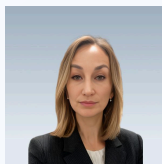




Unlocking Circularity: why Chemical Recycling may be the only path to a sustainable plastics future



Mark Vester
CEO of Der Grüne Punkt



Elena Schreivogel
Principal at
Pedersen & Partners

Pedersen & Partners hosted a timely discussion in its Circular Economy Series with guest speaker **Mark Vester**, former CEO of Der Grüne Punkt and an experienced executive in the petrochemical and recycling sectors. Moderated by **Elena Schreivogel**, Principal at Pedersen & Partners, the conversation explored the current challenges and the emerging solutions around plastic waste, with chemical recycling positioned as the missing link in the circular economy.

"You're really creating something new," Elena remarked as she welcomed Mark to the session, which brought together sustainability leaders and professionals across Europe.

A material we cannot live without - yet struggle to handle

Mr. Vester opened the session by acknowledging plastics' complex duality.

"I cannot talk about the problems of plastics without also talking about how good plastics are and how successful they are," he noted.

Plastics are foundational to modern life: durable, lightweight, scalable, and hygienic -

critical features for packaging, transportation, and preservation. Yet, these very qualities also create challenges. As Mr. Vester emphasized, “Despite all the discussions, plastic production is expected to grow significantly in the coming decades.”

The issue, he explained, is not plastic itself, but what happens after its use. In Europe, around 60% of plastic waste still ends up in incineration or landfill. *“Some of that also leaks into the environment... and because it is a durable material, you also tend to see it for a longer time.”*

Mechanical Recycling has limits

While mechanical recycling has long been the industry’s default solution, Mr. Vester was candid about its drawbacks.

“Large petrochemical companies have traditionally ignored mechanical recycling, as it produces a product with inferior properties to virgin plastics..”

Mechanical recycling struggles to deal with contaminants and mixed polymers, limiting its applicability for high-quality or food-grade uses. Mr. Vester contrasted this with the growing regulatory pressure for recycled content in packaging, pointing to a widening gap between compliance requirements and existing technological capabilities.

Chemical Recycling: a structural enabler

Enter chemical recycling – specifically pyrolysis – as a scalable, compliant, and circular solution.

Using companies like Plastic Energy as examples, Mr. Vester described a process where mixed plastic waste is broken down under oxygen-free conditions at high temperatures to produce pyrolysis oil, which can be re-integrated into traditional petrochemical processes.

“It goes into steam crackers, gets converted back into monomers, and then you produce virgin-quality polymers,” he said. Notably, chemical recycling through pyrolysis *“is accepted by the European Food Safety Authority as suitable for food-contact packaging,”* unlike mechanical recycling.

He cited Unilever and SABIC’s collaboration on **Magnum** ice cream tubs – one of the first global applications of chemical recycling at scale.

Policy as a catalyst

The conversation turned to policy. Vester stressed the significance of the **EU’s Packaging and Packaging Waste Regulation (PPWR)** passed in February 2025:

- **10% recycled content for contact-sensitive packaging by 2030 (25% by 2040)**
- **35% for all other plastic packaging by 2030 (65% by 2040)**

"This cannot be met with mechanical recycling," Mr. Vester explained. "We need chemical recycling capacity to be built up in order to deliver on this promise."

Additionally, national taxes – like the UK's Plastic Packaging Tax and Spain's LRSC – are now penalizing non-compliant packaging, accelerating the commercial need for compliant recycled materials.

Demand Is growing, but supply Isn't

Despite growing demand, Mr. Vester painted a stark picture of the supply side.

"There is no industry today to unlock it. The capacity intended to be built will be way off from the 2 million tons needed in 2030."

Smaller companies struggle to scale technology, while major petrochemical players are retreating from the space. *"They're closing crackers in Europe for the first time in decades. Companies like INEOS and Shell have stepped away from chemical recycling to prioritize other investments."*

Helix Projects: building the bridge

Recognizing both the opportunity and the gap, Mr. Vester introduced his latest venture: **Helix Projects.**

"We want to establish a market leader – not by developing a new technology, but by deploying proven technology at scale."

Helix aims to *"build, own, and operate"* facilities using licensed, validated pyrolysis technologies. The goal is to bring upgraded pyrolysis oil – free from impurities – to petrochemical markets in volumes that matter.



"We target a market share of 10–15% by 2030," Mr. Vester stated, aligning with the regulatory deadline for mandatory recycled content. "This project is only viable if we secure feedstock, proven technology, and offtake agreements – all under bankable terms."

The founding team and its edge

Helix's founding team brings decades of operational, technical, and financial experience, with many years of experience in specifically chemical recycling. Nevertheless:

"This team cannot deliver on the project by itself. This is just the start," Mr. Vester admitted, reinforcing the importance of *"team development, mobility, and the right ownership mindset."*

What will it take to succeed?

As Elena probed deeper into the vision behind Helix, Mark Vester emphasized several critical factors:

- 1. Strong regulation** – "If we don't have firm rules, this market doesn't materialize."
- 2. Feedstock security and upgrading capacity** – "The material that goes to landfill and incineration must be tapped."
- 3. Bankable partnerships and capital** – "There is money in the market for de-risked business cases."
- 4. Human capital** – "You need people who are comfortable with risk, passionate, and mobile. That's not easy to find."

Looking ahead: a new industrial link

Helix Projects is more than a recycling company – it is positioning itself as a **link between the waste management industry and the petrochemical value chain**, traditionally disconnected sectors.

"We should not speak about plastic waste," Mr. Vester reflected. *"This is a feedstock business. And most large corporates are standing far away from it."*

By building infrastructure, deploying technology at scale, and hiring for execution, Helix aims to change that.

Pedersen & Partners continues to support clients and leaders advancing sustainability across industries. Chemical recycling is no longer just an option – it is a necessity. And companies like Helix Projects are shaping the next generation of industrial circularity.