

Towards an integrated SET Plan

Research, Innovation and Competitiveness in
the EU: the 5th pillar of the Energy Union



Mark van Stiphout

Deputy Head of Unit New energy technologies and
innovation

DG Energy - European Commission



Energy Union

Towards an
#EnergyUnion

5. NEW TECHNOLOGY FOR TOMORROW'S ENERGY

TODAY:

The EU has **LOST GROUND** on clean, LOW-CARBON TECHNOLOGIES.



WITH THE ENERGY UNION:

LOWER BILLS for EU citizens.



EUROPEAN COMPANIES to be world leading on renewable and low-carbon technologies.



#EnergyUnion



Four core priorities:

- World leader in **RES**, together with energy storage;
- **Consumer** – smart grids, smart home appliances, smart cities, and home automation systems;
- **Efficient energy systems**
- More **sustainable transport systems** – innovation for increase energy efficiency and reduce greenhouse gas emissions.

Two additional research priorities:

- A forward-looking approach to **CCS** and **CCU** for the power and industrial sectors
- **Nuclear energy** – the use of the highest standards of safety, security, waste management and non-proliferation; technological leadership to be maintained

- SET Plan of 2008: technology push as part of the Energy and climate change policy
- Reduce cost of key technologies
- Energy Technologies and Innovation Communication of 2013
- Integrated approach: system-based and entire value and innovation chain;
- Stakeholder consultation: Integrated Roadmap
- Consultation with MS on priorities and cooperation



Towards an Integrated Strategic Energy Technology (SET) Plan:

Accelerating the European Energy System Transformation



Evaluation of the SET Plan so far

EU's energy industry strengths and weaknesses

10 Actions to implement the priorities

More integrated approach

New SET Plan management

Number one in RES

Technology leadership by
developing **highly performant
renewables** technologies and their
integration in the system

**Cost efficient key technologies
through regional cooperation**



Consumer at the centre of the future energy system

Smart homes, smart cities

Resilience, security and smartness of the energy system



Efficient energy systems

New materials and technologies for energy efficiency solutions for buildings

Continue efforts to make EU industry less energy intensive and more competitive



Sustainable transport

Become competitive in the global battery sector

Renewable fuels needed for sustainable transport solutions



A forward-looking approach to carbon capture and storage (CCS) and carbon capture and use (CCU)



Increase safety in the use of nuclear energy

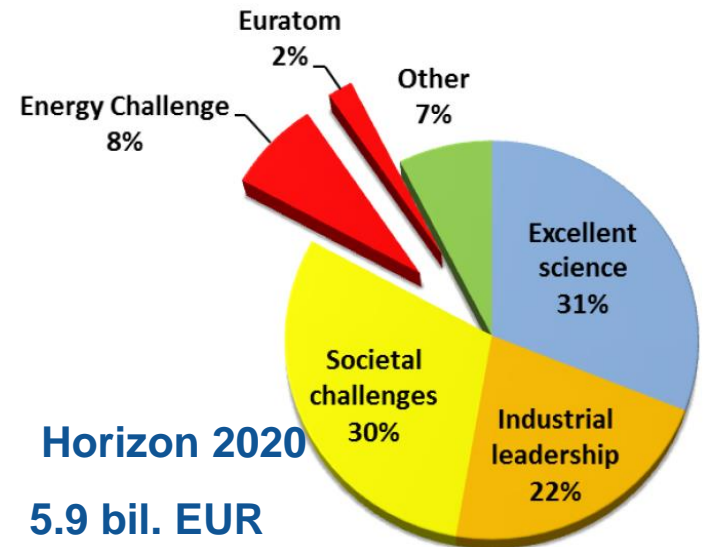


Develop and bring innovations to the market

Overcome 'valley of death'

Better articulation of funding sources: EDP, EFSI, ESFI, KIC-IE, H2020...

