



Hydrogen Europe
Research

Policy Working Group

6 October 2023

Agenda

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▶ HER Activities

Update on our activities



PFAS ban consultation

- Submission of our answer to the ECHA consultation on a universal PFAS ban.
- Liaising with Hydrogen Europe to provide them with additional data.
- The ECHA received over 5000 stakeholder submissions the consultation - record level!

The next steps will be monitored.

Upcoming:

- Hydrogen Valleys follow up (internal)
- Consultation on the future of the Clean Hydrogen Partnership (internal)



Latest updates on ▶ EU institutions' activities

Changes in the College of Commissioners



- Ivana Ivanova is officially appointed as the replacement of Mariya Gabriel as Commissioner for Innovation, Research, Culture and Education who has become Bulgaria's Minister for Foreign Affairs.
- She is appointed until 30 October 2024.

- In August Frans Timmermans announced its resignation as Executive Vice-President in charge of the *Green Deal*.
- Replaced by Maroš Šefčovič, expanding his portfolio to become Executive Vice-President in charge of the European Green Deal, and Wopke Hoekstra appointed as Commissioner for Climate Action.
- Their approval by the EP was confirmed on 4 October, following their unsuccessful hearings on 2 & 3 October.



On 5 September the Commissioner for Competition, Margrethe Vestager, announced that she was taking leave of the European Commission as she confirmed her official candidacy for the presidency of the EIB.

Hydrogen Bank - Terms and conditions



Hydrogen Bank - publication of the [Terms and Conditions](#), first auction opening on 23 November.

- Fixed premium in €/kg of renewable hydrogen produced over ten years of operation.
- The hydrogen produced must be **certified in line with the additionality criteria**.
- Disclosed ceiling price: 4,50€/kg of hydrogen produced as a maximum bid for the fixed premium.
- Maximum grant amount: within 1/3rd of the total available Innovation Fund budget for the auction (800 M€) for one proposal.
- Minimum technical requirements: **5Mwe of newly installed electrolyser capacity in a single location.**
- Maximum time to entry into operation: 5 years after the grant agreement.

Potential adjustments after the first round.

NZIA & STEP

Net Zero Industry Act

- European Parliament: expected adoption of the position in ITRE committee on 25 October.
- Council: Proposal from the Spanish presidency in September to add in the list of net zero technologies “*biotech climate and energy solutions*” and “*transformative industrial technologies for decarbonisation*”
- 12 associations warned the EU Council on 6 October against extending the list of strategic technologies as part of NZIA. This could “*contradict the NZIA objectives to ramp-up production of clean technologies*”

Strategic Technologies for Europe Platform (‘STEP’) - new funds and reallocation

- STEP 10b€ budget proposed by the EC, from funds reallocated and new budget.
- Compromise as a “Sovereignty Fund” was not proposed
- European Parliament: found the budget too limited in comparison to the IRA. Propose +3b€. Stressed the need to simplify and rationalise the fund operation and scope of action = using the same terminology than other funds.
- Council: several countries have expressed reservations about injecting new funds into the budget.

Hydrogen: EU & international



International - Kenya's Hydrogen Roadmap

- During the 'African Climate Summit' held in Nairobi (Kenya) from 4 to 6 September, the President of the European Commission and the President of Kenya jointly announced the **launch of Kenya's green hydrogen strategy and roadmap**.
- Initiative part of the EU 'Global Gateway' strategy to support global efforts to combat climate change.
- The EU is committing nearly €12 million in grants to mobilise public and private investment in Kenya's green hydrogen industry.

Critical raw Materials Act

- **Council** adopted its position on 30 June. Notable differences with the EC proposals include:
 - Increased targets for the transformation (50% instead of 40%) and recycling (20% instead of 10%) of strategic and critical raw materials in the EU by 2030.
 - Inclusion of **aluminium as a strategic CRM** and bauxite as a CRM.
- **EP** adopted its position on 14 September, following a number of changes during the plenary vote:
 - **Adding aluminium to the list of strategic raw materials** (*called for by the EPP and 12 industry associations*)
 - **Introducing consideration of strategic secondary raw materials:** transformed waste (e.g. ferrous scrap) - list to be submitted by the EC within 6 months of the adoption of the regulation.
 - Increased targets for the EU's annual consumption of strategic raw materials processed on European soil by 2030 (50% instead of 40%)
 - Suggest increasing the recycling rate on a case-by-case basis to take account of the very different levels of recycling for different materials



Interinstitutional negotiations are starting.

FIT for 55 update



Renewable Energy Directive

- The European Parliament approved on 11 September the interinstitutional [agreement](#) reached in June with EU Council.

