AGVE

Let's make your move

MAKE YOUR FIRST MOVE
AGV solutions produce a strong return on investment through efficiency, safety and accuracy.

AGVE

DRIVERS OF MOVEMENT

Since 1985, AGVE has been an industry leader in Automated Guided Vehicle (AGV) solutions, delivering innovative, in-house designed and manufactured systems that provide operational efficiency across industries worldwide.

ENGAGEMENT

Engagement and involvement are the foundations of what we do. We leverage our diverse competencies, perspectives, and experiences to continuously improve. At AGVE, we are determined to constantly strive for new knowledge and insights. Together we build a passion for what we do.

MOVEMENT

We strive to drive progress by finding new ways to develop people, methods, and business. Every movement needs energy and initiative, and we know that nothing is autonomous or automated from the start. We are the drivers of the movement.

FULFILLMENT

We are committed to improving others and we love to use our knowledge, products, and services to make it happen. Our determination and brave decisions are focused on creating solutions for our clients and seeing results. We are not satisfied until you get there.



DRIVEN BY INNOVATION

CUSTOM-FIT SOLUTIONS

With a strong focus on flexibility, precision, and innovation, AGVE combines deep industry expertise with a collaborative approach to deliver systems that are not only technically advanced but perfectly aligned with the need of each customer.

SEAMLESS SOFTWARE INTEGRATION

Established as a global leader in innovative AGV systems, AGVE delivers systems for everything from individual AGVs to complex and fully integrated solutions. At the core of AGVE's solution portfolio is Smoova, the company's proprietary fleet management system, designed for seamless integration with customers' existing infrastructures. As a powerful tool for planning and coordinating vehicle operations, Smoova enables optimised workflows – leading to significant time and energy savings.

END-TO-END EXCELLENCE

Each AGV system is designed, built, and installed by AGVE's experienced core teams, ensuring quality at every stage. But the commitment doesn't end at delivery – AGVE supports its customers throughout the entire system lifecycle. With dedicated service, maintenance, and continuous development, AGVE keeps systems running efficiently for decades. Some AGV solutions from the 1980s are still in operation today, reflecting the company's long-term partnership approach and engineering excellence.

COMPREHENSIVE SERVICE & SUPPORT

Our service concept ensures maximum vehicle performance and lifetime while minimising downtime and life cycle costs. Customisable packages cover support – including a 24/7 hotline option – as well as corrective and preventive maintenance.



BENEFITS OF AUTOMATION

EFFICIENCY, RELIABILITY AND COST SAVINGS

- Operates 24/7 without breaks, increasing uptime and productivity.
- Optimised transport routes reduce time and energy consumption.
- Easily adaptable to layout changes or evolving production needs without major infrastructure investments.
- Real-time data through system integration enhances planning and decision-making.
- Reduces reliance on manual labour, freeing up personnel for higher-value tasks.

SAFETY

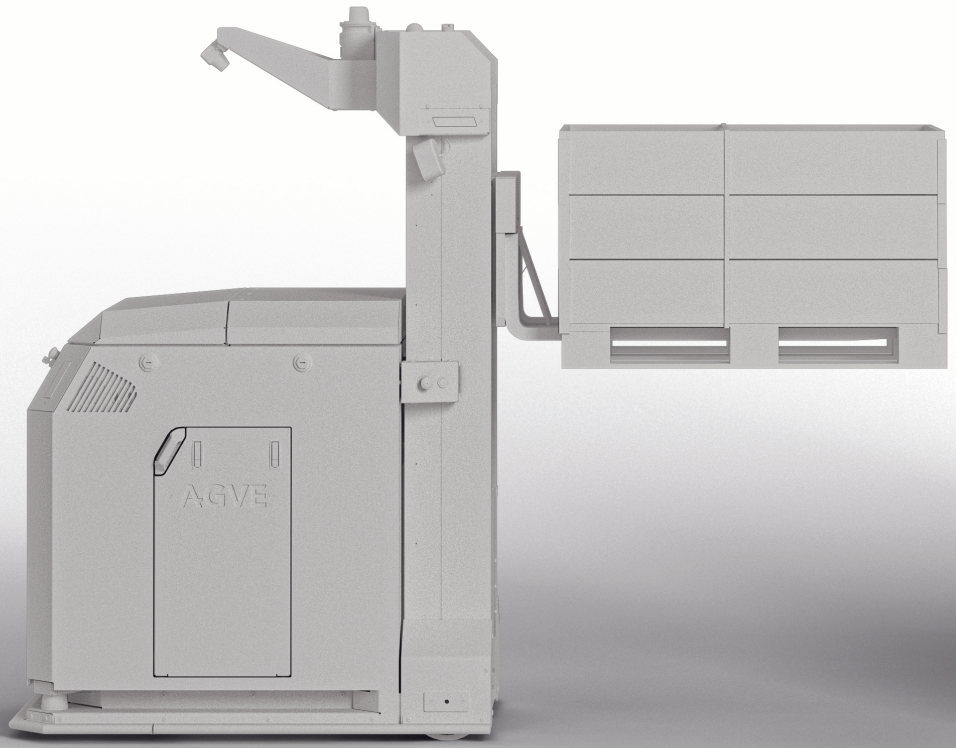
- Removes the need for staff to handle heavy or repetitive transport tasks, lowering the risk of strain and injury.
- Follows precise routes and schedules, minimising errors common in manual handling.
- Reduces the risk of damage to people, goods, and infrastructure.

