

# EU policy for developing clean energy technologies

***Norela Constantinescu***  
***European Commission , DG ENERGY***

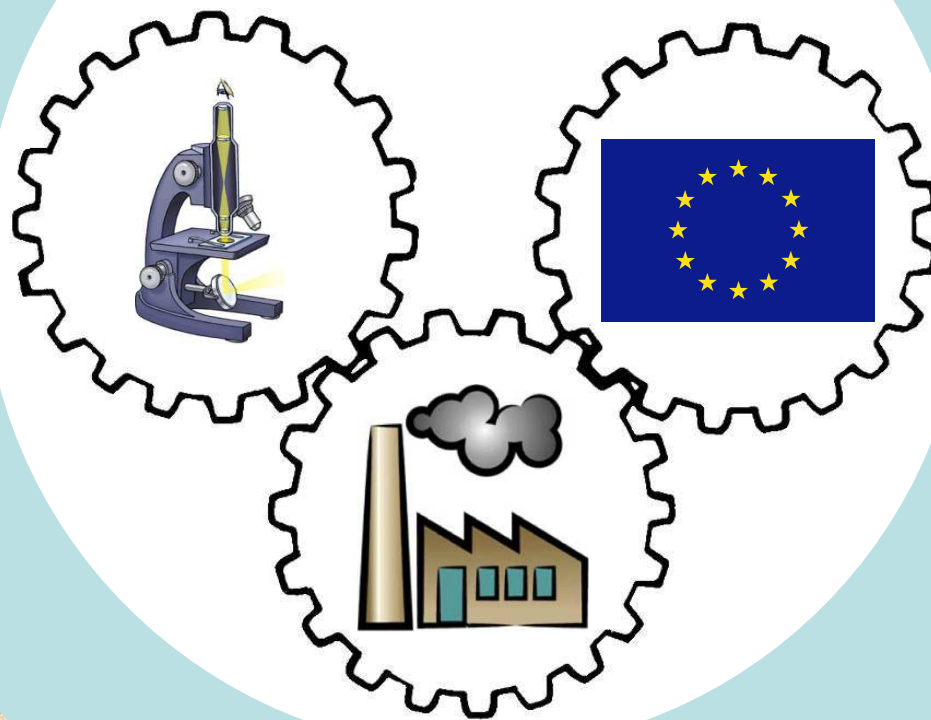
**Energy Transition by 2050: a multifaceted challenge for Europe**  
**10 May 2012**

# SET-Plan

Research Community

Public Sector

Industry



# SET Plan –industrial perspective

*Focus on technologies  
with market impact up  
to 2020*

- Wind
- Solar
- Electricity grids
- CCS
- Bioenergy
- Nuclear
- Smart Cities and Communities
- Fuel cells and hydrogen

***Industrial applications***  
***Financing***





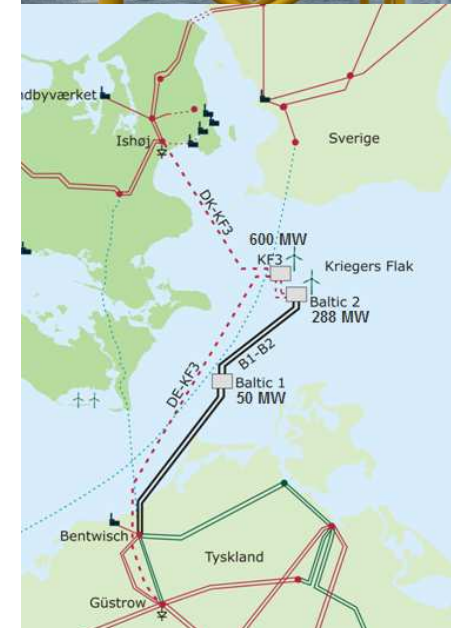
## EU financing for energy R&D and innovation (2007-2013)

***FP7 ~ € 2.3 billion (2007-2013) –non nuclear***

***EEPR ~ € 1.6 billion  
(offshore wind and CCS in 2008)***

***NER300 ~ € 2.3 billion  
(award decisions 2012)***

***CIP - IEE ~ € 0.7 billion  
(2007-2013)***





# 2020/2050 Challenges

*Increasing importance of RES-requirements on:*

Capacity and flexibility

- of electricity grids
- of power plants
- of energy storage
- of demand side management (~smart)

