



The SET-Plan ~~of the European Commission~~ and the role requested of Regulators in supporting technology innovation

Stefano PUPPIN

European Commission - DG RTD

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EUROPEAN
COMMISSION

Context

- **2020 targets: the three 20%**
- **2050 target: developed countries should cut their GHG emissions by 80% by 2050 - G8 in Aquila**
- **Today's EU primary energy supply: 80% dependent on fossil fuels (coal, oil, gas, the main sources of CO2 emission)**
- **A critical challenge: from 80% dependency on fossil fuels to 80% reduction in GHG emissions in 40 years!**
 - **A reinvention of our energy system**
 - **A need to move to a low carbon economy – not easy, cheap or swift**
 - **Technology and the efficient use of the resources are essential for this transition**

EU's response : the SET Plan

- **The SET-Plan, adopted in November 2007, is the technology pillar of the EU's energy and climate change policy**
- **Objective is to accelerate the development of low carbon technologies leading to their market take-up**
- **Vision of a Europe with world leadership in a diverse portfolio of clean, efficient and low carbon technology – as a motor for growth and jobs**
- **Set in a global context**



SET-Plan measures

➤ Joint strategic planning:

- Steering Group
- Information system: SETIS
- Annual SET Plan summits

➤ Effective implementation:

- European Industrial Initiatives
- European Energy Research Alliance
- Trans-European Energy Networks and Systems of the Future – transition planning

➤ Increase in resources: both financial and human

➤ Reinforce International Cooperation



Investment has to increase

- **Need for a step change in investment**
- **From 3b€ to 8b€ per year (public and private)**
 - = an additional investment of 50b€ over the next 10 years
- **IEA World Energy Outlook 2009: additional 10.5 trillion \$ over baseline up to 2030**
- **Translates into huge global market opportunity**



Basic Principles of EIIs

- **Led by industry**
- **Boost research and innovation**
- **Accelerate deployment of technology**
- **Deliver progress beyond business-as-usual**
- **Define & realise clear targets (quantified objective)**
- **Contribute to political goals (energy & climate change)**



European Industrial Initiatives

◆ Six new European Industrial Initiatives:

- ◆ **European Wind Initiative**
- ◆ **Solar Europe Initiative**
- ◆ **Bio-energy Europe Initiative**
- ◆ **European Electricity Grid Initiative (EEGI)**
- ◆ **European CO2 capture, transport and storage initiative**
- ◆ **Sustainable fission initiative (Gen IV)**

◆ Illustrative examples:

- ◆ **Fuel cells and hydrogen (JTI on-going)**
- ◆ **Fusion (ITER on-going)**



Optimisation of electricity system is a public interest

- **The optimisation of the EU electricity system and networks - in terms of reliability, robustness, efficiency and costs – is clearly in the interest of all European citizens and industries.**
- **However, in the current environment, there is no actor / body which is effectively driving the sound technical evolution of the system.**

