

Renewable Hydrogen Production

A Task in Definition from the Hydrogen TCP

Timing

- Expected start date: May 2023; Expected end date: April 2026

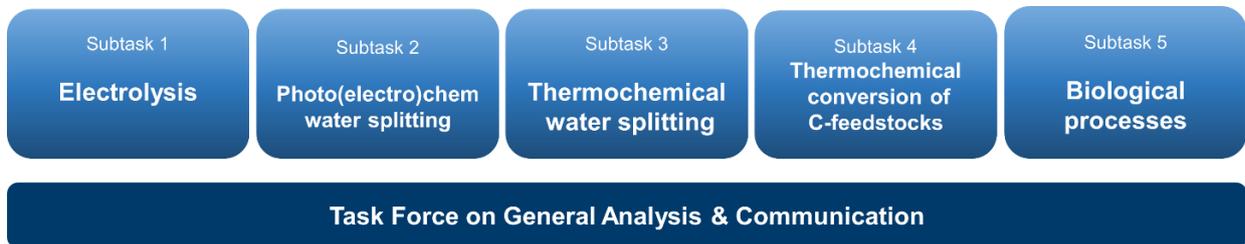
Main goals

- Assess renewable hydrogen production technologies, monitoring their evolution and enhancing their visibility.
- Provide clear and regularly updates of the State of the Art.
- Help stakeholders and decision-makers to identify the most suitable routes to implement in different scenarios by comparing different processes.

Scope

- Main approaches: data analysis, technology assessment, techno-economic analysis.
- Focus on TRL ≥ 3 . For commercial technologies (such as electrolysis) focus on lower TRL alternatives/improvements (e.g., pressurized alkaline electrolysis, dense current, ...).
- For TRL <3 a brief overview on known alternative technologies and processes will be made, linking for more information and active research groups.

Structure



Deliverables

Each Subtask will produce:

	Goal	Target audience	Extension
Technology Briefs	Easy to understand overview report on assessed technologies: brief description, TRL, main challenges, cost, projects...	General public, decision-makers Public document	2-4 pages
Technology Insights	Complement the Technology Briefs with more in-depth technical details.	Technical experts, PhD students... Public document	≈ 10 pages
Master document on SoA	Compile all useful information on the technology. Repository.	Task experts, ExCo Internal document	Unlimited

Additionally:

- Digital, interactive, “wiki-like” products will be developed, this will allow to easily compare, filter, order the different technologies.
- Workshops and other outreach activities will be organized regularly.

Collaboration

This Task will frequently collaborate and align its work with other initiatives and working groups on the topic, including but not limited to:

- Hydrogen TCP strategic Activity on TRL Assessment
- Advanced Fuel Cells TCP
- Solar Power and Chemical Energy Systems (SolarPACES) TCP
- Bioenergy TCP
- Mission Innovation – Pillar I R&D – WG Production

What are we looking for?

	Requirements	Responsibilities
Co-Task Manager	25% of working time Good organization and communication skills	Report to ExCo (twice a year), and Technical Secretariat (regularly, to keep website updated, create social media content...) Coordinate GA&C Taskforce Coordinate Participation Letters Organize Task Meetings (1-2/year) Review subtask deliverables
Subtask 1 Leader	15% of working time	Organize subtask meetings (3-4/year)
Subtask 2 Leader	Extensive experience in the specified technology	Participate in GA&C Taskforce
Subtask 3 Leader	Knowledge of the expert network, important events, key publications... for said technology	Coordinate subtask deliverables
Subtask 4 Leader		Curate a balanced group of active experts
Task experts (All subtasks)	10% of working time Active work on R&D in the specified technology. Willingness to share knowledge and experience.	Active participation in meetings and elaboration of deliverables. Update corresponding ExCo Member should they find any challenges in their participation.

Why should you join this Task?

- ✓ Join a network of international experts.
- ✓ Contribute to defining the state of the art for hydrogen technologies.
- ✓ Your participation will be publicly acknowledged in deliverables and the Hydrogen TCP website, enhancing visibility for your work.
- ✓ Participate on cutting edge hydrogen R, D&D.

Any organization, institution, entity, or individual expert from a member Country / Sponsor can participate in the Task upon approval of the Task Manager(s) and corresponding ExCo representatives.