Enhance durability of electrolyser technologies

ELECTROLIFE

Welcome to the fourth 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 two (co-organized) workshops showcasing ELECTROLIFE work, 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!

Workshops

On 29 January 2026, the DELYCIOUS project, in collaboration with ELECTROLIFE—its sister project under the Clean Hydrogen Partnership—successfully hosted the webinar *"Advancing Online Diagnostics and Building Durable Electrolysis Systems for Europe's Hydrogen Future."* The webinar was organized by ETA Florence, a DELYCIOUS consortium partner responsible for dissemination, communication, and exploitation activities, and coordinated by Anika Kiecana (Uniresearch), Dissemination Manager of the ELECTROLIFE project.

A central focus of the session was the complementary research approaches of the two projects. ELECTROLIFE concentrates on experimental investigations of component degradation mechanisms across five electrolysis technologies, including ex-situ analysis of stressor impacts and short-stack degradation, modelling and lifetime studies. In parallel, DELYCIOUS focuses on performance degradation analysis in three electrolysis technologies and the large-scale demonstration of monitoring and diagnostic tools on a > 100 KW alkaline electrolyser (AEL).

A full archive of the questions and answers discussed during the panel session is available here. If you missed the webinar, you can view the full recording **here**.

On 28-29 April 2026 the Seal-hydrogen project organized their flagship international event, «*SEAL-HYDROGEN: From Lab Innovation to Industrial Scale-Up*«. During day 2 of the event our coordinator Alessandro Monteverde represented ELECTROLIFE as part of the sister projects session.

ELECTROLIFE General Assemblies

ELECTROLIFE General Assembly in Tallinn

On 27–28 November 2025, the ELECTROLIFE consortium gathered in the beautiful city of Tallinn, Estonia, for the fourth General Assembly, kindly hosted by our partner STARGATE.

The meeting opened with in-depth discussions on degradation modelling, lifetime prediction and testing procedures. The first day consluded with an inspiring technical tour of the STARGATE facilities, where we learned about the about the company's history and explored their production processes behind the scenes. The second day focussed on degradation phenomena, testing methodologies, diagnostic tools, and ongoing technology development and assessment. We also discussed our communication, dissemination and stakeholder-engagement strategies. Throughout the two days, partners presented their latest results, aligned on the priorities, and planned the next steps for the upcoming months.

ELECTROLIFE General Assembly in Lille

On 21-22 May 2026, the ELECTROLIFE consortium gathered in the city of Lille, France, for our fifth General Assembly, kindly hosted by our partner University of Lille.

The meeting opened with in-depth discussions on degradation modelling and lifetime prediction, the diagnostic tools, testing procedures and testing tools. Halfway through the first day, the first Advisory Board meeting was held during which four key presentations were given by ELECTROLIFE partners followed by a good plenary Q&A session. For more on the First Advisory Board Workshop click here. The first day concluded with an inspiring technical tour of the CRIStAL (Research center in Computer Science, Signal and Automatic Control of Lille) laboratories were very interesting innovations in the field of computer modelling and 3D printing were shown to the participants. The second day focused on degradation phenomena, testing methodologies, and ongoing technology development and assessment. We also discussed our communication, dissemination and stakeholder-engagement strategies. Throughout the two days, partners presented their latest results, aligned on priorities, and planned the next steps for the upcoming months.

ELECTROLIFE publications

In the past months the ELECTROLIFE partners have been successful in publishing results from the project in three publications.

1. University of Lille published the first article titled "Power loss tracking for the PEM electrolyser using Multiphysics dynamical bond graph model" in the International Journal of Hydrogen Energy.
2. Our partners TUG and SE published the ELECTROLIFE article titled "Dual pathways for refinery off-gas processing: Comparative analysis of steam reforming and co-electrolysis" in Energy Conversion and Management.
3. CNR published the third ELECTROLIFE publication: "Renewable Energy Storage in a Poly-Generative System Fuel Cell/Electrolyzer, Supporting Green Mobility in a Residential Building" in Energies.
4. The fourth ELECTROLIFE article was published by FAU titled "Progress and perspectives on scaling next-generation alkaline water electrolysis: linking fundamentals to system design" in Current Opinion in Chemical Engineering.

Coffee breaks

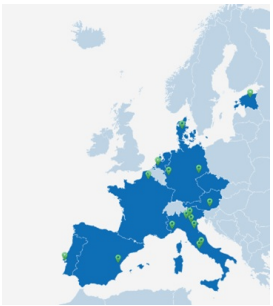
In this edition, we introduce:

- Pablo Compos Rams. Pablo works for the Spanish technology company Kerionics, developing high-temperature electrolysers and advanced ceramic membrane systems. In ELECTROLIFE, Pablo focuses on project coordination and technical follow-up, ensuring that the work carried out fits Kerionics' stategy to bring high-temperature hydrogen technologies to the market.

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.



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