

as of December 2025

### About Cyclize

Cyclize is a ClimateTech startup and spin-out of the University of Stuttgart that aims to defossilize the chemical industry by turning complex mixed waste and CO<sub>2</sub> into high-quality synthesis gas (syngas). Using a proprietary plasma technology, Cyclize recycles complex, previously non-recyclable waste streams and carbon dioxide into a valuable feedstock for chemicals, plastics, methanol, hydrogen and e-fuels. By replacing fossil natural gas and coal in syngas production, Cyclize enables a circular carbon economy and helps reduce industrial CO<sub>2</sub> emissions at scale. Founded in 2023, the company is headquartered in the Stuttgart region of Germany and operates a pilot plant that demonstrates its waste-to-syngas process at industrially relevant conditions.

### Technology in a Nutshell

Input: Mixed plastic waste and CO<sub>2</sub> from industrial point sources

Process: Patented plasma technology converts solid, fluid and gaseous carbon-rich waste streams into syngas (H<sub>2</sub> + CO) in a fully electrified process.

Output: Syngas (that is free of virgin fossil carbon) as a drop-in replacement for fossil-based syngas in existing plants.

Impact: Enables circular use of carbon, reduces dependency on fossil feedstock, reduces CO<sub>2</sub> emissions and avoids incineration of difficult waste streams.

### Focus Areas

Chemical industry: Non-fossil syngas for production of plastics, foams, coatings, adhesives and other basic chemicals.

Hydrogen & e-fuels: Circular Syngas as a building block for green hydrogen, methanol and synthetic fuels.

Industrial sites: Decarbonisation of CO<sub>2</sub>-intensive locations where complex mixed waste and CO<sub>2</sub> arise together.

### Key Facts

Company: Cyclize GmbH

Founded: 2023 (spin-out of the University of Stuttgart)

Headquarters: Stuttgart region, Germany

Team: >20 employees (2025)

Funding: >€7 million in public and equity funding; seed round of €4.75 million in 2024 led by UVC Partners with HTGF, Aurum Impact, UnternehmerTUM Funding for Innovators and renowned business angels including former Covestro CTO Dr. Klaus Schäfer.

Status: Pilot plant in operation, demonstrating the plasma-based waste-to-syngas process at scale.

### Founder

[Maike Lambarth](#), Co-Founder & CEO

[Stephan Renninger](#), Co-Founder & CTO

[Jan Samuel Stein](#), Co-Founder & COO

[Dominik Novakovic](#), Co-Founder & CFO

### Press contact

Name: Anja Schröder

E-mail: [press@cyclize.de](mailto:press@cyclize.de)

Phone: +49 152 07203249

### Web & Social

Website: [cyclize.de](https://cyclize.de)

LinkedIn: <https://www.linkedin.com/company/cyclize/>

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