

Press release

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Start-ups: Twelve ideas for the defossilisation of the plastics industry

Frankfurt am Main, April 24, 2025 – Plastics Europe Germany, the association of plastics producers, has announced the finalists of the start-up competition “[Towards Zero](#)”. On October 13, twelve start-ups will present their solutions at K 2025 – the world’s leading plastics trade fair in Düsseldorf, Germany and showcasing innovations to reduce the industry’s dependence on oil and gas. The competition sought ideas that close plastic loops, reduce emissions, and replace fossil resources in production processes.

“Start-ups provide crucial impulses for the future of our industry,” says Dr. Christine Bunte, Managing Director of Plastics Europe Germany. “The finalists show how the plastics sector can operate with fewer fossil resources and what kinds of solutions are needed to transform production processes.”

The start-ups compete against each other in two categories. In the morning, young start-ups will present their ideas on the Newcomer Stage.

- [AES](#) develops modular, scalable chemical recycling units that convert plastic waste into reusable oil right where it’s generated, eliminating the need for long-distance transportation.
- [coiss](#) produces smart plug-and-play sensors to digitally retrofit existing machinery, helping to reduce downtime and cut energy consumption.
- [Moldsonics](#) offers ultrasonic sensors that make plastic machines more precise while reducing waste, energy, and material consumption.
- [Osphim](#) develops AI-powered software for plastics converters, helping manufacturers integrate more recyclates and lower energy consumption, even in complex applications.
- [Radicaldot](#) enables energy-efficient chemical recycling to produce basic chemicals from plastic waste that partially replace fossil raw materials in plastics production.

- [s1seven](#) offers solutions for digital material passports that provide transparency on the origin, composition, and carbon footprint of plastics, enabling high-quality recycling.

In the afternoon, the stage belongs to the 'Big Fish', start-ups that have already brought their ideas to market.

- [Carbon Minds](#) provides data-driven insights into emissions from plastic production, helping companies reduce their environmental footprint.
- [ECO2GROW](#) enables small and medium-sized enterprises to purchase affordable green electricity at fixed rates, directly from producers, just like major customers.
- [MacroCycle](#) operates energy-efficient chemical recycling facilities that enable infinite PET recycling without any degradation in quality.
- [Paques Biomaterials](#) produces biodegradable plastics from various organic waste streams to replace fossil raw materials.
- [Polymerize](#) uses an AI-powered platform to speed up research and development in materials science and improves outcomes in plastic product design and performance.
- [sykell](#) develops ERP software to support circular business models by enabling the efficient return and reuse of packaging and materials.

“The finalists of the start-up competition represent every stage of the value chain, from plastics production, converting to machinery and recycling,” explains Thomas Franken, Director of the K Trade Fair and co-organizer of the pitch. “And that’s exactly what we need. The defossilization of the plastics industry can only succeed if all parts of the value chain work together.”

The competition will be moderated by Martin Bellof, Lead Ventures & Partnering of the start-up platform chemstars. chemstars is an open platform initiated by top-tier companies in the chemical industry and the Association of the Chemical Industry of North Rhine-Westphalia (NRW).

More information about the start-up competition can be found at:

<https://plasticseurope.org/de/towards-zero/>

Note to editors

Plastics Europe Germany is the association of plastics producers in Germany. The association is a trade association of the German Chemical Industry Association (VCI) and part of the European network Plastics Europe with representation in Brussels and the European economic centres and capitals.