Create demand for innovative products and services: adding market pull to technology push



InnoFin

Cohesion policy

38 bil. EUR – low carbon economy

40 bil. EUR – R&I

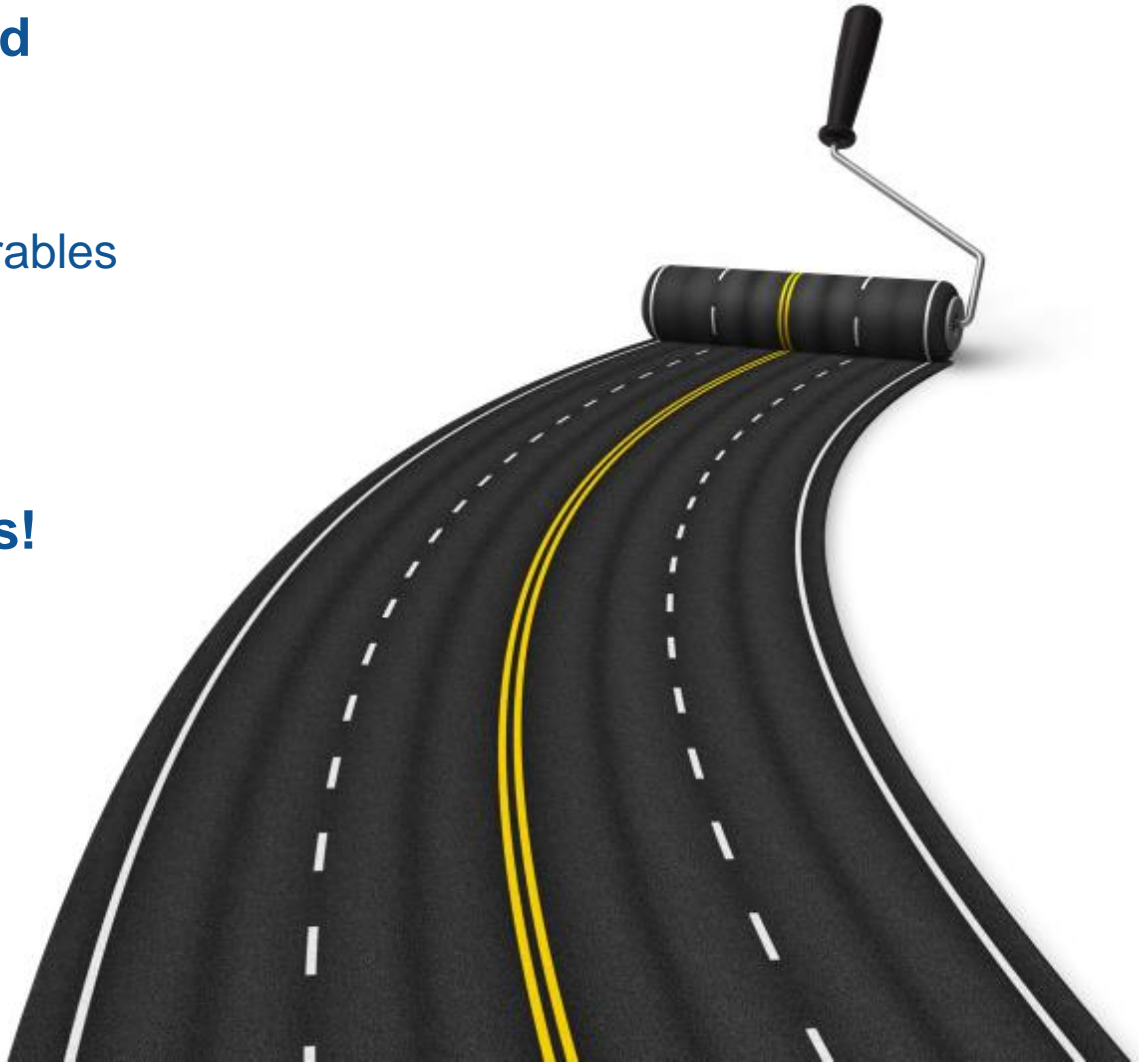
33 bil. EUR - SMEs

Next steps

- **Delivering on the Integrated SET Plan priority actions**

Define level of ambition,
implementation, timing and deliverables

- **Identify EU synergies**
- **Measure efforts & progress!**
- **An overarching research, innovation and competitiveness strategy**



