

Introduction to FCH 2 JU and call 2019

Mirela Atanasiu Head of Unit



FUEL CELLS AND HYDROGEN JOINT UNDERTAKING



EU Climate and Energy Framework

Making energy more secure, affordable and sustainable



President of the European Commission



Union"

Energy Union dimensions

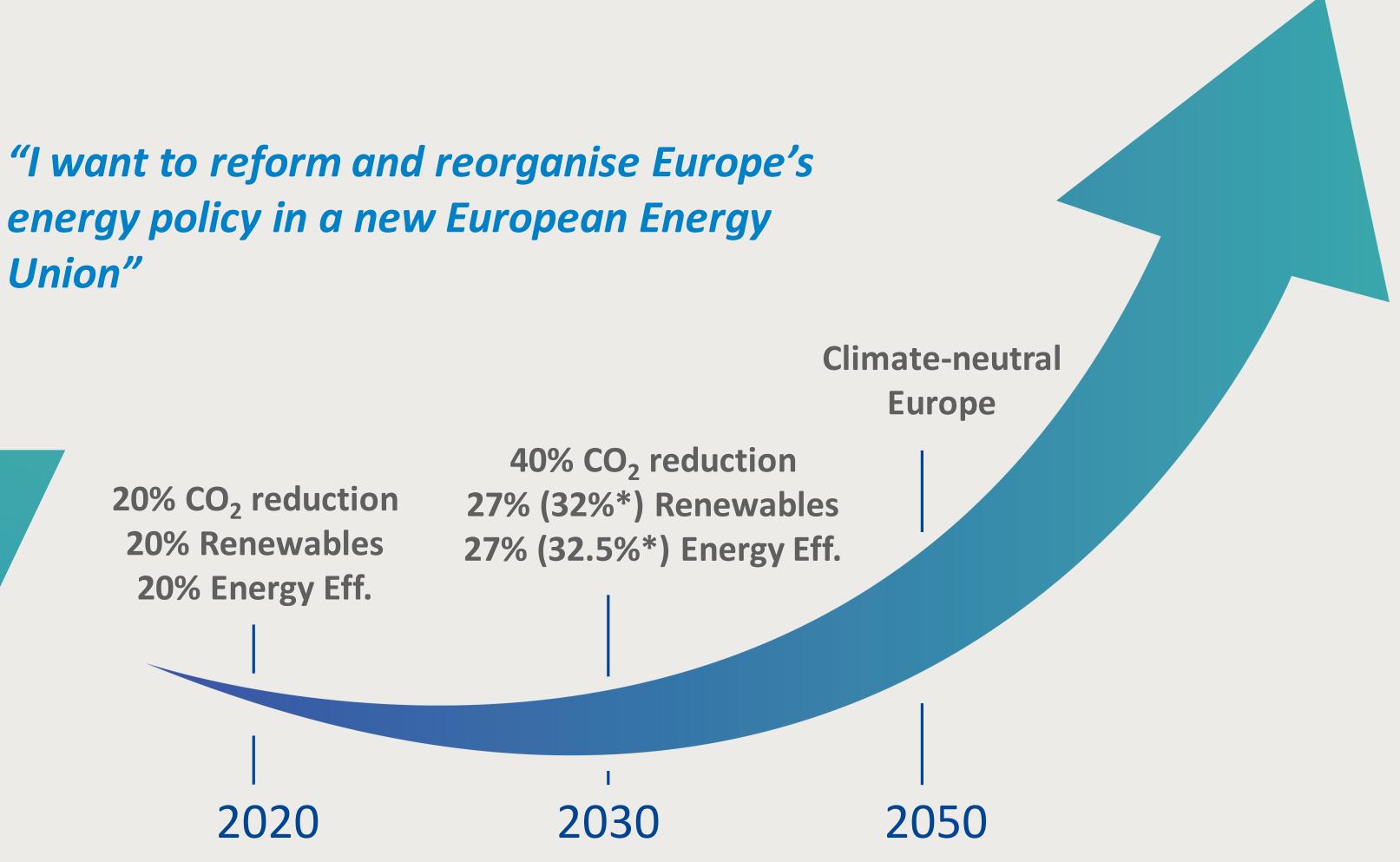
- Security, solidarity and trust
- Fully-integrated Internal Energy Market
- Energy Efficiency
- *Climate action decarbonising the economy*
- Research, innovation and competitiveness

