

Fuel cells and hydrogen

Joint undertaking

Optimising the Innovation Loop

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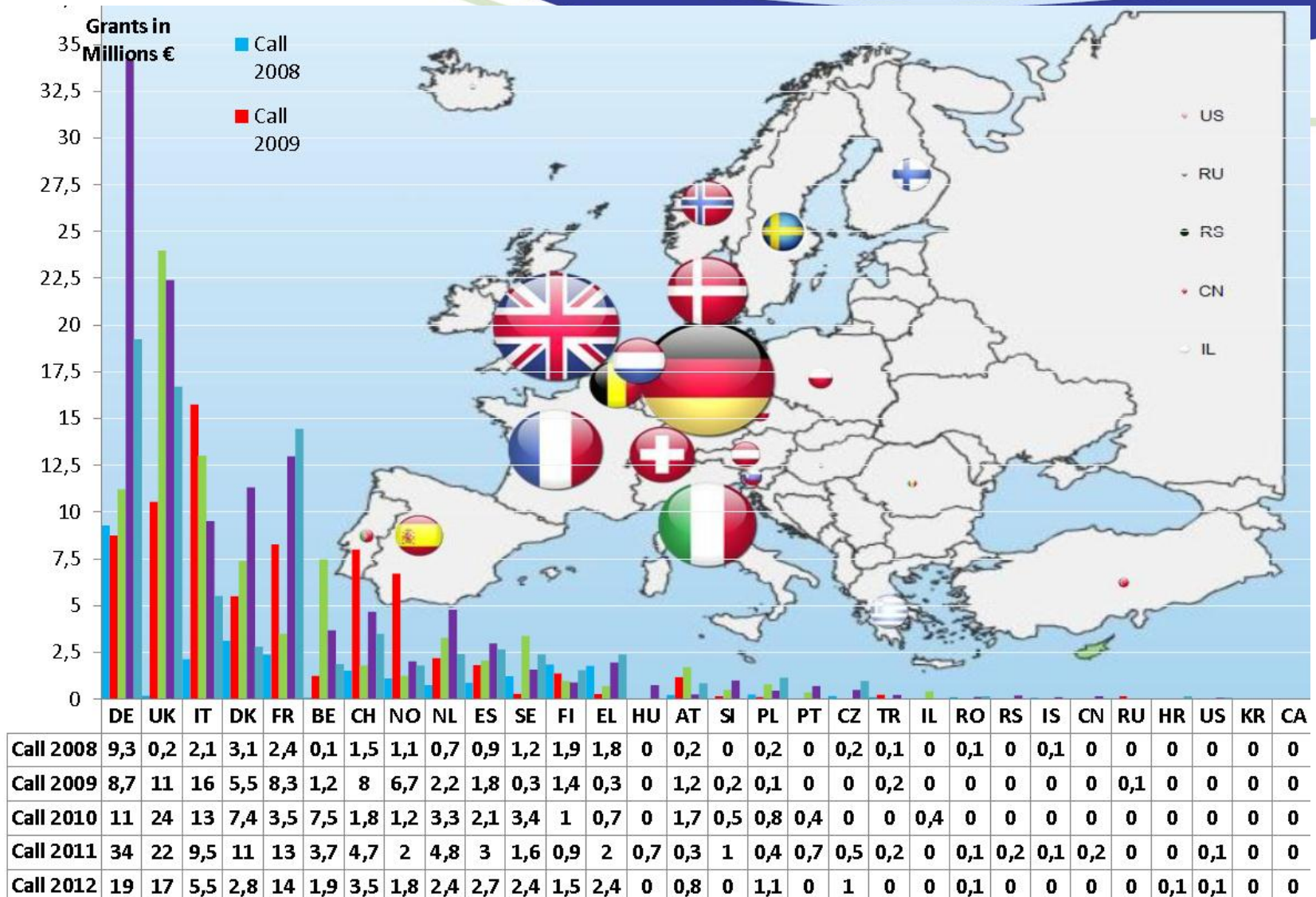


Stakeholders' General Assembly 2013

How to Optimise Collaboration for Increased Impact?

- FCH-JU stakeholders constitute a large community
- Skills are world class
- Activities range from basic research to demonstration
- Projects have produced excellent results
- Can we increase their value further?

