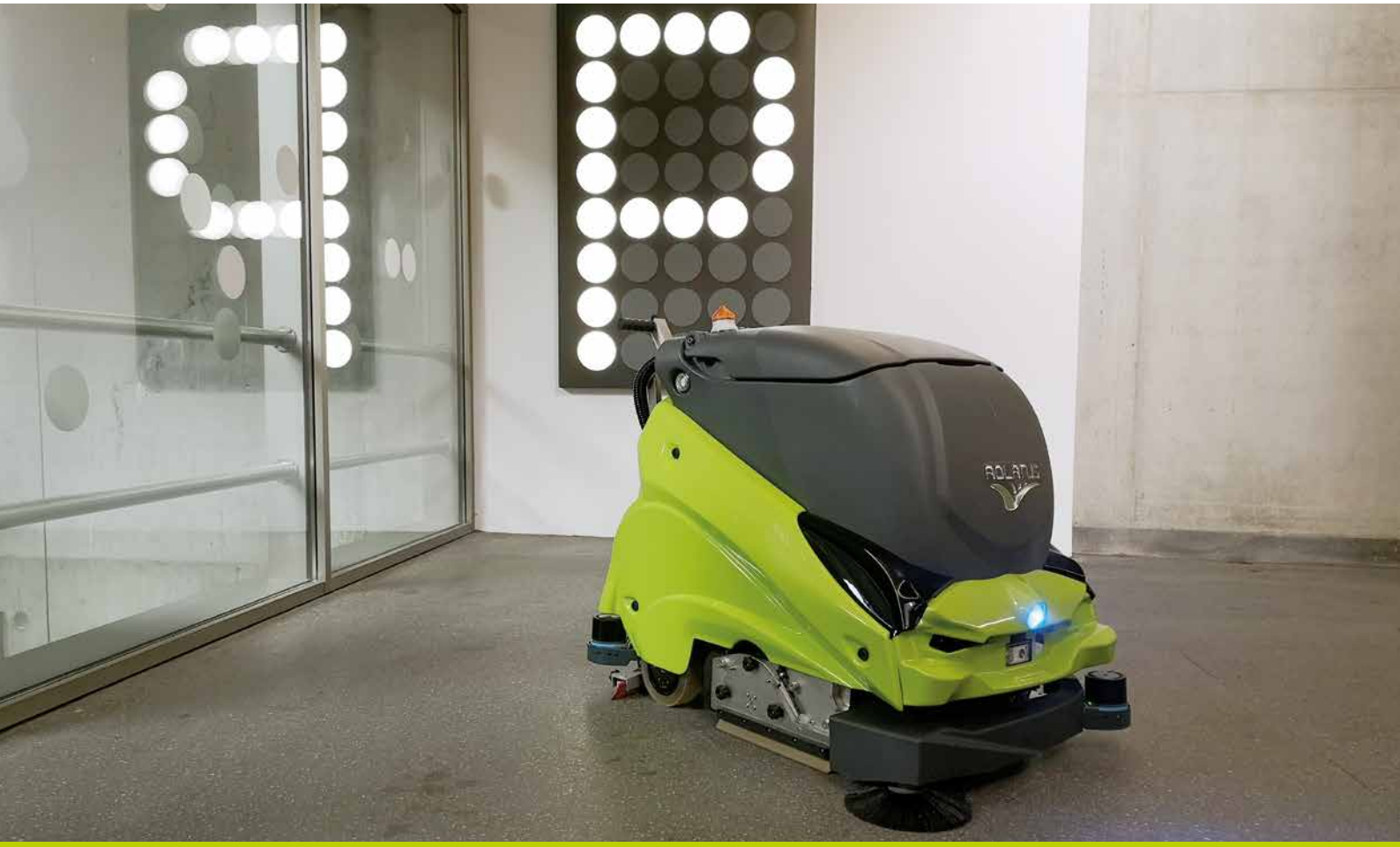
EFFICIENT CLEANING

ADLATUS CR700C + S700-2

Fully autonomous Cleaning Robot System



MISSION

DESIGNED TO SERVE ...

