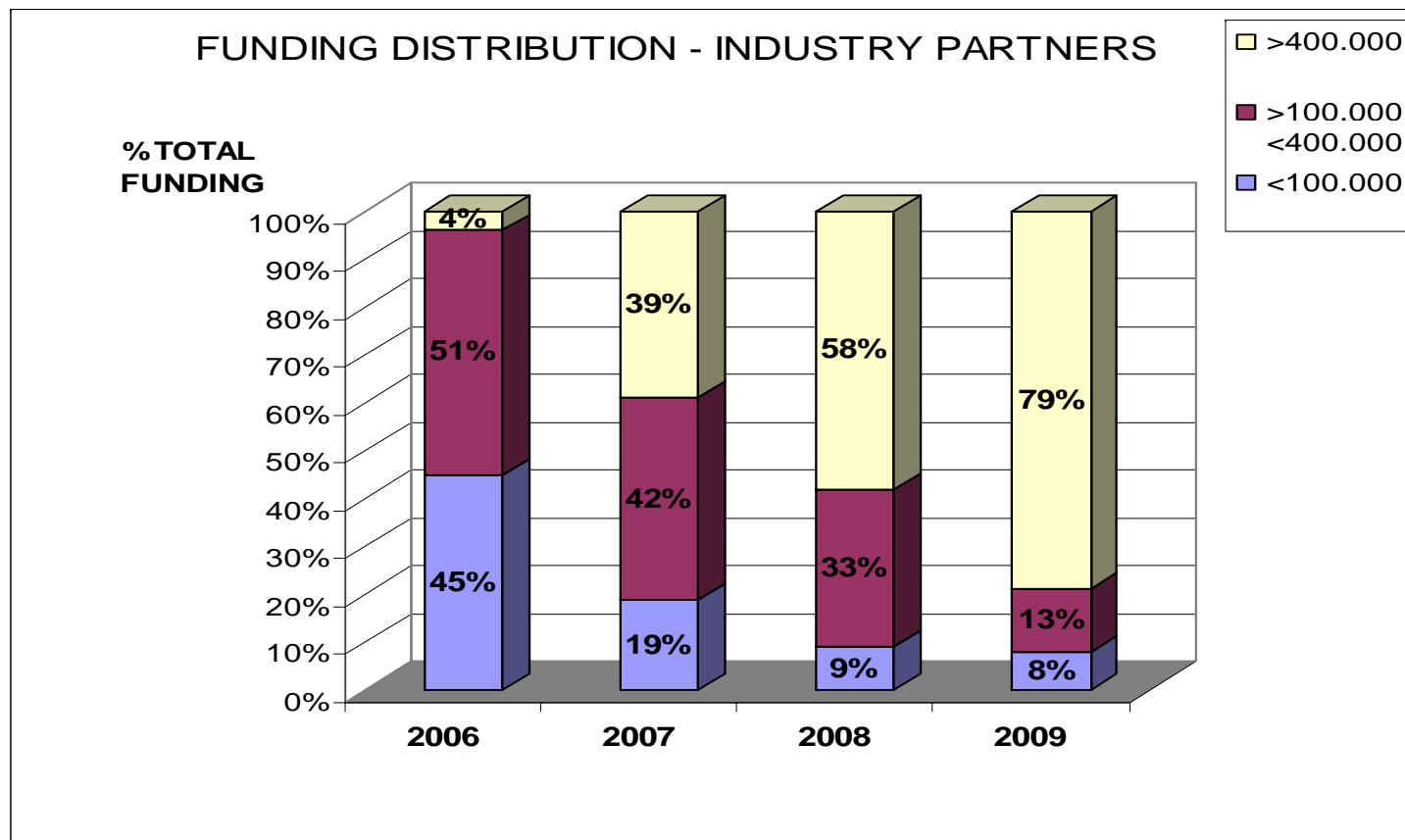
Common EU reporting, monitoring and assessment – KPIs