European engagement in FCH-JU



RTD Coverage in FCH-JU Projects

Figure 1 : Budget breakdown by application area

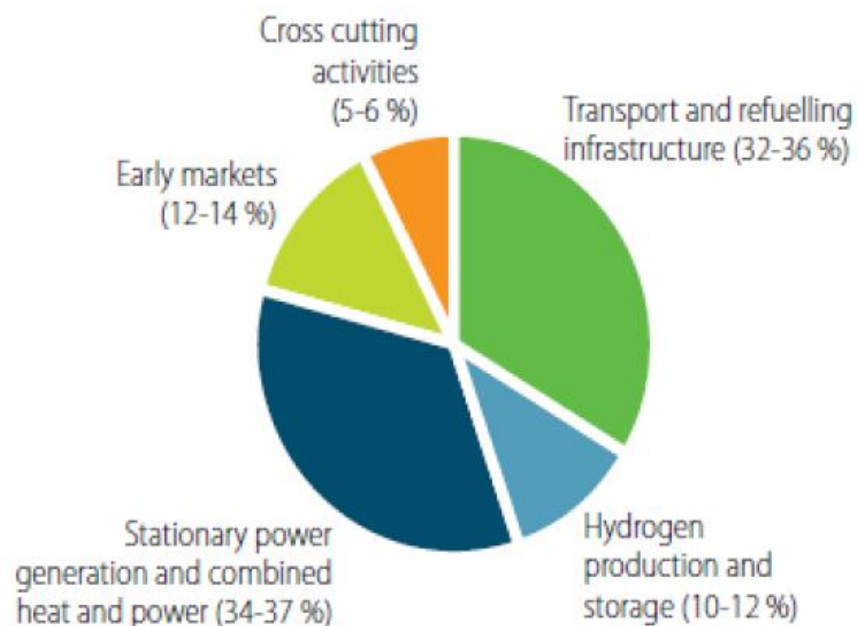
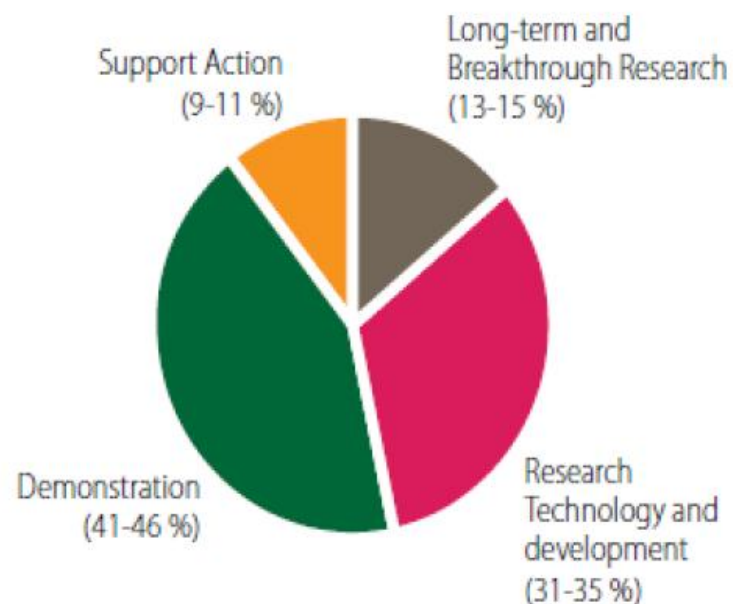
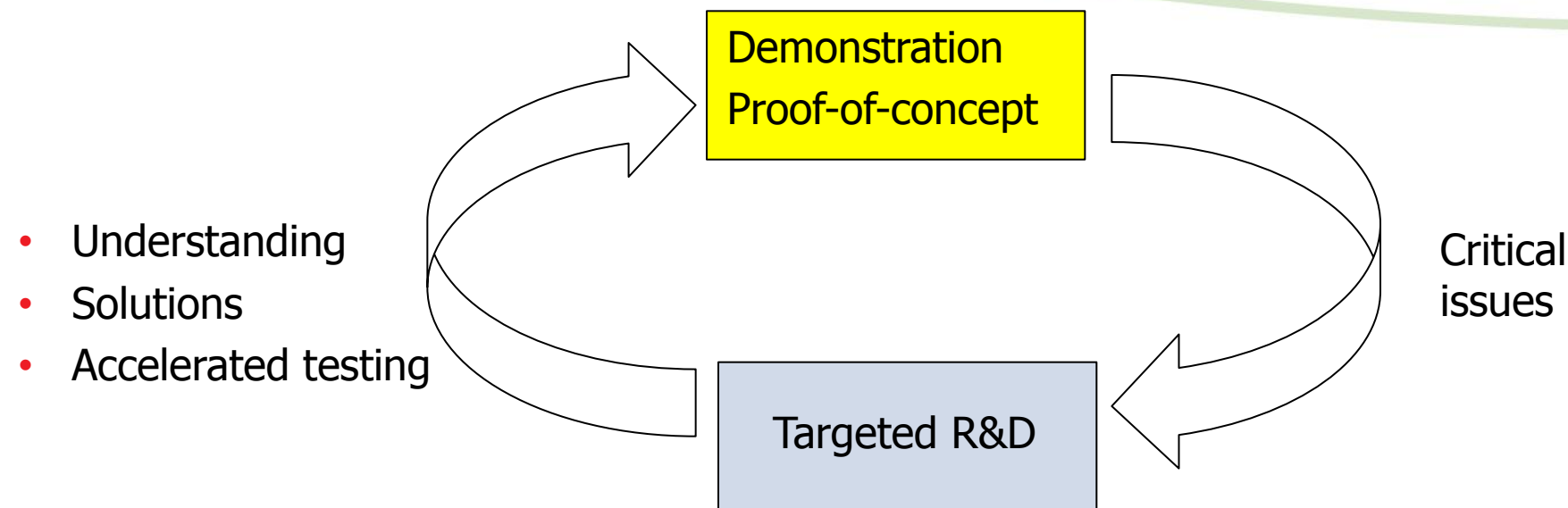