SUSTAINABILITY

- AGVs run on electricity, producing no exhaust emissions in indoor environments.
- More accurate transport reduces waste and unnecessary returns.
- Fewer overall transports thanks to route optimisation.
- Quiet electric operation contributes to reduced noise pollution.

CUSTOMISED OFFERING
– SECURING EVERY NEED

At AGVE, customised AGV vehicles are carefully configured to deliver the right fit, function, and performance for each customer. The following pages contain brief descriptions of the different vehicle types and the functional characteristics selected during the configuration process.
However, if something still does not feel quite right, AGVE is always available to discuss the details to ensure a perfect solution.



AGV CONFIGURATION
– TYPE OF VEHICLE

The AGV configuration is based on vehicle type, load handling and motion technology.

FORKLIFTS

Our forklift AGVs are available in three main configurations:

- Forks over support legs: Enables a narrow and compact footprint.
- Straddling legs (fork between legs): Enables flexible material handling and a compact footprint when forks over support legs are not possible.
- Counterbalance: Flexible usage and easy to integrate different lifting technologies. Ideal for various load handling scenarios, as it can get close to the target.

TUGGERS

For pulling long distances or heavy loads e.g. towing carts within a facility. Excellent for repetitive tasks.

VNA (Very Narrow Aisle)

For material handling in storage environments with narrow aisles.

PLATFORMS

Lifts and transports loads from underneath. Ideal for confined spaces and widely used in manufacturing, e.g. automotive assembly lines.

SIDE LOADERS

For side loading and unloading. Suitable in applications with limited front access and for handling long loads.

LOAD HANDLING TECHNOLOGY

- Forks: Fixed, Forkspread, Sideshift, Telescopic, Reach, or Swing Reach.
- Clamp unit.
- Conveyor (roller or chain).
- Lifting table.

MOTION TECHNOLOGY

- Quad drive (omnidirectional).
- Differential drive.
- Single steer drive.



AGV CONFIGURATION
– FUNCTIONAL CHARACTERISTICS

Once the vehicle type has been selected, the configuration is completed by defining the functional characteristics that determine the vehicle's capabilities and technical properties.



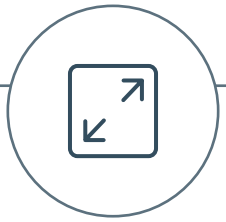
LOAD

Standard applications: typically up to 5000 kg. Special designs handling up to 65 tonnes.



LIFTING HEIGHT

Standard applications: typically up to 8 m. Special designs reaching 11 m.



SIZE

Adapted to the available space and required capabilities.



NAVIGATION

Laser: A rotating laser on the AGV detects reflectors in its environment to precisely determine the position.
QR codes: A camera on the AGV reads QR codes on the floor with coordinate data to determine its position.
Magnetic tape/spots: Sensors on the AGV detect magnetic tape or spots on the floor, guiding the vehicle along its route.
Inductive wire: Sensors on the AGV detect a magnetic field created by a wire in the floor.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AGVE

POLARIS™
– LEADING IN PERFORMANCE AND RELIABILITY

AGVE's first standardised forklift sets a new benchmark in performance and reliability. Polaris has a lifting capacity up to **1200 kg**, and a lifting height up to **1635 mm**. The length of the forklift is approximately **3 meters** including forks and the width is approximately **1 meter**.