That is the mission of ADLATUS Robotics GmbH.

Digitalization and globalization drive change in the facility management service sector and demand new products and solutions from companies. ADLATUS Robotics GmbH supports this change with innovative autonomous service robots for professional use.

Adlatus comes from Latin and means helper. This is also the idea of ADLATUS Robotics GmbH „to provide companies with an assistant that can take care of tasks independently". From the beginning, ADLATUS has chosen the approach of full autonomy for its service robots and increased their autonomy with service stations.

Our assistants are designed to make life and work easier and successfully provide services independently as a colleague.

ADLATUS Robotics GmbH develops, produces and sells service robots and offers customers complete solutions including consulting, commissioning, training and service.

INNOVATION, COMPETENCE & SAFETY

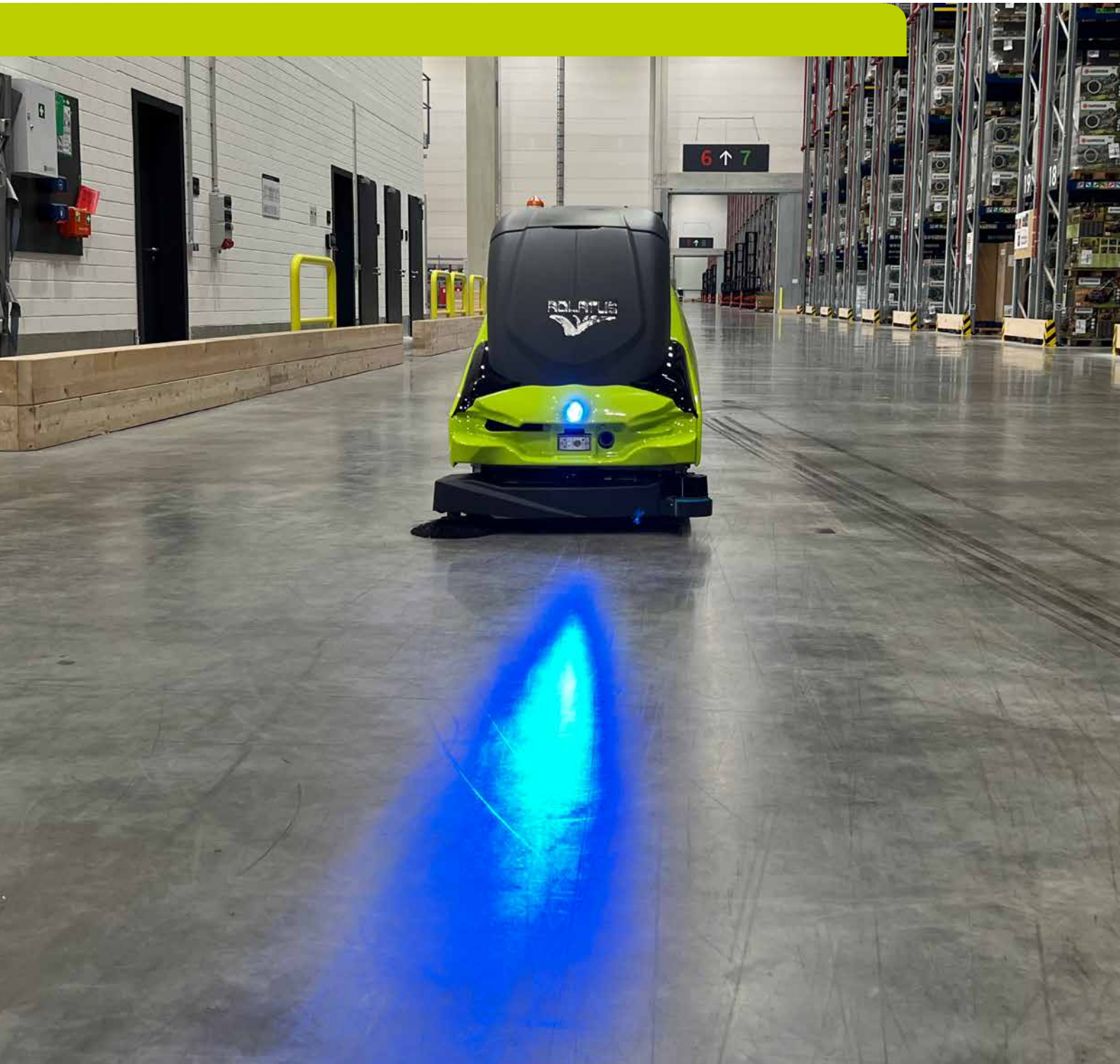
... these are our strengths in the development and realization of fully autonomous cleaning robot systems.