20% CO₂ reduction **20% Renewables 20% Energy Eff.**



* 14 June 2018: Commission, Parliament and Council Political Agreement



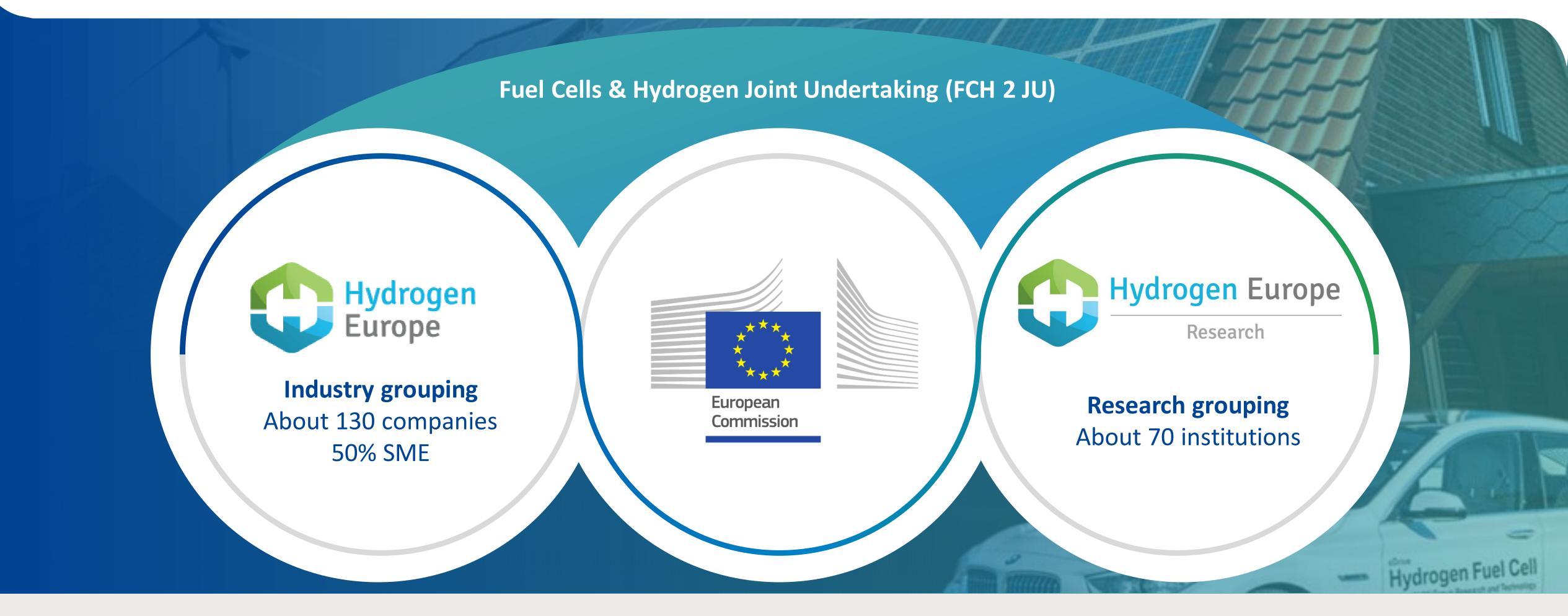






Strong public-private partnership with a focused objective

EU Institutional Public-Private Partnership (IPPP)





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/

Clean

Transport

Reduce fuel cell system costs for transport applications

Green hydrogen production

Increase efficiency and reduce costs of hydrogen production, mainly from water electrolysis and renewables

Heat & electricity production

Increase fuel cell efficiency and lifetime





H₂ storage for grid balancing

Η

Demonstrate on a largescale hydrogen's capacity to harness power from renewables and support its integration into the energy system

Minimal use of critical raw materials

Reduce platinum loading







FCH 2 JU Programme structure

ENERGY

- Hydrogen production and distribution
- Hydrogen storage for renewable energy integration
- Fuel cells for power & combined heat & power generation







TRANSPORT

- Road vehicles
- Non-road vehicles and machinery
- Refuelling infrastructure
- Maritime, rail and aviation applications

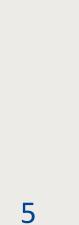
CROSS-CUTTING

 \Box

(e.g. standards, safety, education, consumer awareness, ...)