The Polaris offers flexible configuration options to suit specific workflows, environments, and operational requirements - see below.

Highly accurate movements with laser guided navigation.

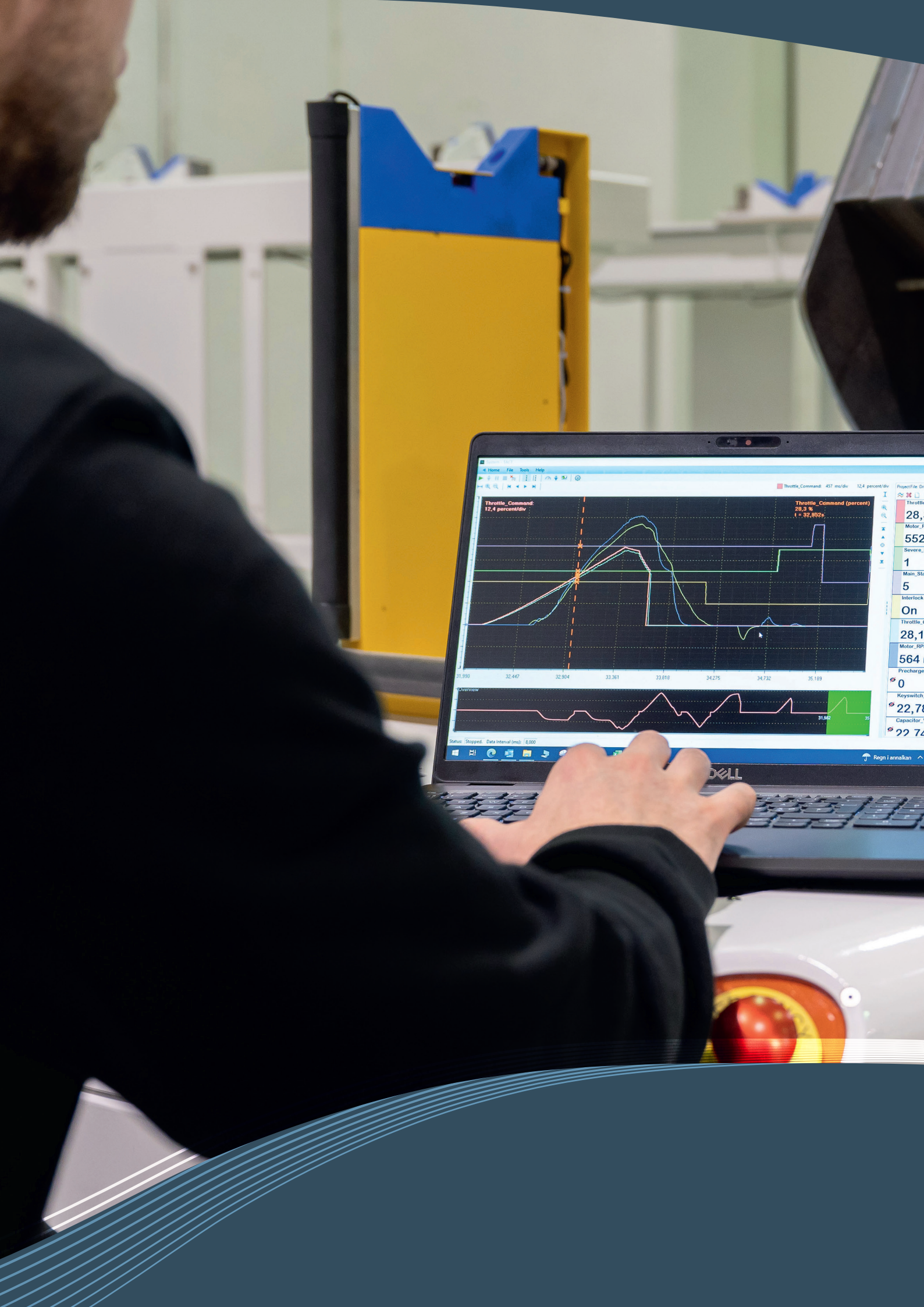
Designed to be used with Smoova, the fleet manager system for saving time and energy.

