

What's new?

The FLEXnCONFU consortium made important progress since the start of 2022. At the M30 General Assembly in Rozzano, Italy, partners have discussed achieved results and next activities of the project.

👉 Partners from Work Package 1 (WP) on “Scenario Analysis and requirements definition” achieved important results, as the following tasks were concluded at M24:

- Task 1.3 on “Thermo-economic modelling and optimization”;
- T1.4 on “Most promising EU electrical market for FLEXnCONFU enhanced CC and related technical/grid requirements”

👉 Remarkable progress was also made in the following activities of WP2 on “Combustion system compatibility with non-conventional fuels”:

- Experimental tests of NG+H₂ and NG+NH₃
- Global impact of NH₃ combustion processes.

In the future, action to be taken include further simulation on the re-adaptation of the mGT combustion chamber to burn ammonia.

👉 Concerning WP3 on “Integrated plant: balance of plant innovations, control and dynamics” partners shared interesting results:

- P2H control strategy is almost completed, with the main loop identified, the basic engineering and the control architecture completed and the detailed engineering linked to control simulation, logic diagrams and interconnection list correctly in progress

👉 WP4 partners on “Advanced solutions for Power to Ammonia” have presented relevant achievements as well:

- The re-design of the mGT is proceeding in collaboration between UNIGE, RINA-C and the mGT manufacturer.
- Several aspects will be evaluated in the next months, in collaboration also with the manufacturer: guidelines for the operation of the mGT, injection system adaptation, further simulations using the results of T2.2 with a configuration more similar to the real combustion chamber.

👉 As far WP5 on “Integration and demonstration” is concerned, the roadmap to the P2H site realization has been presented to the Consortium at the General Assembly in September.

👉 WP6 on “Scale-up and replicability” has achieved promising results, as the task on “Scale-up of FLEXnCONFU Project (P2H/P2A)” is proceeding smoothly.



A new task on “Regulatory and non-technical framework” has been presented in September, and a survey on standardisation, certification and regulation activities will be soon circulated among partners.

👉 WP7 on “FLEXnCONFU impacts and benchmarking” is proceeding without particular delays. Future activities will be the cooperation with WP8 and ETN for the organisation of a “Stakeholder Workshop”.

The first part of 2022 was also a great success from a communication and dissemination perspective. The consortium performed in major policy, industrial and technical conferences and fairs:

- Participation at the ‘[Hydrogen and Beyond](#)’ webinar held by SolarFuelsNOW.
- Participation of ETN at its [Annual General Conference](#) in March;
- Presentation of the FLEXnCONFU project by ETN and EDP at [ETN’s H2 WG](#) in April 2022
- Participation of the Eindhoven University of Technology at the [International Conference on Numerical Combustion](#) in May;
- Participation of KTH at the [EHEC Conference](#) (KTH) in May

- Participation of ENLAB at [ASME TurboExpo 2022](#) (ENLAB) in June;
- Presentation of the FLEXnCONFU project at the [NH3 Conference](#) by Proton Ventures and University of Genoa in June
- Presentation of the FLEXnCONFU project at the [AGN Natural Gas Association Annual Meeting](#) (EDPP) in June;
- Participation of ENGIE Laborelec and UCLouvain at the [ECOS Conference](#) (ENLAB, UCLouvain) in July;
- Participation of Cardiff University, Eindhoven University of Technology, Université d’Orléans at the [Symposium of The Combustion Institute](#) in July;
- Participation of several partners (Cardiff University, CIRCE Foundation, Eindhoven University of Technology, Technische Universität Darmstadt, UCLouvain, University of Genoa) at the [1st Symposium on Ammonia Energy](#) in September;
- Presentation of the FLEXnCONFU project at the [European Sustainable Energy Week](#) by RINA Consulting in September

The consortium has been very active on social medias and increased awareness and understanding of the project as well.

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FLEXNCONFU NEWSLETTER N.4

Discover FLEXnCONFU!

Interview with Rob Bastiaans – Eindhoven University of Technology (TU/e)



Increasing the fuel flexibility to carbon-neutral fuels and energy storage could be sustainable solutions as resilience against future energy crunches. ETN caught up with Rob Bastiaans, Associate Professor, Power & Flow group at TU/e, with whom we discussed TU/e's involvement in the FLEXnCONFU project.

Have the full interview!



[HERE](#)

Interview with Alessandra Cuneo – RINA Consulting



The main goal of FLEXnCONFU is to develop and demonstrate an innovative, economically viable and replicable powerto-X-to-power solution in a real combined cycle (CC) plant that enables the operation and design of an integrated power plant layout to untap CC plants' flexibility. As the project reached 2 years, we interviewed Alessandra Cuneo, FLEXnCONFU Project Coordinator, to learn more about the achieved progress.

Have the full interview!



[HERE](#)



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