



FUEL CELLS AND HYDROGEN
JOINT UNDERTAKING

***Programme
Review
Days 2018***

Mirela Atanasiu

PRD 2018

14-15 November 2018

#PRD2018

#SF2018

Agenda



PROGRAMME REVIEW DAYS 2018
FUEL CELLS AND HYDROGEN JOINT UNDERTAKING
14 - 15 NOVEMBER, BRUSSELS

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WEDNESDAY

08:15 - 08:45
08:45 - 09:00

WEDNESDAY, 14 NOVEMBER 2018

09:00 - 09:20
09:20 - 09:40
09:40 - 10:00
10:00 - 10:20
10:20 - 10:40
10:40 - 11:00

08:15 - 08:45

Registration and coffee

08:45 - 09:00

Opening remarks by

ATANASIU MIRELA, Head of Unit Operations & Communication FCH JU

11:00 - 11:30

11:30 - 11:50
11:50 - 12:10
12:10 - 12:30
12:30 - 12:50
12:50 - 13:10
13:10 - 13:30

Portfolio overview by AGUILO RULLAN ANTONIO, FCH JU

PACE, Pathway to a Competitive European FC mCHP market

AutoRE, Automotive derivative Energy system

CH2P, Cogeneration of Hydrogen and Power using solid oxide based system fed by methane rich gas

DEMCOPEM-2MW, Demonstration of a combined heat and power 2 MWe PEM fuel cell generator and integration into an existing chlorine production plant

CLEARGEN DEMO, The Integration and demonstration of Large Stationary Fuel Cell Systems for Distributed Generation

17:30-18:30 Poster Session (Cocktails and appetizers)

12:10 - 12:30
12:30 - 12:50
12:50 - 13:10
13:10 - 13:30

dc-dc Converter embedded.

HEATSTACK, Production Ready Heat Exchangers and Fuel Cell Stacks for Fuel Cell mCHP

CELL3DITOR, Cost-effective and flexible 3D printed SOFC stacks for commercial applications

qSOFC, Automated mass-manufacturing and quality assurance of Solid Oxide Fuel Cell stacks