User-friendly experience that makes operation effortless.

Counterbalance: Flexible usage and easy to integrate different lifting technologies. Ideal for various load handling scenarios, as it can get close to the target.



- Battery
- Charger
- Colour
- Camera
- Own logotype
- Safety and service packages
- Display language
- Personalised screen saver and menu colours


Throttle_Command:
12,4 percent/div
Throttle_Command (percent)
28,3 %
t = 32,852s
Overview
On
DELL

OUR AGVs IN ACTION

PLATFORM AGVs TO LAMBORGHINI



SIDE LOADER AGVs TO VOLVO



SIDELOADER AGV TO KRKA



VNA AGVs TO CAMBREX



SMOOVA
– THE FLEET MANAGEMENT SYSTEM

Smoova is a comprehensive fleet management system designed for Automated Guided Vehicles (AGVs), facilitating control and monitoring of the AGV fleet across computers, phones, or tablets.



SMOOVA
– KEY FEATURES AND FUNCTIONS



OPTIMISATION

Smoova focuses on optimising order handling and routing. It ensures that the AGVs operate efficiently without blockages, enhancing overall productivity within the warehouse or factory setting.

MONITORING

Smoova provides robust monitoring capabilities to effectively manage the AGV fleet.

- Real-time tracking of all AGVs is achieved through interactive factory or warehouse maps that display current movements and predict paths for each vehicle.
- Detailed order management, allowing users to create, modify, or cancel orders as needed.
- Monitoring and adjustment of input/output signals, with changes permitted based on user access levels.
- Supports remote analysis.

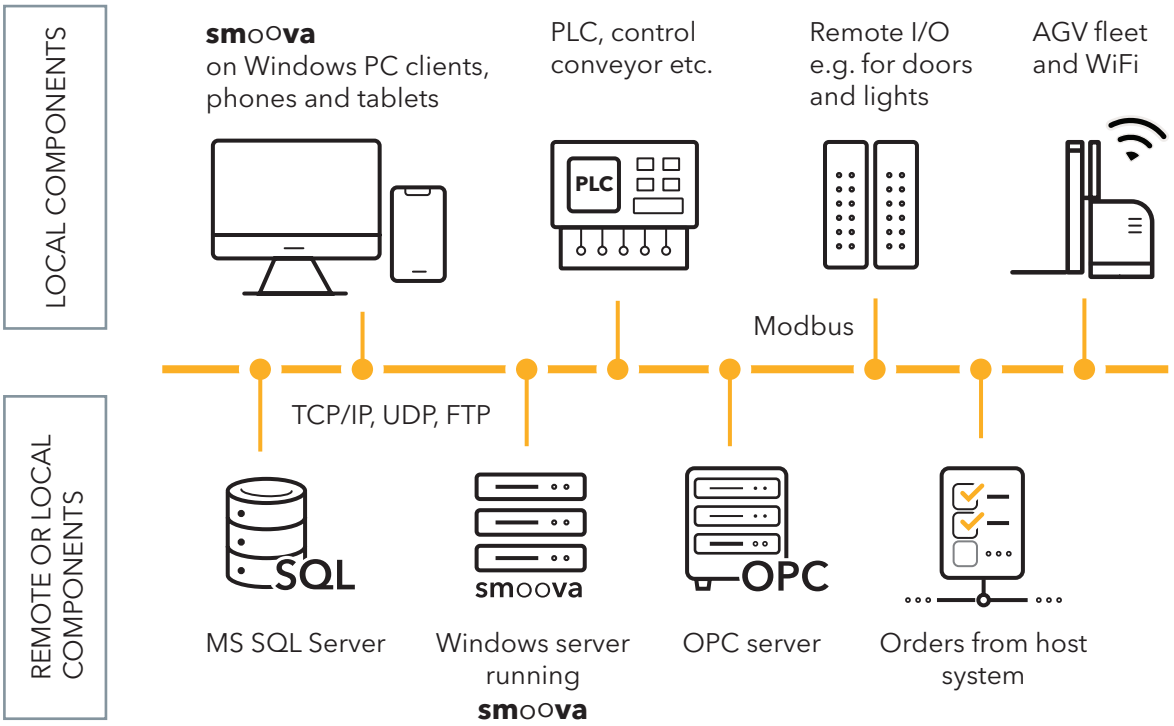
STATISTICS

Users can customise and generate various diagrams and graphs using a dynamic dashboard builder. This tool aids in analysing fleet performance by providing customisable insights into installation statistics, which can be easily exported for further analysis or reporting.