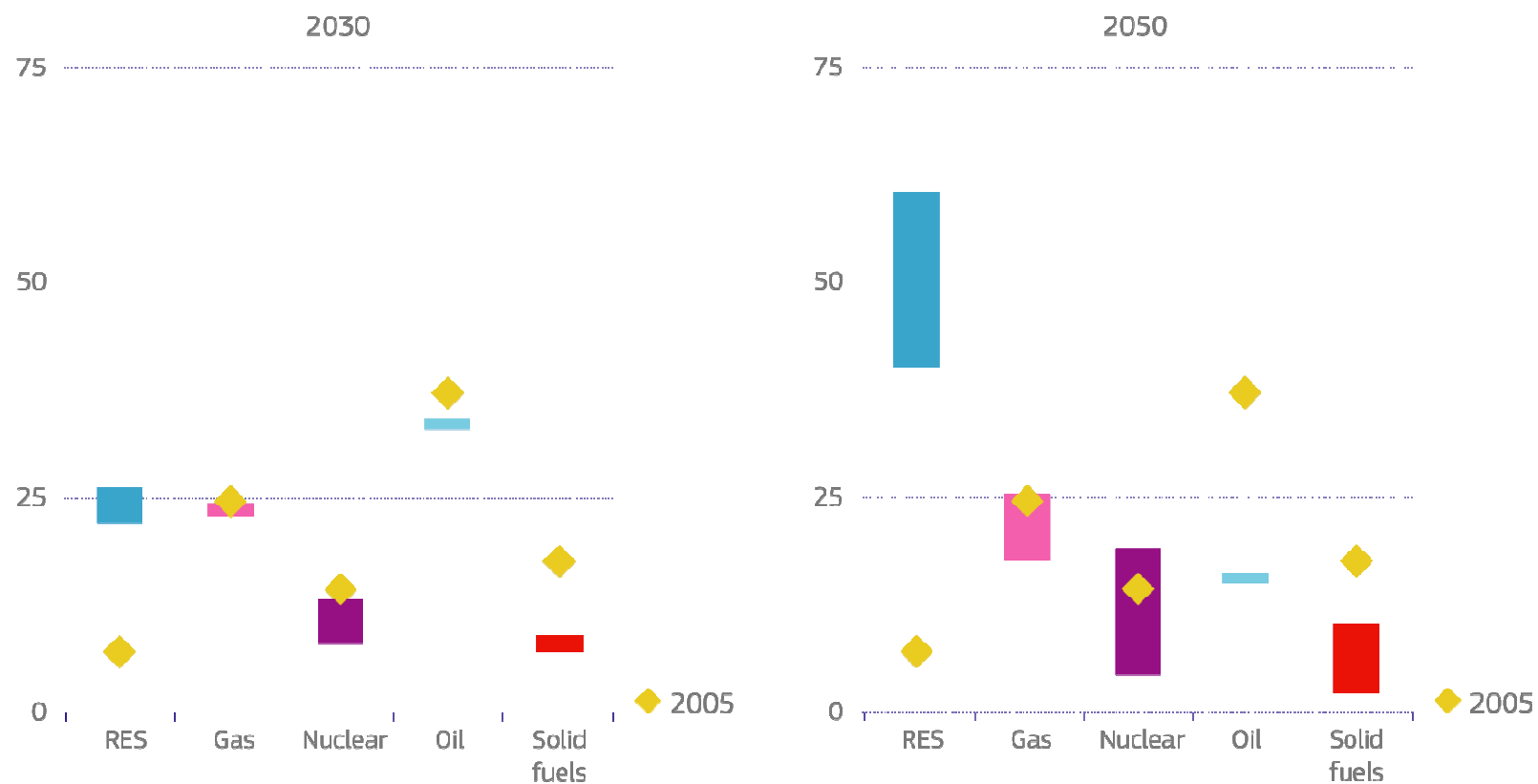


***System integration approach***



## *Renewables move centre stage – but all fuels can contribute in the long-run*

Decarbonisation scenarios - fuel ranges (primary energy consumption in %)



Source: European Commission



# Horizon 2020 - Energy: ambitious budget allocation

## ***Secure, clean and efficient energy: 6 327 M€***

- In average 900 million€/year
- Covering: research, demonstration , innovation (previously FP7 and IEE)

## ***Access to risk-finance: 1 131 M€ for SET-Plan projects***

- Debt and equity
- Cooperation with the EIB, inspired from FP7 risk-sharing finance facility



