



AUTOMHA

Experts in Warehouse Automation

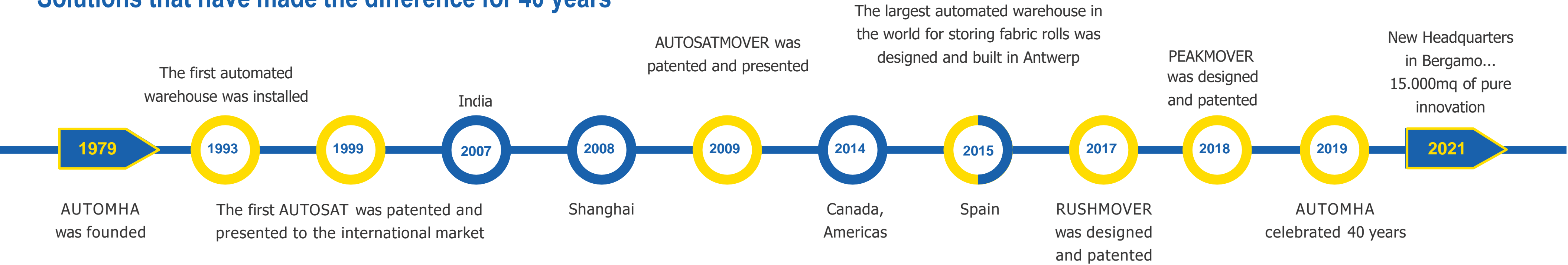
Designing, Manufacturing and Implementing Warehouse Automation

- **Unit Load AS/RS (Pallets)**
 - Stacker Cranes
 - Shuttle / AutoSatMover
 - Specialty – Roll Handling, Trays, Large Format
- **Case and Tote AS/RS**
 - Mini-Load
 - Shuttles
- **Picking Systems**
 - Goods-to-Person – Pick from Pallet, Tote, Case or Tray
 - Layer Picking and Pallet Building
- **Temperature Zones**
 - Ambient
 - Coolers
 - Freezers – A high percentage of our systems are in freezers.



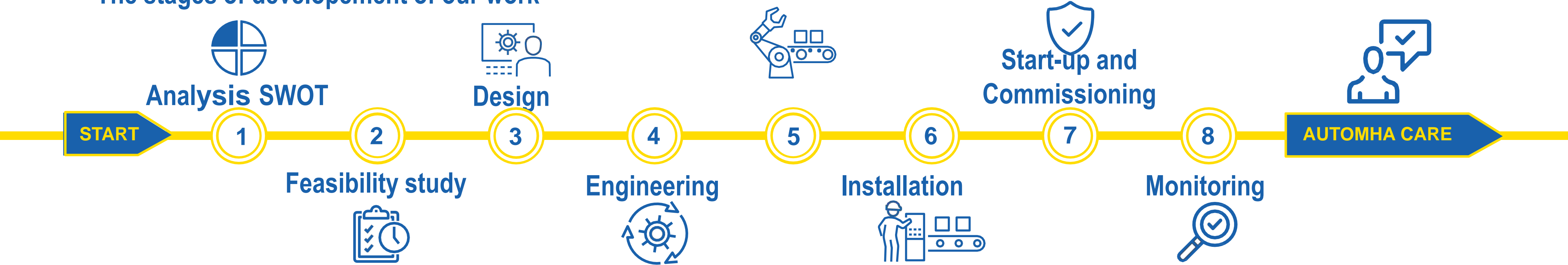
WHO WE ARE

Solutions that have made the difference for 40 years



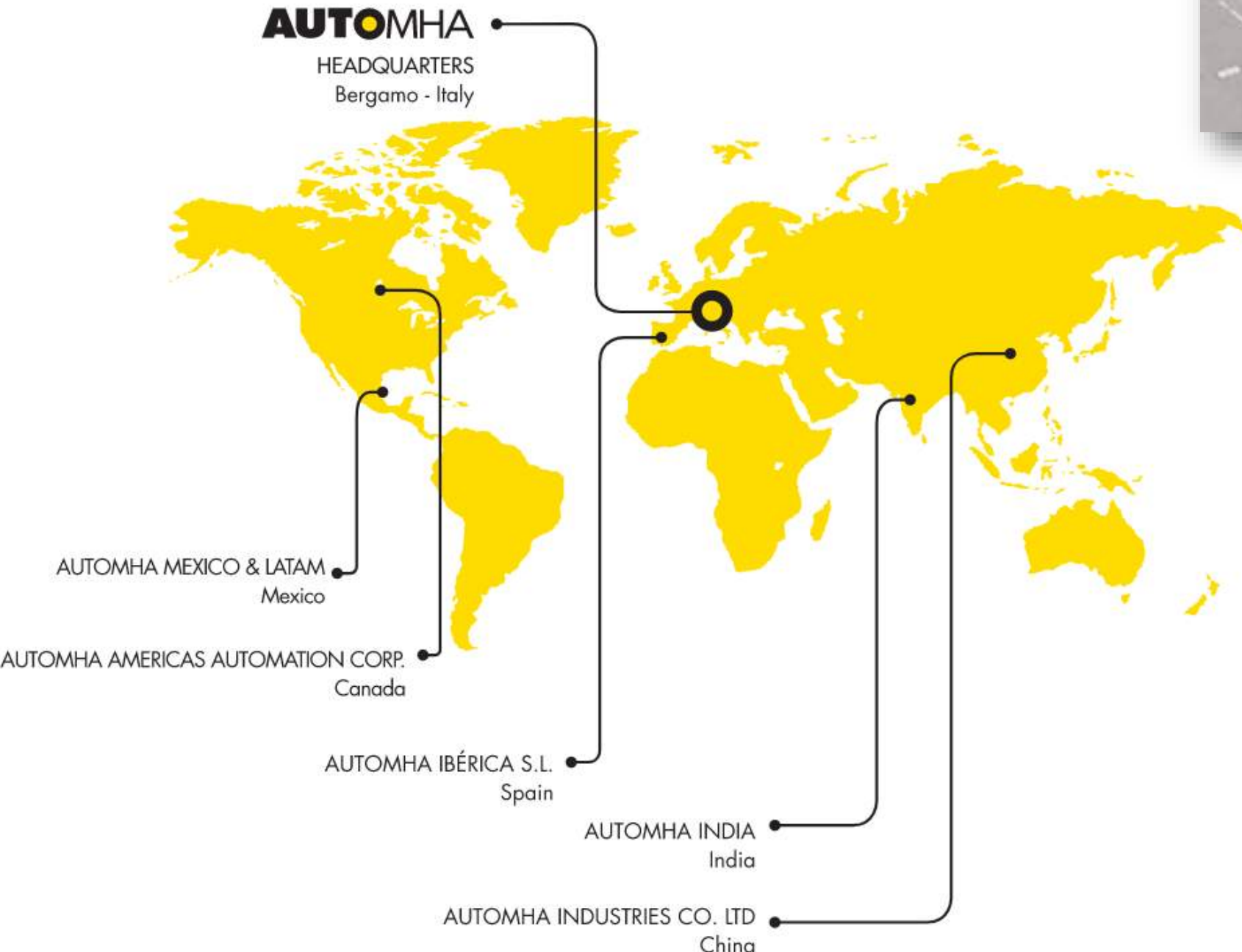
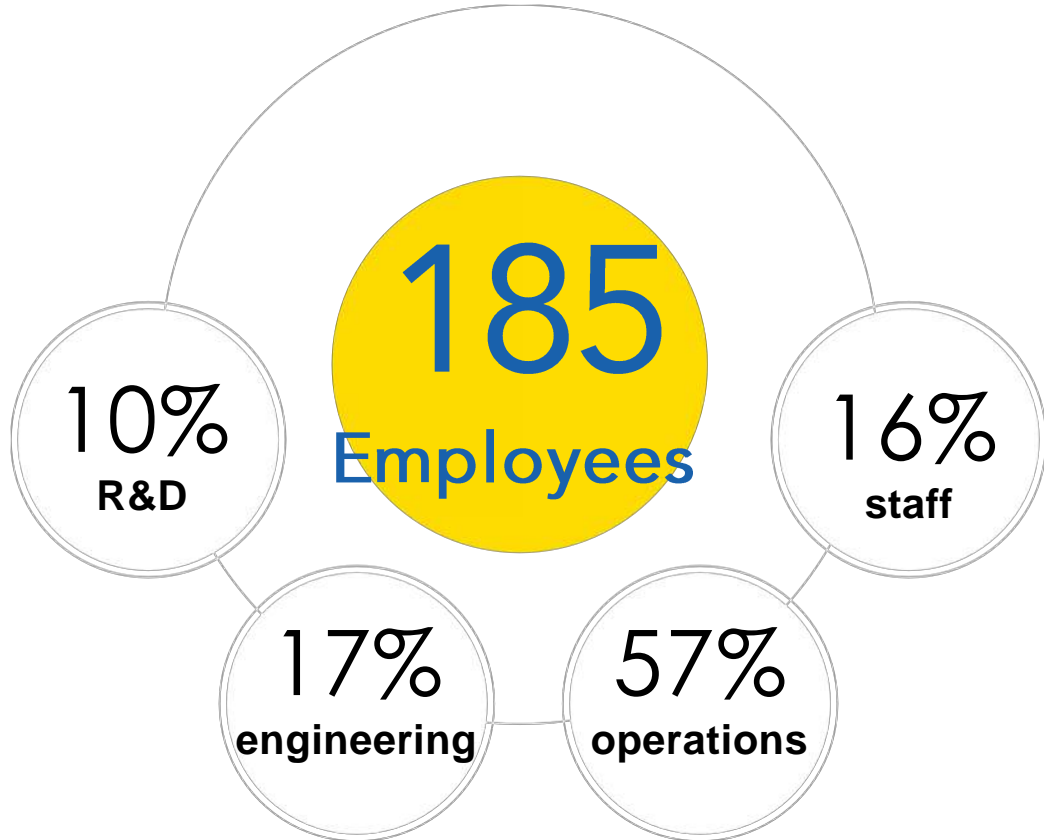
HOW WE OPERATE