INNO - SOFC, Development of innovative 50 kW SOFC system and related value chain



EU Climate and Energy Framework

Making energy more secure, affordable and sustainable



Jean-Claude
Junker

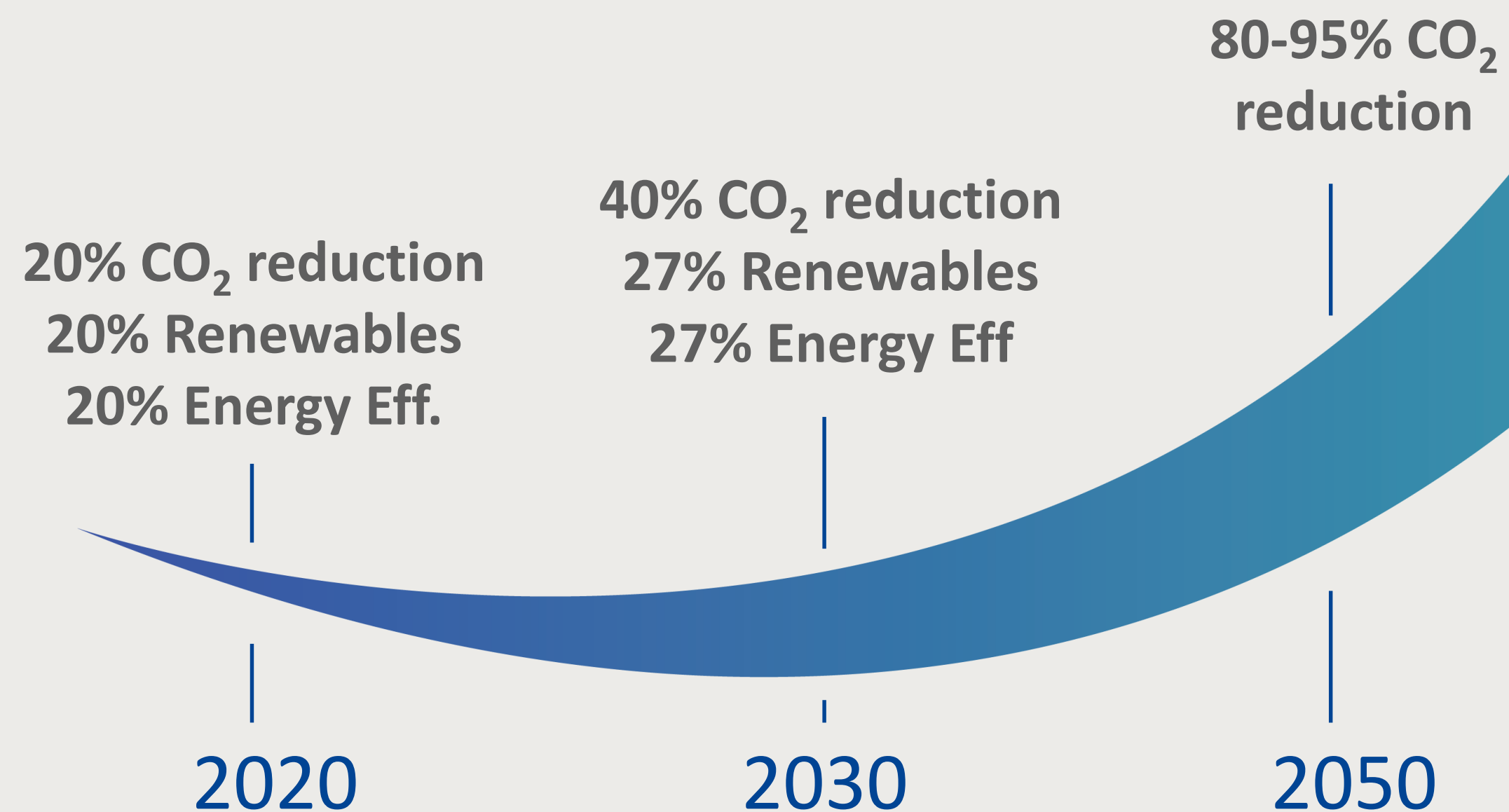
President of the
European
Commission



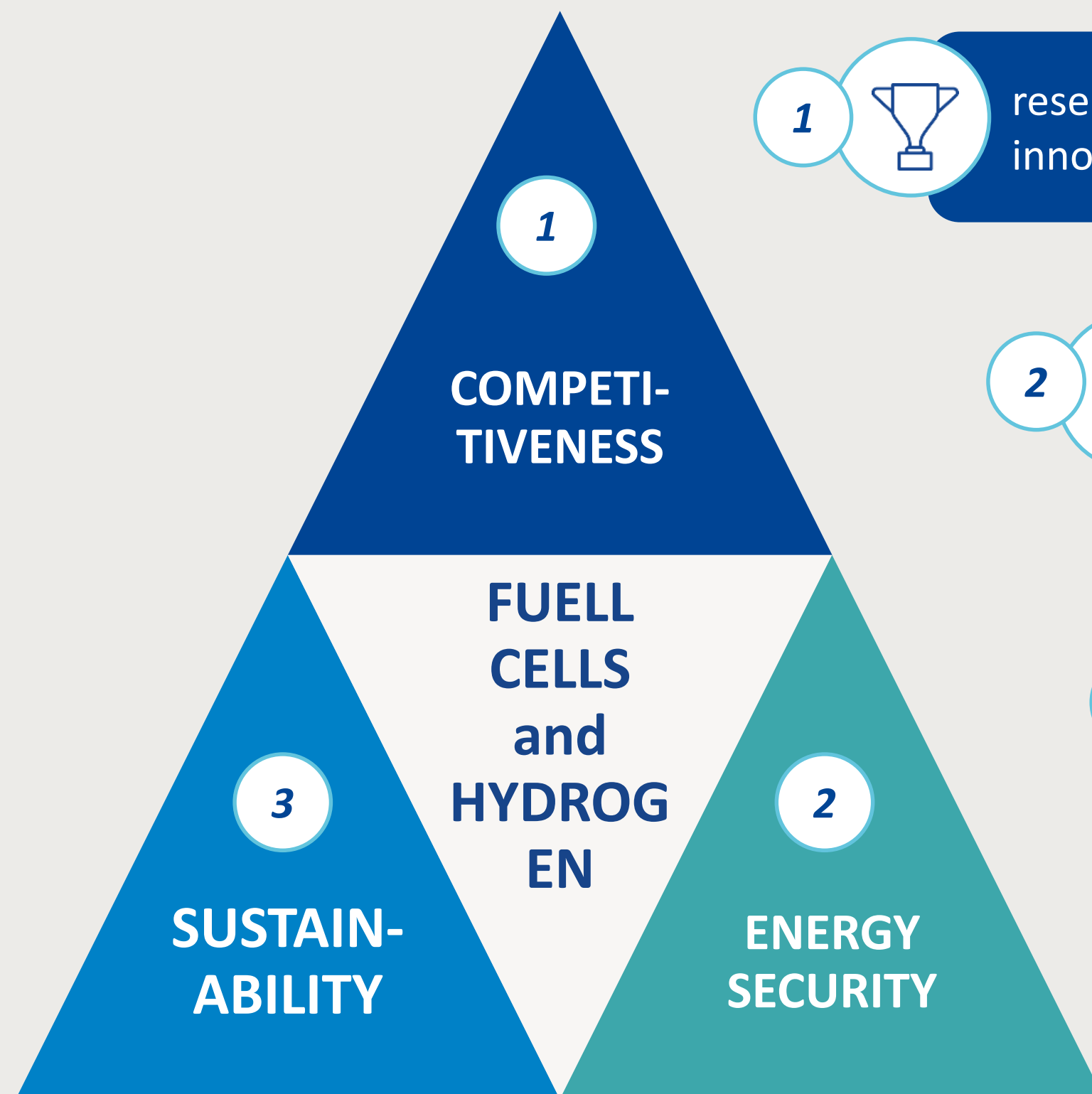
“I want to reform and reorganise Europe’s energy policy in a new European Energy Union”

