

Strong European partnership - ready for take two

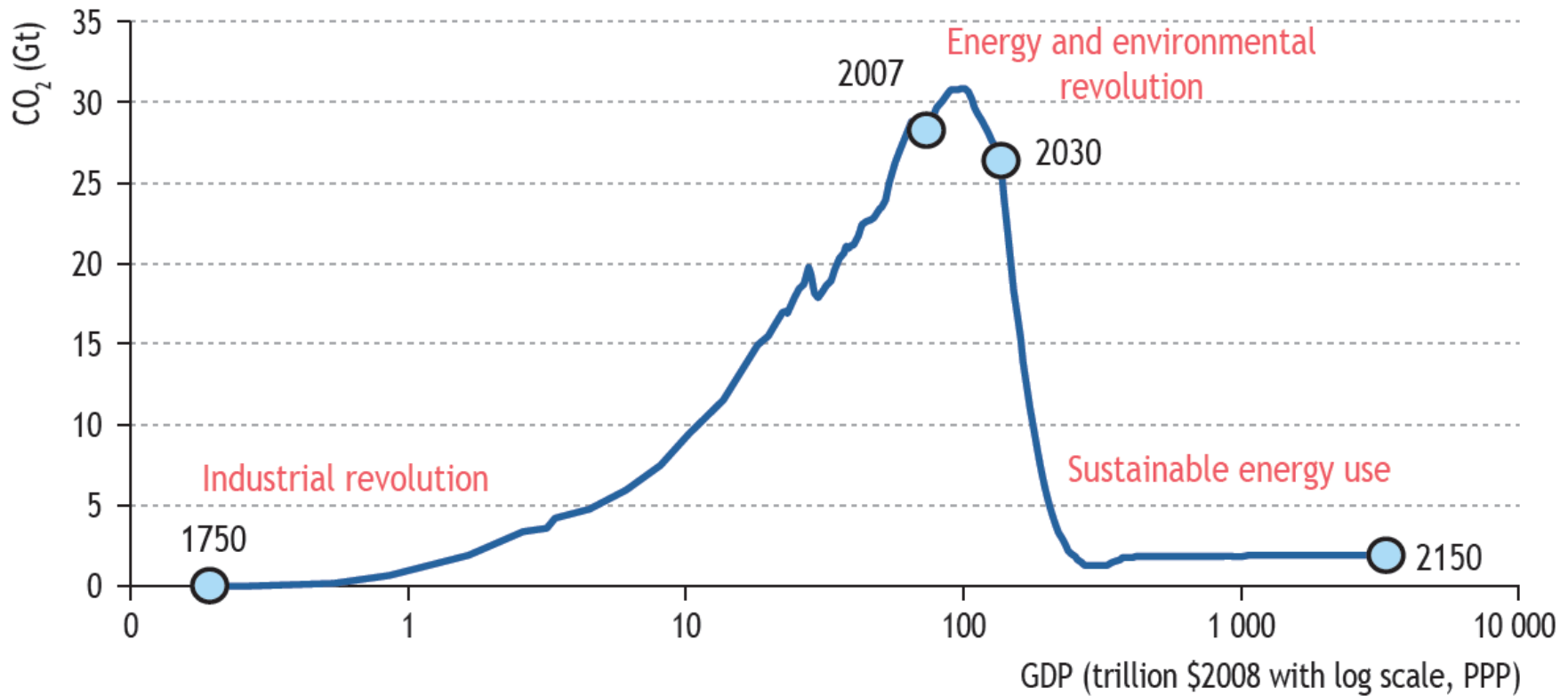


6th Stakeholder General Assembly for the
Fuel Cells and Hydrogen Joint Undertaking

