**Automated logistics solutions for Reims University Hospital, France**

As part of the new construction of the Reims University Hospital (CHU), the hospital has taken pioneering steps to improve the needs of its patients and the working environment of its employees through innovative technologies. A central element of this modernization is the new “Christian CABROL” building with a capacity of 476 beds and an investment volume of 240 million euros in the first phase of the project. This building houses around 23 departments ranging from surgery to urology. The CHU Reims has chosen DS Automotion, an SSI Schaefer Group company, to automate the building's logistics processes with mobile robots and thus make them significantly more efficient.

**Higher productivity and relief for staff**

The complete automation of logistics processes in the C. CABROL building means a significant increase in productivity for hospital staff. The logistical transportation of various goods weighing up to 500 kg (for meals, pharmacy supplies, storage, waste, etc.) is handled by automated guided vehicles (AGVs), allowing staff to focus more on patient care. The working conditions of hospital staff are significantly improved by minimizing the risk of musculoskeletal disorders.

**High capacity and central organization of logistics**

The AGV system is designed to handle up to 1,500 transports a day between 6:00 and 21:00. The central logistics station on level -2 is the heart of hospital logistics. All hospital trolleys pass through this central point, which has 200 parking spaces. On the individual floors, an additional 154 parking spaces have been set up in the immediate vicinity of the nursing departments in order to relieve the nursing staff as much as possible.

**The NAVIOS fleet manager: efficiency through intelligent control**

The NAVIOS fleet management system plays a central role in controlling the vehicles and goods in this hospital. It monitors and controls the vehicle fleet, optimizes battery management and maximizes the transport capacity of the facility. NAVIOS can dynamically adjust routes to reduce journey times. The control of elevators and automatic doors is also integrated into the fleet and material flow manager to ensure a smooth flow of traffic throughout the building. In addition, NAVIOS enables complete traceability and real-time monitoring of all transports, which is particularly important in the hospital sector.

**Lucy: the flexible transport vehicle**

The “Lucy” mobile robot was chosen to implement the logistics processes in the C. CABROL building, with a total of 10 vehicles being used. Thanks to its hybrid navigation (SLAM and laser), flexible and safe movement is possible on all levels. Lucy has a modular load handling system that can be adapted to the specific needs of the hospital and mainly transports pallet cages and roll containers at Reims University Hospital. With a maximum speed of 1.8 m/s and a load capacity of 500 kg, Lucy is optimally designed for the high demands of hospital operations. Safety features such as a scanner for obstacle detection ensure safe operation.

**Flexibility thanks to the VDA 5050**

LUCY mobile robots are of course equipped with the VDA5050 interface. This enables seamless communication between different vehicles and thus ensures a future-proof logistics system. DS Automotion played a key role in the development of this interface and uses it in all new systems.

**Conclusion**

With the implementation of the AGV system and control by NAVIOS, the CHU Reims has significantly optimized its logistics processes. The hospital staff are relieved of physically strenuous tasks and can devote themselves more intensively to patient care. In addition, the automation contributes to a sustainable improvement in working conditions and an increase in the efficiency of logistics processes.

***Quote***

Ein Bild, das Menschliches Gesicht, Person, Lächeln, Kinn enthält.

Automatisch generierte Beschreibung*Djellouli Jalile:* *Project Manager DS Automotion SARL France*

“The logistics solutions for the University Hospital of Reims was an exciting project with numerous challenges. I am proud to have been able to support this project.”