



Welcome to the third edition of the ELECTROLIFE newsletter

In recent months, our consortium has made significant strides, and we are excited to share the latest news with you. In this issue, we spotlight our work to extend the lifetime of electrolysis technologies (AEL, PEMEL, AEMEL, SOEL, PCCEL), introduce our ELECTROLIFE partners, and bring you highlights from recent events.



Follow us on [LinkedIn](#) and [subscribe](#) to the newsletter to stay tuned for more updates as we work to support the wider adoption of green hydrogen technologies and contribute to the decarbonisation of European industry!

Results

Lunar Stack prototype delivered

STARGATE has successfully designed, built, and delivered the first-generation short-stack prototype, known as the Lunar Stack. This Alkaline Electrolysis (AEL) stack closely mirrors the operational parameters of Stargate's commercial products, ensuring high relevance for degradation studies. Testing will now continue at [FAU](#), focusing on operational limits, performance, and durability.



Degradation models developed for five electrolysis technologies

For AEL, AEMEL, PEMEL, SOEL, and PCCEL, degradation mechanisms were identified, modelled, and integrated into cell models. This produced degradation-aware tools capable of predicting long-term behaviour and supporting accurate lifetime assessments of electrolyzers.

Congratulations to all ELECTROLIFE partners on reaching these milestones!

News



ELECTROLIFE General Assembly in Erlangen

The ELECTROLIFE consortium gathered for its third General Assembly on May 15–16, 2025 in Erlangen, hosted by our partners [FAU](#) and [FZJ](#). The two-day meeting combined

presentations with strategic discussions, including an exploitation workshop led by [EGP](#). Participants also had the opportunity to visit the [FAU](#) and [FZJ](#) laboratories, gaining valuable insights into the facilities where much of the project's research is carried out. Technical sessions focused on degradation in low- and high-temperature electrolyzers, addressing modelling, lifetime prediction, testing procedures, diagnostic tools, and technology assessment. These fruitful discussions laid a strong foundation for the next steps in advancing electrolysis technologies.

Coffee breaks



 Pietro Fiorentini

Get to know Alessandro Longato from Pietro Fiorentini

Alessandro coordinates the contributions of PF and HYT focusing on improving the performance and durability of AEMEL stacks through advancements in materials and stack design.



 Consiglio Nazionale delle Ricerche

Get to know Nicola Briguglio from National Research Council of Italy

Nicola, a materials engineer, leads efforts to design, harmonise, and validate standardised testing protocols for electrolyser performance and durability. These protocols align with JRC guidelines to ensure reproducible and comparable results across technologies and partners.

ELECTROLIFE's past events

In the past couple of months, ELECTROLIFE partners shared our progress and recent results at the major events related to hydrogen production and electrolysis technologies:

76th Annual Meeting of the ISE (Germany) – Ceyda Adali ([FAU](#)) delivered a poster presentation titled “*Optimization of Mechanical Durability of NiFeOOH Catalyst Layers on Nickel Mesh for Efficient Alkaline Electrolysis*”, showcasing her research conducted under the supervision of Julia Hoffmann and Bastian J.M. Etzold.

KEY – The Energy Transition Expo (Italy) – During the event, Pietro Fiorentini ([PF](#)) delivered an insightful speech titled: “*From Innovation to Application: Hydrogen Solutions by Pietro Fiorentini and Hyter*”.

Hannover Messe 2025 (Germany) – [PF](#) represented ELECTROLIFE at one of the world's largest industrial fairs.

Hydrogen Expo 2025 (Italy) – Maura Russo from [PF](#) presented ELECTROLIFE, outlined the project's key objectives, highlighted the involvement of ELECTROLIFE partners, and presented the contributions of both [PF](#) and Hyter ([HYT](#)) to the project.

World Hydrogen Summit and Exhibition 2025 (the Netherlands) - [STARGATE](#)'s Stellar Edge stack, presented at the summit demonstrates that the innovations emerging from ELECTROLIFE are moving beyond the laboratory and into real-world applications.

12th Scientific & Technological Days (Algeria) – During the event, Alessandro Monteverde Videla ([POLITO](#)), our project coordinator, gave an overview of the ELECTROLIFE project, Alessandro Longato ([PF](#)) shared insights into PF's role and expertise in the hydrogen field and Belkacem Ould Bouamama ([Ujille](#)) delivered a talk “*Integrated Design of a Green Hydrogen System: From Research to Training*.”

Connecting Green Hydrogen Europe 2025 (Spain) – at the booth, [PF](#) and [HYT](#) highlighted AEM electrolysis solutions and system integration.

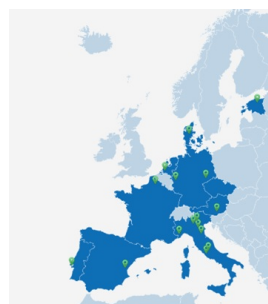
European Fuel Cell Forum 2025 (Switzerland) – [POLITO](#), [FZJ](#), and [CNR](#) contributed to discussions on low-temperature systems.



Explore more insights and partner highlights from these meetings on our [website](#).

ELECTROLIFE partners

ELECTROLIFE is a multi-disciplinary consortium comprising 5 Universities, 2 R&D institutes, and 10 companies, located in 9 European countries: Italy, Germany, France, Austria, Spain, Portugal, Denmark, Estonia, the Netherlands. This diverse partnership is aimed at strengthening European collaboration and ensuring the successful achievement of project objectives and adoption of project results.



Disclaimer

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