Due to the shortage of skilled labour in many sectors, the demand for process automation is growing. However, a major disruptive factor for process reliability is dust and dirt. To minimize this, regular cleaning is a must, but can often only be carried out infrequently due to a shortage of labour.

These challenges have motivated ADLATUS Robotics from the very beginning to develop new robotic system solutions for the professional cleaning of floors with a great deal of passion, perseverance and team spirit. With the ADLATUS Trusted Robotics platform, ADLATUS Robotics focuses on data protection and data security for its users in addition to full autonomy and high safety performance when developing its robot systems.

LABOUR SHORTAGE IS THE DRIVING FORCE BEHIND OUR INNOVATIONS

EFFICIENT, FLEXIBLE, USER FRIENDLY...



ECONOMIC EFFICIENCY

Cleaning frequencies can be flexibly increased without additional costs, cleaning processes are efficiently designed, customised and integrated into existing workflows. Employees who were previously tied up can be deployed for other activities that are less stressful for the body or more efficient.

FLEXIBILITY

Cleaning times can also be flexibly adapted to traffic frequencies outside working hours. Increased cleaning quality through efficient regular maintenance cleaning increases occupational safety.

USER-FRIENDLY

Thanks to the simple and user-friendly user interface, the robot sweeper system can be started easily by the cleaning staff. Either directly on the robot's touch display next to the device or remotely via a mobile device. In addition to starting the cleaning programs manually, it is also possible for the robot to start the cleaning programs fully autonomously via a timer.

SAFETY PERFORMANCE LEVEL

A combination of different intelligent sensors ensures stability in navigation and brings collision avoidance to a performance level that complies with the global safety standard IEC 63327. This increases the independence and autonomy of ADLATUS robot systems and ensures safety even in environments with many people.

DATA PROTECTION GDPR* COMPLIANT

Privacy by design - at ADLATUS, data protection begins with product development, as the robots do not record any personalised or environmental data.

*General Data Protection Regulation

CONNECTIVITY

The robot sweeper system has options for customised communication with technical systems. It can be integrated into the building infrastructure or IOT systems and can thereby communicate with fire alarm or alarm systems, operate automatic doors and gates or, for example, transmit a full documentation of the cleaning carried out a report via email

TRANSPARENCY THROUGH DOCUMENTATION

Fully automated reporting after each use of the service robots facilitates the documentation and verification of services for billing purposes, performance records or audits. For example, the area cleaned, time spent and more details. The documentation of the cleaning process is certified and data protection compliant.

AUTONOMOUS CLEANING ROBOT SYSTEM

The **ADLATUS CR700C scrubber-dryer system with roller brushes** is capable of removing coarse dirt while simultaneously cleaning the floor efficiently in a single work step.

The roller's motion effortlessly conveys loose dirt and particles into a designated collection container, routinely emptied by the operator. This streamlines pre-cleaning preparations, ultimately saving time during floor maintenance.

The inclusion of an extra side brush facilitates thorough cleaning along edges. Roller brushes are crafted from diverse materials, tailored to the specific flooring surface in need of cleaning.

