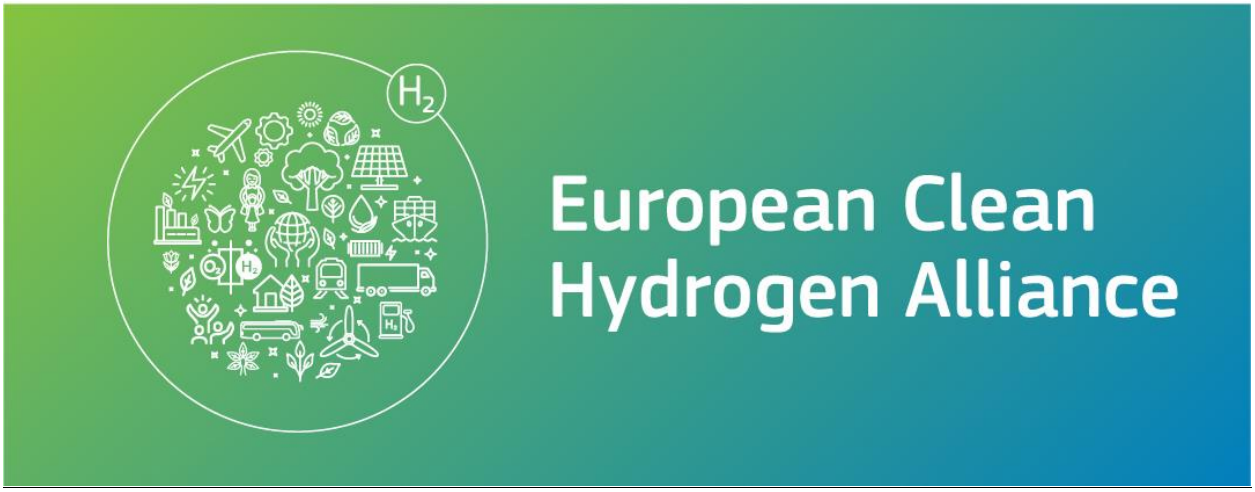

Minutes of the 9th Hydrogen Forum, 19 March 2025

Co-hosted by the European Parliament's Industry, Research, and Energy (ITRE) Committee

The Forum took place at the Thon Hotel EU and was attended by close to 180 participants. It was opened by **Ms Tsvetelina Penkova MEP, Vice-Chair of the Industry, Research and Energy Committee**.

She underlined that despite growing attention and announcements in the hydrogen economy, too few projects have reached final investment decision (FID). She emphasised the need to focus on hydrogen value chains and on cost-competitive implementation, including infrastructure deployment. She mentioned the importance of the EU's neighbourhood policies as an opportunity and called for coherent deployment where no one is left behind.

Under RePowerEU, the European Union set the objective of achieving 10 million tonnes of hydrogen production by 2030. The rollout of significant electrolyser capacity will be required to meet this target. The EU thus needs effective action, starting from implementing projects and mobilising the entire supply chain.

Panel on The Clean Industrial Deal: challenges and opportunities for hydrogen:

The European Commission presented the Clean Industrial Deal, followed by a panel discussion with stakeholders.

- **Joaquim Nunes de Almeida,** Director Mobility and Energy Intensive Industries,
- Directorate-General for Internal Market, Industries, Entrepreneurship and SMEs (DG
- GROW)
- **Anne van Ysendyck,** Vice-President Government Affairs & Environment, ArcelorMittal
- **Dr Sopna Sury,** Chief Operating Officer Hydrogen, RWE Generation SE, Chair of the Board,
- Hydrogen Europe
- **Alexander Bercht**, IndustriAll / Board Member of IGBCE

Joaquim Nunes de Almeida briefly presented the Clean Industrial Deal (CID). The EU must address **three challenges** at once: a climate crisis, competitiveness, and economic resilience. The CID focuses on **energy-intensive industries** and **clean technologies**, which are key to achieving the EU's climate neutrality targets, while promoting a **circular economy**.

Anne van Ysendyck said that the production of steel in EU has been reduced by 30 million tonnes in the last five years corresponding to 124 million tonnes today. In her view, there is no business case for hydrogen at the moment due to lack of supply at affordable price. Industry needs at least 10 years to decarbonise; therefore, there was an expectation that measures would be included in Steel and Metals Action Plan (which was adopted on the same day) to improve the business case for hydrogen.

The sector needs energy prices to go down now and she felt that the Clean Industrial Deal did not provide solutions. To be competitive the sector would need hydrogen at a price of EUR 2/kg.