Energy Union dimensions

- Security, solidarity and trust
- Fully-integrated Internal Energy Market
- Energy Efficiency
- Climate action - decarbonising the economy
- Research, innovation and competitiveness



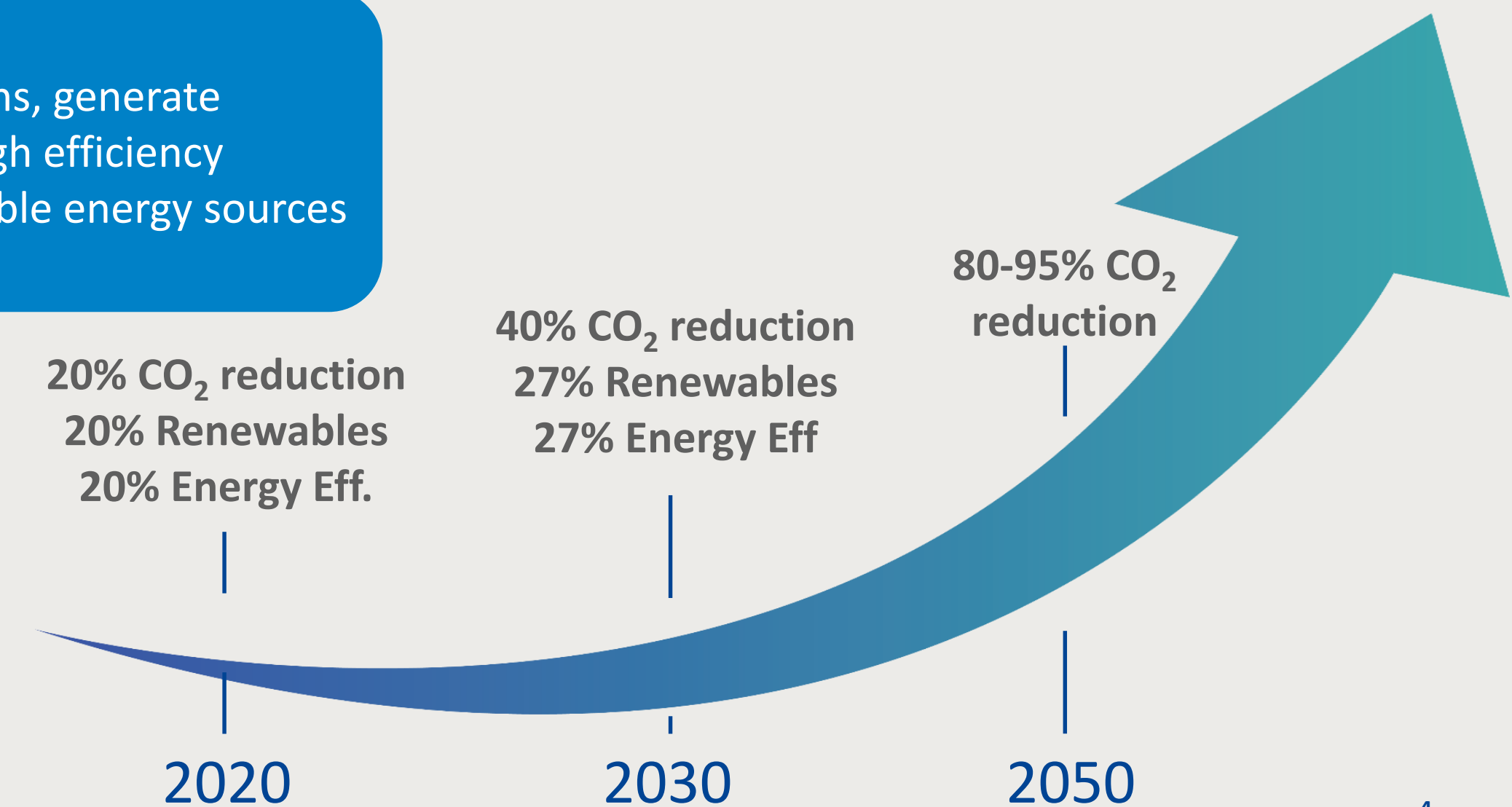
Fuel Cells & Hydrogen technologies in the context of the European Energy policy



1 research excellence leading to industry innovation and growth

2 Increase independence from unstable outside regions

- 3
- H2 is a clean energy carrier
 - Transport and Energy applications, generate electricity and heat with very high efficiency
 - Possibility for storage of renewable energy sources
 - Reduction of CO2 emissions