USER EXPERIENCE

Smoova supports multiple languages, auto-saving settings, light/dark mode, and a chat function for enhanced usability.

SMOOVA
– SYSTEM SPECIFICATIONS AND INTEGRATION



COMMUNICATION

Utilises a local Wi-Fi network for seamless communication between AGVs without internet dependency. Smoova and AGVE vehicles support the VDA 5050 communication standard, enabling standardised communication between fleet management systems and AGVs.

SYSTEM SETUP

Operates on a server (Windows platform with .Net 4.8) supporting up to 100 AGVs, compatible with multiple user clients including Windows/macOS/iOS/Android.

INTEGRATION AND CUSTOMISATION

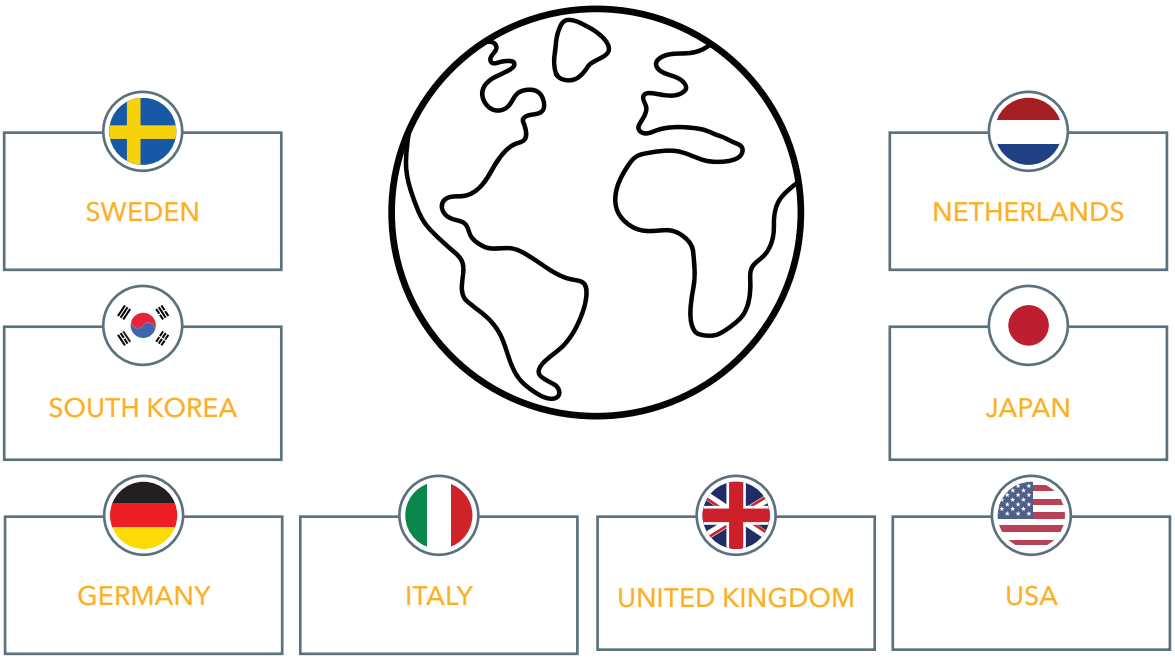
Integrates seamlessly with business systems and can be customised to meet specific needs; supports various order initiation methods such as push buttons or barcode scanners.

ABOUT AGVE GROUP
– SECURING EVERY NEED

The AGVE Group is a leading provider of Automated Guided Vehicles (AGV) and control devices, having more than 60 dedicated employees worldwide.

We are dedicated to keeping our AGV design and manufacturing in-house whilst offering a wide range of products featuring standard, as well as customised vehicles, delivering competitive AGV solutions to customers across the world.

Ever since the foundation of our company in 1985, our success has been based on staying one step ahead of the growing demands of different industries.