FCH 2 JU:

Total Budget: at least **1.3** bill.€ **EU contribution: 665 mill.€**



FCH JU programme implementation (2008-2018)

Energy

- Hydrogen production and distribution
- Hydrogen storage for renewable energy integration
- Fuel cells for power & combined heat & power generation

Transport

- **Road vehicles**
- Non-road vehicles and machinery
- **Refuelling infrastructure**
- Maritime rail and aviation applications

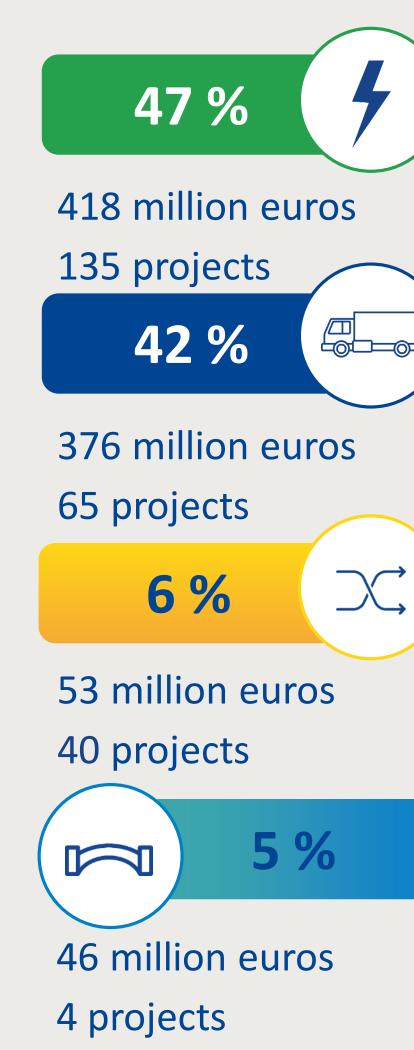
Cross-cutting

E.g. standards, safety, education, consumer awareness ...



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244 projects supported for 893 M€

Similar leverage of other sources of funding: 892 m€





Call 2019 overview

Reflects the industry and research partners' assessment of the state of the technological maturity of the applications and their estimated importance to achieve critical objectives of the FCH 2 JU

Call identifier: H2020-JTI-FCH-2019-1

Total budget: EUR 80.8 million

Opening date: 15 of January 2019

Estimated deadline: 23 of April 2019

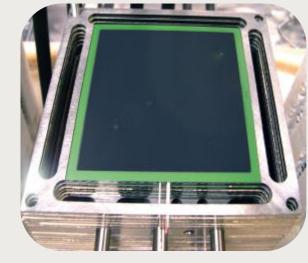
Content (17 topics in different sub-budget lists):

Transport activities: 3 IA and 2 RIA for EUR 27.3 million Energy activities: 3 IA and 5 RIA for EUR 28.5 million Overarching activities: 1 IA for EUR 20 million Cross-cutting activities: 2 RIA and 1 CSA for EUR 5 million

















International cooperation

Renewable and Clean Hydrogen Challenge under Mission Innovation

H2020 is open to the world - All topics are opened to international cooperation

In particular international cooperation is strongly encouraged with Mission Innovation countries and for the 6 topics identified with this logo

Mission Innovation



- → Launched in May 2018
- \rightarrow 16 countries
- Objective: "To accelerate the development of a global hydrogen market by identifying & overcoming key technology barriers to the production, distribution, storage, and use of hydrogen at GW scale"

→ Scope:

- focused multinational research & large scale demonstration efforts
- from both public & private sectors
- industry-directed breakthroughs within the next 3 years
- renewable & clean hydrogen
- 4 activity streams: making, sharing, using hydrogen & cross-cutting issues

→ Australia, EU & Germany as co-lead countries















Event's practicalities/Logistics

- 09:35 10:30 Call topics presentations
- 10:30 11:00 Networking coffee
- 11:00 13:00 Rules, legal & financial aspects, lessons learned
- 13:00 13:30 Brokerage event H2 Valley
- 13:30 14:30 Lunch
- **14:30 16:00 Brokerage event**
- 16:00 17:00 Networking cocktail

Web Streamed online during morning plenary session (recordings accessible for free on our website after the event): <u>https://fch.webex.com/join/BFCH2JU</u>

Questions?

Take your smartphone; go to <u>WWW.Sli.dO</u> and insert the code **#FCHJU**

Answers will be provided during the two Q&A sessions on the day





Twitter **#FCHJU_infoday19**







Brokerage

<u>3 Brokerage parallel sessions (moderated by Project Officers)</u> - follow signs and paper guidance Following interest in your registration form

Participation to the brokerage sessions

Short presentation with slides? Please make sure you are present 15 minutes before your brokerage session starts in order to upload your presentation in advance. No upload will be possible once the session has started.











Mirela Atanasiu

HoU – Operations and Communication Mirela.Atanasiu@fch.europa.eu

For further information

www.fch.europa.eu www.hydrogeneurope.eu www.hydrogeneurope.eu/research



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