

# SUCCESS STORY

## DREAM TEAM IMPROVES SAFETY

Reliable protection of people and processes in automated warehouse systems at Movu Robotics



**Movu Robotics wanted to replace its self-designed safety system for accessing shuttle systems with a solution that would reliably ensure the safety of danger zones in automated warehouses. In collaboration with the safety engineering specialist EUCHNER, a tailor-made solution was developed using the safety door system MGB2 Modular and the key system CKS2. This future-proof system meets all the requirements for flexibility, cost-effectiveness, and reliability and has already been installed 200 times across Europe. Compared to the previous, self-developed safety system for aisle access, installation and set-up time can be significantly simplified and reduced by around 70 percent.**

“Our customers need modular systems that can grow with their business, function reliably even at minus 30 degrees Celsius, and are also energy-efficient,” explains Herman Tesseur, Safety Director at Movu Robotics. The company specializes in warehouse automation with the aim of simplifying it. “This is why we also strive to keep commissioning times as short as possible and total operating costs low.” In addition to pallet shuttle systems, bin solutions, AMRs and pick robots, as well as the software that ties everything together, Movu Robotics also offers safety systems. In order to continue offering its customers optimal solutions in the future, the focus at the end of 2024 shifted to safety engineering of aisle accesses in the warehouse. This is because there is an acute danger to the workforce behind the fence – from automated systems, driverless transport systems, and moving machine parts.

### Efforts on both sides

The company’s in-house developed access control solution, consisting of a large junction box with complex wiring and mechanical keys, was no longer state of the art. It was costly to install and offered very little flexibility. “We were looking for a flexible, adaptable, and future-proof solution that met all the safety requirements of EN 528 and was easy to install and commission,” explains Renaat Mondelaers, a machinery safety engineer at Movu Robotics. He lists the most important requirements: “The solution had to be internationally scalable and ensure that no one could enter the aisles without being noticed. At the same time, it needed to prevent the installation from starting in automatic mode while people were present in the danger area.

It also had to be possible to shut down individual zones for maintenance and repair work instead of bringing the entire warehouse to a halt.”

“It was also important to Movu Robotics that the door locking system was EtherCAT- and PROFINET-ready, could be used in all the company’s intralogistics installations, and had a functional design – all of this at the same cost as the old solution,” adds Ronny Slenders, Manager Sales & Safety Services at EUCHNER BENELUX. “This is why I introduced Movu Robotics to our dream team consisting of the MGB2 and CKS2. The MGB2 Modular speaks for itself – it has a modular structure and can be designed to meet individual requirements.” The bus module, which supports PROFINET, EtherCAT (P), and EtherNet/IP, provides the necessary flexibility in terms of communication. “Our versatile CKS2 key system, which can be coded, adds the finishing touch to the package and replaces the existing mechanical keys,” explains Ronny Slenders.

### Joint development and rapid implementation

Movu Robotics was impressed by the basic concept and decided to collaborate with EUCHNER. “We had had a positive experience of EUCHNER and its products in the past,” says Herman Tesseur. “This is why we were convinced that we would be able to work together to create the right solution.” His assessment of the situation proved to be accurate. In the course of just a few highly productive workshops, a team of experts from both companies adapted the new safety system to meet the specific requirements of the warehouse systems.



The RFID key system CKS2 enables fast and intuitive operation as well as safe and easy access to the aisles.

The CKS2 key system can be used for machine and installation lockout and starting, for assigning authorization to select an operating mode, or as a key transfer system.

The solution consists of a door locking system, keys that can be individually coded, and the necessary software in one compact unit, which replaces the old junction box. The system immediately demonstrated its capabilities. The first customer project was complex and consisted of safety solutions on a total of 20 doors – 14 for shuttle levels and six on elevator systems. The implementation was completed in just a few months, despite the challenging technical requirements and the integration of a range of different subsystems.

“The installation on customers’ sites is now significantly simpler, and the set-up time has been reduced by around 70 percent,” says Herman Tesseur. Movu Robotics has now deployed around 200 of these safety systems in installations throughout Europe. The success of the project was made possible by the collaborative, solution-focused approach of both parties. “The cooperation went very well on every level. We put all our efforts into creating the best possible solution,” explains Herman Tesseur.



The company’s in-house developed access control solution was no longer state of the art.



The installation on customers’ sites is now significantly simpler, and the set-up time has been reduced by around 70 percent.

Herman Tesseur, Safety Director, Movu Robotics



Play video!

### Movu Robotics:

Movu Robotics has been operating under this name since the fall of 2023 and is a spin-off based on the solid foundations of the Stow Group, which has been supplying intralogistics systems since the 1980s. Its focus is on automation. It was initially known as Stow Robotics and then became Movu Robotics in 2023. The company is growing at an impressive pace. In the space of only two years, the workforce has increased from 25 people to more than 400 at sites in Europe and the USA.