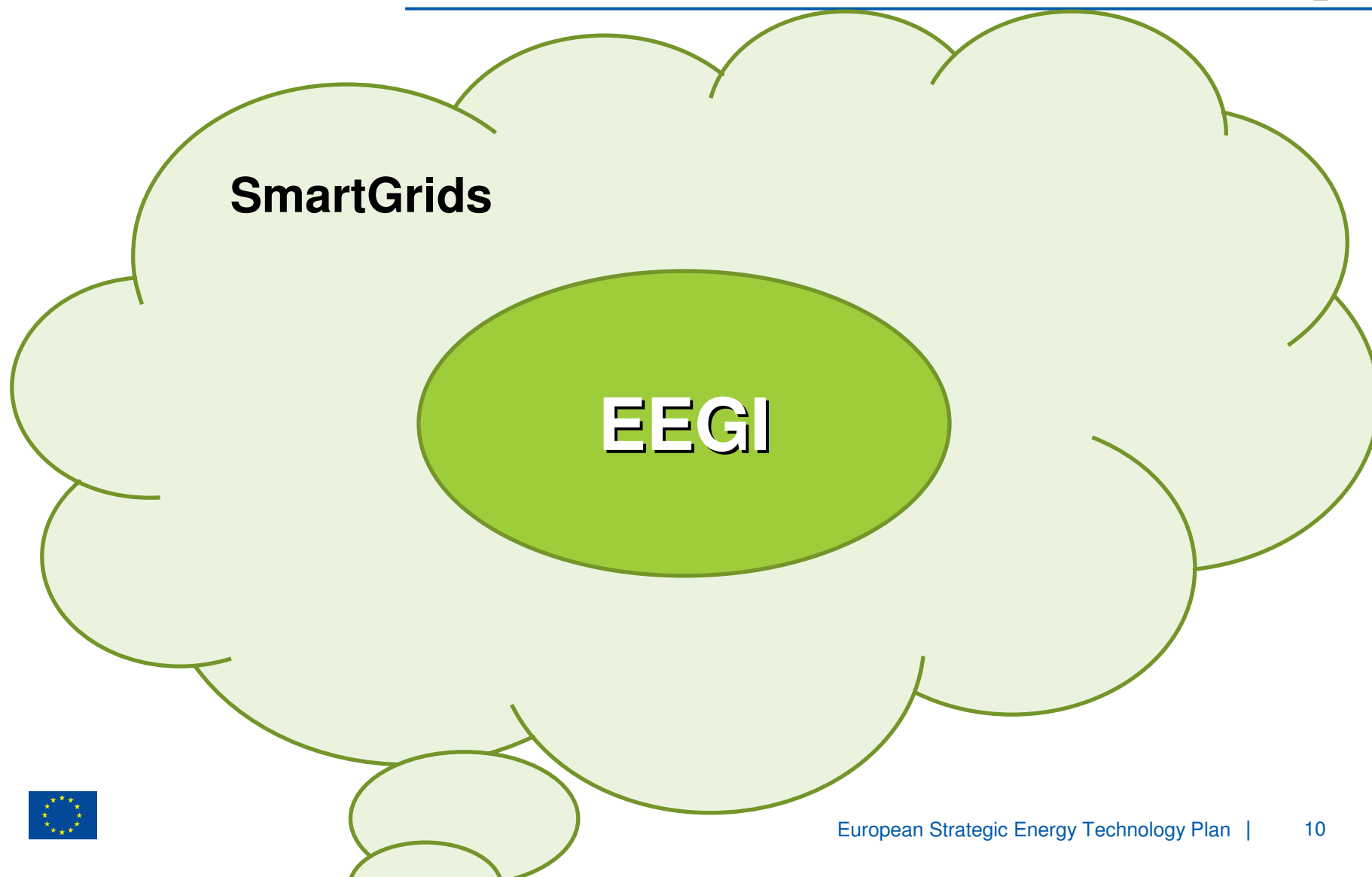


EEGI Specificities

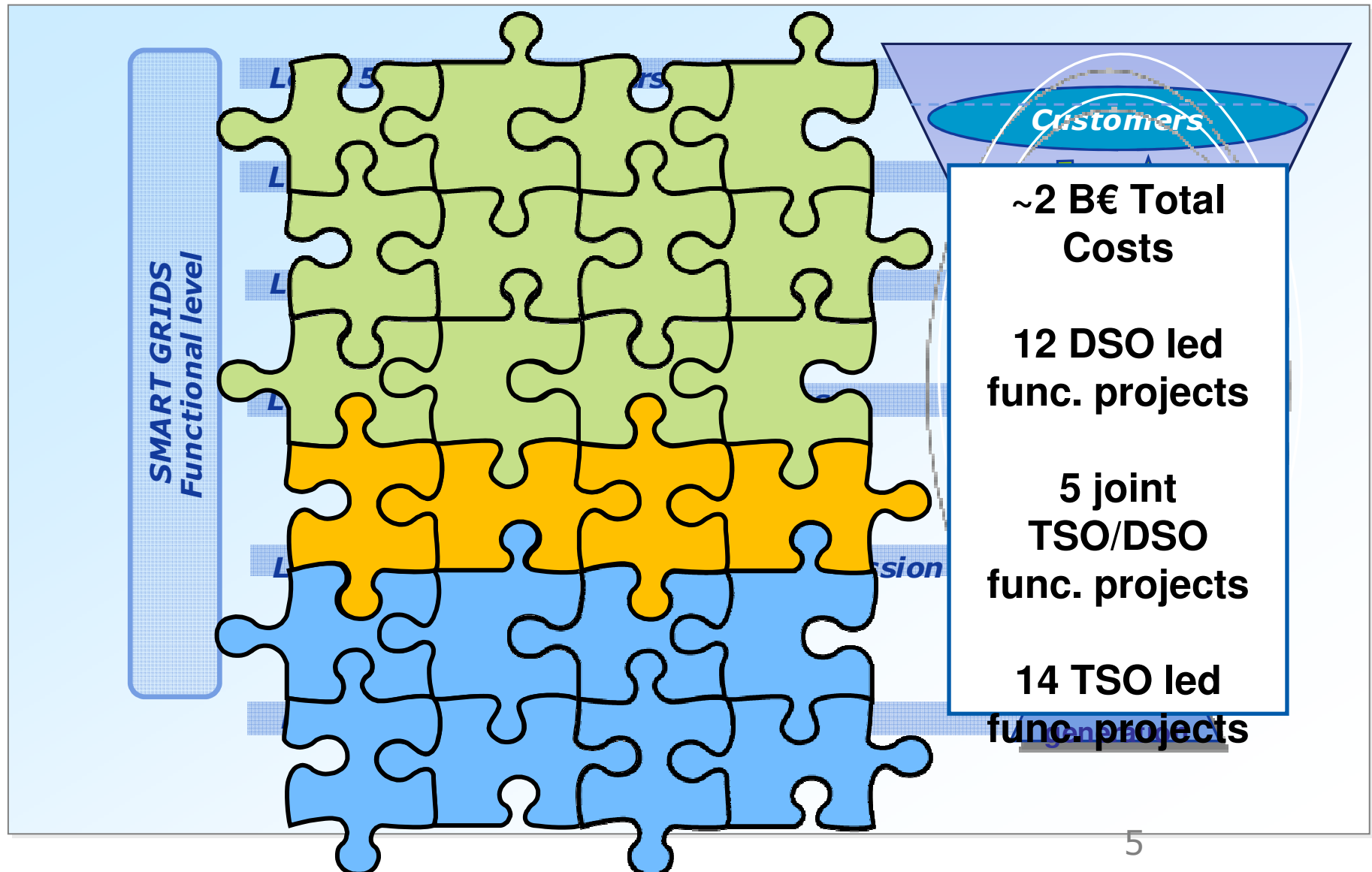
- **Focus on System Integration, not on tech. dev.**
- **Objective: demonstrate and quantify the value of SmartGrids solutions before large scale deployment**
- **Covers a subject characterised by**
 - **Many legitimate but conflicting interests.**
 - **Severe coordination and market failures.**
- **Led by Network Operators (regulated companies)**
 - **Strategy, Contents & Planning: TSOs / DSOs, in consultation with all interested parties.**
 - **Implementation (projects): TSOs / DSOs, generators, equipment manufacturers, retailers, research providers, etc**
- **Difficult Financing Arrangements**
- **Ineffective without solid knowledge sharing**



EEGI Scope



EEGI Implemetation Plan



Validating the EEGI Contents

◆ The “Florence” process.

- ◆ “Florence 1”. Florence 15 May 2009
- ◆ “Florence 2”. Florence 14 Oct 2009
- ◆ Informal meeting. Brussels 16 Dec 2009
- ◆ “Florence 3”. Brussels 18 Mar 2010

◆ The ENTSO-E open consultation

- ◆ Open between 11 Jan and 23 Feb 2010.