Industry in the EU is challenged by pressure from global competition, including overcapacity that is increasingly re-directed to the EU due to import barriers in the US. The protective measures included in CBAM are not sufficient, in Ms van Ysendyck's view. EU industry also has to be competitive at the global level to succeed in export markets.

Dr Sopna Sury described the CID as a transformative business plan. She highlighted four points that would be needed:

1) Regulation and in particular the delegated act on RFNBOs, saying that the reality bites--additionality and temporal correlation adding respectively EUR 1 and EUR 1.5/kg H2 produced, which puts at risk EU hydrogen production compared to imports. She called for extending the grace period to 2035;
2) Funding measures, including allowing a combination of funding sources; The Hydrogen Bank auctions are a very good development
3) Lead markets (key for demand); and
4) Grid fees (too high, although exemptions in some Member States).

The need for demand-side measures was also highlighted but potential customers are not clear about the time horizon. For the market to ramp-up there is a need for a carrot and stick approach.

Alexander Bercht expressed concern about the huge shortage of skilled workers and the consequences of implementation of the transition on the workforce. He called for conditionalities in funding instruments to secure jobs. He also highlighted the need to connect industrial policy with skills policies. Finally, he mentioned the need to support SMEs and mid-caps in developing an understanding of what the transition means for them.

Hydrogen Market Outlook from Bloomberg NEF

Adithya Bhashyam, Senior Associate, Hydrogen presented BNEF's Hydrogen Market Outlook. In BNEF's assessment, the EU won't achieve the objectives in RePowerEU nor in the less-ambitious EU Hydrogen Strategy.

BNEF has reassessed the hydrogen sector considering that the overall context has drastically changed in the last 1-2 years: system costs for early-stage green hydrogen were often underestimated; BNEF now more conservative in its cost forecasts; renewable H2 will not be cheaper than gray in most markets despite a 60% costs reduction (even by 2050).

A change of narrative is needed: stakeholders should not only look at costs but at market ramp-up. In particular, opportunities exist in the EU thanks to the comprehensive regulatory framework. Infrastructure is key to making the market work. Hydrogen is also an industrial policy choice, not only energy policy.

Panel on the Industrial Decarbonisation Accelerator Act

The purpose of this panel was for stakeholders to debate the elements they considered essential for inclusion in the upcoming Industrial Decarbonisation Accelerator Act.

- **Joan Canton**, Head of Unit, Energy-intensive Industries and Raw Materials, Directorate-General for Internal Market, Industries, Entrepreneurship and SMEs (DG GROW)
- **Jens Geier MEP,** Member of the Industry, Research, and Energy (ITRE) Committee
- **Maria Persson-Gulda**, Chief Technology Officer, Stegra (formerly H2 Green Steel)
- **Geert Decock**, Electricity & Energy Manager, Transport & Environment
- **Piotr Kus**, General Director, ENTSOG

Joan Canton described the Industrial Decarbonisation Accelerator Act (IDAA) as the legislative arm of the Clean Industrial Deal, focusing on energy-intensive industries. He mentioned the Industrial Decarbonisation Bank with a proposed budget of EUR 100 billion, which is not only for first-of-a-kind projects, as important element.

Maria Persson-Gulda mentioned that their hydrogen project (Stegra), the largest in the EU today, is easier to implement because the project is off-grid. Regarding investments, EU funds are a good step but are far from enough. She pointed to the need for a definition of green steel (important for overcoming green premium) and need to look at the circularity of steel market (issue of scrap).

Geert Decock mentioned the EU is not short of projects but short of final investment decisions. In his view, hydrogen should not be used in the road transport sector but in fuels for shipping and aviation. E-fuels are very expensive today; therefore, sector-specific measures are needed. Now policymakers need to prioritise off-take agreements and focus on domestic production and infrastructure. T&E believes that H2 Global (H2 clearing house) to the European Hydrogen Bank auction model.

Piotr Kus highlighted the importance of infrastructure and referred to the three learnbooks developed by the roundtable on Transport and Distribution. He mentioned the need to develop tools to speed-up implementation and to derisk projects and concluded by highlighting the need for more clarity on volumes of hydrogen for the development of the infrastructure.

Jens Geier MEP welcomed the adoption of the list of Projects of common interest (PIC)/ Projects of mutual interest (PMI), mentioning that future pipelines should be hydrogen-ready. He stated his agreement with the conclusions of the Draghi report and expressed his support for the revision of

the State aid framework. He mentioned that important projects of common European interest (IPCEI) decisions took too long, and that processes need to speed up. He was supportive of the idea that the Commission might revise the Renewable Energy Directive delegated act on renewable fuels of non-biological origin (RFNBO).

