Hydrogen Europe Research

Policy Working Group

18 February 2022

Agenda

1. Welcome & Approval of the agenda

2. Updates on activities
- *Publication of the technical paper and outreach*
- *Verif-Hy - sharing facts on hydrogen to feed in the public debate*
- *PFAS - answer to our joint letter with Hydrogen Europe*

3. Latest updates on EU institutions' activities
- *Delegated Act of RED II - new leaked version update*
- *Roadmap survey on Low-Carbon Industrial Technologies Roadmap for Energy-Intensive Industries*
- *Smart use of intellectual property*
- *New EU standardisation strategy*
- *European universities*

4. EU Funding and Opportunities
- *Horizon Europe news on the programme*
- *Innovation Fund - calls 2022 published*

Updates on activities

Technical Paper - publication and outreach

- Released on February 7
- Sent to specific contact in EU institutions and could be the basis for further cooperation with Member States representations:
  - MEPs met in October 2021
  - DG RTD through several Directorates
  - The European Strategic Forum on Infrastructures (ESFRI)
  - The ERA H2 Pilot
- Future of the paper: would you be in favour of a yearly review of the paper to update its content?

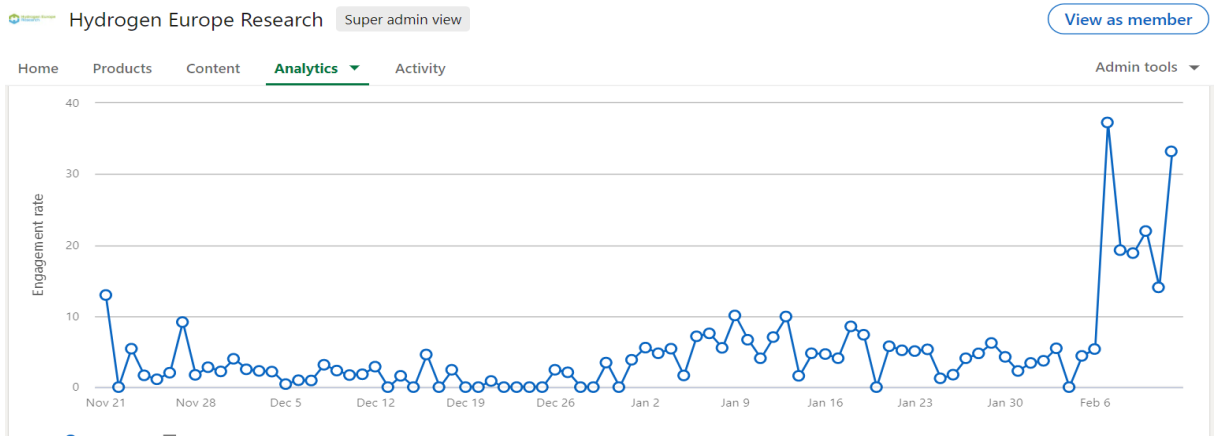
Technical Paper - publication and outreach

On LinkedIn

149 reactions

34 shares

31,04 % Engagement rate



HER Engagement Rate on LinkedIn (calculated as the sum of Likes+Comments+Shares+Clicks+Follows) has improved since the publication of the Technical Paper on February 7.

- The Technical Paper is also available on our page on Hydrogen Europe website: https://hydrogeneurope.eu/research/

Share the Technical Paper within your network!

Verif-Hy

Hydrogen Europe Research

Following the responses drafted in answer to the critics of the Hydrogen Science Coalition, it was proposed to draft **explanatory fiches on hydrogen technologies from the perspective of the European research community**

- Format: short, 1-2 pager documents
- Tone: constructive argumentation, accessible to technical and non-technical audiences
- Communication platforms: flyers, website, LinkedIn, other social media

Proposed list of initial topics:

- Low-carbon hydrogen as a means to decarbonise high-consuming energy sectors (transport, industry but also sectors already consuming fossil hydrogen)
- Complementarity of electrification and hydrogen to decarbonise energy systems
- Consideration of carbon footprint over the whole lifecycle of hydrogen produced, rather than the use of colours
- Efficiency of hydrogen technologies

- **Any other proposals?**

PFAS

Hydrogen Europe Research

- **A joint letter was drafted in collaboration with Hydrogen Europe and sent on 25 January 2022**
  - To whom? To the **RIVM (National Institute for Public Health and the Environment)** – Dutch competent authority in charge of the energy sector in the consultation process – and the **Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (BAuA)** - German authority working on PFAS restriction
    - BAuA is more important than RIVM because they are currently responsible for collecting data on fluoropolymers and PFAS production topic to include into restriction dossier
  - Saying what? Clearly indicate the position of both associations (no PFAS ban in the hydrogen sector as they are still essential for the moment and no alternatives are mature)
  - Extra info: comment on the energy sector report summary (where there were some imprecisions)

- Response from RIVM:
  - Recap of the process timeline (recalling there will be public consultations on the ECHA opinions => next window of opportunity)
  - Invitation companies to look for non-fluorinated alternatives