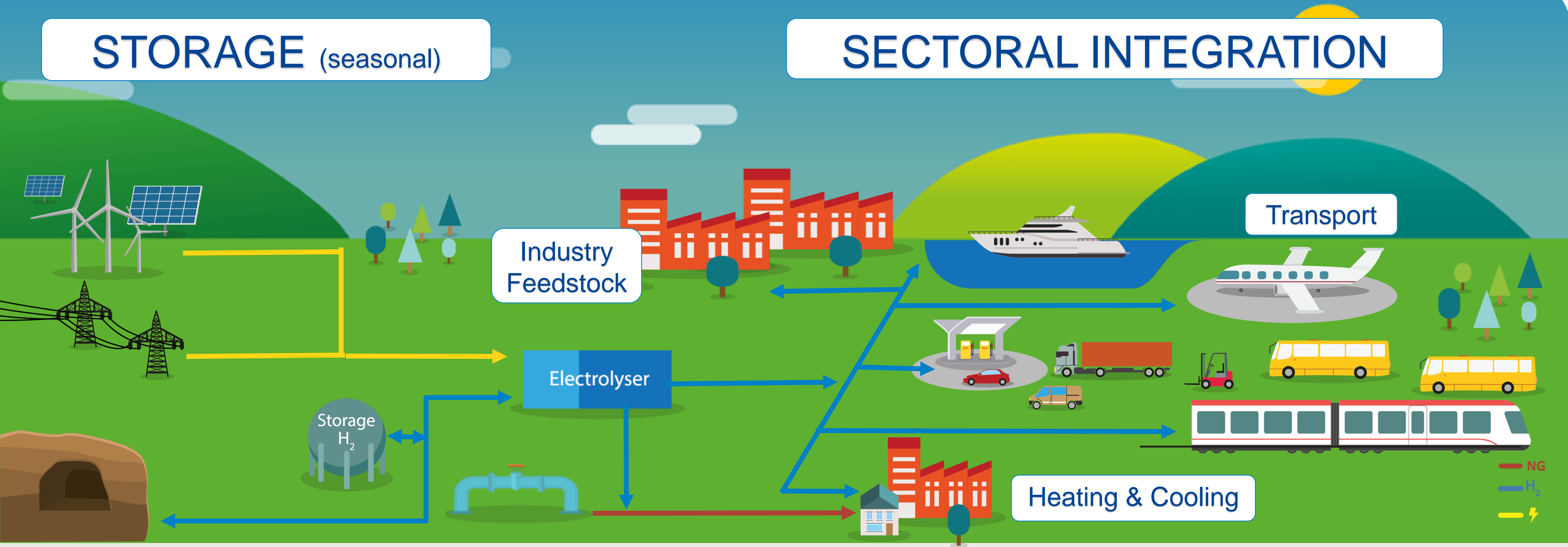
The role of hydrogen in our society & economy

Hydrogen allows more renewables in the energy system through storage and enables sectoral integration



STORAGE (seasonal)

SECTORAL INTEGRATION



Strong public-private partnership with a focused objective

EU Institutional Public-Private Partnership (IPPP)



Fuel Cells & Hydrogen Joint Undertaking (FCH 2 JU)



