

TCP on Hydrogen (Hydrogen TCP)

The Hydrogen TCP, founded in 1977, works to accelerate hydrogen implementation and widespread utilisation in the areas of production, storage, distribution, power, heating, mobility and industry. The Hydrogen TCP seeks to optimise environmental protection, improve energy security, transform global energy systems and grid management, and promote international economic development, as well as serving as the premier global resource for expertise in all aspects of hydrogen technology.

Main areas of work

- Collaborative R,D&D that advances hydrogen science and technology such as hydrogen production, storage, and integration in energy systems including in infrastructure and transport;
- Hydrogen analysis, including technical studies and market reviews;
- Hydrogen understanding, awareness and social acceptance, including information dissemination, safety and outreach.

Key activities and accomplishments (2017-2018)

- Contribution of resources and expertise to the IEA 2019 report [The Future of Hydrogen](#)
- Research on [Power to Hydrogen](#) examining all aspects of hydrogen as an element of an integrated energy system
- Launch of hydrogen in maritime applications project
- Ongoing use tools such as the [life cycle sustainability analysis \(LCSA\)](#) method, [market readiness assessment](#) and data modelling
- Paper on [Global Outlook and Trends for Hydrogen](#)



Energy Observer, launched in April 2017, is the first hydrogen vessel in the world (Photo courtesy of Energy Observer)



Hydrogen TCP Executive Committee meeting in Korea (photo courtesy of Mary-Rose Valladares)

New priorities and projects (2019 – 2020)

- Approve and launch R&D analysis tasks, explore new hydrogen carriers
- Extend the scope of hydrogen applications: electrofuels, industry, chemicals
- Align and deepen co-operation with IEA analytics via data/modelling task
- R&D analysis promoting hydrogen in climate sensitive energy transition, including trade
- Identify key barriers to hydrogen development/deployment and related solutions

Multilateral collaborations

- Staff loan to the IEA to work on the IEA G20 Hydrogen Report
- Co-operation with the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE) under a Memorandum of Understanding
- Collaboration with Capenergies, French energy cluster, under Hydrogen TCP's [Task 38 \(power-to-hydrogen and hydrogen-to-X\)](#)

Interest in future collaboration

- Interest in collaboration with the ETSAP TCP and other TCPs in the transport, fossil fuels and renewables sectors
- Liaison with international hydrogen initiatives under the Clean Energy Ministerial, Mission Innovation, IPHE
- Proposed future project with the United Nations Industrial Development Organization (UNIDO)
- Interest in collaboration with the International Renewables Energy Agency (IRENA)

Membership



- Hydrogen Council • Hychico • NOW GmbH • Reliance Industries Limited (RIL)
- Shell Global Solutions International BV • Southern Company Services, Inc.

Why should your organisation become a member of the Hydrogen TCP?

Hydrogen TCP members benefit from the TCP's global research outreach and robust industry participation. The Hydrogen TCP provides a strategic platform to make sense of the "hydrogen" momentum. Hydrogen TCP enables high-level co-ordination in research, development, dissemination and market deployment, as well as technology and market analysis.

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