13 November 2013, Brussels

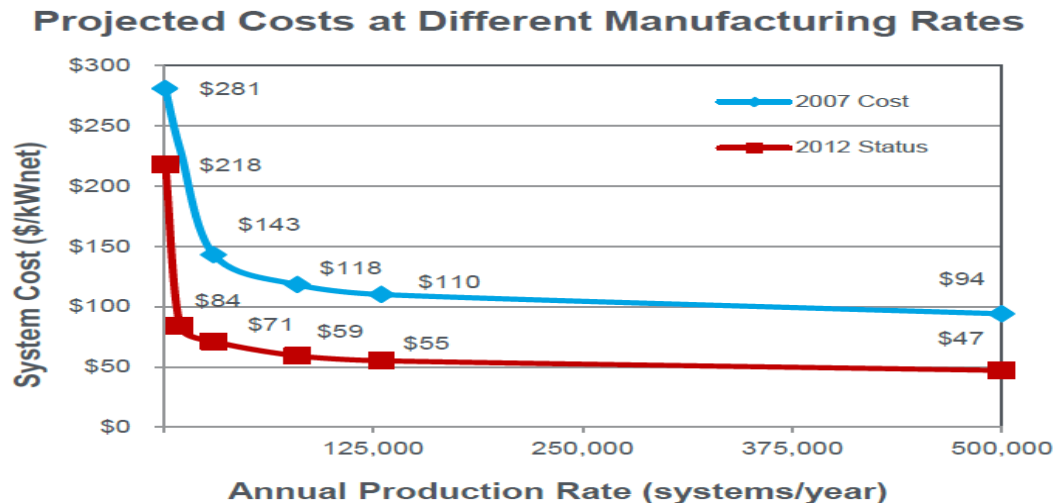
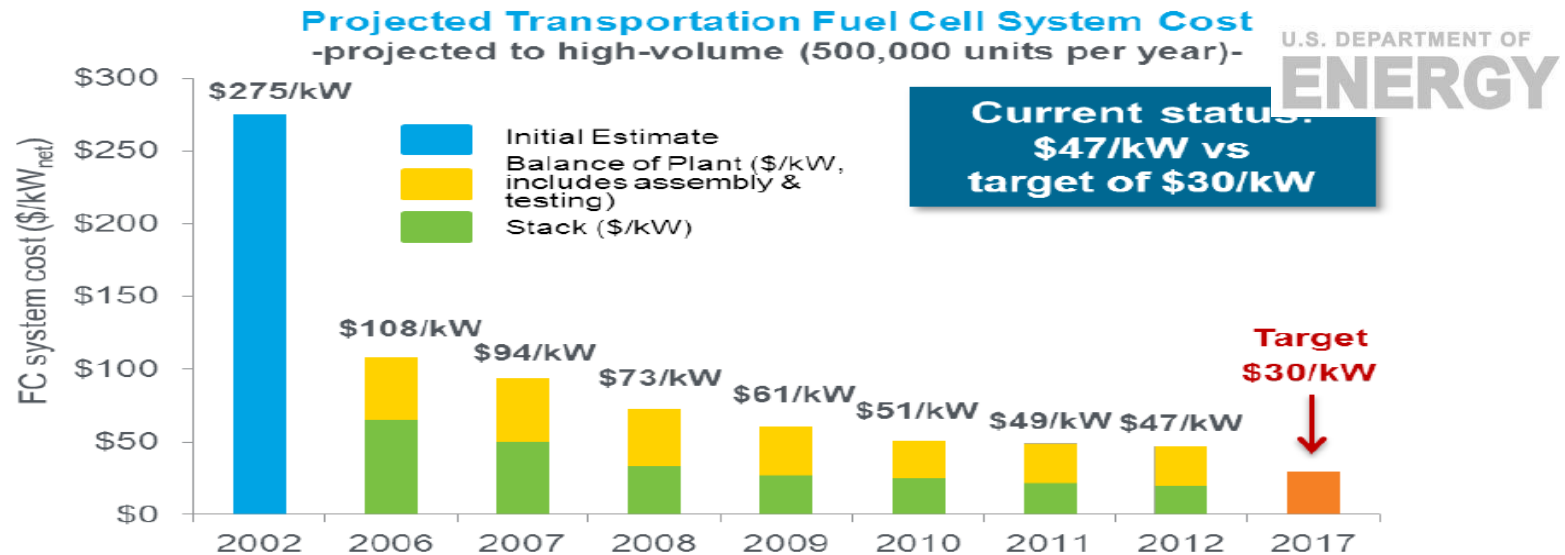
Unni Steinsmo, President and CEO, SINTEF