Industry grouping
More than 130 members
50% SME



European
Commission



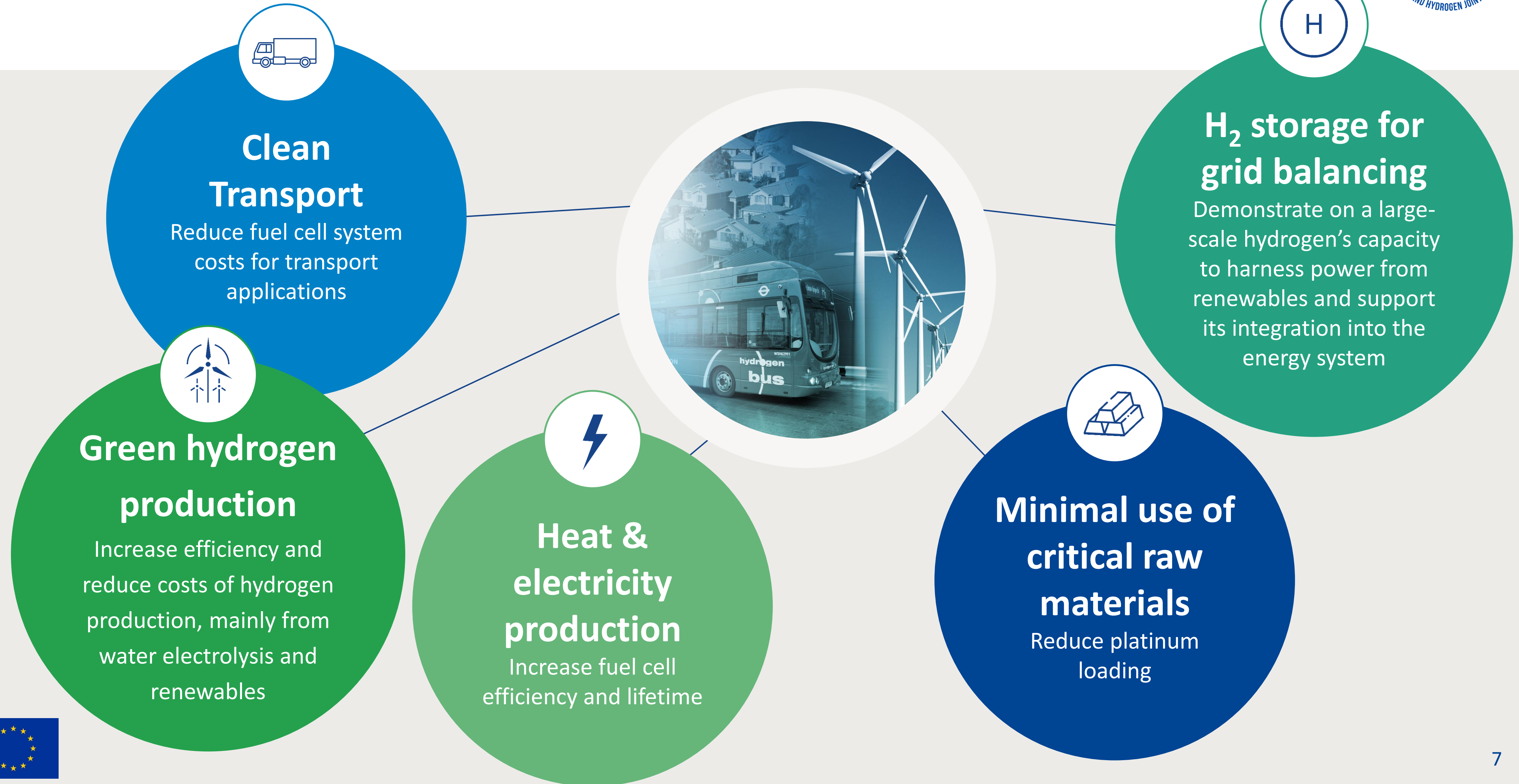
Research grouping
over 60 members

To implement an *optimal research and innovation programme* to bring FCH technologies to the point of market readiness by 2020