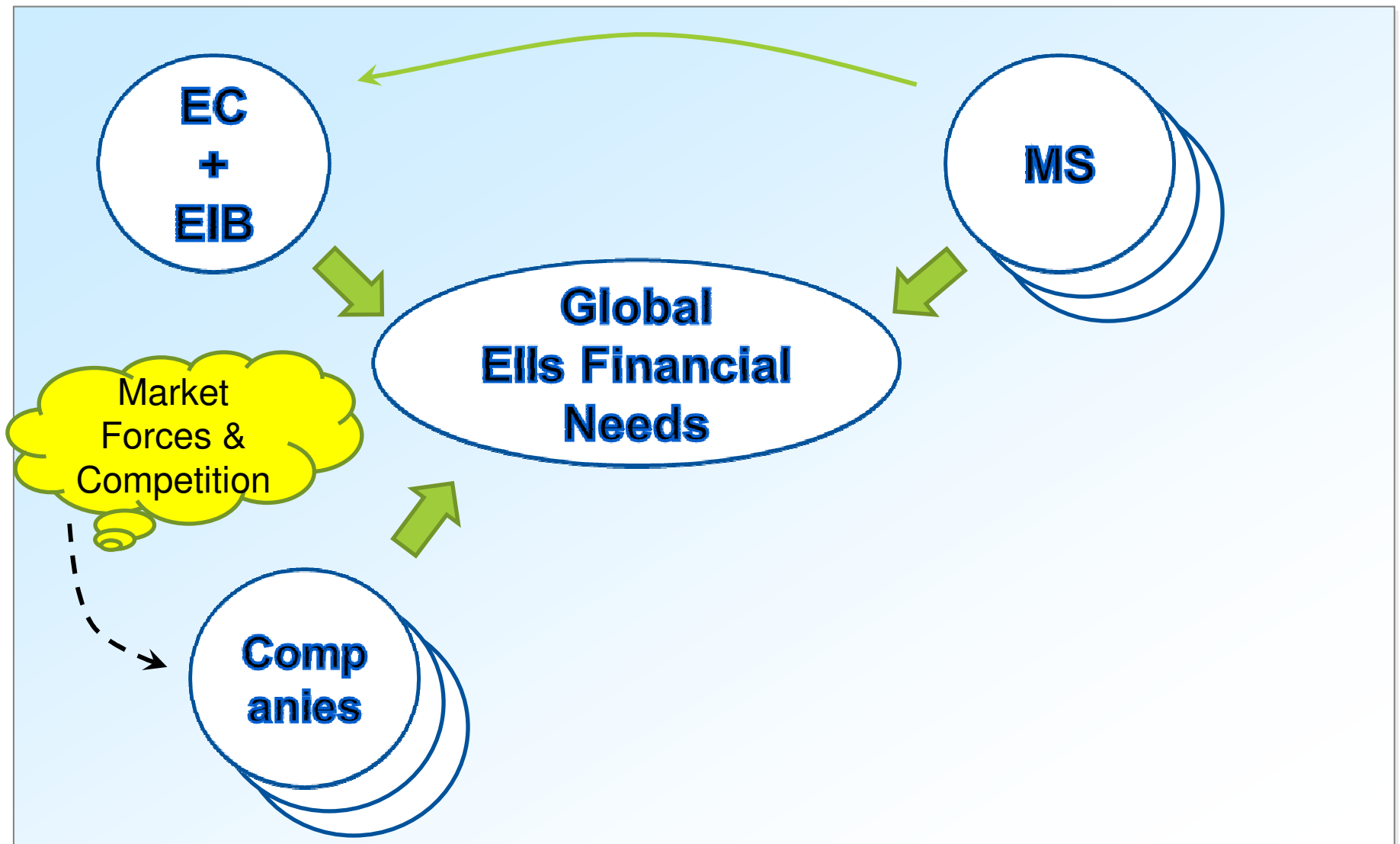
◆ The SmartGrids TP consultation

- ◆ Workshop. 10 Mar 2010 with Generators, Equipment Suppliers, Research Providers, ICT industry, Demand & Metering, Presumers.