The stages of development of our work



OUR STRUCTURE

Our team is our company's greatest strength
Facilities located throughout the world



6 Sales offices

Italy
Mexico
Canada
Spain
India
China

2 Production facilities

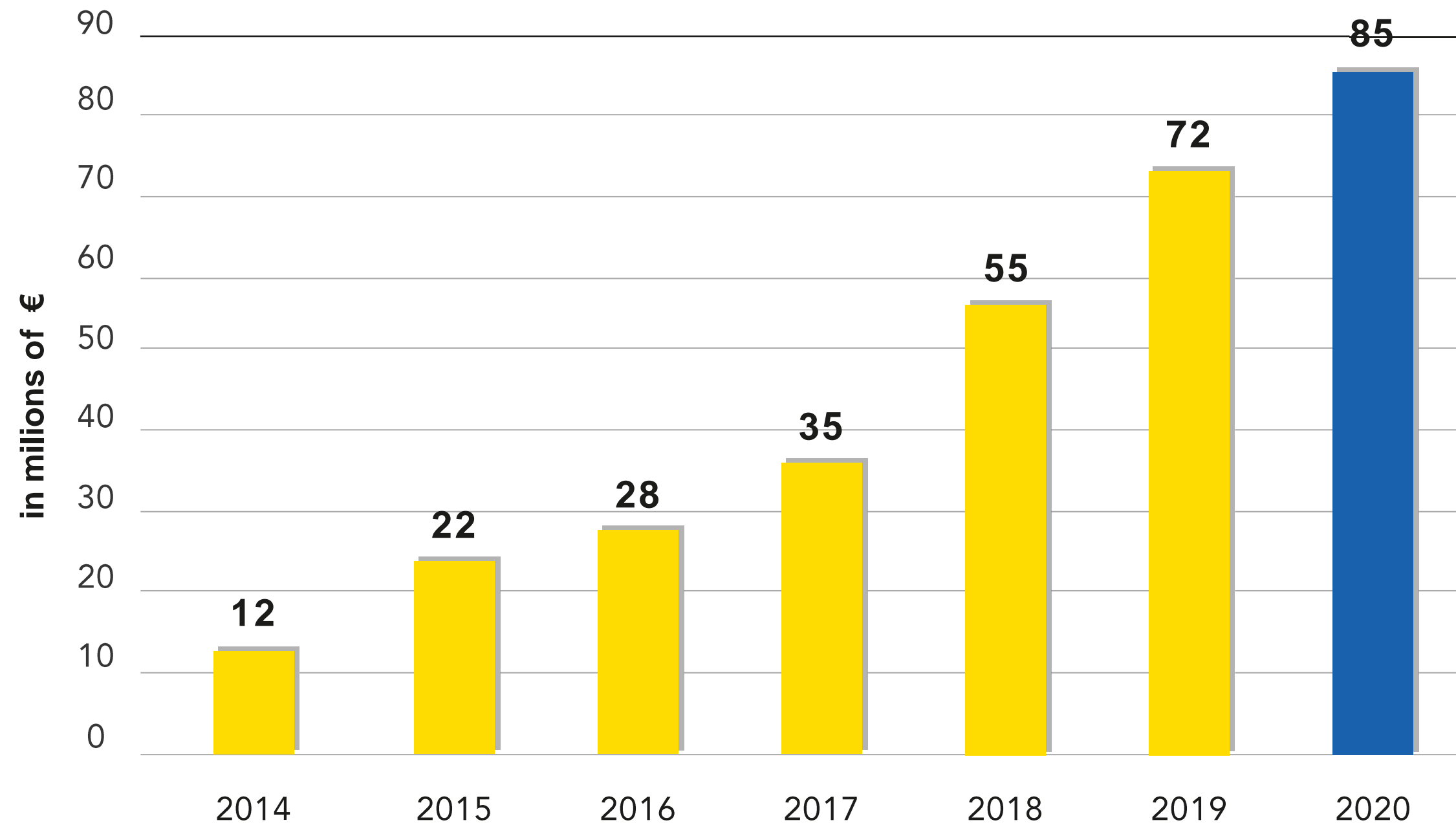
Italy
China

2 North American Offices

