



International Partnership  
for Hydrogen and Fuel Cells  
in the Economy

## *European Commission* Update

38<sup>th</sup> IPHE Steering Committee Meeting  
29 – 30 November 2022  
San José, Costa Rica

# Announcements / European Commission

## • Deployment activities:

### 1st Wave - IPCEI Hy2Tech

- 41 projects from 35 companies in 15 Member States
- €5.4bn aid approved
- Triggering €8.8bn private investments
- Constructing 33 automated production lines for electrolyser manufacturing
- Creating 18.000 direct jobs
- Supporting 2.000 young scientists

Commission approves up to €5.4 billion support by 15 Member States for an Important Project of Common European Interest (IPCEI) in the **Hydrogen Technology value chain** "IPCEI Hy2Tech"



\*SME



# Announcements / European Commission

## 2nd Wave - IPCEI Hy2Use

- 35 projects from 29 companies in 13 Member States + 2 Projects from Norway
- €5.2bn aid approved
- Triggering €7bn private investments
- IPCEI Hy2Use will support (i) the construction of hydrogen-related infrastructure, notably large-scale electrolysers and transport infrastructure, for the production, storage and transport of renewable and low-carbon hydrogen; and (ii) the development of innovative and more sustainable technologies for the integration of hydrogen into the industrial processes of multiple sectors, especially those that are more challenging to decarbonise, such as steel, cement and glass.

Commission approves up to €5.2 billion support by 13 Member States for an Important Project of Common European Interest (IPCEI) in the **Hydrogen value chain** "IPCEI Hy2Use"



# Announcements / *European Commission*

## Projects under **Climate, Environmental protection and Energy Aid Guidelines (CEEAG)**.

For stand-alone or dedicated infrastructure projects, environmental protection projects, there are other more suitable and streamlined State aid compatibility rules, such as the CEEAG.

- 3 projects are supported under this scheme:
  - **Project from BASF:** The European Commission has approved the German government's plan to provide BASF with EUR 134 million in aid for the production of green hydrogen, thereby helping BASF to contribute to the “greening of the chemical value chain and the transport sector,”
  - **Projects from Salzgitter AG.** EUR 1 billion for the SALCOS<sup>®</sup> - Salzgitter Low CO<sub>2</sub>Steelmaking transformation program. SALCOS<sup>®</sup> is aimed at converting steel production at Salzgitter into low carbon crude steel production in three stages over the period up until 2033. The first stage with a crude steel capacity of 1.9 million tons a year is scheduled to go live as early as the end of 2025. As part of the full transformation, two direct reduction plants and three electric arc furnaces will be built and will then incrementally replace the blast furnaces and converters.. Approximately 95 % of the annual carbon emissions totalling around 8 million tons are to be saved, thereby avoiding approximately 1 % of Germany’s carbon emissions.
  - **Project from Cobra.** The European Commission has approved a EUR 220 million grant to support Cobra - a Spanish infrastructure company - in the production of renewable hydrogen.

## Innovation Fund

- Among the 17 projects selected for grant agreement (total budget EUR 1.5 billion), three are directly addressing clean hydrogen production and use:
- The **HH** (Holland Hydrogen) project, which will supply a **400 MW electrolyser** with Dutch offshore wind (200MW trial by 2025, 400MW by 2027). The produced hydrogen will be supplied to the Pernis refinery via a new high capacity “open-access” 40 km pipeline to replace fossil derived hydrogen use in the production of road fuels.
- The **FUREC** project (Fuse, Reuse, Recycle), will process non-recyclable solid waste streams and transform them primarily into hydrogen. The process will first be deployed at Chemelot, Geleen, the Netherlands, a major chemicals cluster with excellent logistical connections for waste collection and potential for future carbon dioxide utilisation and storage. The capacity of the FUREC project produces **54 kt per year of hydrogen**.
- The **ELYgator** project, a **200 MW electrolysis project** in Terneuzen (Netherlands), which will produce 15,500 tonnes of renewable hydrogen per year. The goal of the project is to demonstrate an innovative and highly flexible large-scale electrolyser, fully sourced with renewable energy and fully integrated in the cross-border industrial basin.

## Innovation Fund

- The third call for large-scale projects was launched on 3 November 2022. With a budget of EUR 3 billion – double the budget of the previous call. This call also contains specific topics with allocated budget as follows:
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- **General decarbonisation** (budget: €1 billion) seeking innovative projects in renewable energy, energy-intensive industries, energy storage or carbon capture, use, and storage, as well as products substituting carbon-intensive ones (notably low-carbon transport fuels, including for maritime and aviation);
- **Innovative electrification in industry and hydrogen** (budget: €1 billion) seeking innovative projects in electrification methods to replace fossil fuel use in industry as well as renewable hydrogen production or hydrogen uptake in industry;
- **Clean tech manufacturing** (budget: €0.7 billion) seeking innovative projects in manufacturing of components as well as final equipment for electrolysers and fuel cells, renewable energy, energy storage and heat pumps;
- **Mid-sized pilots** (budget: €0.3 billion) seeking highly innovative projects in disruptive or breakthrough technologies in deep decarbonisation in all eligible sectors of the Fund. Projects should prove the innovation in an operational environment but would not be expected to reach large-scale demonstration or commercial production.

# Thank you



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