This is our time. Big challenges. Huge possibilities.







Our responsibility: To take care of the environment, To manage the resources, to create the jobs of the future and the good society.

Fuel Cell Cost evolution, PEMFCs automotive applications



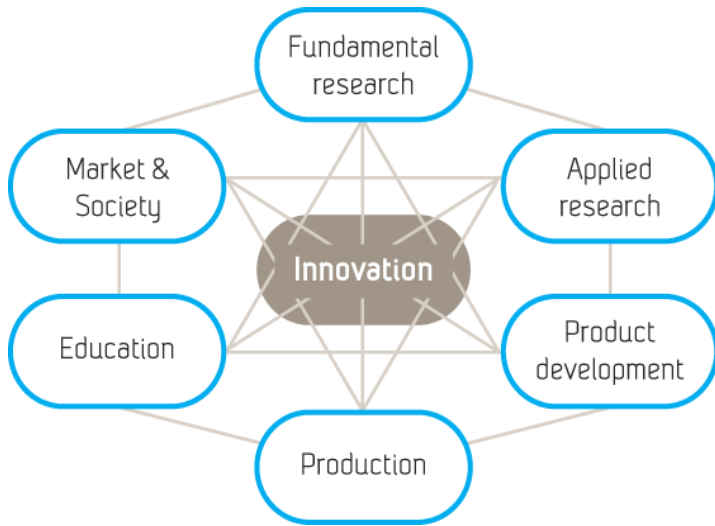
Alternative fuels for transport

	<i>Road</i>						<i>Air</i>	<i>Rail</i>	<i>Water</i>		
											
Range	<i>Urban</i>	<i>Medium</i>	<i>Long</i>	<i>Short</i>	<i>Medium</i>	<i>Long</i>			<i>Inland</i>	<i>Short sea</i>	<i>Maritime</i>
Natural gas					LNG	LNG	✗		LNG	LNG	LNG
Electricity		✗	✗		✗	✗	✗			✗	
Biofuels											
Hydrogen						✗	✗				✗

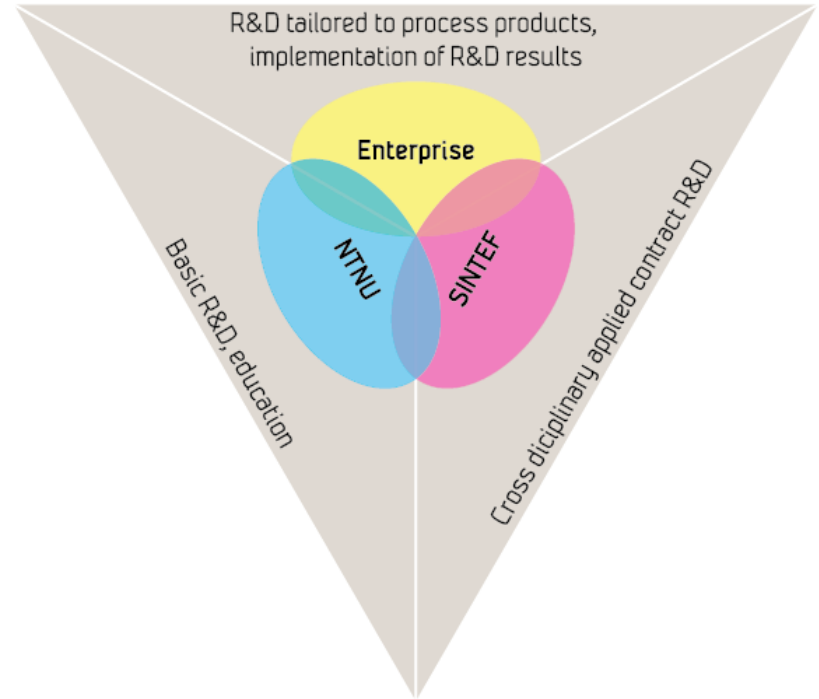
Source: European Commission, DG Transport