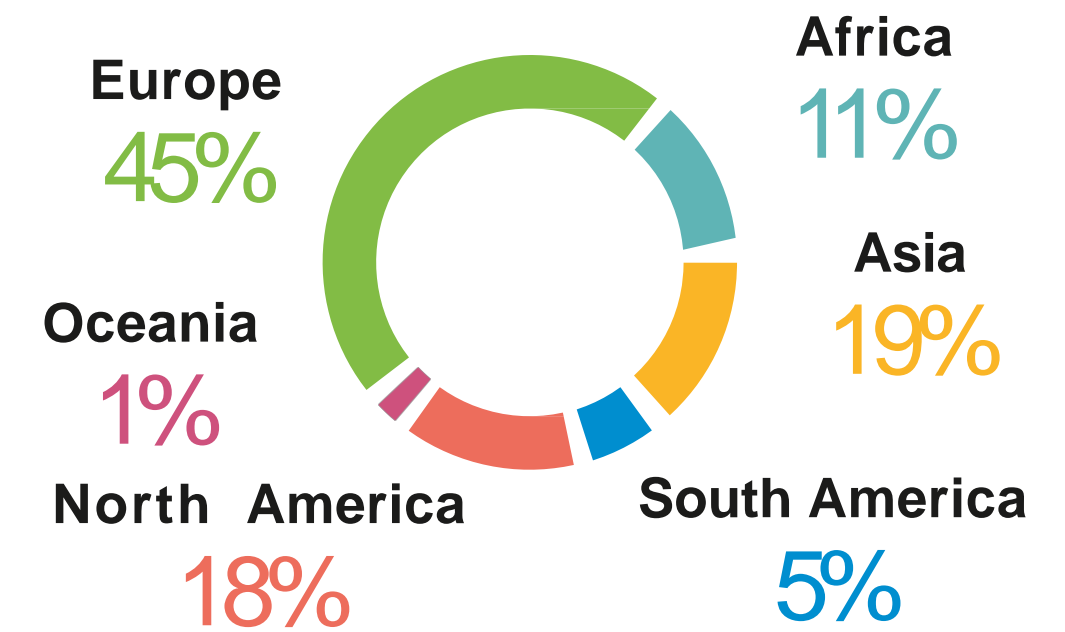
Ontario, CN
Buffalo, NY

OUR RESULTS

The growth of Automha over the last 6 years



Percentage based on Region



OUR PRODUCTS

Automha Manufactured Equipment



PALLETRUNNER



SUPERCAP



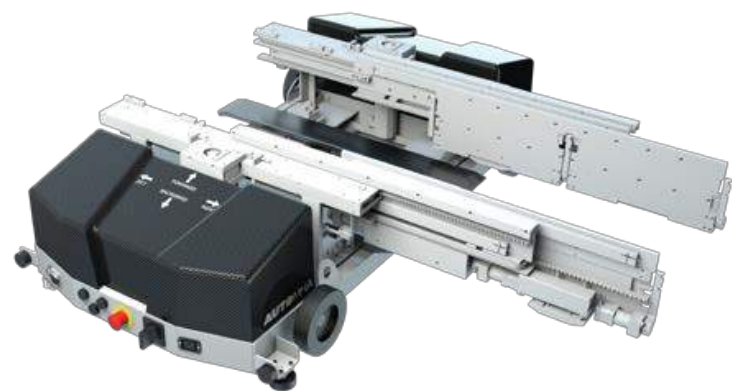
SRM



AUTOSATMOVER



RUSHMOVER



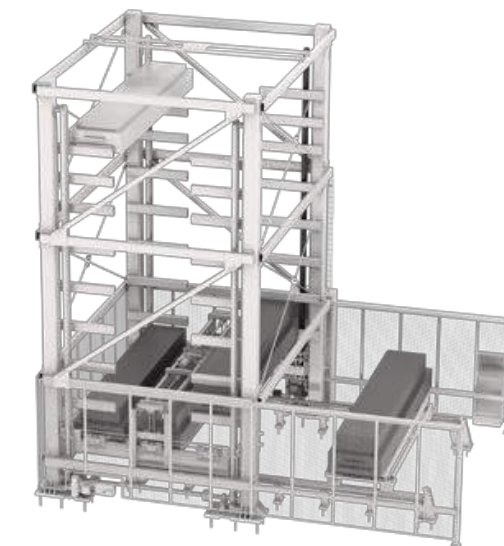