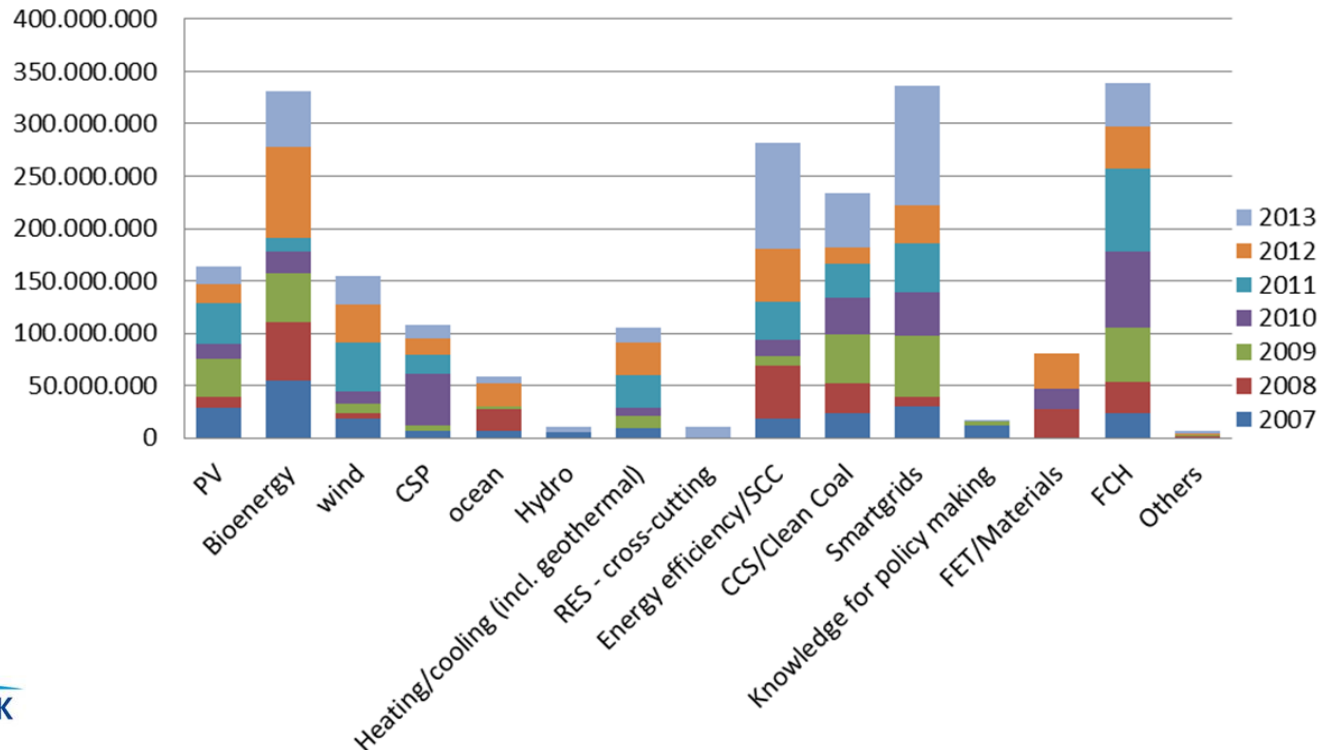
**Thank you
for your attention !**

Mark.VAN-STIPHOUT@ec.europa.eu



Implementation: FP7 2007-2013

FP7 Energy Theme - budget allocation per year (2007-2013, M€)



FP7: 50.5 bEur total funding (7 years)

Energy: 2.5 bEur (5%)

Investments R&I accross EU

EUR 2.8bn

(2007)

EUR 7.1bn

(2011)

Implementation: FP7 – demo projects



Smart PV grid integration

TRANSFORM – Smart Cities



GRID 4 EU