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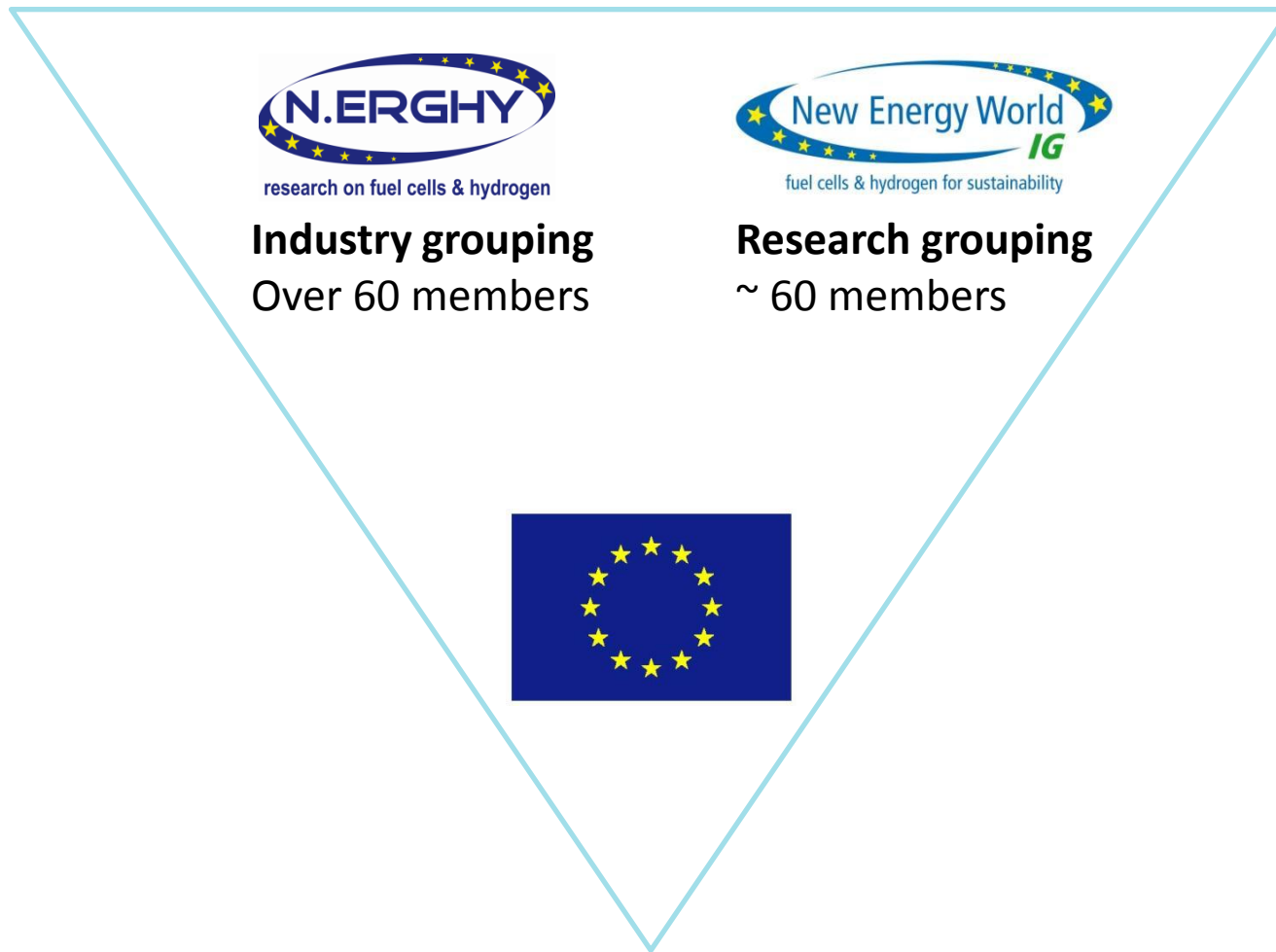
From problem definition through
origination and refinement of ideas
to transformation into something useful



