

Press Release

For immediate release

Düsseldorf, October 9, 2025

A key technology for polyester circularity takes shape in Germany — matterr to build small-scale depolymerization plant at Chemiepark Knapsack

At this year's K-Messe matterr introduces its patented depolymerization process and outlines their roadmap to scale chemical polyester recycling in Germany. The combined financial support from the EFRE/JTF program in North Rhine-Westphalia "*Produktives.NRW*" and the family-owned international fashion group BESTSELLER lay the foundation for matterr's first small-scale industrial plant and the subsequent international scale-up of its technology. The depolymerization plant for polyester at Chemiepark Knapsack will serve as a blueprint for future large-scale plants.

Why this matters

Chemical depolymerization addresses polyester streams that mechanical recycling cannot handle: including mixed colors, blended textiles and multilayer packaging. matterr's process selectively converts the PET fraction of these complex waste flows back into virgin-quality, drop-in monomers — terephthalic acid (TPA) and ethylene glycol (EG) — fully compatible with existing polyester production and reducing reliance on fossil feedstocks. The funding commitment under "*Produktives.NRW*" underlines the opportunity to safeguard know-how, retain value creation in Germany and strengthen security of supply for the circular economy.

Key facts — at a glance

- **EU grant:** €30 million via „*Produktives.NRW*“ (EFRE/JTF).
- **Planned plant capacity:** ~10,000 tons per year of recycled polyester feedstock.
- **Timeline:** groundbreaking planned for 2026.
- **Technology:** Chemical depolymerization that selectively converts the polyester fraction of mixed waste streams into virgin-quality monomers, terephthalic acid (TPA) and ethylene glycol (EG), enabling seamless re-polymerization within existing production chains.



- **Scale-up strategy:** small-scale plant as a blueprint for future large-scale sites (>100,000 t/a) and international roll-out via licensing and partnerships.

Lead statement:

“With the EU funding and BESTSELLER’s investment, we have reached two important milestones towards building a small-scale industrial depolymerization plant at Chemiepark Knapsack,” said **Melanie Hackler, CEO of matterr**. “Our decision to scale in Germany is intentional: the technology was developed here, and we will keep the value creation here. This ensures strategic independence in a key technology driving the global circular transformation in textile and packaging industries.”

Project and regional impact

The facility, designed for an annual capacity of around 10,000 tons, converts hard-to-recycle polyester streams — from textiles to multilayer packaging — into virgin-quality, drop-in feedstock. The technology is designed to handle complex material streams that are incompatible with mechanical recycling methods.

By capturing polyester waste streams currently sent to landfill or incineration, matterr is advancing the decarbonization of the polyester value chain, securing raw material supply, and contributing to EU circular economy and climate targets – while reinforcing Germany’s role as a hub for industrial innovation.

The project underscores NRW’s role as a hub for circular economy and sustainable industrial transformation. With its strong infrastructure, established chemical cluster, and close proximity to value-chain partners, Chemiepark Knapsack offers ideal conditions for matterr’s first small-scale plant.

“The Chemiepark Knapsack offers ideal conditions: infrastructure, energy networks, skilled workforce, and proximity to strong partners across the value chain. For us as a team, it is also about establishing standards and processes that enable fast replication and international roll-out”, said **Benjamin Rump, COO of matterr**.

By scaling up, matterr aims to prove that fossil-free circular solutions work at industrial scale and to set a new benchmark for sustainable supply chains across industries.



Partners' response:

Monika Beck, Head of Business Unit D-A-CH / Spain / Portugal,

NRW.Global Business: "The settlement of matterr and their industrial plant for PET recycling in NRW is a success story and another evidence how we drive innovation and transformation in our area. With its circular economy approach and technology-driven vision, matterr perfectly represents the kind of sustainable industrial innovation we want to attract to NRW."

Ralf Müller, Management Board, YNCORIS:

"Our aim has always been to attract process plants to Chemiepark Knapsack that preserve material cycles and strengthen local circularity. With its expertise and advanced solution, matterr is an excellent fit for the site."

Christoph Kopenhagen, Management Board, YNCORIS:

"We at YNCORIS, the operator of Chemiepark Knapsack, look forward to supporting matterr in focusing on its core competence: scaling up chemical recycling of PET. matterr will benefit from our integrated infrastructure and services – all from a single source."

Availability of materials & interviews

This release accompanies matterr's press briefing and is provided as background information for trade and technical media. More information and interview requests can be placed via the press office.

Media contact:

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About matterr

matterr is a technology company specializing in chemical polyester recycling. Through an innovative depolymerization process, the company converts mixed PET waste—including polyester textiles and multilayer packaging—back into its fundamental building blocks: terephthalic acid and ethylene glycol. These are then purified and repolymerized into high-quality polyester using existing production facilities.

In doing so, matterr is laying the groundwork for a truly circular economy—one in which waste becomes a valuable resource and fossil raw materials are permanently replaced. The company's goal is to make polyester an infinite resource: technologically advanced, ecologically impactful, and industrially scalable. After its successful implementation in Germany, matterr aims to make its technology available internationally through licensing models, accelerating its global adoption. **www.matterr.de**