National Institute for Public Health and the Environment Ministry of Health, Welfare and Sport · baua: Bundesanstalt für Arbeitsschutz und Arbeitsmedizin · KEMI Swedish Chemicals Agency · Norwegian Environment Agency · Ministry of Environment and Food of Denmark Environmental Protection Agency

Latest updates on EU institutions' activities

Delegated Act RED II - *leaked version January*

DA introducing additionality for renewable hydrogen production. New leaked version available in January**.**

Main changes introduced:

- The renewable electricity taken from the grid to produce renewable hydrogen (through PPA) should come from an installation that came into operation in the **same 24 months** than the electrolyser ***(before 12)***
- Possibility to renew a power purchase agreement
- Possibility to extend a renewable installation
- **Given time to produce renewable hydrogen from purchased renewable electricity shifted to one hour (before 15 minutes)**
- **Phasing in period to 2026 (before 2025)**

Changes going in the right direction but still worrying for the industry.
A similar concern arises for the definition of low carbon hydrogen, not defined in the Gas Package but which should be defined by the EC in a delegated act by 2024 (tbc).

Low-Carbon Industrial Technologies Roadmap for Energy-Intensive Industries

Hydrogen Europe Research

Purpose: **guide policymakers & stakeholders by identifying unmet R&I needs, investment gaps and deficiencies in technological transfer, valorisation of innovation and standardization.** (159 pages)

Hydrogen is mentioned **95 times** in the roadmap.

Unmet R&I Needs

- Beyond sector specific low-carbon industrial technologies, cross-sectoral technological approaches are key to lead to decarbonizing energy intensive industries.
- Need to develop common methods to assess the potential and impact of innovative industrial technologies over the entire life cycle.
- Determining factors identified: access and cost of green energy, large infrastructures needs. Importance of industrial sale demonstrators development.
- Issues deriving from an ageing workforce with low level of education in some EII sectors, lack of motivation by young people to develop career in the EII and mismatch in skills.

Low-Carbon Industrial Technologies Roadmap for Energy-Intensive Industries

Hydrogen Europe Research

Unmet R&I Investment needs

- Significant investment in R&I is needed to develop low-carbon technologies over the next 10 to 30 years at all TRL. However, the highest short-term R&I investment needs in the EU concern the need to bring new technologies that are currently at high TRL-levels to the market.
- The largest part of these investments will have to come from industry.
- There appears to be a lack of finance for first-of-a-kind (FOAK) installation, perceived as a crucial barrier for bringing innovative technologies to the market.
- There is room for more synergies between fundings and for a wider variety of funding tools.

Key barriers for technology transfer

- Stakeholder reported that designing and building a pilot or demonstration plant at scale is one of the major challenges for the development of many decarbonisation technologies at the regional level and across borders.
- The integration of (supporting) new technologies into a full production system is a key organisational challenge (e.g. hydrogen)

Low-Carbon Industrial Technologies Roadmap for Energy-Intensive Industries

Hydrogen Europe Research

Ensuring a widespread adoption of green technologies

- Smart Specialisation strategies or the EIT Knowledge and Innovation Communities (KICs), more focus should be put on cross-sectoral clusters or alliances to drive systemic changes.
- Evidence indicates a risk of delay in the uptake of low-carbon technologies. To address this and accelerate technology transfer, scale-up and uptake, large scale demonstrators, such as circularity hubs, and technology infrastructures for R&I, testing and experimentation could provide nodes of knowledge, technological infrastructure and innovation support for the green transition of European industries.

SME dimension

- SMEs that develop low-carbon technologies may need specific support to protect or acquire access to intellectual property

Smart use of Intellectual Property

Hydrogen Europe Research

28 January - Launch the stakeholder community of practice to co-create a code of practice for the smart use of Intellectual Property (IP)

- Objective: Provide support to R&I stakeholders via recommendations and practical examples on how to handle challenges related to intellectual assets in the current R&I context such as results co-ownership, skills development, valuation, international projects etc.

The community of practice will run for a period of approximately six months starting from 28 January 2022.

Find out more: https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/eu-valorisation-policy/knowledge-valorisation-platform/code-practice-smart-use-intellectual-property_en#span-stylefont-familyinheritspanhow-to-join

New Standardisation Strategy

Hydrogen Europe Research

On 2 February 2022, the Commission presented a new Standardisation Strategy.

- 5 key sets of actions have been proposed and the hydrogen value-chain is clearly mentioned.
- The strategy is not a legally binding document but indicates a roadmap for Commission's initiatives in the field of standardisation.

Executive Vice-President for a Europe Fit for the Digital Age, Margrethe Vestager

"[...] we need standards for the roll-out of important investment projects, like hydrogen or batteries, and to valorise innovation investment by providing EU companies with an important first-mover advantage."

Commissioner for the Internal Market, Thierry Breton

"Technical standards are of strategic importance. Europe's technological sovereignty, ability to reduce dependencies and protection of EU values will rely on our ability to be a global standard-setter."