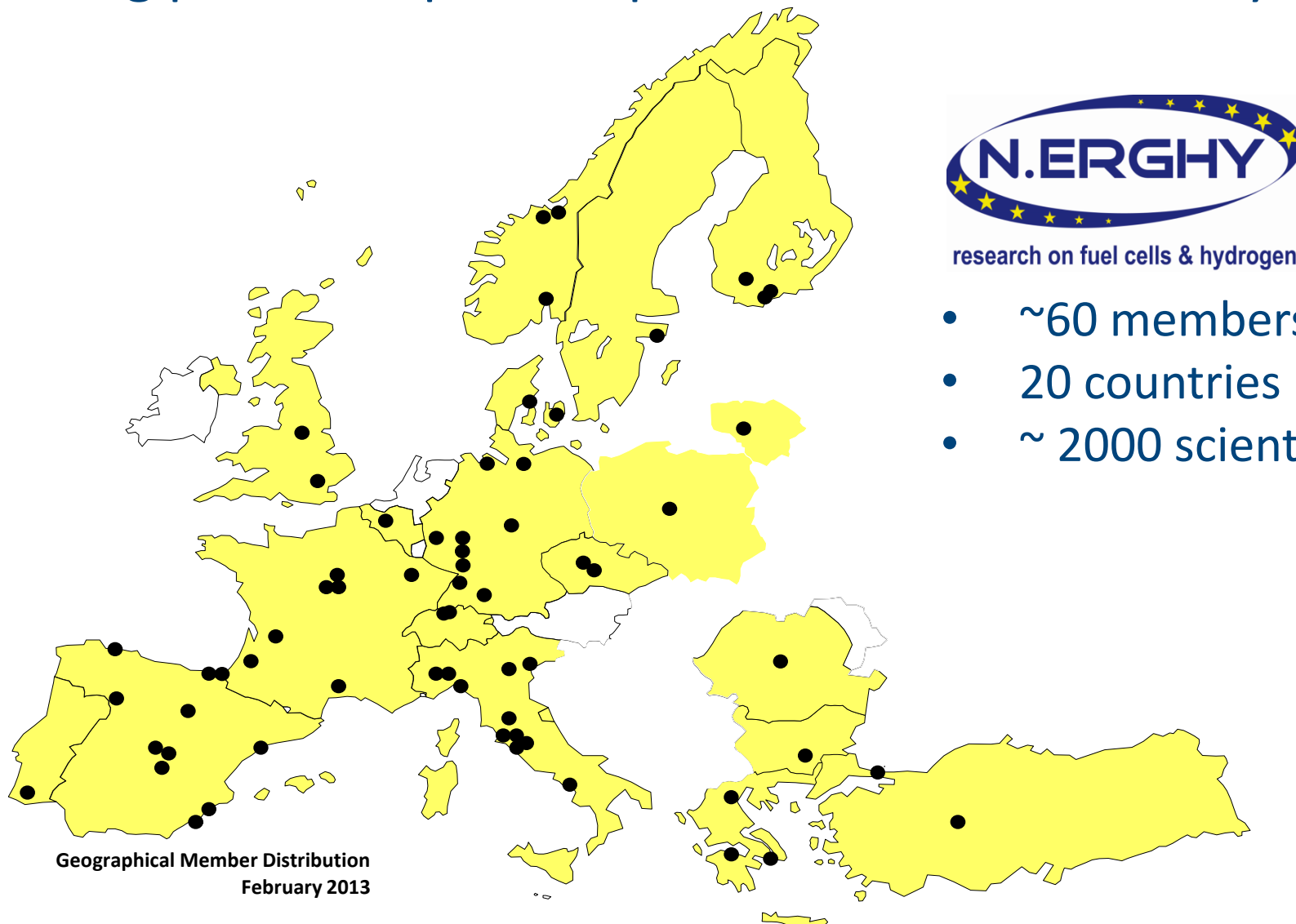
"Problems set and solved in the context of an application"