European Clean Hydrogen Alliance: a new mandate

In last year's European Court of Auditors report on the EU's industrial policy on hydrogen, the Court recommended that the European Commission decide on the future of the Clean Hydrogen Alliance in terms of its scope and number of roundtables and adopt a clear and time-bound mandate for its future work. The panelists debated what the objectives of the Alliance should be.

- **Jonas Helseth**, Executive Director, Bellona Europa
- **Jeanne Fabreguettes**, Policy Officer, Transport and Energy, Representation of the Region of
- Auvergne Rhône-Alpes
- **Jacek Truszczynski**, Deputy Head of Unit, Net-Zero Industries, Sustainable and Circular Products, Directorate-General for Internal Market, Industries, Entrepreneurship and SMEs
- (DG GROW)
- **Suvi Kurkijärvi**, Business Development Manager, Renewable Hydrogen, Neste

Jacek Truszczynski opened the panel opened by presenting the draft mandate for the Alliance, which has already been presented to the Alliance's Steering Committee and other European Commission departments.

The proposed draft mandate focuses on accelerating the deployment of projects in the Alliance pipeline, with a report published once per year providing an overview on the pace of deployment and highlighting the obstacles projects face to achieving final investment decisions. The report would be similar to the one that the European Commission will soon publish on the pace of deployment of IPCEI and the Alliance project pipeline.

The Hydrogen Forum would take place around the same time as the annual report on project deployment, allowing members to discuss shared challenges. Jacek mentioned the possibility of holding annual Ministerial meetings, as is the case with the Solar Alliance and Battery Alliance, both of which are managed by DG GROW.

Regarding the Alliance's working methods, the idea is to consolidate the roundtables into three: hydrogen production; hydrogen transmission, distribution, and storage; hydrogen off-take (which would include off-takers not covered by other industrial alliances that the Commission leads). The Electrolyser Partnership would continue as well.

Membership of the roundtables would be drawn primarily from project promoters that have a project in the Alliance pipeline, with KPIs based on the number of projects deployed by 2030. New Alliance members would be limited to those with projects at specific periods, to allow the work of the Alliance to focus on the deployment of the existing 420 pipeline projects.

Jonas Helseth recalled that Bellona has long recognised the importance of renewable hydrogen to decarbonise energy-intensive industries in Europe, recalling an event organised by former MEP Claude Turmès 22 years ago in the European Parliament. Bellona has been a member of the Alliance since its creation in 2020.

In his view, the Alliance mandate should include a reference to the fact that hydrogen is a means to an end, rather than an end in itself, considering the energy losses involved in producing it. Therefore, the Alliance should focus on sectors where it is needed to decarbonise (energy-intensive industries and heavy-duty transport).

He also shared his view that the Alliance's roundtables should include more representation from academia/scientific institutions, to allow the Commission to have access to additional sources of data in its policymaking.

Jeanne Fabreguettes underlined the importance of the Alliance to regional stakeholders such as the Region of Auvergne-Rhône Alpes, as it allows them to convey concerns directly to the Commission based on their experiences working with project promoters on the ground, where they live the "reality check." This experience gives regions unique insight into the technical, regulatory, and financial problems faced by projects.

In addition, Auvergne- Rhône Alpes serves as the lead for the S3 Hydrogen Valley Partnership, which brings together 65 regions across Europe to discuss shared challenges. The region also convenes monthly meetings with all stakeholders working on the vocational training for the use of hydrogen, the deployment of regional mobility, industrial deployment. In Jeanne's view, the role of regions should be emphasised more in the new mandate.

Suvi Kurkijärvi recalled Neste's long experience as one of the co-chairs of the Alliance's Industrial Applications roundtable since the Alliance was created. Suvi felt that the collaboration and dialogue with the Commission through the Alliance has been very constructive, in particular for understanding the rationale behind policy decisions.

In her view, one of the strengths of the Alliance has been giving voice to stakeholders who may not otherwise get their views heard. She described the process involved in collecting input for a short document put together by the roundtable in October, whereby all members of the roundtable had the opportunity submit input via an online survey. This input was then discussed at subsequent meetings, allowing the members to agree on input that was a compromise between views.

Considering the differences that will arise between Member States in relation to the transposition of RED III hydrogen targets in industry, Suvi called for a link between the Alliance and Member States.