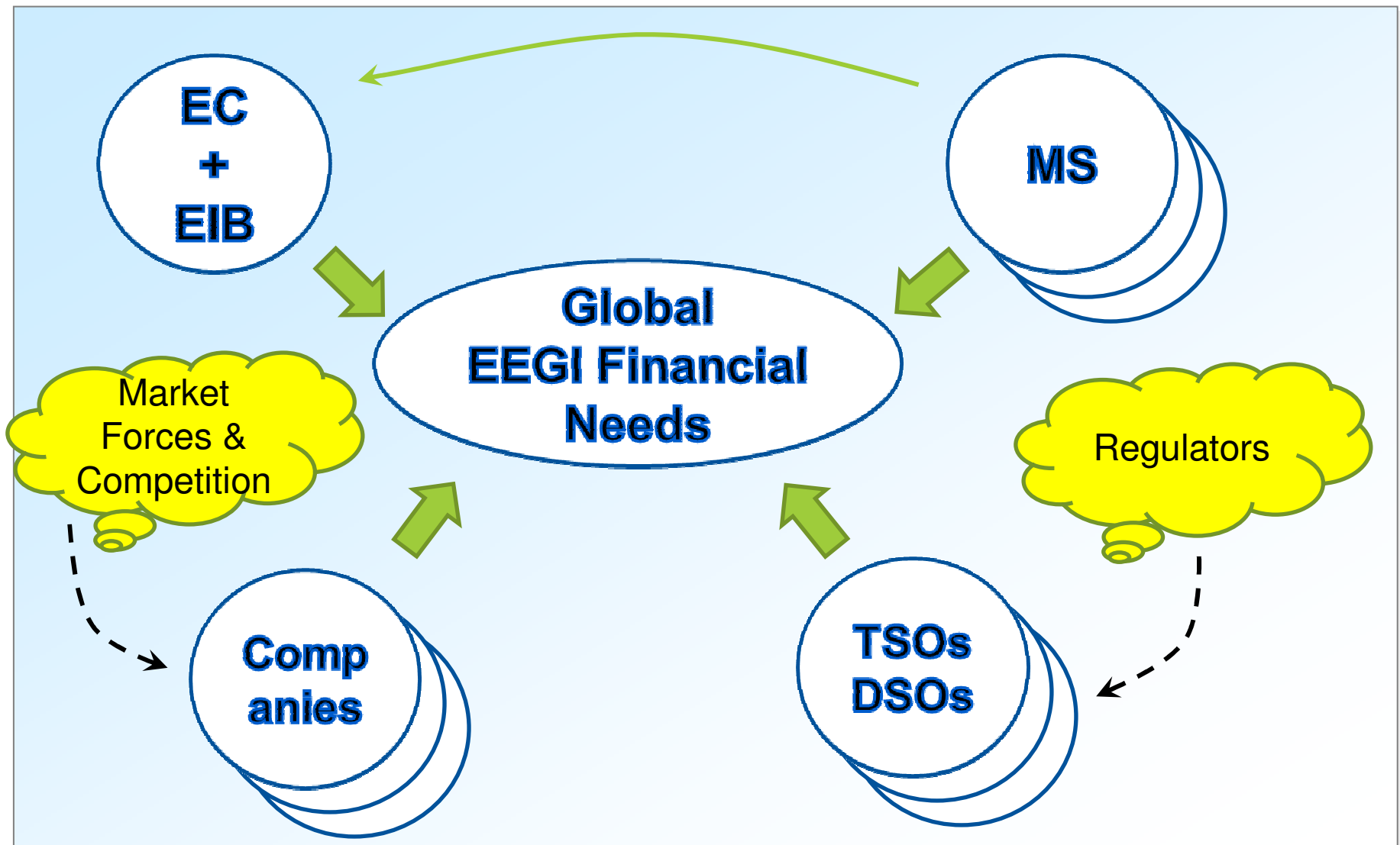
◆ The MS consultation.

