



Hydrogen Europe
Research

Policy Working Group

15 December 2022

Agenda

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Updates on
▶ activities

Consultation on Horizon 2020 and Horizon Europe

The EU opened a consultation to evaluate the Horizon 2020 programme and to have a mid-term feedback on the Horizon Europe programme. It could feed into a revision of the MFF foreseen in Q3 2023 (only tackling the change of ceilings and structure).

Deadline: 23 February.

Several actions are possible from our end:

- Reply to the consultation (detailed questionnaire) - performance of the programmes and future priorities
- Provide a position paper highlighting our key points
- Both

Do you have feedbacks on the Horizon 2020 and/or Horizon Europe programme?

Feel free to take the floor and share your experience, criticism and comments on those programmes.

Consultation on Horizon 2020 and Horizon Europe

See below some topics identified in the questions.

- Benefits of participating in Horizon compared to national and/or regional R&I programmes
- Main reasons preventing potential beneficiaries from participating in Horizon
- Implementation and administrative procedures (communication, description of calls, good balance, frequency, finding the right call; evaluation process and grant signature; accounting practices & cost calculation rules; project monitoring and reporting; support from the EC, etc.)
- Opinion on lump sum funding - simplifications?
- Sharing of data via Horizon projects
- How can the administrative burden for applicants and participants be further reduced (regarding application process, reporting requirements, cost calculation etc.)?
- Synergies to improve
- Cross-cutting themes that should be integrated in the Strategic Plan 2025-2027?



Latest updates on ▶ EU institutions' activities

EU external action on hydrogen



- **Egypt** - The European Commission signed a bilateral Memorandum of Understanding (MoU) on a strategic partnership on renewable hydrogen with Egypt' during the COP27. In addition, the Commission announced a contribution of up to €35 million in support of Egypt's Energy Wealth Initiative.
- **Japan** - On 2 December, the European Commissioner for Energy Kadri Simson signed a Memorandum of Cooperation with Japan on behalf of the EU to establish cooperation between the two sides to develop an international market for renewable and low-carbon hydrogen. It sets out a range of areas for cooperation: the development of common standards and certifications, research and development, and vocational education and training (including through exchanges).
- **US** - The IRA is still at the heart of discussions in the EU. On 1 December, the US and French presidents met and Joe Biden announced that there would be “*tweaks*” to the IRA so that European companies would not be discriminated against.
France and Germany have repeatedly raised the idea of replicating a similar system of aid for European producers, which the EC doesn't favour. **The EC proposed to establish a EU sovereignty wealth fund (MFF revision) and to ease state aid rules (fast track questions to Member States).**

Push for low-carbon hydrogen

- French and German industry associations (*France Industrie, MEDEF, BDI*) insisted on the importance of integrating low-carbon hydrogen into negotiations over the gas and hydrogen market regulation.
- This was shared in a joint non public document.

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Gas Package - One year later



Gas and Hydrogen Markets Package: a regulation and a directive proposed on 15 December 2021.

The objectives:

- 1) to establish **non-discriminatory rules for the conditions of access to the natural gas and hydrogen systems;**
- 2) to establish **common rules for the transport, supply and storage of gases, whether natural gas or so-called “renewable” or “low-carbon” gases and hydrogen, as well as for the transition of the natural gas system to a system based on renewable and low-carbon gases.**

Where do we stand?

- Reports in the EP tabled in June 2022, foreseen adoption in committee in January and in plenary in February (13/02)
- The Package will be discussed on 19 December but discussions are expected to continue under the Swedish presidency.

Gas Package - One year later

Commission

Definition and certification of '**low carbon gases**': gases that produce **at least 70% less greenhouse gas emissions than fossil gas over their full lifecycle**. A certification system will accompany this, requiring economic operators to demonstrate compliance with the threshold by providing reliable information via a 'mass balance' system, whether it is domestic production or imported.

Parliament

Low carbon hydrogen: the reduction in GHG emissions resulting from the use of low-carbon fuels should be at least 70% compared to a fossil fuel comparator with a threshold of 94 gCO₂eq/MJ. This **would also address life-cycle emissions, taking into account methane leakage as well as emissions from the production, transport and distribution and end-use of low-carbon fuels and hydrogen**. – threshold that could be adapted by the EC for installations coming into operation as of 2031

Council

Gas Package - One year later



Commission

Blending: hydrogen content of **up to 5%** for cross border gas flows starting by 1 October 2025.