Utilizing roller brushes yields exceptional cleaning outcomes on textured and irregular surfaces, as well as on areas with joints or crevices prone to dirt accumulation.

FIELDS OF APPLICATION:

- INDUSTRY & PRODUCTION
- LOGISTICS
- PUBLIC AREAS AND FACILITIES
- SPORT HALLS
- CAR PARKS
- OFFICE BUILDINGS
- SHOPPING CENTRES
- AND OTHER APPLICATIONS


SCHWÄBISCH
ADLATUS

TECHNOLOGY IN FOCUS

YOUR ADVANTAGES AT A GLANCE

AUTONOMOUS OR MANUAL OPERATION

The robot cleaning system carries out cleaning work completely independently and also offers the option of manual operation. If, for example, a spot needs to be cleaned spontaneously, this can be carried out very easily in manual mode. The user guides the CR700C manually to any desired cleaning position using a joystick.

FULL AUTONOMY WITH SERVICESTATION

A fully automatic service station increases the degree of automation of the autonomous cleaning system and minimizes the amount of maintenance required from staff. In addition to battery charging, cleaning programs are started automatically and the dirty water is emptied and the fresh water is filled.

CLEANING CLOSE TO THE EDGE

An additional side-mounted brush sweeps the dirt and particles towards the roller, which transports them into a collection container. This enables cleaning close to the edge.

NAVIGATION WITH OUR OWN SOFTWARE PLATFORM

ADLATUS cleaning robot systems are operated on a specially developed software platform which, in combination with a powerful sensor system, ensures a high level of stability in navigation. The software is continuously optimised based on findings from the field and customer requirements and updates are made available to users accordingly.

Together with sensor manufacturers, ADLATUS has developed a sensor system in which different sensors interact, to increase the stability of navigation and improve collision avoidance to a performance level that complies with the European EN IEC 63327 standard. Lidar sensors enable the safe detection of obstacles or people and the early recognition of drop of points. ADLATUS is the only manufacturer that does not use high-resolution cameras for navigation for data protection reasons. 2D and 3D lidar sensors are used for this purpose, which do not record any personal data and do not recognise any details of the surroundings during operation. Surrounding data is only recorded as coordinates.

SELF-SUFFICIENT OPERATION

The operation of the cleaning robots is completely self-sufficient and no connection to a WiFi network or a continuous internet connection is required. This minimizes risks in terms of IT security in companies. This means that ADLATUS cleaning systems can also be used in security-relevant environments, such as prototype construction, public buildings or other sensitive environments.

USER INTERFACE

The system is controlled through the touch display, which is intuitive and can be used by any worker without much prior knowledge. The user interface is multilingual and cleaning programs can be started using self-explanatory symbols, which can be operated by anyone after a short briefing. The start of the cleaning programs can be fully automated for every day of the week. If needed additional executions might be started manually by the staff.

INDUSTRIAL SUITABILITY

The robot sweeper system is CE certified, is suitable for industrial use and is characterised by a quality-conscious, robust design that is designed for long-term use. High-quality components and parts are used, such as stainless steel elements or maintenance-free brushless motors.

TECHNICAL DETAILS

Robot control	Fully autonomous systematic operation
3D sensors for 360° coverage	2D and 3D laser sensors, acceleration sensors, cliff detection sensors
User interface	Access via on-board touch display and smartphone or tablet
Service station (optional)	Fully automated battery charging, supply of fresh water and drainage of waste water
Connectivity	Access to operator information, control and fully automatic documentation via WiFi

CLEANING:

Cleaning width / pick-up width	700 mm / 750 mm + side brush
Brush speed	400-550 rpm
Brush type	Roller brush
Rollers	2 pieces, 180 mm diameter, 656 mm length

VOLUME:

Fresh water tank	60 l	With fully automatic dosing during cleaning operation and refilling at the service station
Dirty water tank	55 l	With fully automatic emptying at the service station
Detergent container	2 l	With fully automatic dosing during cleaning operation