- ◆ Workshop with SET Plan Sherpas. 11 Feb 2010.
- ◆ Workshops. Wind & Solar EII and Green Car PPP

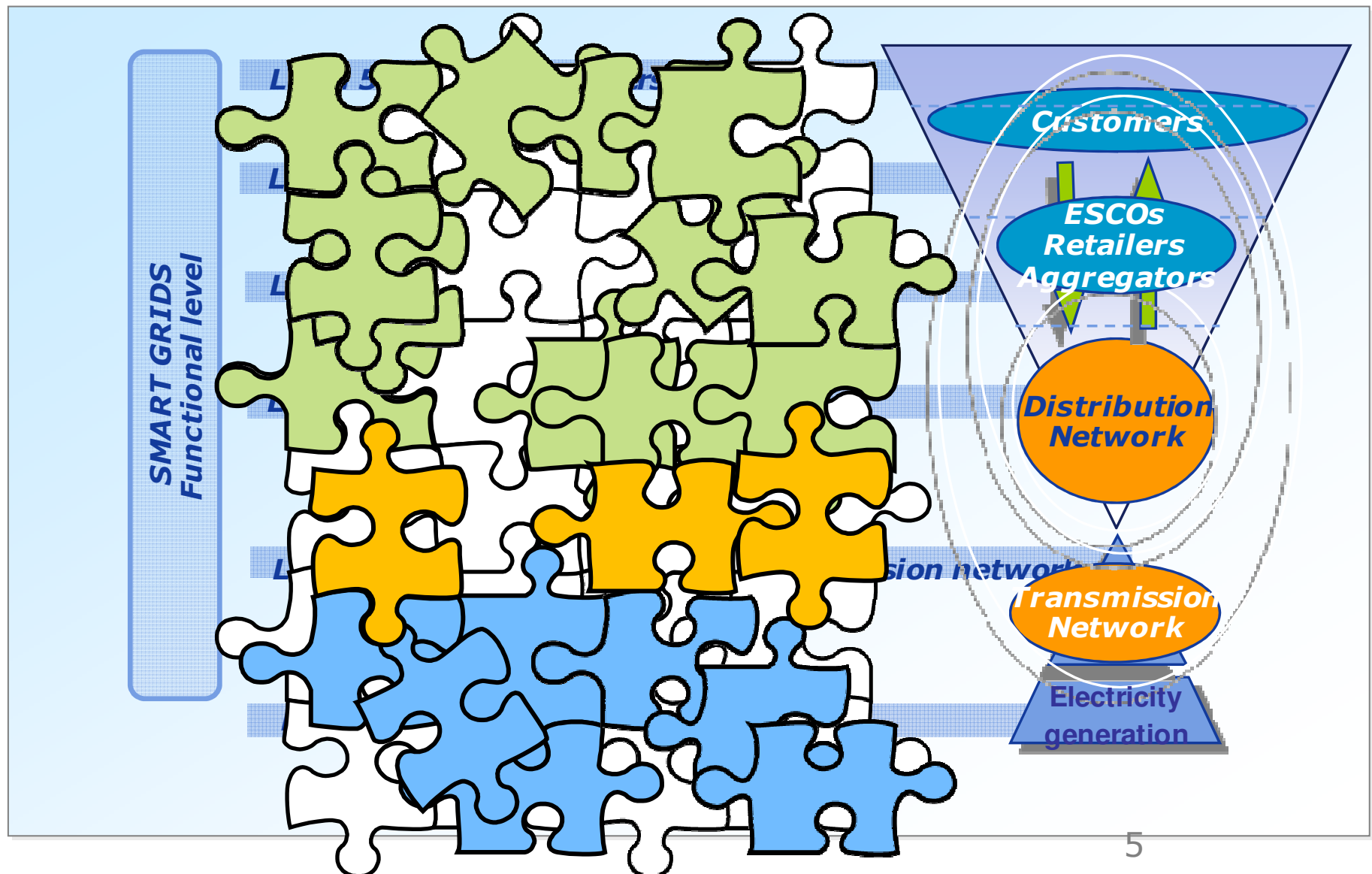
Addressing EIIs Financial Needs



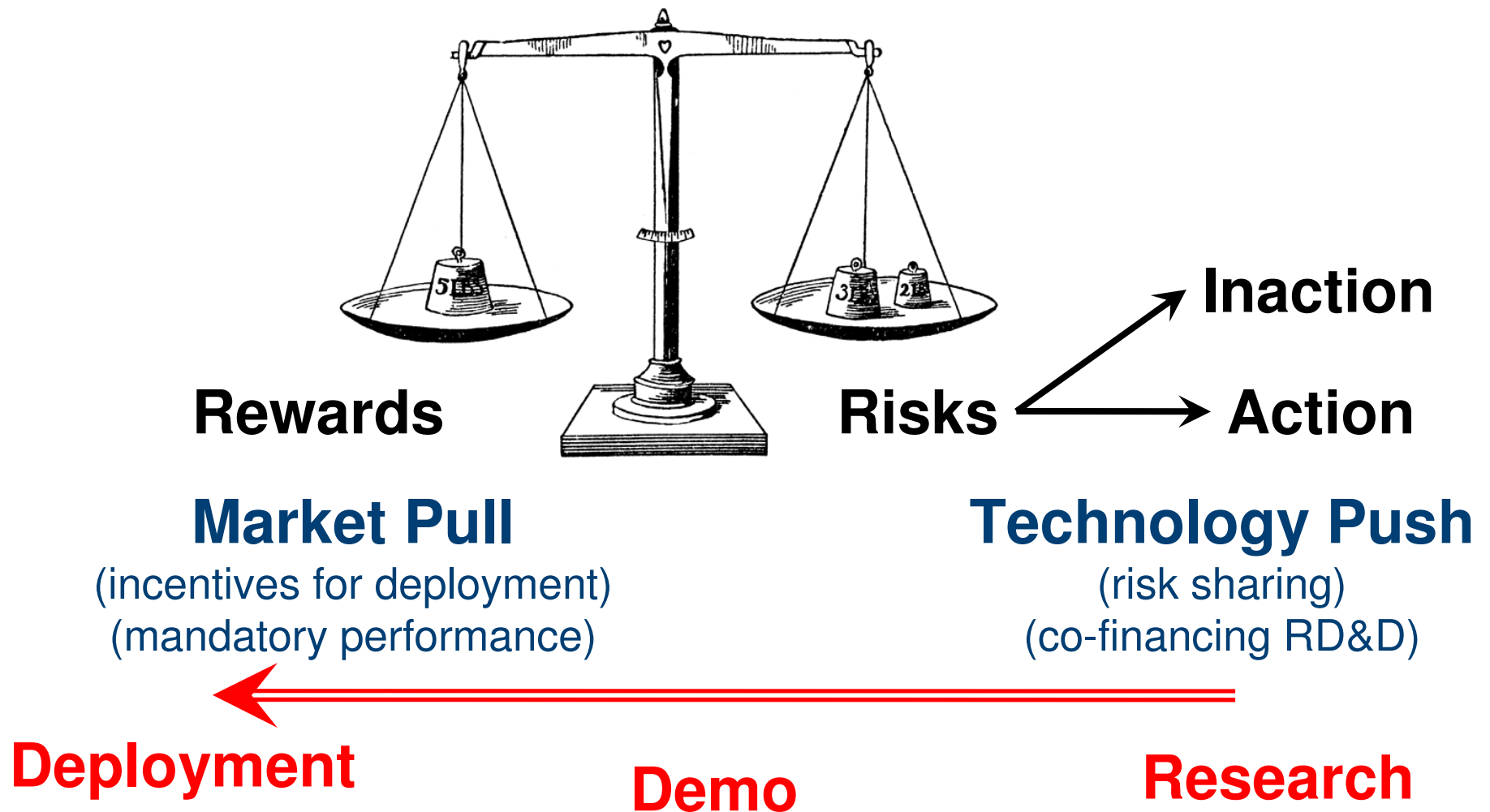
Addressing EEGI Financial Needs



The Coordination Challenge



Incentivising Innovation