Maritime FuelEU Regulation

- The European Parliament approved on 11 July interinstitutional [agreement](#) reached in March with EU Council. The Council approved it on 25 July.
- It requires ships to gradually reduce their GHG emissions by using other types of fuel. Ferries, cruise ships and container ships will be required to switch off their engines and connect to the electricity grid when docked in the main European ports.

Alternative fuels infrastructure Regulation

- The European Parliament approved on 11 July interinstitutional [agreement](#) reached in March with EU Council. The Council approved it on 25 July.
- Hydrogen refueling stations will be installed by 2028, at least every 200 km on the TEN-T core, at least 700 bar HRS.

RefuelEU Aviation

- The European Parliament approved on 13 September interinstitutional [agreement](#) reached in June with EU Council.
- Fuel producers will have to incorporate 2% SAF in 2025, 6% in 2030 and 70% in 2050.

Gas Package & Electricity market reform



Gas Package

- Interinstitutional negotiations stall on binding aspects of aggregating demand and biomethane production target.
- The Council also wishes to exclude hydrogen from the aggregation of demand before it reaches maturity.
- **Letter for the creation of ENNOH**
 - In a **letter** to the Member States, a coalition called on Thursday 13 July for the **creation of an independent European network of hydrogen network operators**.
 - The proposal is to create an independent entity, the '*European Network for Network Operators for Hydrogen*' (ENNOH), managed by operators who would work closely with existing electricity networks, such as ENTSO-E, ENTSO-G and ACER, with the sole objective of "*planning a cost-efficient and proportionate hydrogen infrastructure development, with no conflict of interest*". This structure would "*ensure a competitive market*".



E3G



Electricity market reform

- The European Parliament waits for the Council to adopt its general approach and start negotiations.
- Discussions surround the vision and scope for contract for differences and what can be covered in these direct price support schemes.

Research policy initiatives

The Spanish presidency intends to work to strengthen and develop R&I ecosystems in Europe at all territorial levels by tackling three topics:

- The role of science in public policy - *proposed conclusions on 12 September*
- The role of regional and local R&I ecosystems in strengthening territorial cohesion
- The impact of the recovery and resilience mechanism on R&I - *wish to introduce an R&I dimension to the RRF*



The Spanish Presidency programme

Several initiatives from the European Commission to make careers in research more attractive were shared on 13 July:

- Proposal for an EU Council Recommendation establishing a new **European framework for careers in research**, including a revision of the 2005 Charter for Researchers.
 - It includes a proposal to create a specialised observatory to monitor and evaluate these ambitions for European careers
- Launch of the first European Competence Framework for Researchers (ResearchComp) to support their cross-sectoral mobility.

Funding

Accession of the UK to Horizon Europe

- The association status allows its scientists and SMEs to get grant funding from Horizon Europe from 1 January 2024.

Proposed new partnerships in Horizon Europe

- The European Commission [proposes](#) 10 new partnerships - *Horizon Europe 2025-2027* strategic plan.
Relevance for hydrogen:
 - 1) Innovative materials for EU (I'M FOR EU)
 - 2) Solar Photovoltaics

IPCEI - Important projects of common European interest

- The EC announced its intention to launch the 'Joint European Forum for Important Projects of Common European Interest' (JEF-IPCEIs).
- It will gather Member States, EC, stakeholders from industry and research.
- First meeting to be held in October on identifying and prioritizing technologies that are strategic and relevant candidates for future IPCEIs.

Funding

Innovation Fund

- Commission allocates €3.6 billion from ETS revenues to large scale clean technology projects, to be financed through the Innovation Fund. It is estimated that these projects could avoid 221 million tonnes of CO₂ emissions during their first ten years of operation. List of [selected projects](#).
- The Commission will also be launching a new call for proposals by the end of the year, with an increased budget of €4 billion.

