



Transforming facility management through autonomous cleaning robots

University of Regensburg

BACKGROUND

In the dynamic landscape of modern facilities management, Götz Group, a renowned service provider, is at the forefront of embracing cutting-edge technologies to enhance cleaning operations. In collaboration with Tennant Company, Götz has begun its adoption of autonomous cleaning robots, aiming to revolutionize the cleaning operations at the University of Regensburg.

The autonomous cleaning robots underwent rigorous testing by the Götz team at multiple locations, including the University of Regensburg. This successfully demonstrated their capability to efficiently and consistently clean large and complex public spaces.

CHALLENGE

The University of Regensburg, founded in 1962 with a sprawling campus hosting approximately 20,000 students, posed a significant challenge for conventional cleaning methods. Long corridors and vast halls demanded a solution that was not only efficient but also adaptable to the complexities of a dynamic academic environment.

ENTER RESERL AND VRONI

Götz Group deployed Tennant T7AMR and T380AMR autonomous scrubbers at the University of Regensburg both powered by the market-leading BrainOS® AI autonomous operating system. Considered by Götz to be fully fledged members of their team, the robots were soon affectionately named Reserl and Vroni. Reserl, the



first to be deployed, underwent a rigorous four-week trial in September 2022. Impressing decision-makers with high quality cleaning performance, Reserl was permanently deployed in October 2022. Vroni joined in January 2023 able to operate within tighter spaces.

The autonomous scrubbers boasted features such as 3D and LiDAR sensors for safe navigation, the "Teach and Repeat" system for efficient and easy-to-deploy cleaning routes, and ec-H2O™ technology for eco-friendly cleaning. The machines' performance and location data were accessible through the BrainOS® Mobile app, offering real-time insights and daily performance summaries.

Silvia Rohrwild, Department Head at Götz Group, with over 30 years of experience in the cleaning industry, spearheaded the transition. Having witnessed the evolution of cleaning robotics for 15 years, Silvia seized the opportunity to test autonomous machines at the University of Regensburg.

"Autonomous floor cleaning works excellently here at the university," summarized Silvia Rohrwild. She particularly highlights the consistently high cleaning quality that Reserl and Vroni reproduce day after day believing it to be "a significant advantage of this type of cleaning."

Another factor supporting the implementation of autonomous cleaning from her perspective is the shortage of available personnel to do the work. "That was a crucial point for the switch here at the university," said Rohrwild.



PROVEN SUCCESS FROM THE US MARKET

Götz Group's collaboration with Tennant drew on the success seen in the US market, where Tennant's autonomous floor scrubbers had proved their mettle. Edward Graf-Eckinger, Strategic Account Manager at Tennant commented, "In the U.S. market, among our customer base, we have a number of large retailers including one which deploys around 3,000 autonomous cleaning machines. When you have such a large number of machines in the market you are able to learn a lot in a relatively short time and continuously improve their capabilities. Autonomous cleaning in these retail locations work exceptionally well and our German customers like Götz are now benefiting from the wealth of experience we have in these environments."

SEAMLESS INTEGRATION AND FUTURE PROSPECTS

Silvia Rohrwild highlighted the ease of operation, emphasizing simplicity of the "Teach and Repeat" method. The success at the University of Regensburg has led to further plans for autonomous cleaning in other areas, with a third, smaller machine intended for spaces inaccessible to Reserl and Vroni.

Tennant Company's partnership with Götz Group provides a strong example of how cutting-edge technology can minimize the impact of labor shortages and achieve exceptional cleaning results in every environment.

BENEFITS AND RESULTS

- 1. Overcoming staff shortages:** Tennant's autonomous cleaning machines enabled Götz Group to overcome the challenges of staff shortages, providing a future-proof facilities management solution.
- 2. Operational efficiency:** Tennant's cutting-edge scrubbers clean precisely and consistently, enhancing safe and productive operations for Götz Group.
- 3. Fleet management tools:** Tennant's autonomous robots powered by BrainOS® provided Götz Group with comprehensive insights into operational performance.

CONCLUSION

The successful deployment of Tennant T7AMR and T380AMR autonomous scrubbers by Götz Group at the University of Regensburg underscores the transformative impact automation and robotics can have within the facilities management sector. The introduction of robotic scrubbers enabled Götz to advance its traditional cleaning practices and successfully navigate the challenges of reduced access to workers. With these successes, Götz Group has proven itself a forward thinking leader within facilities management and set the stage for further innovation in the sector.

"Our German customers like Götz are now benefiting from the wealth of experience we have in the area of autonomous cleaning."

Edward Graf-Eckinger,
Strategic Account Manager at Tennant