● Attract industrial interest

FUNDING DISTRIBUTION BY ORGANISATION TYPE



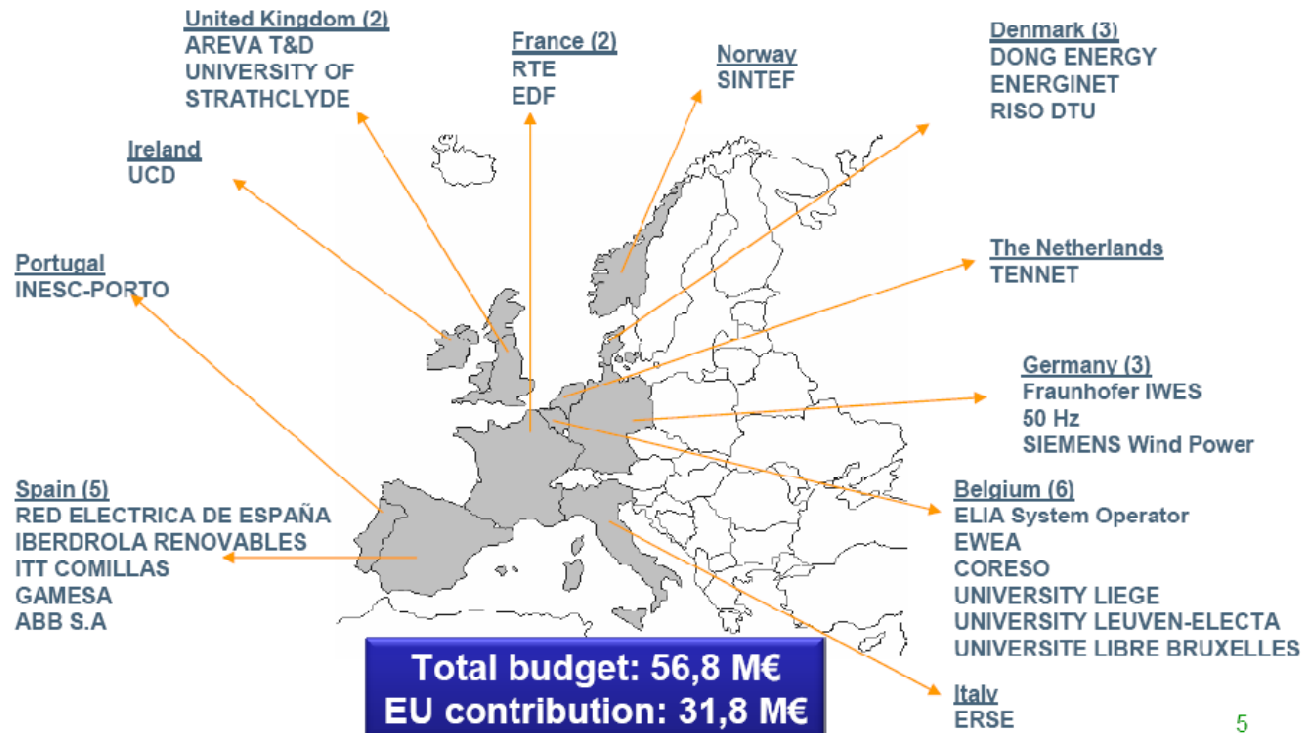
● Leverage industrial investment



● Single Project : «'Twenties » (FP7)

Consortium and budget

- ✓ 10 European Member States
- ✓ 1 Associated Country



● Success stories

Downwind project
Off-shore wind park
with 5 MW turbines

*Scotland, North Sea,
2009*





**Ongoing EU
Project :
Solar Power
Plant** - first
commercial tower
in the world

Sevilla, Spain, 2009



**Ongoing EU
Project:
2nd Generation
bio-fuels plant**

*Choren Plant in
Germany, 2009*




● **Five options for joint financing EC/MS**

- Mapping of existing EC and national projects
- Coordination / synchronisation of EC and MS calls for proposals
- ERANET+: joint calls between EC and MSs
- Joint MSs funding of EC FP Reserve List projects
- Joint (co-funded) EC-MSs projects (Third Party Financing of FP projects)

Conclusions

- SET-Plan clear vision of actions to be financed
- Need to pool / coordinate/ align resources from different actors
- New ways of working between EC, MS, Industry, Financial Actors, Research community
- Need to combine instruments and innovate



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Thank you for your attention!

http://ec.europa.eu/energy/technology/set_plan/set_plan_en.htm



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