TEAMING UP
– WITH FIELD EXPERTS

AGVE proudly partners with leading global companies, delivering solutions that power key operations across a wide range of industries.
Below are some of the industries where these solutions are utilised.

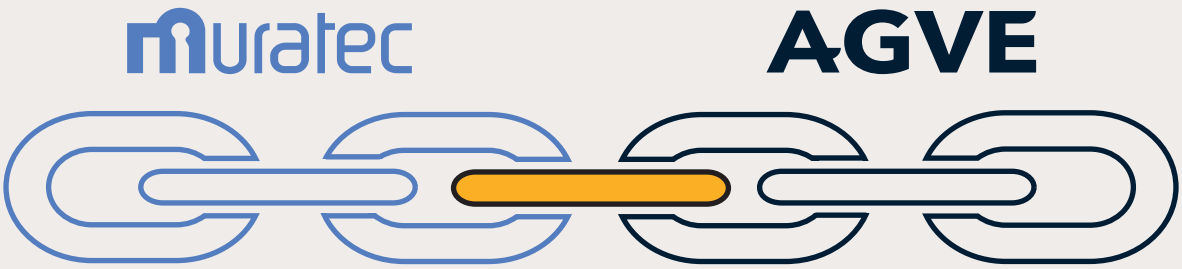
INDUSTRIES

PHARMACEUTICS	TYRES	MECHANICAL	ELECTRONICS
WOOD & FURNITURE	HEALTHCARE	AUTOMOTIVE	PAPER & PRINTING
STEEL AND METAL	AERO	FOOD & BEVERAGE	CERAMICS, GLASS & PLASTIC

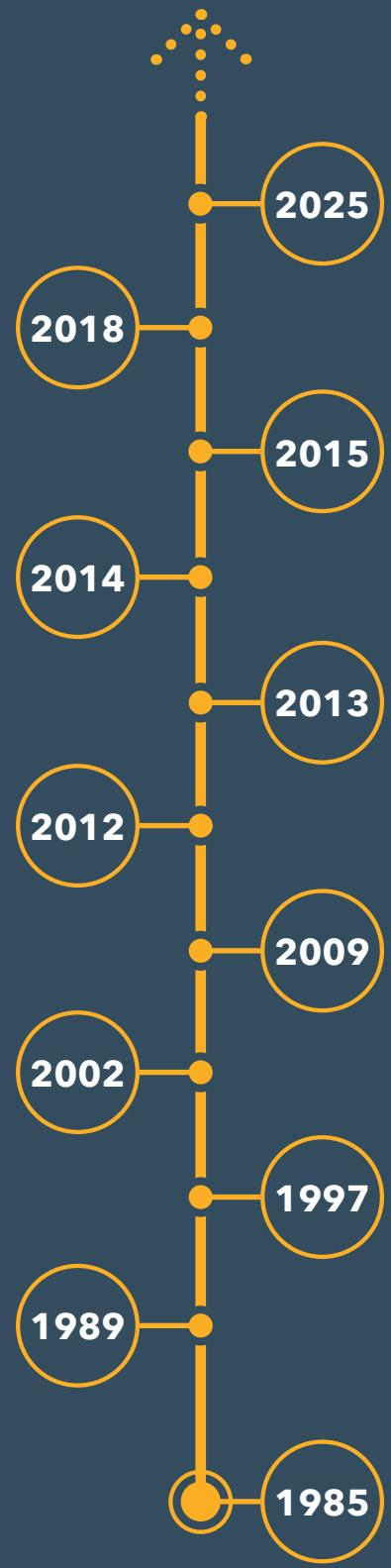
A CENTRE OF EXCELLENCE
– WITHIN THE MURATEC GROUP

Since becoming part of the Muratec Group in 2018, AGVE has played a pivotal role in advancing the group's automation capabilities. As the only company within the Muratec Group specialising in AGV technology, AGVE has been named the Centre of Excellence, reflecting its unique expertise and innovation.

Backed by Muratec's global network and strong financial foundation, AGVE continues to expand its competitive advantage, delivering cutting-edge AGV solutions that enhance efficiency and drive progress for customers across diverse industries worldwide.