MSCA actions

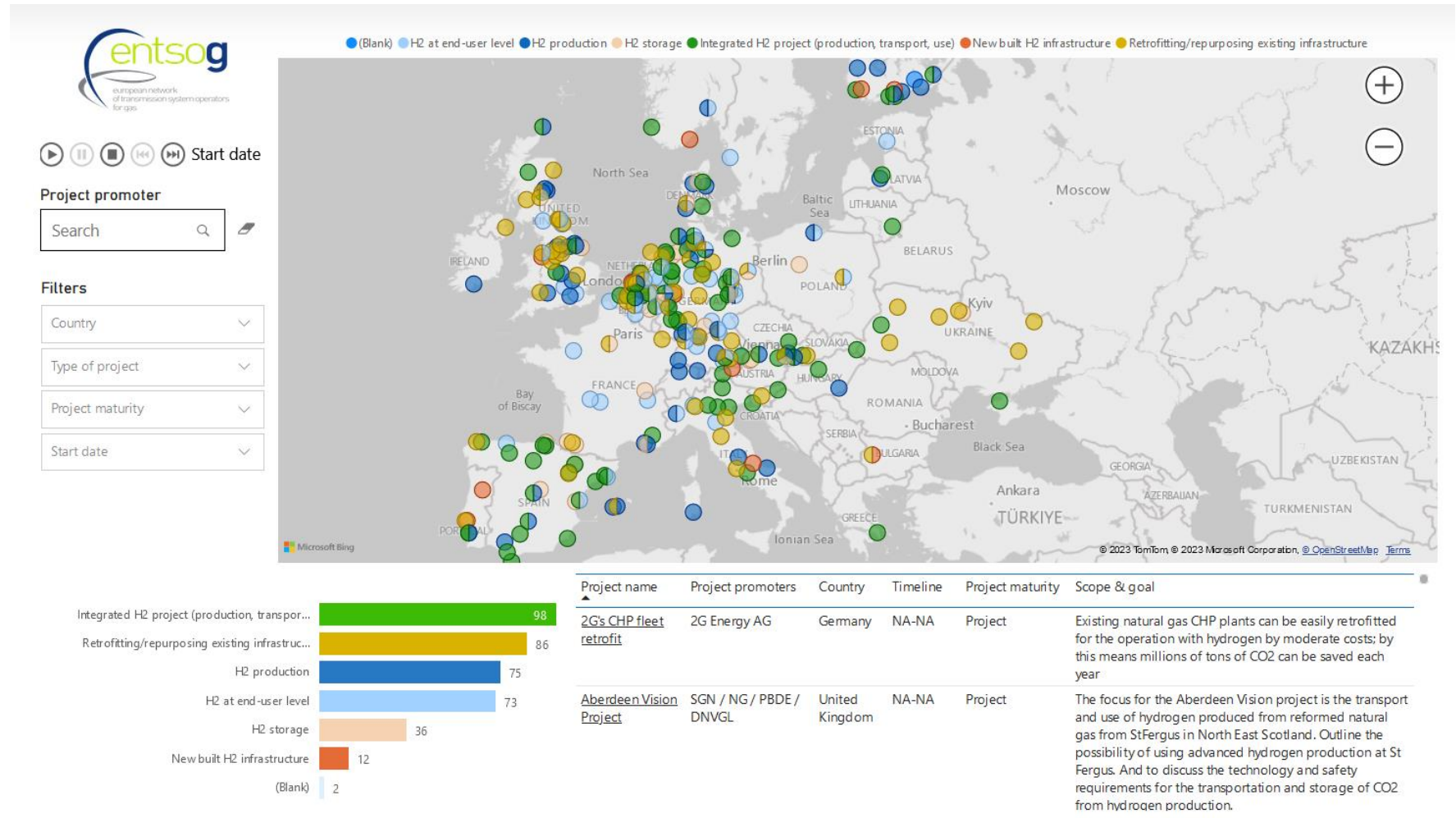
- Opening of a new [call for proposals](#) under the Marie Skłodowska-Curie Actions (MSCA Staff Exchanges) programme designed to support staff exchanges between academic and non-academic organisations in the EU and around the world in order to stimulate innovation and knowledge transfer.