PEAKMOVER



PEAKMOVERPLUS



MINILOAD



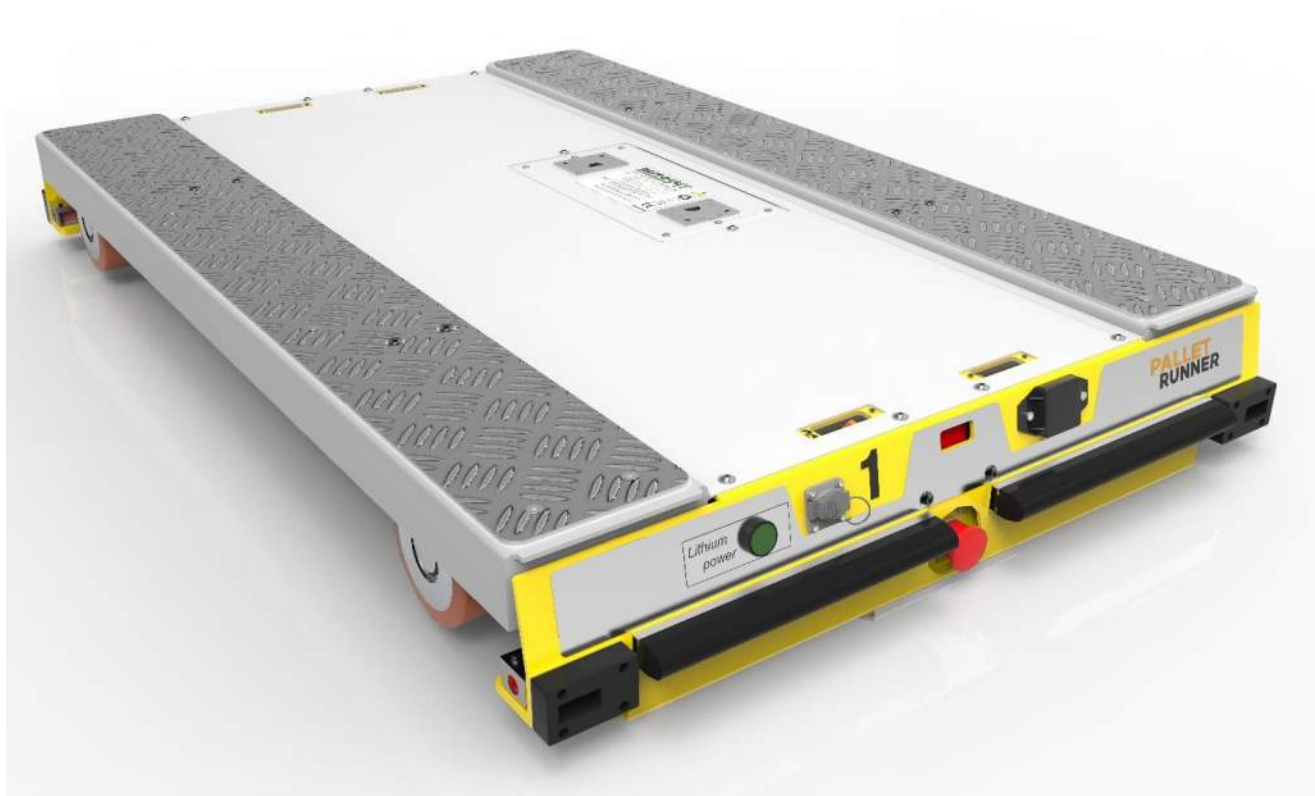
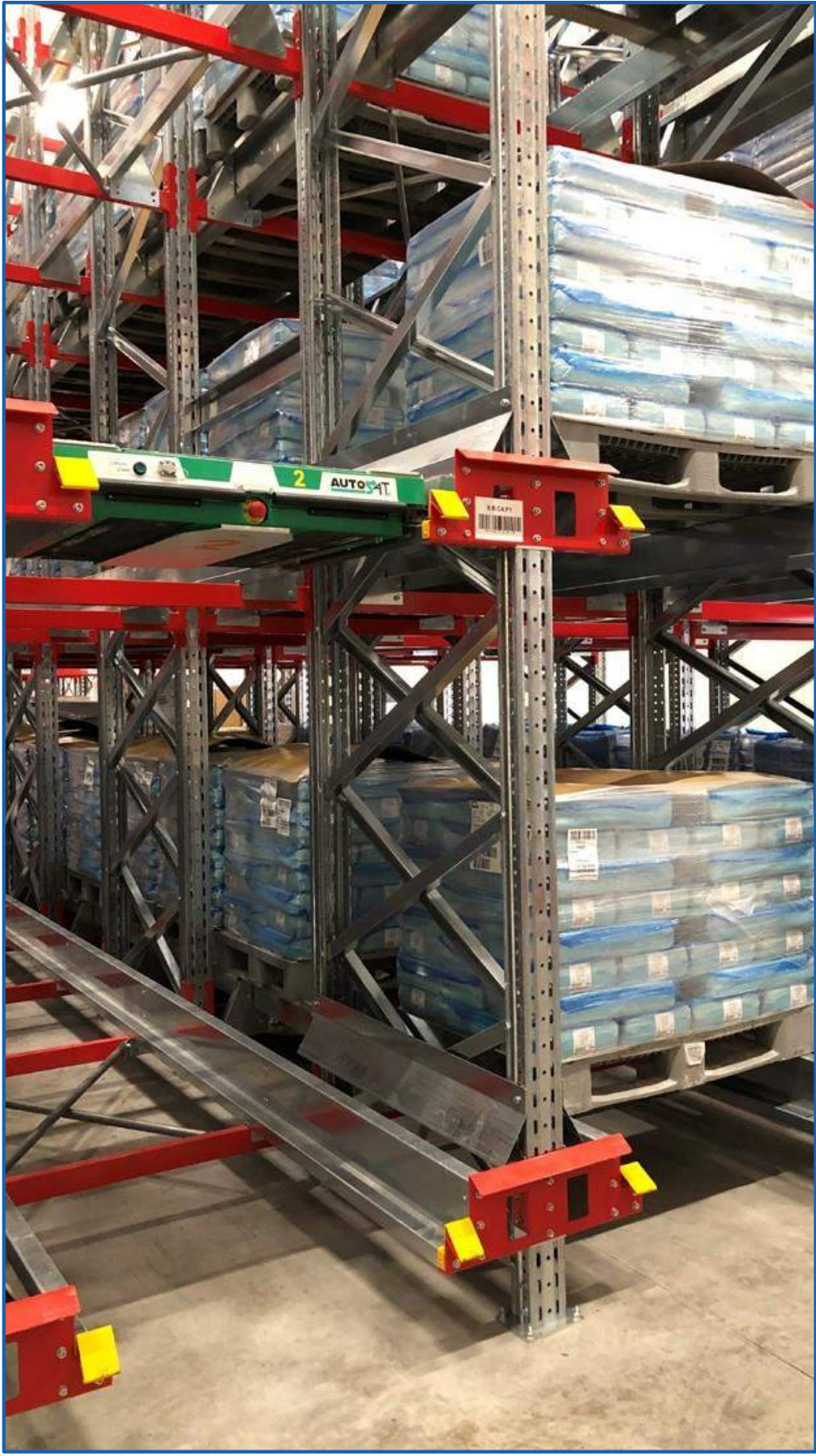
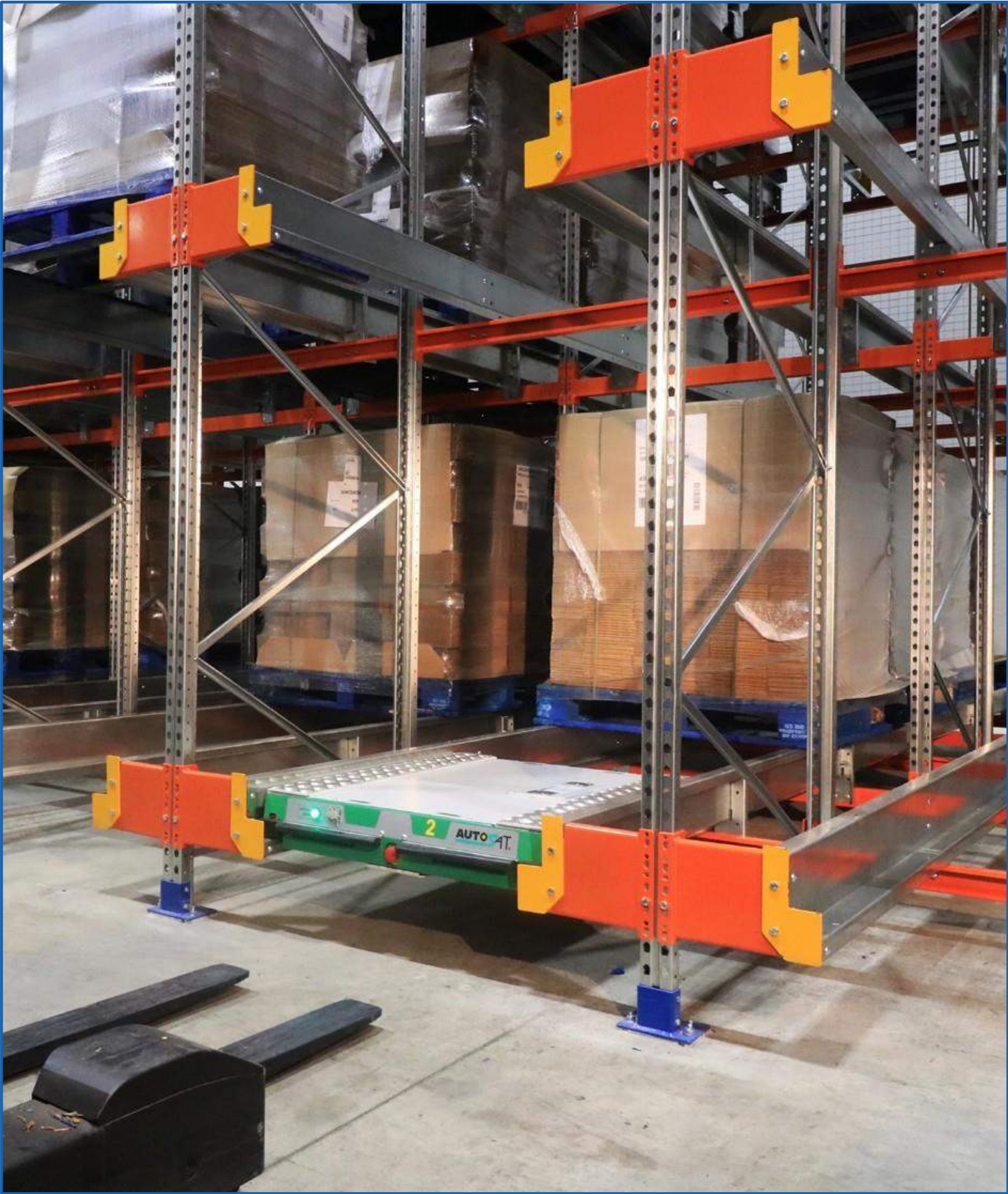
HEAVYTOWER



UNIFLEX

PALLETRUNNER

Semi-Automated, Deep Lane Pallet Storage



PRODUCT LAUNCH
1999

SPEED
115/230
ft/min
(adjustable)

