

Driving the Future of Ports

PEMA's President, Achim Dries, discusses innovation, sustainability and collaboration in the port equipment sector with Peter MacLeod.

Face-to-face at TOC Europe in Rotterdam this June, I had the pleasure of sitting down with Achim Dries, President of the Port Equipment Manufacturers Association (PEMA). Insightful and candid, Dries shared his vision for an industry undergoing rapid transformation and how PEMA is positioning itself at the heart of that change.

"PEMA is a global network of technology and equipment providers shaping the future of ports and terminals," he explains. With 127 members ranging from crane and equipment manufacturers to software developers and automation specialists, the Association is far more than a typical trade body. "We see ourselves as a platform for dialogue, technical expertise, and strategic alignment across the supply chain."

This collaborative ethos underpins PEMA's core activities, from working groups and technical committees to the university Ottonel Popesco Student Challenge, and knowledge-sharing events like the biannual member AGM and Autumn meetings. At its heart, Dries says, PEMA is about "promoting best practices and enabling knowledge exchange".

Challenges

So, what's keeping port equipment manufacturers up at night? "There are several powerful shifts shaping our industry right now and they're deeply interconnected," Dries tells me. Unsurprisingly, sustainability is top of the agenda. With increasing regulatory, commercial and societal pressure on ports to decarbonise, PEMA's members are innovating across electrification, energy recovery and smart power management.

"Technologies that capture and reuse braking energy or optimise peak loads are already being integrated into cranes and horizontal transport systems. Automated systems don't just improve productivity, they can also minimise idle times and reduce unnecessary movements, both of which lower fuel consumption and emissions."

Digitalisation is another driving force. "Data-driven decision-making, remote operation, and AI-supported maintenance are no longer visions, they're real-world demands." PEMA is actively contributing to TIC 4.0, an initiative aimed at standardising data across terminal operations. "We help bring the manufacturers' voice to the table, ensuring that whatever standards emerge are technically sound, commercially viable, and globally applicable."

Automation

Meanwhile, automation continues to gain traction, not least due to global labour shortages. "Recruitment and retention have become real challenges," says Dries. "The global labour situation is absolutely influencing port operations and it's also impacting the way equipment is being designed."

From safer, more ergonomic machinery to remote operations and intuitive interfaces, manufacturers are adapting to new workforce realities.

And then there's resilience. "The global disruptions of recent years have shown how vital flexible, future-ready port systems are," Dries reflects. From supply chain volatility to climate-related risks, PEMA aims to provide a neutral space where long-term thinking and innovation meet.

Future of Diesel

One of the more grounded points in our conversation was the ongoing role of diesel. While its future is limited, Dries remains pragmatic: "Realistically, diesel will remain part of port operations for some



Achim Dries
President of PEMA

time to come... a complete shift can't happen overnight." He sees value in transitional solutions like HVO fuels, retrofit kits, and hybrid configurations, all with an eye on emissions reduction.

Safety, of course, remains a central concern. "The most common types of accidents involve collisions between vehicles and personnel, incidents during cargo handling, and falls during maintenance or access work," he says. PEMA's Safety & Environment Committee plays an active role in producing guidance and technical recommendations to mitigate these risks, with technology — from collision avoidance to automated controls — increasingly part of the solution.

But perhaps what excites Dries most is the bigger picture: "What excites me most is the pace of transformation. For a long time, ports were seen as conservative environments. That's no longer the case." From digitised systems and clean energy integration to dynamic labour solutions, the port equipment sector is rapidly evolving.

As we wrapped up, it was clear that Dries sees PEMA as both a convener and catalyst. "Our sector is becoming more technologically advanced, more connected, and more strategically important to the global economy. The way ports manage energy, data, and operations will shape supply chains for decades to come."

www.pema.org



Sustainability is at the top of PEMA members' challenges



Dries speaking with Logistics Business at TOC Europe