New Standardisation Strategy

Hydrogen Europe Research

1. Anticipate, prioritise and address standardisation needs in strategic areas
Standardisation urgencies identified for the clean hydrogen value chain. As of 2022, standardisation priorities will be clearly identified in the annual Union work programme for European standardisation.
To follow up: High level Forum on standardization, who becomes Chief Standardisation Officer.

2. Improve the governance and integrity of the European standardisation system
While the European system will remain open, transparent, inclusive and impartial, the proposal prescribes that mandates at the request of the Commission to the European standardisation organisations must be handled by national delegates from the EU and EEA Member States. This will avoid any undue influence of actors from outside the EU and EEA.
To follow up: evaluation of the Regulation on standardisation

3. Enhance European leadership in global standards
The EU will fund standardisation projects in African and the Neighbourhood countries.

New Standardisation Strategy

Hydrogen Europe Research

4. Support innovation

The EC proposes to better tap into the potential of EU-funded research to valorise innovation projects through standardisation activities and anticipate early standardisation needs.

To follow up: Launch of standardisation booster to support researchers under Horizon 2020 and Horizon Europe to test the relevance of their results for standardization; development of a Code of Practice for researchers on standardisation to strengthen the link between standardisation and research/innovation through the ERA (mid-2022)

5. Enable the next generation of standardisation experts

The Commission will promote more academic awareness on standards, for instance through the future organisation of EU University Days and training of researchers.

European Universities

On 24 and 25 January 2022, the EU Research and education council met in Paris.

- They discussed the EC Communication on a European strategy for universities and the proposed Council recommendation on building bridges for effective European higher education cooperation
- Member States recognised the need to go further on **European universities** in particular by preparing a "**dedicated legal status**" to enable universities to deliver joint European degrees.
- The proposal was questioned by university associations which warned it is unlikely member states will give up national competencies and let Brussels set rules for awarding degrees.
- The French minister Vidal said the joint degrees will have a European added value, but they will remain national.

Currently, the pilot programme for European Universities count 41 alliances, by mid-2024 there should be 60 alliances involving more than 500 universities. Is your university a member of an alliance? Do you know of alliances in the field of hydrogen?

These discussions might further followed in the Skills Working Group, or, if interested also in the remit of this Working Group.

Ongoing & upcoming consultations proposals

Validation survey on the "Low-Carbon Industrial Technologies Roadmap for Energy-Intensive Industries" [survey open until 21 February 2022 on the draft roadmap]

Count your transport emissions – 'CountEmissions EU' - *Public consultation Q1 2022*

Energy diplomacy - European strategy on international energy engagement - Communication to be published in Q1 2022 [expected 3 May 2022]

EU Solar Strategy - Communication to be published in Q2 2022 - *call for evidence open until 12 April 2022*

Renewable energy projects – permit-granting processes & power-purchase agreements - Recommendation *call for evidence open until 12 April 2022*

Proposal for a regulation on certification of carbon removals to be published in Q4 2022 – *call for evidence open until 2 May 2022*

Open question: has your organisation taken position on the CBAM or the ETS?

EU Funding and Opportunities

Update on Horizon Europe

Hydrogen Europe Research

Update on **Associate countries**:

- **Bosnia Herzegovina** becomes an associate country
- **New-Zeland** and **South Korea** open explanatory talks to become an associate country
- Uncertainty regarding the **UK** and **Switzerland** *[possible €17,2 billion additional budget]*

First assessment of Horizon Europe - *survey from Science Business and opinion*

- Researchers generally support the programme's objectives
- Lack of guidance on how to fill out application forms
- Need for more transparency in how the Commission distributes work programmes
- Frustration among researchers that many calls are too broad and demanding
- Horizon Europe's move from excellent science towards more impact-driven innovation is 'risky' (Linda Doyle, provost of Trinity College Dublin)

EC answers:

- Rehashing the focus on research policy in calls and increasing links between different parts of the programme;
- Issuing guidance on lump sum funding for applicants ahead of 2022 calls.

Innovation Fund - calls 2022 published

Hydrogen Europe Research

Opening of the call EIC Accelerator Challenge: Technologies for 'Fit for 55' on 1 March

Scope: supporting the development and scaling up of technologies and boosting breakthrough innovations that strengthen the green transition. Higher TRL spectrum.

It covers:

- Higher clean energy conversion and use
- Decarbonisation of hard-to-abate industries
- Energy efficiency and safety in the built environment
- Zero emission mobility solutions
- Water, gas and indoor air management/monitoring systems
- Green digital technologies

A guideline for the **"Innovation Fund - Best practices from previous Calls for Proposals".**
You can find these documents on the Large-scale projects and Small-scale projects webpages.

https://eic.ec.europa.eu/eic-work-programme-2022_en

Hydrogen Europe Research

Thank you for your participation!

Contacts

Julia Cora
j.cora@hydrogeneuroperesearch.eu

Louis Mazurkiewicz
l.mazurkiewicz@hydrogeneuroperesearch.eu

Simona Vitali
s.vitali@hydrogeneuroperesearch.eu