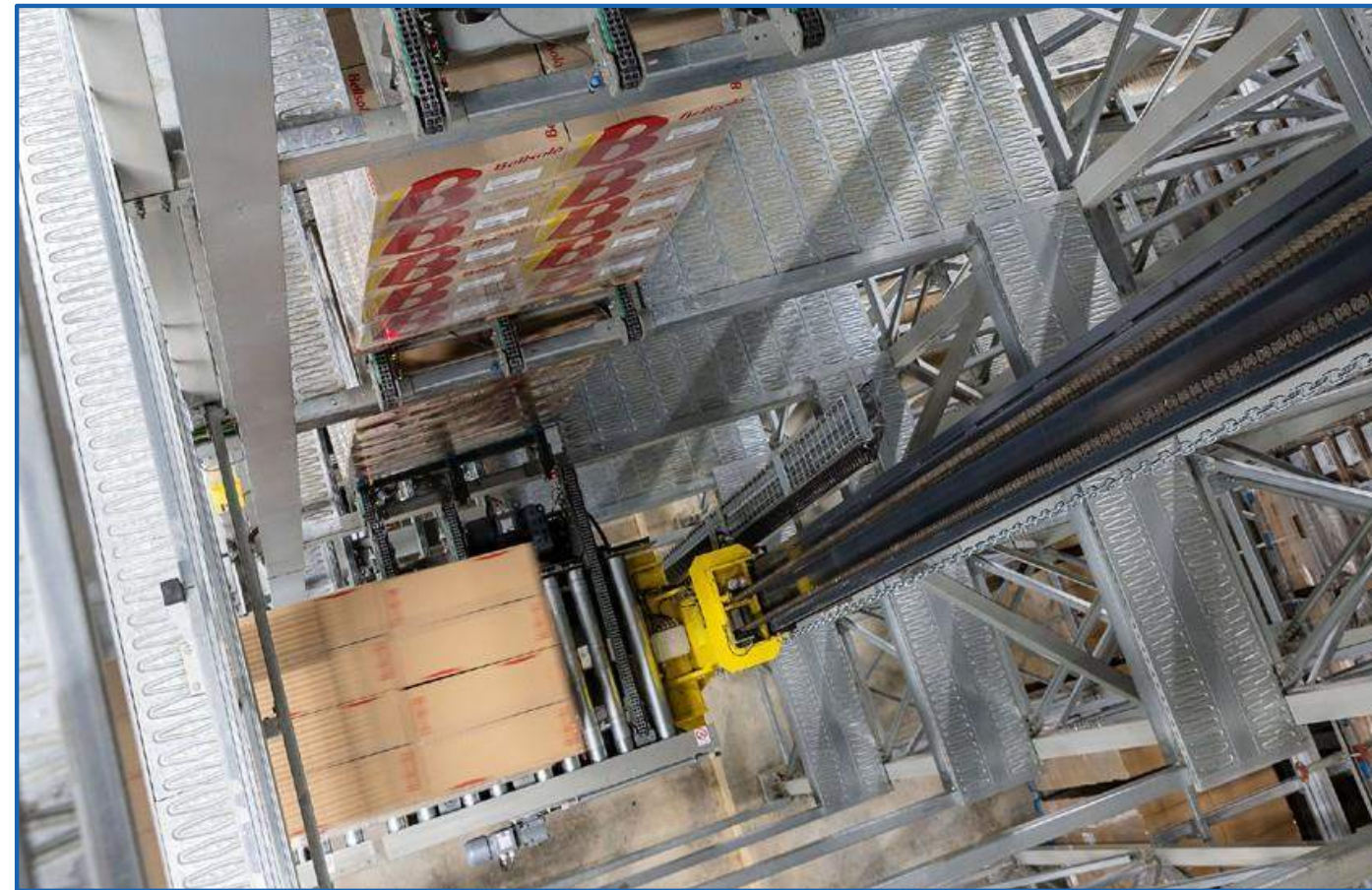
BATTERY
LITHIUM

MACHINES INSTALLED
4000+

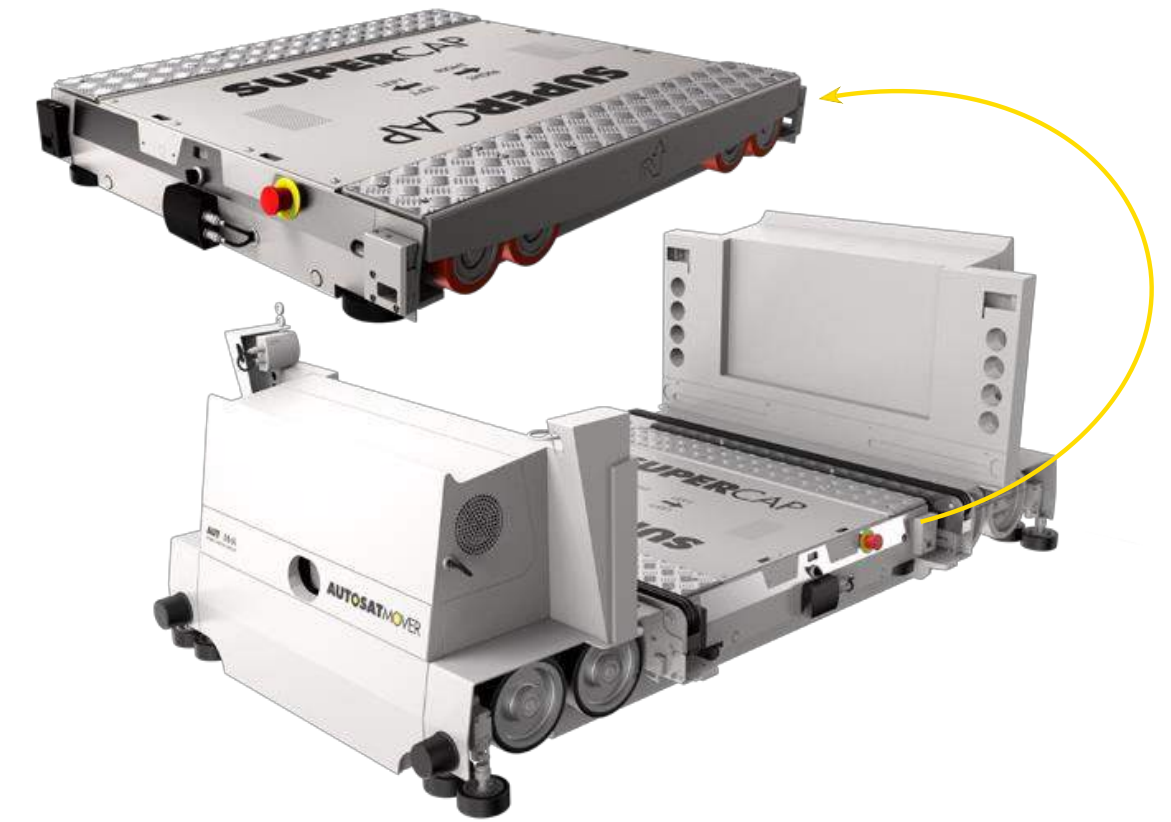
 Freezer Rated: Down to -22F



Spain



Spain



PRODUCT LAUNCH
2009

SPEED
525
ft/min
(adjustable)