Hydrogen project deployment: state of play of IPCEI and the Alliance project pipeline

The European Commission presented its report on the deployment of the important projects of common European interest (IPCEI) and the European Clean Hydrogen Alliance project pipeline. This was followed by a discussion on how to accelerate these projects' deployment.

- **Dr Andrea Wechsler MEP**, Member of the Industry, Research, and Energy (ITRE) Committee
- **Geert Tjarks**, Chair Facilitating Group Hy2Infra; Managing Director, EWE HYDROGEN GmbH

- **Anne-Thérèse Culot**, Vice Chair, Facilitating Group Hy2Use; Business Development Manager ENGIE
- **Aitor Arzuaga**, Director General, Alba Emission Free Energy S.A.
- **Herkko Plit**, CEO & Founder, P2X Solutions Oy

Patrice Millet opened the panel by presenting the Commission's Staff Working Document on the deployment of IPCEI and the Alliance project pipeline. His analysis showed that 2/3 of the projects are delayed, putting in doubt their ability to enter into operation before stricter "additionality" criteria come into effect in 2028, and before the move from monthly to hourly correlation in 2030, thereby changing the business case of these projects. The report's conclusions outline where action is to be taken at regional, Member State, and EU level.

Dr Andrea Wechsler MEP began her remarks by recounting a recent visit to a paper manufacturer in her home region, where the company has invested in hydrogen turbines. However, this project has not been able to progress due to the lack of infrastructure to supply hydrogen to the plant. Therefore, more clarity is needed on the deployment of hydrogen pipelines so that projects can plan accordingly.

She emphasised that the EU must stay on the course on hydrogen, and she highlighted the points that she considers essential to accelerate the deployment of hydrogen projects. These include more focus on incremental research rather than breakthrough innovation; priority access to grids for hydrogen projects; more funding at EU level. In addition, she mentioned the importance of the future low-carbon hydrogen delegated act to creating lead markets, as it will complete the regulatory framework.

Geert Tjarks outlined the importance of Germany's approach to the hydrogen core network to the large number of final investment decisions. In Germany, the government has agreed to share the financial risk of constructing new pipelines with the operators of those pipelines.

He stated that flexibility in the application of the additionality criterion and the move from monthly to hourly correlation was essential, perhaps delaying their implementation by a few years to allow projects that had based their business case on the grandfathering under additionality to enter into operation. Otherwise, a number of projects risked never entering into operation.

He mentioned that electrolyser projects should be allowed to provide flexibility to the grid, bolstering the business case for investing in hydrogen production.

Anne-Thérèse Culot provided insight into why more projects have not reached final investment decisions, in particular the uncertainties around this new market based on products produced using renewable hydrogen and whether there is any demand for these products.

In addition, there is little clarity around the price to produce renewable hydrogen, due to the amount of variables involved: power purchase agreements, energy storage, the reliability of electrolysers, lack of pipelines (and cost to use those pipelines). This makes it difficult for

customers to sign firm orders, and in her view, the regulatory framework does not help the competitiveness of renewable hydrogen versus fossil fuels.

Aitor Arzuaga painted a more optimistic picture of the hydrogen landscape, drawing on Alba's success in getting off-takers in local energy-intensive industries to commit to buying the renewable hydrogen Alba will produce.

The company plans to take FID on the production of renewable hydrogen at their refinery in the Basque region in Spain in late 2026, allowing the project to avail of the grandfathering clause for additional renewable energy in the Renewable Energy Directive delegated act on RFNBO. Mr Arzuaga raised a warning, however, regarding the application of the additionality criteria to projects that enter into operation after 2026, which could severely impact their business case.

He also promoted the creation of labels for green products such as green steel, and mentioned an important industry for renewable hydrogen projects that seems to be often overlooked—that of the fuel needed for the defence industry, in particular jet fuel.

Herkko Plit stated that the EU should set itself the ambition to produce renewable hydrogen at a price of EUR 2/kg, which would allow it to compete with grey hydrogen in the long run. Until then, his company has succeeded in finding niche customers willing to pay extra for renewable hydrogen, which in his view is vital to achieve economies of scale.

He mentioned district heating as an important sector for renewable hydrogen off-take in integrated projects, allowing all hydrogen produced to be consumed while decarbonising heat. He called for more action to bring down renewable electricity prices, and cited the costs involved in having sufficient energy storage to meet the requirements of hourly correlation in the RED II delegated act on RFNBO.