

## Media release

### **Leadec implements AI-based pick-and-place solution for empties management**

**Stuttgart/Germany, April 28, 2026 – Every day, around 12,000 small load carriers (SLCs) are sorted, inspected, and prepared for further use in the empties management process at the Köllda site. Leadec has developed an automated pick-and-place solution for this purpose. Now, a cobot equipped with AI-based image recognition assists in sorting and stacking the small load carriers, improves process stability, and reduces the workload on employees.**

The central element of the solution is an AI-based software for object and position recognition of the small load carriers. Using a 3D camera installed on the cobot, the system detects the various SLC types and their positions, regardless of how they are oriented on the conveyor belt. The cobot then picks up the containers with a suction gripper and stacks them on pallets according to specifications. To achieve this, the software was automatically trained using synthetic data of the various small load carrier types, enabling precise, millimeter-accurate handling. Leadec relies on the AI-based machine vision software from its technology partner Vathos.

#### **Reliable processes in empties management**

“At the Köllda site, around 200 different small load carrier types are in use. We initially focused on two variants, which together account for about 30 percent of the total empties volume. This allowed us to test the system’s performance at both low and high packing densities. Now that the pick-and-place solution has proven itself, we are gradually expanding it further,” explains Stephan Hihn, Global Head of Product Management at Leadec.

Around 1,800 pallets of empties are processed daily at the site in two shifts. The solution is primarily aimed at relieving employees of repetitive manual sorting and stacking processes. In addition, the cobot helps the team ensure consistent process quality and high availability. For the automotive industry customer, this means more stable and predictable processes in the empties flow.

## **Quick setup and expansion**

“Our robot vision software is designed to reliably execute complex pick-and-place processes in industrial environments. Through AI-based image processing, the system can precisely detect and localize objects regardless of their position. Only a few parameters are required to set up the software, as the AI models learn from the data themselves. This reduces integration effort and increases reliability compared to conventional image processing methods. The use case at Leadec demonstrates that ‘Physical AI’ can already be used economically on the shop floor today,” says Dr. Nicolas March, CEO of Vathos GmbH.

For Leadec, technical flexibility was a decisive factor: “The Vathos solution is hardware-independent and can be easily integrated into existing sensor, robotics, and IT infrastructures. We deliberately chose a cobot to enable safe collaboration between humans and robots. The user-friendly interface simplifies setup, and new small load carrier variants can be added quickly and without complex programming,” says Stephan Hihn.

This is exactly what is currently happening at the Köllda site. The goal is to have more than half of the small load carriers sorted automatically there in the future. In addition, the solution is being scaled up and deployed in other logistics centers operated by Leadec. In addition to the pick-and-place solution, further areas of application are to be developed in the next step.

## About Leadec

Leadec is the leading global service specialist for factories across their entire life cycle and related infrastructure. The company, headquartered in Stuttgart, Germany, generated sales of over 1.35 billion euros in 2025 and employed around 22,500 people in 16 countries. With over 60 years of experience, Leadec supports its customers along the entire production value chain, in more than 900 factories at about 380 sites worldwide.

Leadec's global services comprise: Install (Installation and Relocation), Automate (Automation & Commissioning, Production IT), Maintain (Production Equipment Maintenance and Technical Cleaning), Logistics (Value Added Services & Intralogistics), Support (Technical Facility Management and Infrastructural Facility Management), as well as other local services. The digital business platform Leadec.os offers an end-to-end solution which digitizes all service processes across systems.

More about Leadec: [www.leadec-services.com](http://www.leadec-services.com)

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