Figure 2: Budget breakdown by activity type



RTD Iteration Loop



- Results from demonstration and proof-of-concept projects can inform new research needs
- Would lead to more emphasis on addressing specific critical issues in project consortia

Example 1: Metal-supported SOFC

- METSOFC

- Metal supported SOFC proof of concept
- Stationary CHP and transport APU
- 1/4/2008 – 31/12/2011

- METSAPP

- 01/11/2011 - 31/10/2014
- Addressing critical issues identified in METSOFC
- High content of understanding and modelling

PEM in Transport R&D

MEA

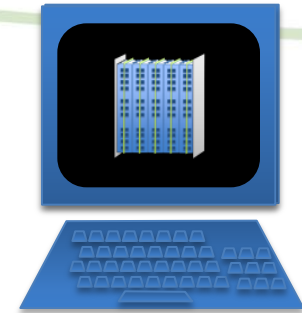
9 projects



Stack
2 projects

Bipolar Plates
2 projects

Modelling
1 project



Advanced HRS
1 project



H₂ Storage
2 projects

Demonstrations with Cars

H2MOVES

19 cars / 1 station

HYTEC

40 cars / 2 stations

SWARM

90 cars / 3 stations

XXX

100 cars / 5 stations

2010

2013

2016

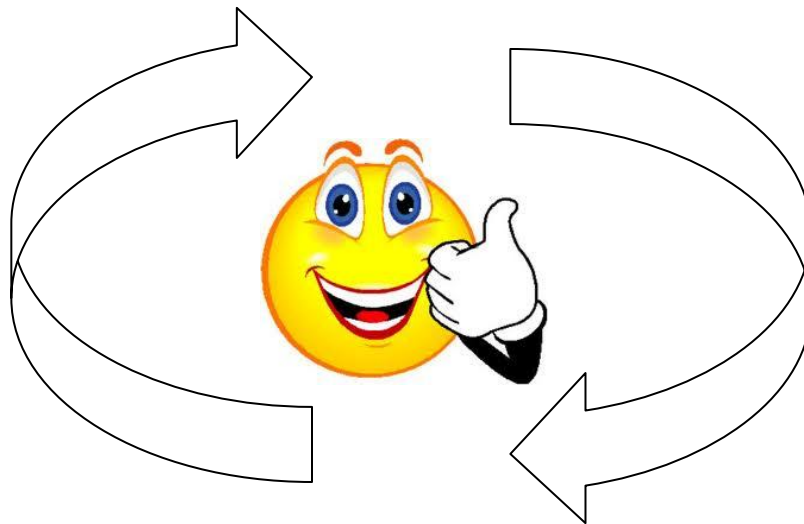
Increased fleets

Extended
infrastructure

Reduction in vehicle
cost

Opportunity

- Interaction between demonstration/proof-of-concept projects and targeted supporting R&D projects presents an **opportunity** for **accelerating** technology development.



Virtuous Circle