Propose to establish an EU-wide **10-year network development plan for hydrogen** and to set up a European Network of Hydrogen Network Operators (**ENNOH**)

Reduced entry tariffs of 75% for renewable and low carbon gases into the EU gas grid.

Abolish cross-border tariffs for such gas, no cross border tariffs in the future H2 network.

Parliament

Local authorities shall develop local heating and cooling plan to promote the most efficient use of local renewable sources and the integration of energy systems at local level

On H2: Introduce a series of amendments aimed at ensuring that the use of H2 should initially be prioritised in sectors difficult to decarbonise.

Council

Up to **2%** the max. level of **hydrogen content** MS are obliged to accept in gas flows at interconnection points from 1 October 2025.

Postpone the transition phase for the development of a H2 market (network access regulated for hydrogen network users) to Dec. 2035 (instead of 2025).

Introduce a **distinction between renewable and low carbon gas discounts on tariffs** at injection points (100% and 75%) and to leave the possibility for national regulators to change the discount or not to apply it.

Update on sectoral policies

ETS update on the trilogue negotiations

Maritime

Preliminary agreement on the inclusion of CO₂ emissions from the maritime sector in the carbon market. Negotiators agreed:

- To require shipping companies to surrender emission allowances progressively from 2025 (from 40% to 100% of verified emissions by 2027). The timetable must still be validated by the EU Council.
- Intra-EU journeys are covered 100%, international journeys to and from the EU at 50%.
- Small ships are exempted (less than 5000GT).

Aviation

- Scope: intra EU flights, possible extension in 2026 depending on the CORSIA system.
- Agreement for a gradual reduction in the number of free emission allowances granted to the aviation sector with a view to abolish them in 2026.
- 20 million free allowances will be given to airlines over the period 2024-2030 as '*contracts for differences*' for sustainable aviation fuels (SAFs): covering the price difference (95% for RFNBOs; 70% for advanced biofuels and renewable H₂; 50% other SAF)
- 5M€ of the ETS revenues will be devoted to decarbonising the aviation sector through the Innovation Fund

Update on sectoral policies



ETS 2 - emissions from heating of buildings and road transport

- A lot of disagreement on the extension of the ETS 2.
- The European Parliament has always refused to extend the ETS 2 to households by limiting it to commercial buildings only
- A new proposal from the Commission will feed into the discussions (voucher system)
- Next trilogue scheduled on 16-17 December, directly linked to the EU Social Fund.

CBAM - A political agreement was reached in trilogue negotiations on 14/12. After a final approval by the EP and the Council, it shall enter into force on 1 October 2023 and cover cement, iron and steel, aluminium, fertilisers, electricity and **hydrogen**. Agreement conditional to an agreement on the ETS.

Next meeting 16/17 December to discuss on the trilogue the ETS, linked with CBAM & Social Fund.

Update on sectoral policies



RED II Revision - The Czech Presidency of the Council sent a document to Member States on 1 December: increase the EU's target for the share of renewable energy in energy consumption to 40% by 2030. The EP's position is 45%, as recommended in REPowerEU. This position is likely to complicate trilogues. The question of binding targets for RFNBOs in industry and transport is still open.

Next trilogue session: 15 December, no agreement expected.

Fast track procedures for renewable energy projects, the European Parliament adopted in plenary session on 14 December. MEPs approved the inclusion of biomass among the renewables eligible for fast-track procedures in designated renewable areas. With the fast track, the EP proposes a procedure of max. 9 months (EC proposal 12 months), and outside 18 months (EC proposal 2 years). If no answer in time, the request is considered approved.

The Council shall adopt its position on 19 December during the meeting foreseen.

Leaks of the Delegated Acts on additionality and GHG emissions methodology for H2.

Gas price capping and European Council



On 22 November, the **Commission proposed to establish a cap gas price at €275/MWh** after a fortnight. It would be automatically activated and deactivated. Diverging views between member states led to a lot of criticisms on the proposal.

On 13 December, ministers left the negotiation table without an agreement. Progresses were made on the scope and safeguards of the mechanism, but the price level at which the cap would be triggered remain an issue.

Possible follow up on discussions during the **European Council on 15 December** (unanimity would apply so an agreement seems difficult). Conclusions should be discussed: they are expected to call for further work to be pursued on the joint purchase of gas, the filling of gas reserves, the swift preparation of contingency plans for the winter of 2023-2024, and the finalisation of the negotiations on the Renewable Energy Directive (RED) and the Energy Efficiency Directive (EED).