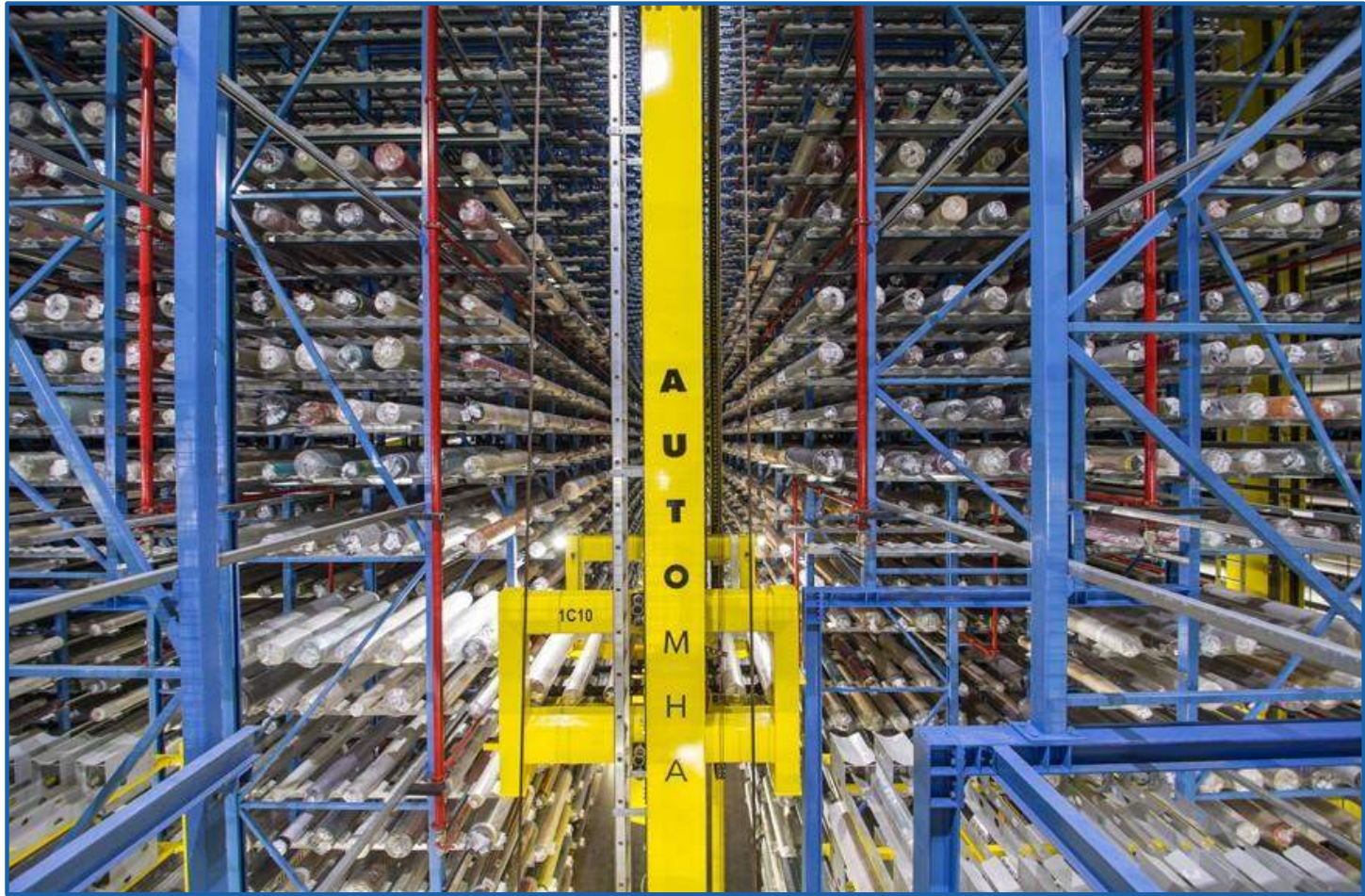
INSTALLED POWER
3,5kW

MACHINES INSTALLED
550

 Freezer Rated: Down to -22F



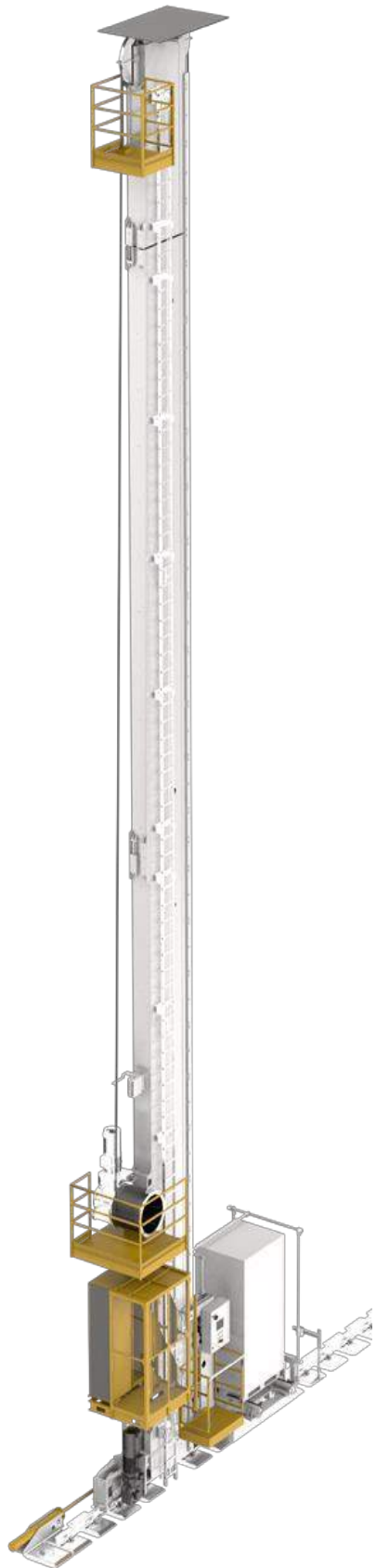
India



Belgium



Forlì, Italy



PRODUCT LAUNCH
1993

TECHNOLOGY
SINGLE
DOUBLE
DEEP LANE

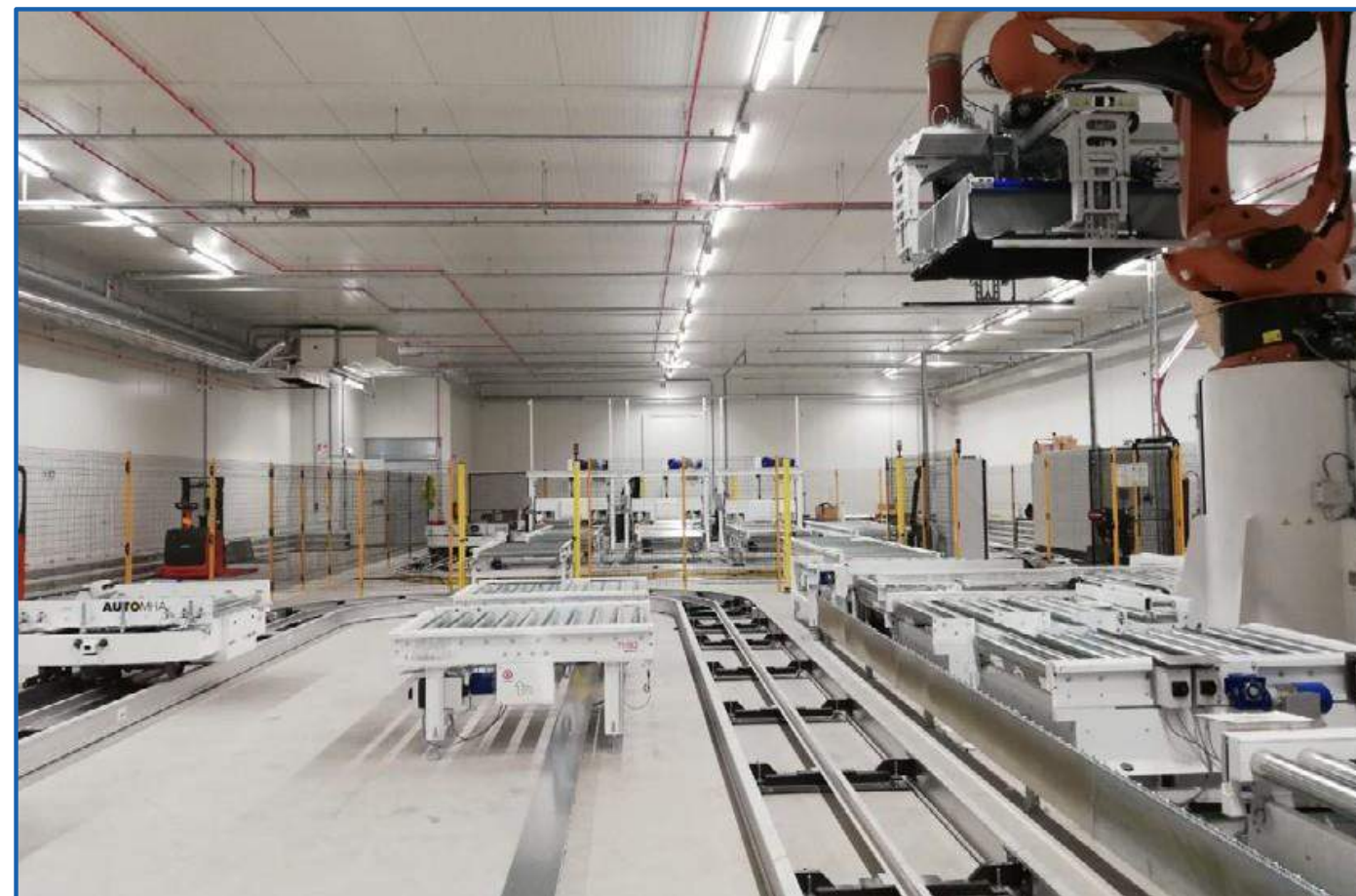