THE PATH



2025 The first standardised model – Polaris – is launched

2018 Becomes part of MURATA Machinery Ltd.

2015 Merges with Scarabee Logistics Systems

2014 Establishment in North America

2013 Simatic is acquired

2012 Contour navigation is introduced

2009 Establishment in the Italian market

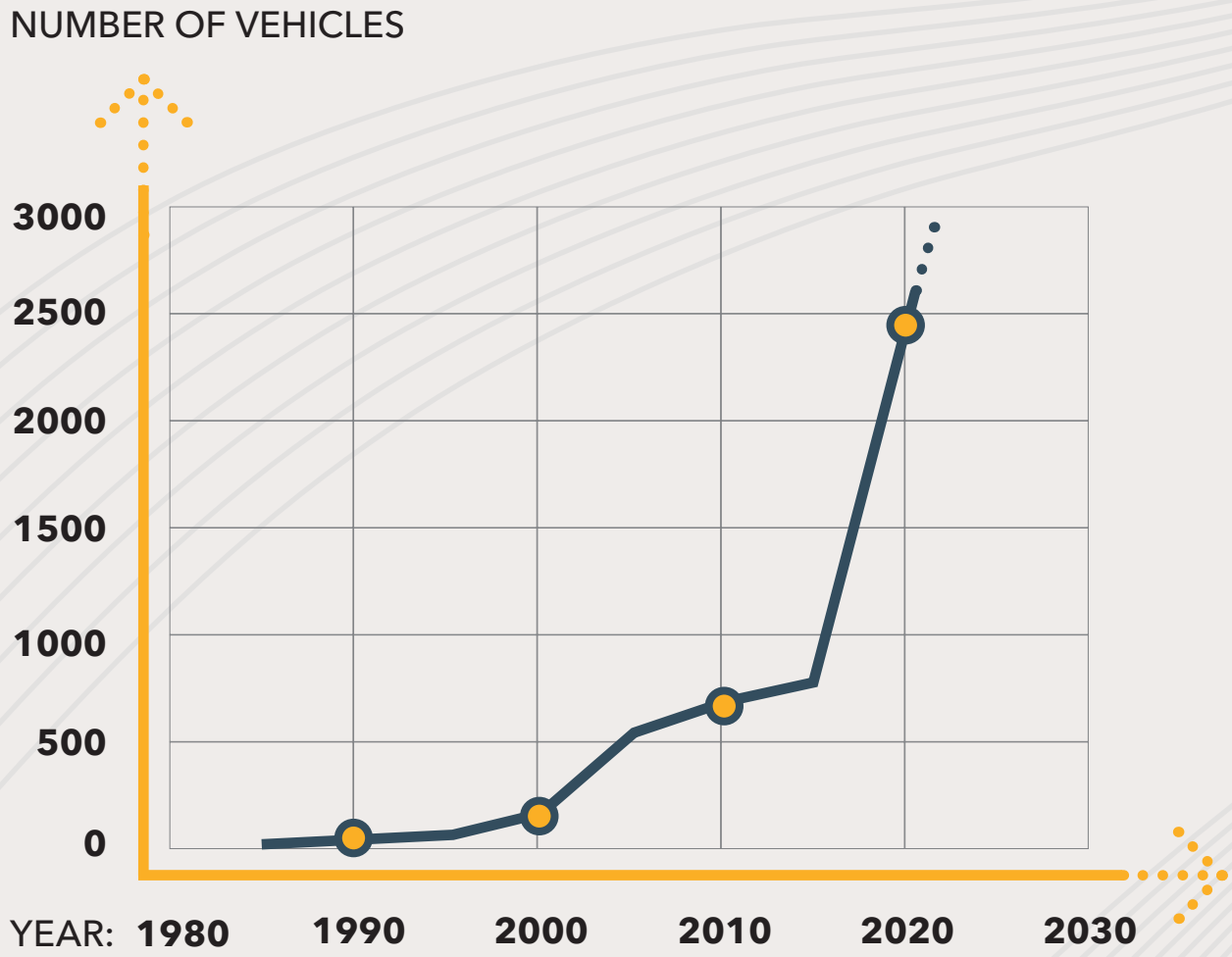
2002 Establishment in the Korean market

1997 Laser-guided navigation is introduced

1989 Starts making complete vehicles

1985 AGVE is founded

GROWTH


NUMBER OF VEHICLES
3000
2500
2000
1500
1000
500
0
YEAR:
1980
1990
2000
2010
2020
2030

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