▶ Reports, studies

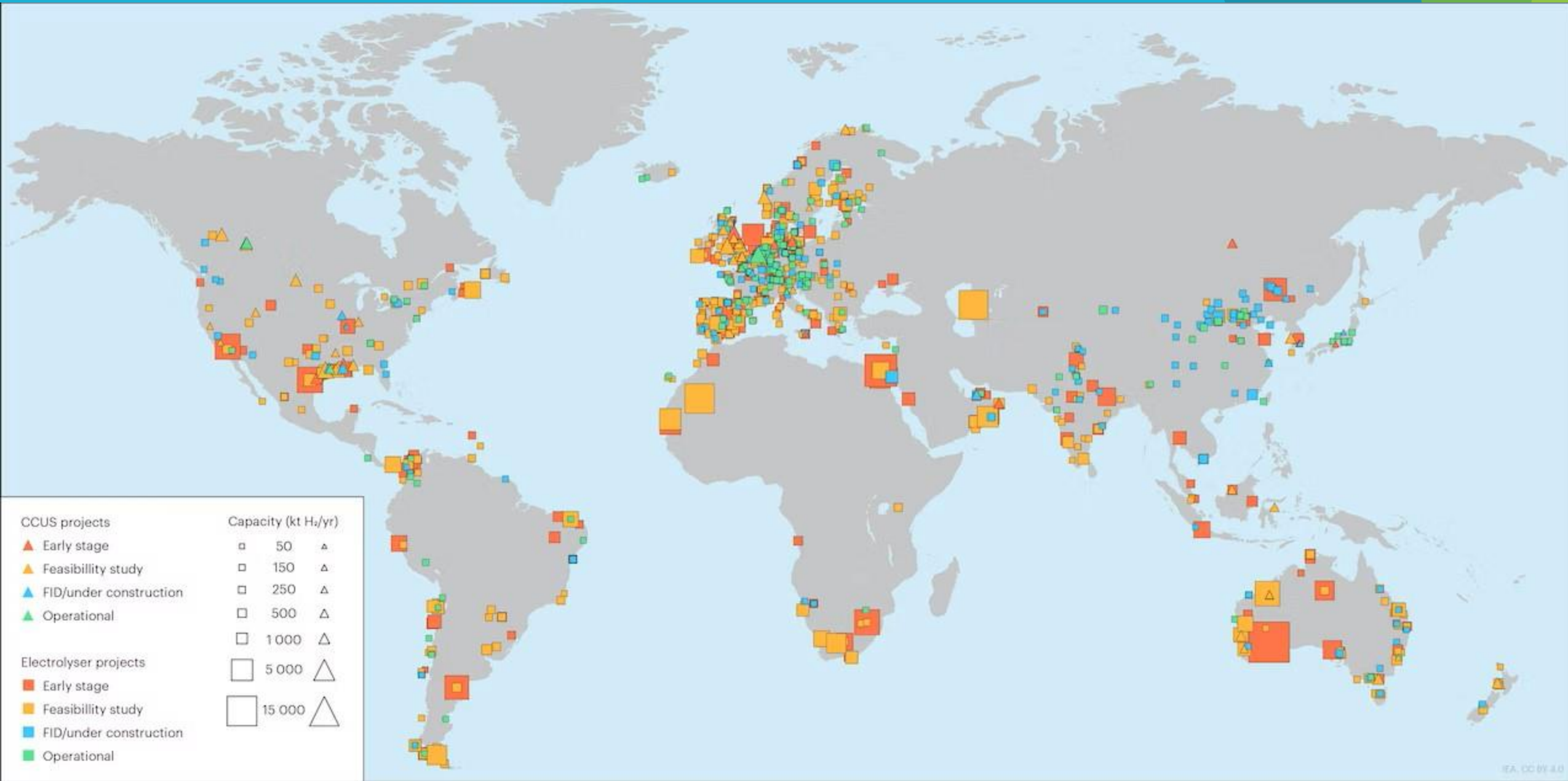
Hydrogen Infrastructure Map

Call for inputs to submit new information for the [common hydrogen infrastructure map](#) - deadline 12 October. The map is updated twice a year.



IEA Global Hydrogen Review 2023

- The IEA Global Hydrogen Review was published in September 2023 - [Full report](#)
- Includes a focus on low-emission hydrogen - the **annual production of low emission hydrogen could reach 38Mt in 2030.** (*map next slide*)
- **China has taken the lead on electrolyser deployment** - installed capacity expected to 1,2 GW by the end of 2023, representing 50% of global capacity.
- **Equipment and financial costs are increasing**, putting projects at risk and reducing the impact of government support for deployment.
- Governments have started to make funding available to support the first large-scale projects, but **slow implementation of support schemes** is delaying investment decisions.
- **Electrolyser** manufacturers have announced ambitious expansion plans. Manufacturers have announced that around **14 GW of manufacturing capacity are available today, half of which is in China.**
- **Hydrogen demand reached a historical high in 2022 (95Mt, +3%),** but it remains concentrated in traditional applications (0,7% coming of the total H2 demand from new applications).



Reports

- ACER's feedback on ETSOG activities:
 - Opinion on the methodology for cost benefit analysis of H2 infrastructure. The methodology should enable the expected costs and benefits of infrastructure projects to be compared clearly and impartially.
 - Opinion on the integration of hydrogen projects into ETSOG's Ten-Year Network Development Plan (TYNDP) 2022 for the gas and hydrogen sectors.
- On 15 June the European Scientific Advisory Board on Climate Change published its report assessing the EU's climate targets for 2040 and its 'GHG budget' for the period 2030-2050. Different scenarios are explored considering the deployment of various technologies, including hydrogen. Have a look!
- The European Technology and Innovation Platforms Smart Networks for Energy Transition (ETIP SNET) published a report on 28 August to analyse the impact of hydrogen integration on electricity grids and energy systems in Europe.



**Hydrogen Europe
Research**

Thank you!