HEIGHT
147 ft max

MACHINES INSTALLED
400+

 Freezer Rated: Down to -22F



Netherlands



Netherlands



San Giorgio in Bosco, Italy



PRODUCT LAUNCH
2017

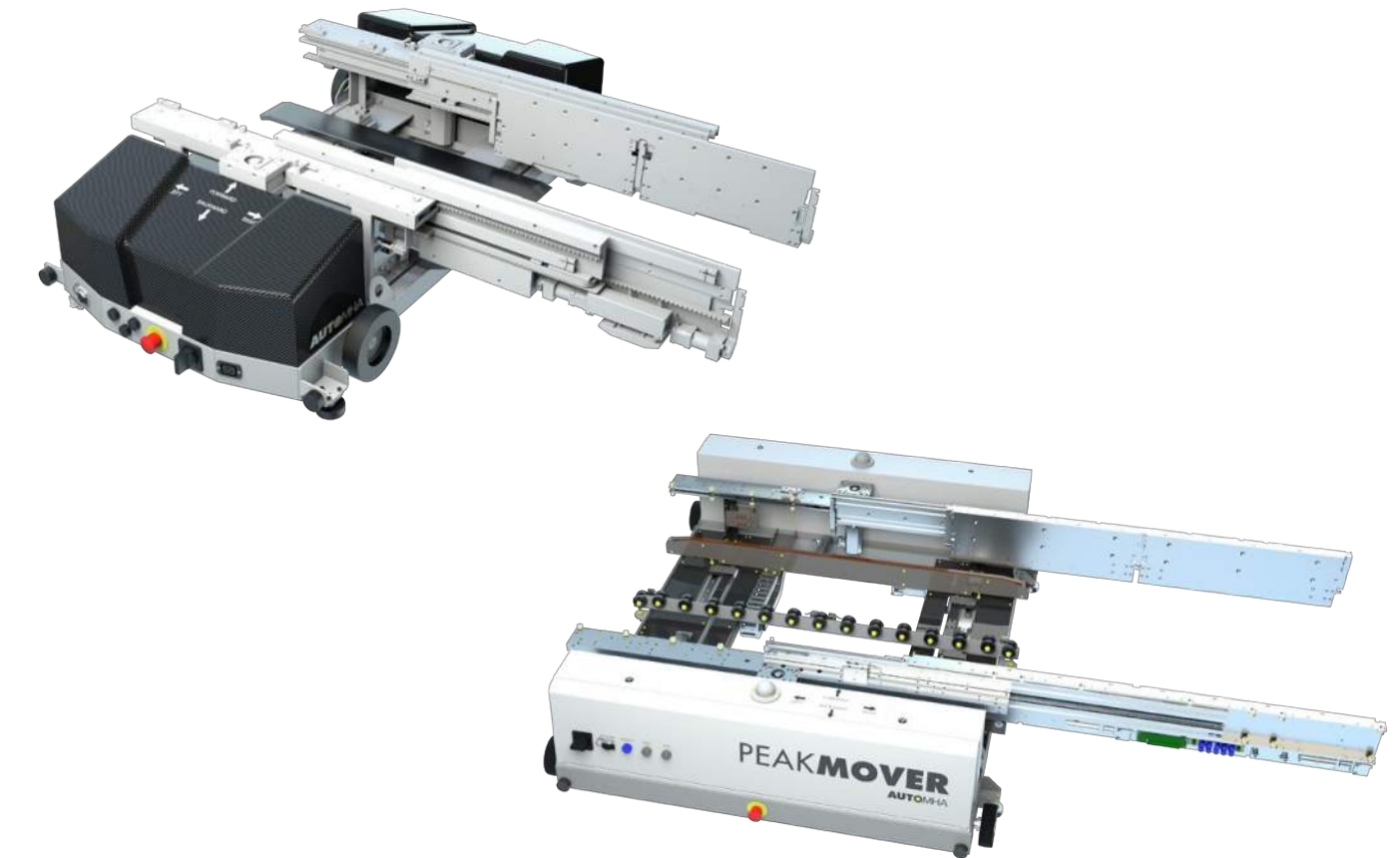
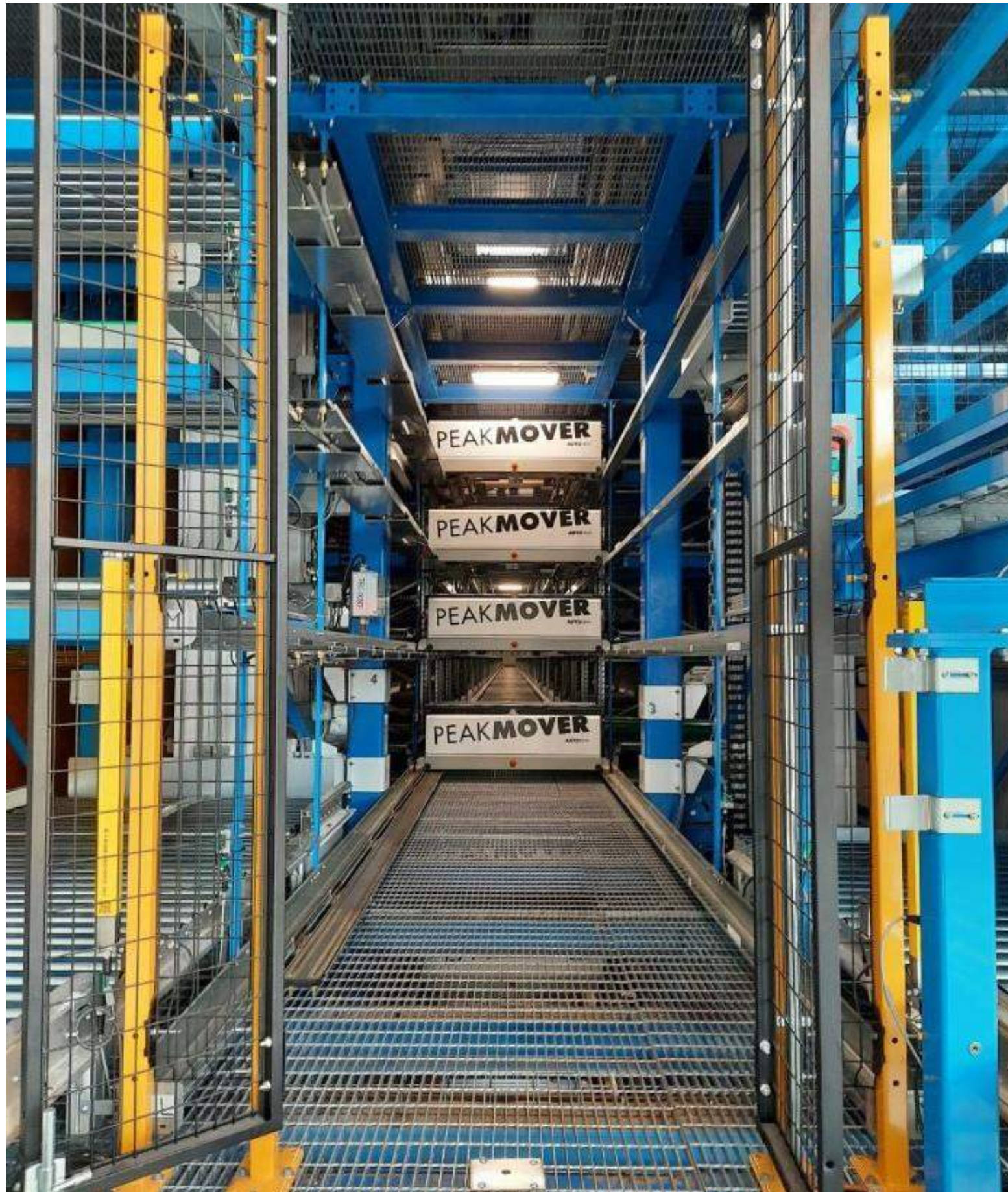
SPEED
393
ft/min
(adjustable)