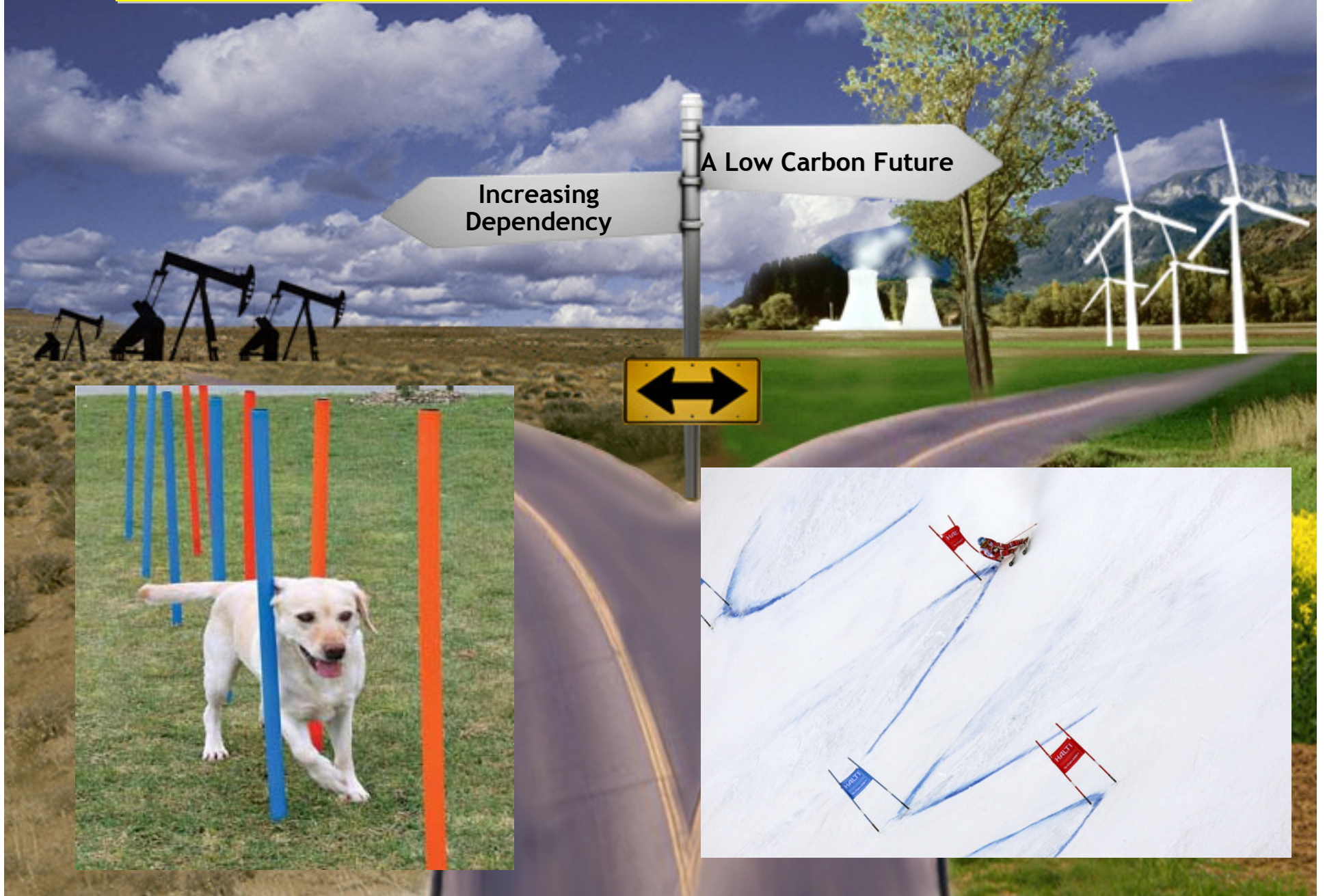


The Role of Regulators

- **Provide inputs to the scope, contents, KPI & governance of the EEGI and to the Smart Grids Task Force**
- **Define regulatory regimes that incentivise network operators (TSOs & DSOs) involvement in R&D&I.** (Article 37.8 of DIRECTIVE 2009/72/EC)
- **Incentivise a coordinated approach and knowledge sharing in TSO/DSO led R&D&I projects.** (Partially Article 8.3(a) of REGULATION(EC) 714/2009)
- **Remove regulatory barriers to the execution of large demo projects.**
- **Participate in the governance of the EEGI.**



THANK YOU FOR YOUR ATTENTION !!



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