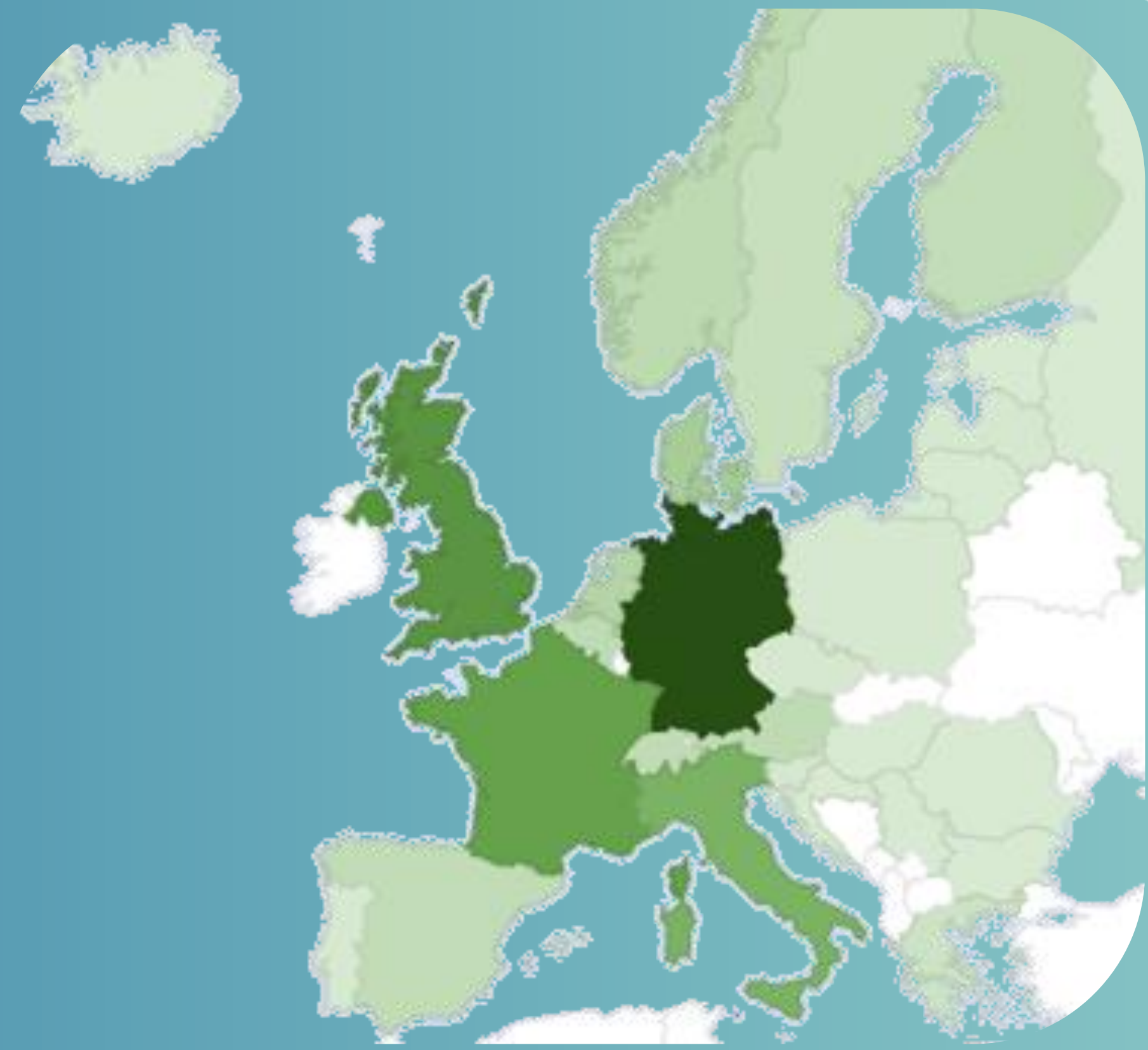
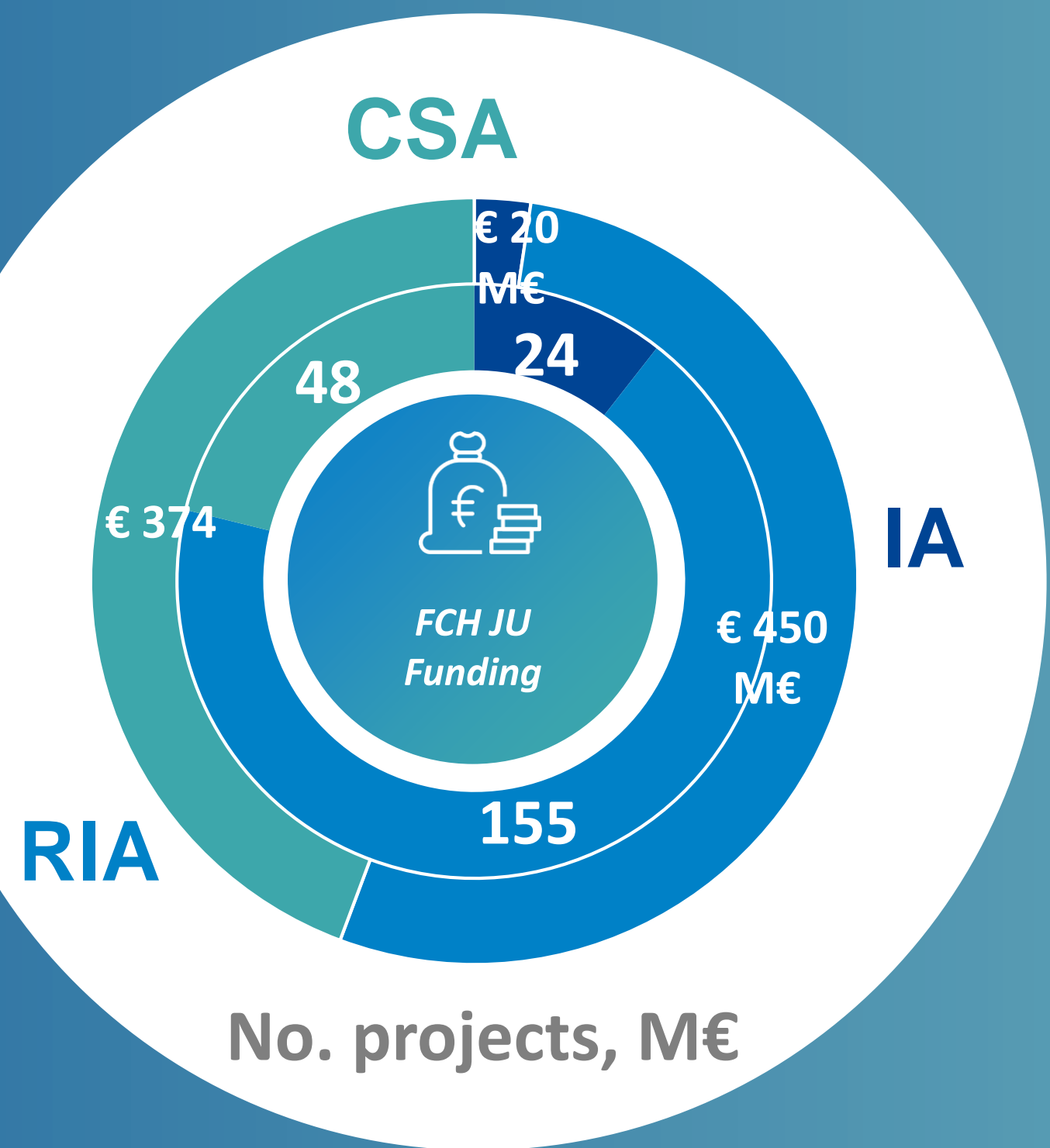
FCH 2 JU Objectives

Market readiness of a portfolio of clean, efficient and affordable solutions for our energy and transport systems



Attracting investment from industry and research

227 projects, 844 M€ public support, on both research and innovation activities



* Other resources including private and national/regional funding
 RIA=Research and Innovation action
 IA=Innovation actions
 CSA=Coordination and Support action