DIMENSION CR700C

Weight	max. 260 kg
Width	827 mm
Length	1.267 mm
Height	1.067 mm

PERFORMANCE

Cleaning time	4 to 6 hours per battery charge (depending on battery capacity 120 Ah / 180 Ah) depending on battery option and cleaning intensity Battery type: Lithium Ion
Battery charging time	1.5 to 2.5 h depending on battery option (depending on battery capacity) with speed charging
Cleaning speed	up to 4 km/h, individually adjustable
Cleaning performance (theoretical)	2.750 m^2/h depending on the environment and cleaning intensity
Application example	With an average operation of approx. 4 hours, the CR700C with roller brush can theoretically clean approx. 10.000 m^2 per battery charge

DIMENSION S700C

Weight	approx. 37 kg
Width	986 mm
Length	366 mm
Height	911 mm

STATUS OF THE CHARGING FUNCTIONS

Loading	1.5 – 2.5 hours
Clean Water	< 10 minutes
Waste Water	< 5 minutes

FULLY AUTONOMOUS SERVICE STATION

The S700C service station enables fully automatic charging of the batteries, draining of dirty waste and refilling of fresh water, thereby increasing the degree of automation of the robotic cleaning system. With a stored schedule, the cleaning programs are started fully autonomously at any time and day of the week.

Water connection	The connection is secured with an aquastop valve, which the service station control unit can use to block the water supply. Water connection 3/4" min. 3 to 6 bar
Power connection	230 V socket
Fully automatic service mode	The fresh water tank is automatically filled and the waste water tank emptied. The batteries are also charged in the service station.
Status - Signal line	The service station display shows whether the battery is charging, fresh water filling and waste water emptying are active and whether the robot is ready for further use.

