

Press Release

SPRIN-D selected Elementarhy for its disruptive technology and awarded it a development contract.



- Elementarhy is awarded a development contract by the Agency for disruptive innovation in Germany (SPRIN-D)
- Elementarhy aims to become the key innovation leader in the electrolyzer supply chain with technology developed in Germany at the elementarhy GmbH
- SPRIN-D and elementarhy partner to bring the breakthrough for cost-efficient and resilient hydrogen production

Hamburg / Germany, September 2025 – elementarhy GmbH wins a six figure development contract from SPRIN-D.

With this contract, elementarhy will improve its innovative Membrane Electrode Assemblies (MEAs), the core of electrolyzers. The project specifically targets a key challenge of today's electrolysis technology: **durability**. By leveraging its unique expertise at the intersection of electrochemistry and plasma and material process engineering, elementarhy will develop methods to extend the predictable lifetime and operational stability of MEAs under real-world conditions. This improvement in durability will not only lower replacement frequency and operating costs but also strengthen the long-term economic and ecological sustainability of green hydrogen production.

Zahra Nasri, PhD: "This project allows us to systematically enhance the resilience of our MEAs, (...) we want to achieve operational lifetimes previously thought impossible."

SPRIND - Bundesagentur für Sprunginnovationen - Germany's Engine for Breakthrough Innovation

SPRIND, founded in 2019 and headquartered in Leipzig, is modeled after DARPA in the United States. Its mission is to identify and support radical innovations with the potential to transform society and the economy. The agency funds ambitious technologies through "Challenges" and "Funken" (sparks) programs, offers multi-stage evaluations, and provides agile, fast, and hands-on support to teams from

research, industry, and start-ups. By backing elementarhy, SPRIND emphasizes the role of disruptive hydrogen technologies in strengthening Germany's innovation ecosystem.

elementarhy – Next-Generation MEAs

Based on scientific research results of recent decades, elementarhy has now developed a cost-effective, innovative Membrane Electrode Assembly (MEA) for electrolysis using plasma technology, which requires 95% less of the expensive raw material than before. This enables central electrolyzer components "Made in Germany" to be produced 25% more cost-effectively - and thus makes hydrogen production as a whole significantly more economical. With this revolutionary technology, elementarhy enables all electrolyzer manufacturers to significantly improve resilience in critical raw material supply and economic efficiency. elementarhy offers the MEA exchange as a service to industry-leading customers.

elementarhy is a spin-off from the Leibniz Institute for Plasma Research and Technology in Greifswald. There, innovative solutions for socially and economically important technologies are developed. The Federal Ministry of Economics and Climate Protection (BMWK) has been supporting elementarhy as an "outstanding research-based start-up" since 2023 with 1.8 Mio € with the program EXIST Forschungstransfer. With headquarters in Hamburg and a facility in Greifswald, the company combines Hamburg's economic strength in the hydrogen sector with Greifswald's leading plasma research expertise.

Gustav Sievers, CEO: "Being selected by SPRIND does not merely mean a new source of revenue, it demonstrates that elementarhy has matured into a reliable and credible start-up in the green hydrogen sector. For me, it's a proud moment to see our team's expertise and vision recognized by a leading innovation agency, confirming that we are on the right track to deliver sustainable and scalable solutions."

This collaboration demonstrates strong institutional confidence in elementarhy's technology and approach. It also serves as an external validation of the company's work, signaling to other stakeholders that the MEAs are both technically sound and strategically important for the future of green hydrogen.

More about elementarhy: <https://www.elementarhy.com>

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