# Horizon 2020 –Energy: low carbon technologies

*Reducing energy consumption and carbon footprint by smart and sustainable use*

- **Energy efficiency, ICT instruments, Smart Cities and Communities**

*Low-cost, low-carbon electricity supply*

- **Renewables: Wind, solar , bioenergy and CCS**

*Alternative fuels and mobile energy sources*

- **Bioenergy, fuel cells and hydrogen**

*A single, smart European electricity grid*

- **Transmission (electricity highways), storage**

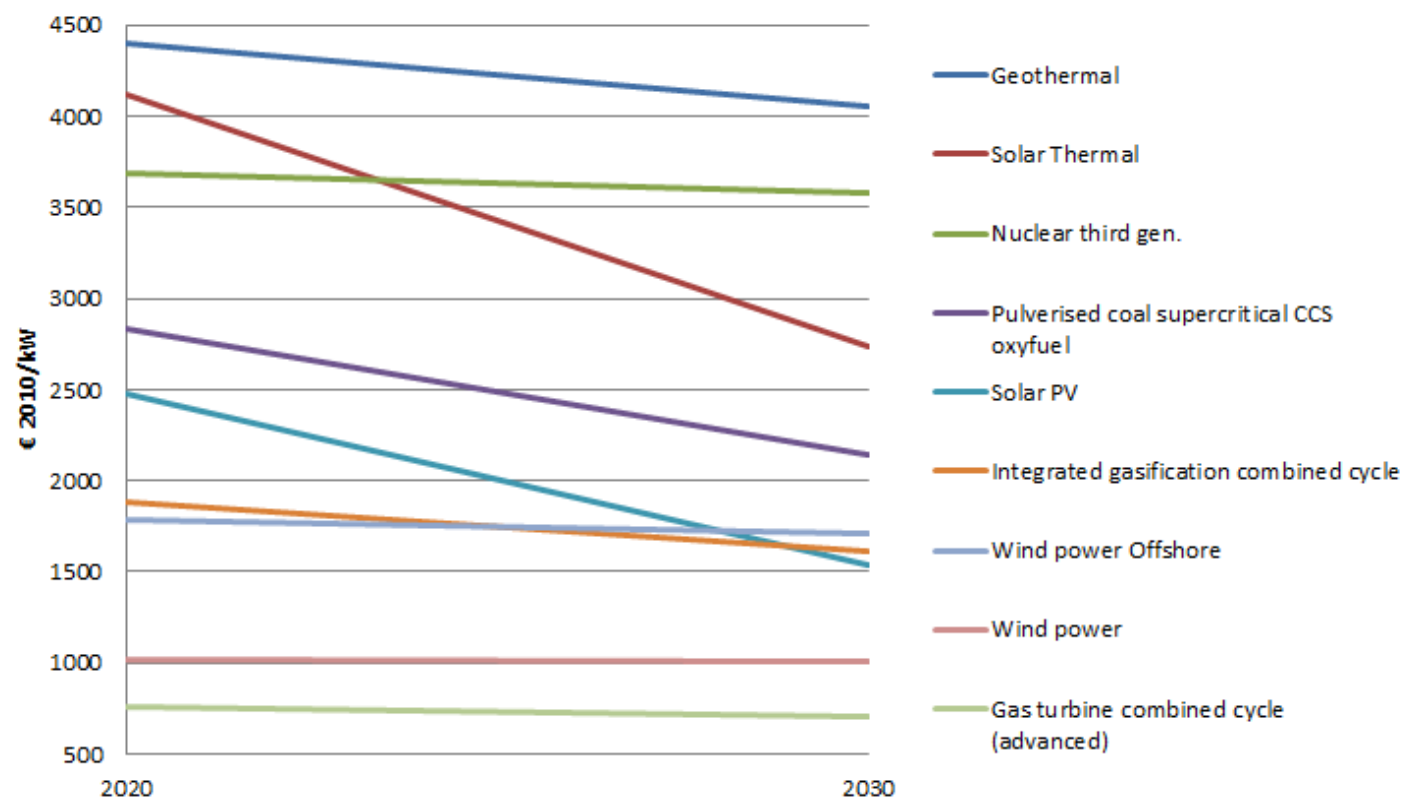
*Market uptake of energy innovation*

- **Ex-Intelligent Energy Europe programme**



# Technologies – after 2020?

## Expected trends in technology capital costs



Source: Energy Roadmap 2050 Impact Assessment

***Thank you for your attention***