Complex portfolio of projects

From research to validation and field demonstration



■ Trials and Deployment of Fuel Cell applications – Transport



■ Next Generation of products – Transport

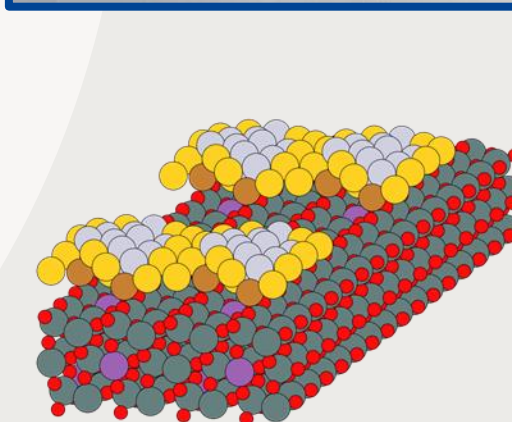
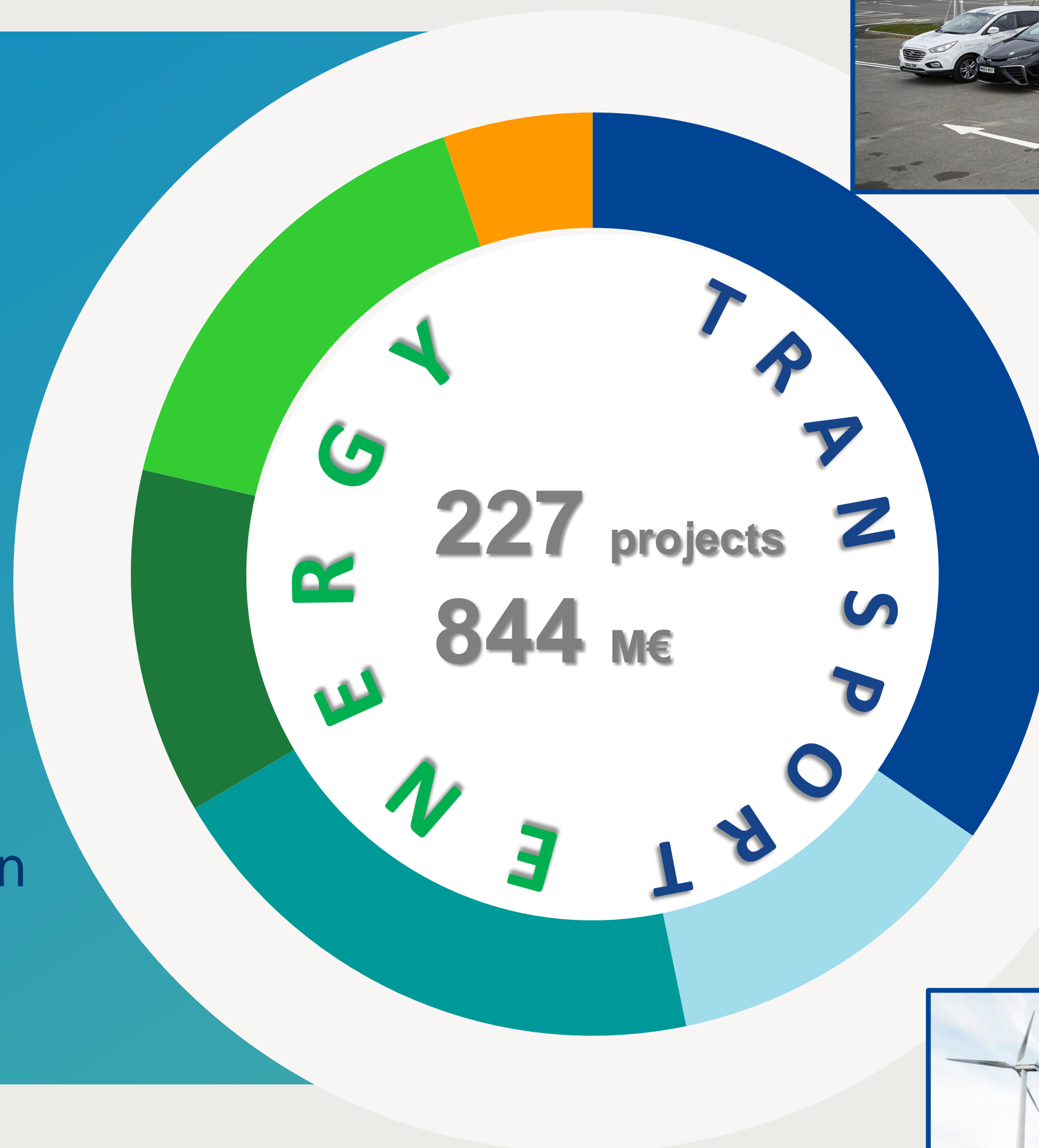
■ Trials and Deployment of Fuel Cell applications – Energy



■ Next Generation of products – Energy

■ Hydrogen for sectorial integration

■ Support for market uptake



Annual Programme Review 2018

Exceptional effort of projects consortia, JRC and Programme Office



- **Annual Programme Review:** annual exercise of PO with support of EC Joint Research Centre (independent experts);
- Analysis by JRC of ongoing portfolio of projects (**87 projects** active in 2017 in this case) against SoA, targets and **Key Performance Indicators** set by the Multi-Annual Work-Plan (MAWP) and Annual Work-Plans (AWPs);
- Collection of annual input from projects (dedicated **EU-Survey Questionnaire**), in addition to contractual documents and project reports; parallel exercise of annual data collection from projects (**through TRUST templates**);
 - *Effort of team of project officers and knowledge management to validate, clean and analyse/extract data for publication; however, substantial amount of data still confidential;*
- Programme Review Days is a **two-day annual event (and communication of results)**:
 - Selected '**success stories**' presentations in **6 different sessions**;
 - **85 project posters** (digitally displayed);
- **Pitching session:** 5 selected FCH JU beneficiaries with the support of the EC DG RTD (SSERR* Service) and financial engineer;
- **Final Programme Review Report (spring 2019).**



Celebrating 10 years of successes



Success Stories Brochure

FCH JU AWARDS 2018

*13 Success Stories
13 Project Innovations
~9000 votes expressed*

**Best Success Story
Best Project Innovation**

Join us for the Awards Ceremony on the 15th Nov. 2018
@AutoWorld



POLLS and Q&A: SLIDO!