STEP BY STEP TO SUCCESS

FROM PREPARATION TO PROJECT MANAGEMENT

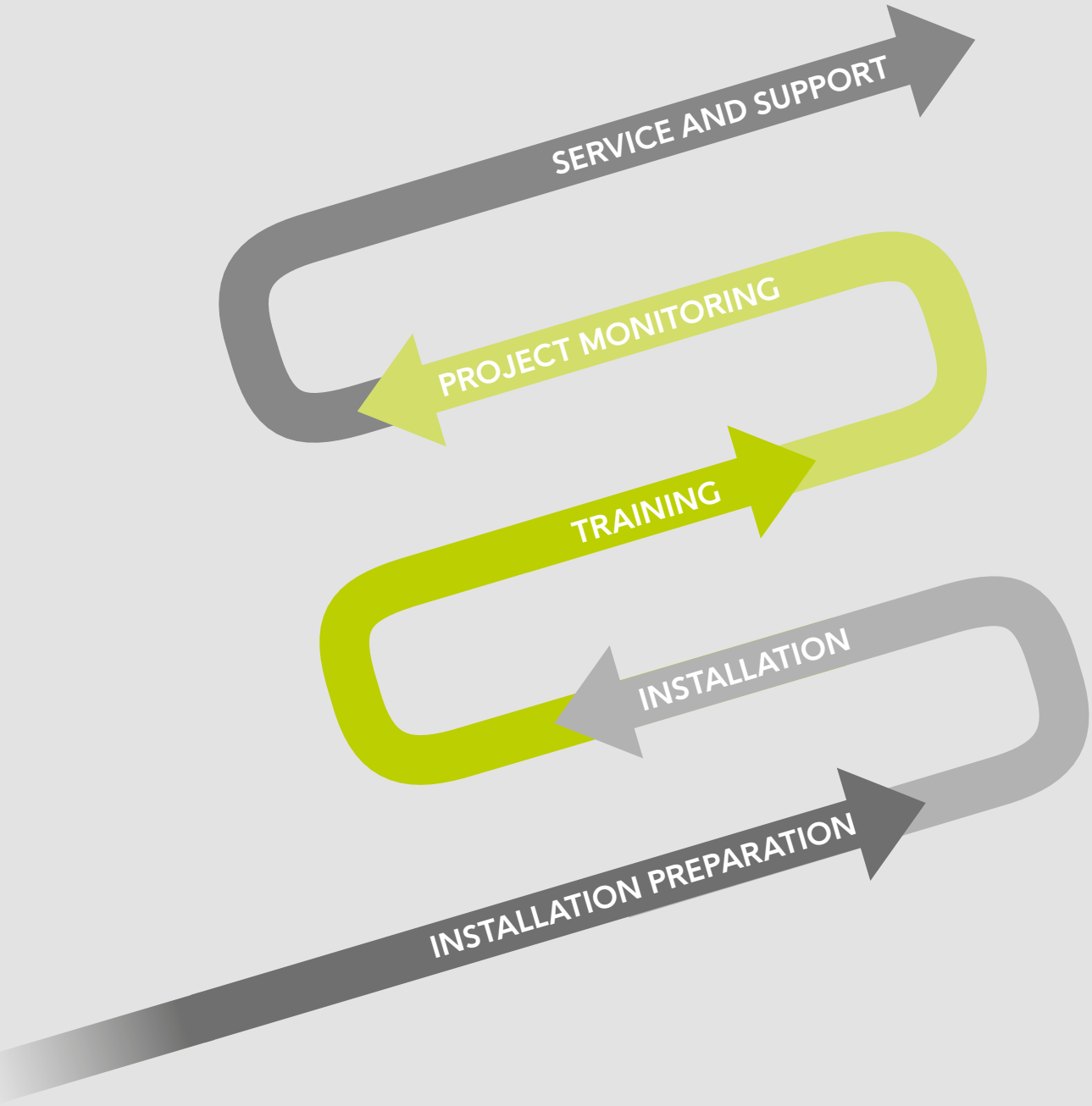
INSTALLATION PREPARATION
The key to success lies in careful installation preparation. Our experienced employees work closely with our customers to assess the property to be cleaned using comprehensive checklists. Customer requirements are checked for feasibility, challenges are discussed, the setup of the cleaning robot is defined according to the floor conditions and amount of dirt, cleaning areas and programmes are determined and project managers are communicated by the customer.

INSTALLATION
Experienced ADLATUS Robotics specialists are on hand at all stages of commissioning. This begins with the first application steps and continues with the efficient integration of the ADLATUS cleaning robots. ADLATUS Robotics is at your side from the start-up phase during commissioning at the customer's premises through to optimisation during ongoing operation. With the aim of ensuring and increasing the efficiency and productivity of maintenance cleaning.

EDUCATION AND TRAINING
ADLATUS Robotics offers users and operators a comprehensive training programme for the operation and maintenance of service robot systems. Depending on the customer's cleaning requirements and application, we offer a training package customised to the company.

PROJECT MONITORING
After commissioning, we monitor the project using log data, analyse it and optimise various parameters in close cooperation with our customers. This ongoing process serves to adapt the efficiency of the system to specific customer requirements and provide ADLATUS with valuable input for future developments.

SERVICE AND SUPPORT
Thanks to a comprehensive international service network with ADLATUS Robotics partners and dealers, we offer our customers on-site service on working days. In addition, our experts are available to customers via a service hotline and online support. The customized structure of ADLATUS Robotics service and maintenance contracts ensures that our customers receive service support that precisely meets their wishes and needs.


SERVICE AND SUPPORT
PROJECT MONITORING
TRAINING
INSTALLATION
INSTALLATION PREPARATION

ADLATUS Robotics GmbH

Nicolaus-Otto-Str. 4
D- 89079 Ulm

+49 731 964 278-0

info@adlatus-robotics.com
www.adlatus-robotics.com

International Sales and Service Network

Technical changes and errors excepted

Version 2.0 02/2024 EN