CEM H2 Initiative

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CLEAN ENERGY MINISTERIAL
Advancing Clean Energy Together

HYDROGEN INITIATIVE
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CEM's HYDROGEN INITIATIVE (H2I)

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OBJECTIVE

To raise international ambition and advance commercial scale low-carbon hydrogen deployment in the long-term globally, across all sectors .

RATIONALE

There is a need for long term plans, vision and goals in giving direction to hydrogen uptake and to enable effective planning and development of consistent policies.

AMBITION/TARGET

To build strategic partnerships to develop and facilitate global actions on clean hydrogen and fuel cell deployment across regional, national, and municipal economies.

ACTORS

Co-Leads:

Participants:

- More than 20 governments are part of the network.
- Hydrogen Council and individual companies part of the discussion
- Around 60 port association and authorities
- Coordination with other international H2 initiatives a priority.

ACTIONS

- Global aspirational goals – EC lead
- Global Ports Hydrogen Coalition – EC lead
- International hydrogen trade and supply-chains- NL and UAE co-lead
- North-Western Europe hydrogen market coordination- NL lead
- H2 Twin cities programme- US lead
- IEA Global Hydrogen Review tracking policies and markets (EC support)

Global Aspirational Goals –EC lead

- First work stream of H2I, activities started in 2020
- Lead by the European Commission with support from the IEA, tracking all hydrogen-related targets and aspirational goals of governments, feeding into the Global Hydrogen Review.
- CEM H2I was set up specifically **to address H2 demand.**
- Discussions ongoing about launching a **CEM Demand Creation Campaign**, following CEM15 Action Plan to Accelerate Future Fuels launched in Foz do Iguaçu (Brazil). CEM H2 Initiativealso contributes to the Future Fuels work stream.

Global Hydrogen Ports Coalition – EC lead

- **The CEM Global Ports Hydrogen Coalition aims to:**
  - Establish a platform for collaboration between ports around the world.
  - Facilitate policy discussion between ports and national authorities
  - Open doors for port authorities to other hydrogen stakeholder
  - 60 Ports already engaged
  - **Preparation of a support activity in cooperation with the Clean Hydrogen Joint Undertaking.**

STRATEGIC ROLE OF PORTS IN H2-ECONOMY

- **Pivotal Role:** Ports & industrial cluster are crucial in scaling up low-emission hydrogen production, offtake, and trade globally, serving as key hubs for distribution and international trade.
- **Collaborative Frameworks:** Effective global cooperation among ports is essential to overcome challenges and leverage opportunities in the hydrogen sector. Sharing lessons learned and best practices can enhance supply chain efficiency and foster innovation.
- **Hydrogen Applications:** Exploring hydrogen usage within ports for both marine and land applications can significantly reduce emissions. Investing in hydrogen infrastructure and technology supports sustainable operations and broader environmental goals.

Ministerie van Klimaat en Groene Groei

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Hydrogen Council

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Progress by innovation

IHTF value proposition

Unique Forum for

- **High-level Ministerial dialogue** on cross-border trade in hydrogen and derivatives, bringing together key prospective exporting and importing countries
- **Advancing public-private cooperation** and dialogue between **Ministers and CEOs** of leading companies to **align better priority actions** to tackle key barriers to and enablers for cross-border trade
- **Taking stock of key insights** from the relevant analyses on the topic carried out by international organizations and initiatives

2025 Co-Chairs*

**Co-chairs rotate on an annual basis*

Country members*

**Other countries in process of joining the IHTF leading up to COP30*

Northwest European Hydrogen Monitor

Progress of the Working Group

- Established working group **sharing knowledge** on latest policy developments and established **yearly monitoring** activity of the NW EU hydrogen market
- Int total 11 governments involved:

In view of the slower than expected progress of hydrogen developments, it was discussed to reduce the frequency of the currently annual North-West European Hydrogen monitoring report. At the same time, other activities could be added that provide more value to the members, such as data sharing and opportunities to discuss barriers to development. The North-West European region remains on the forefront of global hydrogen developments and thus remains worth tracking.

- Period covered: 2 years

Deliverables:

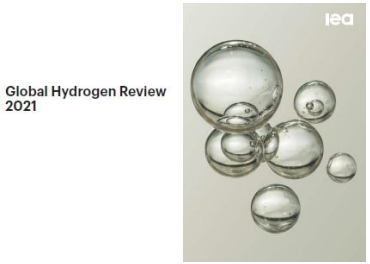
- 1 technical workshop, hosted by the IEA, in 2025
- 1 monitoring report, similar to the current one but less frequent, in 2026
- A tracker, which needs to be developed, semi-continuously (discussions ongoing)

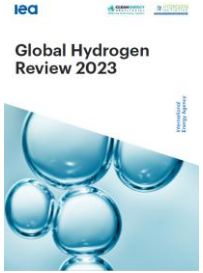
H2 Twin Cities Program led by US DoE

Ongoing discussions on a new competition to be announced in 2025 to also address key sustainability, environmental, or community factors challenges, which can often result in project delays or stoppage.

The Global Hydrogen Review

- IEA's annual flagship publication on hydrogen.
- Started in 2021. This year 5th edition.





- Tracking status of hydrogen sector and adoption of low-emissions hydrogen.
- Output of Clean Energy Ministerial Hydrogen Initiative; input to Hydrogen Energy Ministerial.
- Intended to inform energy sector stakeholders on the status and future prospects of hydrogen.

GHR 2025 planned outline

- Executive summary and Introduction: summary of main trends and findings.
- Demand: status and outlook for demand, main trends by end-use sector.
- Production: status on production, project pipeline, progress on low-emissions production by technology, cost assessment.
- Trade and infrastructure: update on first trade experiences, trade outlook based on announcements by region, developments of pipelines, UG storage and port infrastructure.
- Investment and innovation: trends on project investment, EMDEs support, technology development updates and patenting trends.
- Policy: update in 5 relevant areas of policies (strategy, demand, de-risk, standards, innovation-cooperation).
- **Special focus chapter on Southeast Asia.**
- Several additional online tools planned: Production and infrastructure projects DB, Online projects map, LCOH map, Data dashboard, Policy dashboard.