During the PRD 2018, use SliDo! to ask your questions and answer our polls...

Use your smartphone; go to www.sli.do and insert the code **#PRD2018**

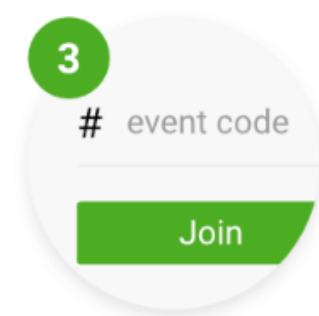
3 easy steps
for your audience to join in



Open browser



Go to slido.com

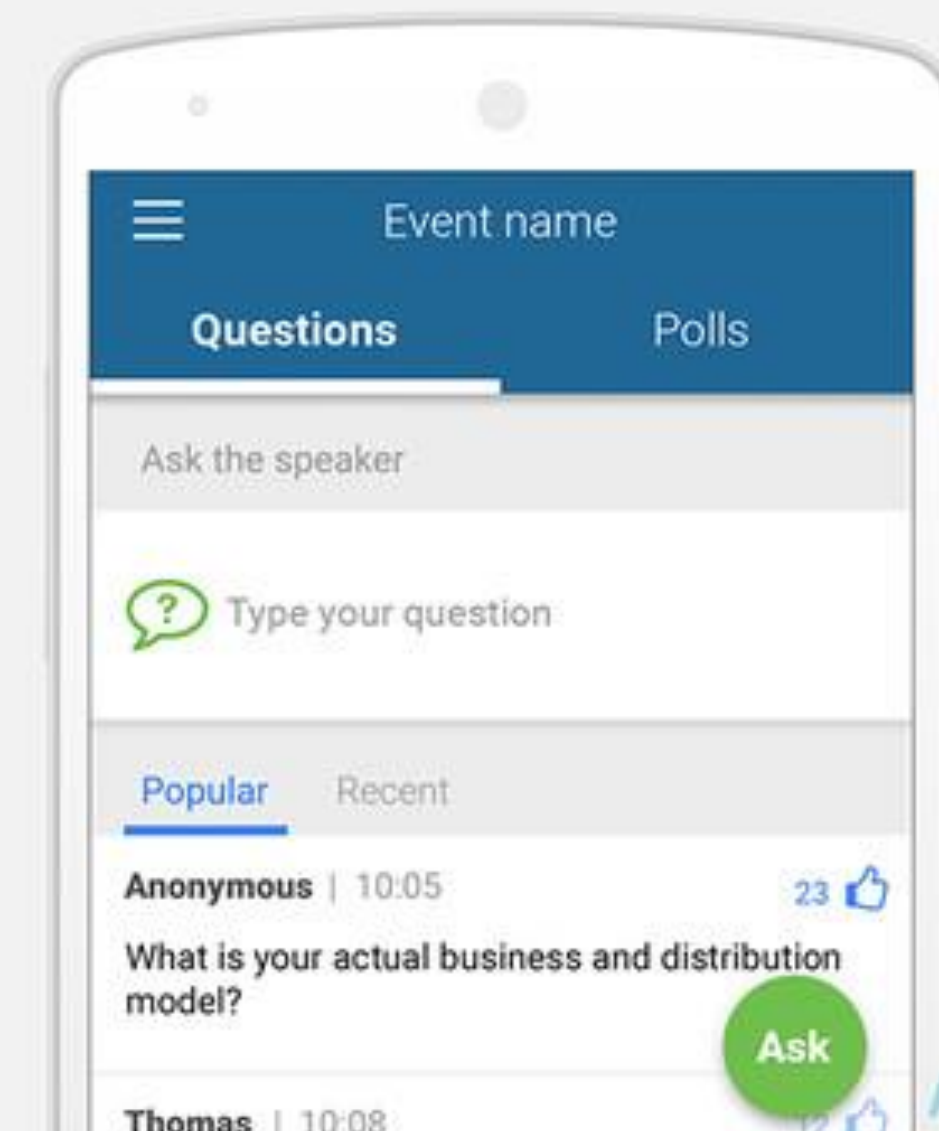


Enter event code

Join the conversation

at your event

- ✓ ask questions
- ✓ vote on live polls





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Mirela Atanasiu

Head of Unit – Operations and Communication

Mirela.Atanasiu@fch.europa.eu

For further information

www.fch.europa.eu

www.hydrogeneurope.eu

www.nerghy.eu



@fch_ju



Fch-ju@fch.europa.eu



FCH JU