2 legislative files finalisations are postponed due to this lack of agreement: on joint purchases of gas and LNG and on accelerated permitting procedures for certain renewable energy projects.

3 texts on European efforts in research and innovation

On 2 December, 3 non-legislative texts were adopted by European ministers for Research, aiming at a greater coordination of European efforts and investments in research and innovation:

- Conclusions on Research infrastructures: among others, the text invites the European Commission and Member States to develop the next edition of the European Strategy Forum on Research Infrastructures (ESFRI) and publish it by the end of 2025 and to present a revised European Charter for Access to Research Infrastructure in 2023
- Conclusions on the new European Innovation Agenda: the point 7 tackles hydrogen as an example.

"[...] AGREES that private R&I investments and strategic use of intellectual assets are crucial for the Union's post-pandemic recovery, and the green transition and digital transformation of the European economy, including to advance the transition to affordable, secure and sustainable energy, for example through a strategy to boost R&I in safe and sustainable hydrogen; [...]"

- Recommendation on guiding principles for knowledge valorisation to increase socioeconomic impact from R&I and align policy guidance: 24 non-binding guidelines to promote the widest possible societal use and valorisation of intellectual assets generated by R&I activities

European Funding programmes - opinions from institutions



Funding synergies to be improved

The European Court of Auditors examined in a [report](#) the synergies between different programmes funding European research and innovation (R&I). They found that insufficient attention has been paid to important factors to establish synergies: regulatory alignment, cooperation, data availability, expertise and capacity of stakeholders at national level. Especially cooperation between the EC and Member States is at fault here. Finally for the Court, the expertise and management capacities of the authorities managing the funds in the States are still insufficient despite support from the Commission.

The EIC criticised

The European Parliament adopted the ['Ehler report'](#) on the implementation of the European Innovation Council (+592, -19, abst. 8) on 22 November. The report is very critical of the European Commission's governance of the Fund and provides recommendations concerning the investment and exit strategy for equity investments, the continued role of the Investment Committee and the EIC Steering Board and the establishment of an independent body responsible for the implementation of the EIC



▶ Reports and studies

Opportunities - Horizon Europe WP23-24



- The EC adopted the Horizon Europe's main Work Programme for 2023-2024 and published it on Tuesday 6th of December.
 - 24 topics address hydrogen: 4 in cluster 4 (Digital, Industry and Space), 20 in cluster 5 (Climate, Energy and Mobility).
 - 6 topics are focused on hydrogen, whilst for the rest hydrogen is included in the scope.
 - HORIZON-CL4-2024-TWIN-TRANSITION-01-34: Renewable hydrogen used as feedstock in innovative production routes (Processes 4 Planet)
 - HORIZON-CL4-2024-TWIN-TRANSITION-01-46: CO₂-neutral steel production with hydrogen, secondary carbon carriers and electricity OR innovative steel applications for low CO₂ emissions (Clean Steel)
 - HORIZON-CL5-2023-D1-01-03: Climate impacts of a hydrogen economy
 - HORIZON-CL5-2023-D2-01-06: Open Pilot Line/Test Bed for hydrogen
 - HORIZON-CL5-2023-D5-01-07: Hydrogen-powered aviati
 - HORIZON-CL5-2023-D5-01-08: Accelerating climate-neutral hydrogen-powered/electrified aviation
- More information can be found on the [Funding for Tender portal](#).



Opportunities

- In a [report](#), the IEA predicts an **85% acceleration of renewables in 2022-2027 period**. According to the report, electricity from wind and solar photovoltaic will more than double over the next 5 years, providing almost 20% of the world's electricity generation by 2027.
- New calls published under the [Marie Skłodowska-Curie Actions \(MSCA\)](#), with a budget of €1 758 million for the next two years.
- On 9 December, the European Commission announced the launch of a new ***Solar Photovoltaic Industry Alliance***. Members of the alliance are committed to reaching 30GW of European production capacity by 2025, six times the current capacity.
- **EU industrial investment in R&D jumped in 2021 to 8.9% higher than in 2020**, according to the latest figures from the European Commission, published on 13 December. For the first time, Chinese companies as a whole exceeded European companies in R&D investment. Find more information [here](#).

Meetings 2023

Next meetings will be held from 11:00 to 12:30 am on Friday:

- 20 January
- 17 February
- 17 March
- 21 April

Invitations were sent out on 14/12.



**Hydrogen Europe
Research**



**Thank you for your
participation and have great
end of year celebrations!**