Strong partnership – industry in the lead



Strong partnership – European research community



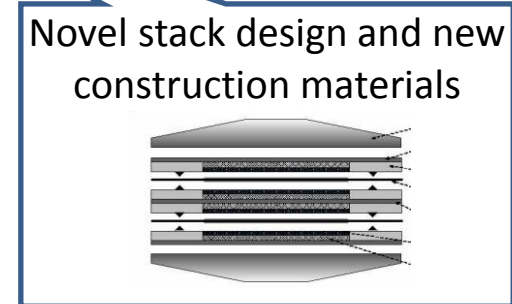
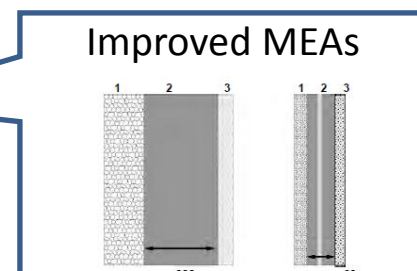
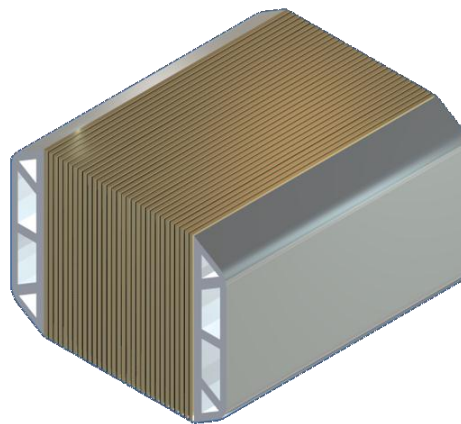
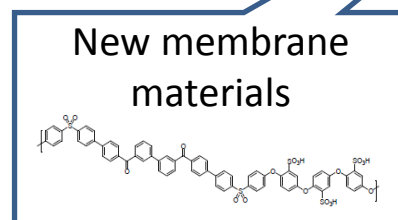
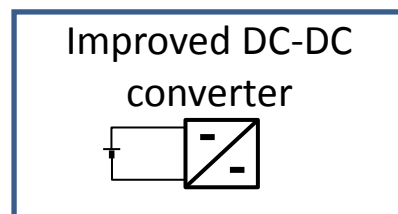
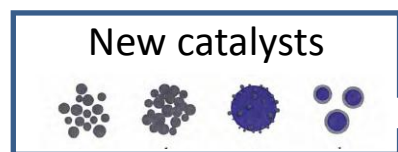
research on fuel cells & hydrogen

- ~60 members
- 20 countries
- ~ 2000 scientists

Geographical Member Distribution
February 2013

NEXPEL main objective:

Develop and demonstrate a PEM water electrolyser integrated with RES:
75% Efficiency (LHV), H₂ production cost ~ €5,000 / Nm³h⁻¹, target lifetime of 40,000 h



Projects under the FCH JU-program w/SINTEF involvement



PreparH2



SMARTCat



Bridging the gap



Source: European Commission, DG Transport



Technology for a better society