INSTALLED POWER
3kW

MACHINES INSTALLED
240



Freezer Rated: Down to -22F



PRODUCT
LAUNCH

2018

SPEED

393

m/min
(adjustable)

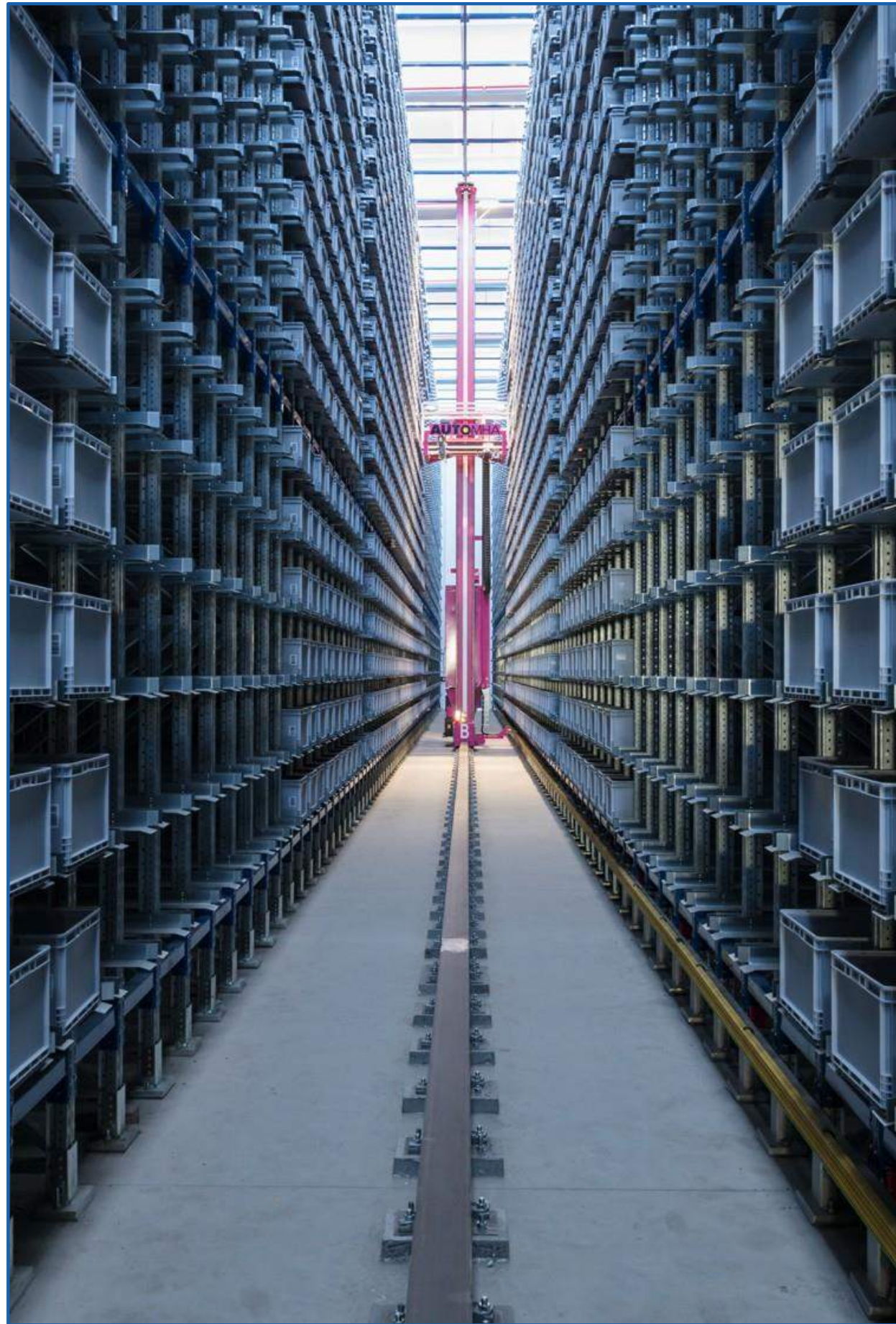
INSTALLED
POWER

2kW

FORKS WIDTH
MIN/MAX (IN)

84/342

Borso del Grappa (TV), Italy



Bergamo, Italy



PRODUCT
LAUNCH
1993

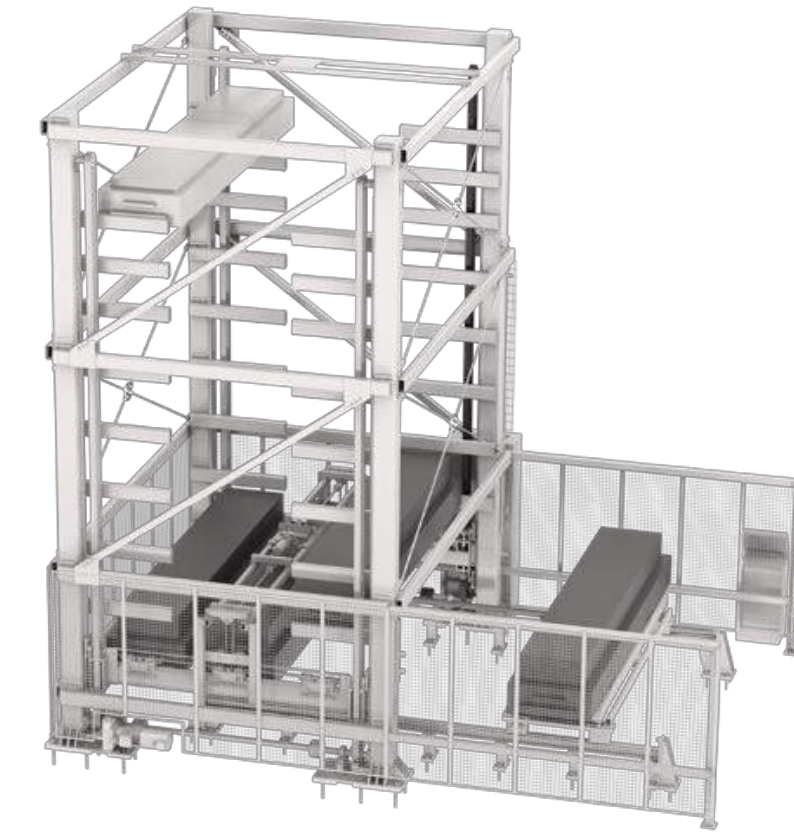
TECHNOLOGY
SINGLE DEPTH
DOUBLE DEPTH
MULTI DEPTH

- HEIGHT
147 ft max
- MACHINES INSTALLED
400+

 Freezer Rated: Down to -22F



Affi (VR), Italy



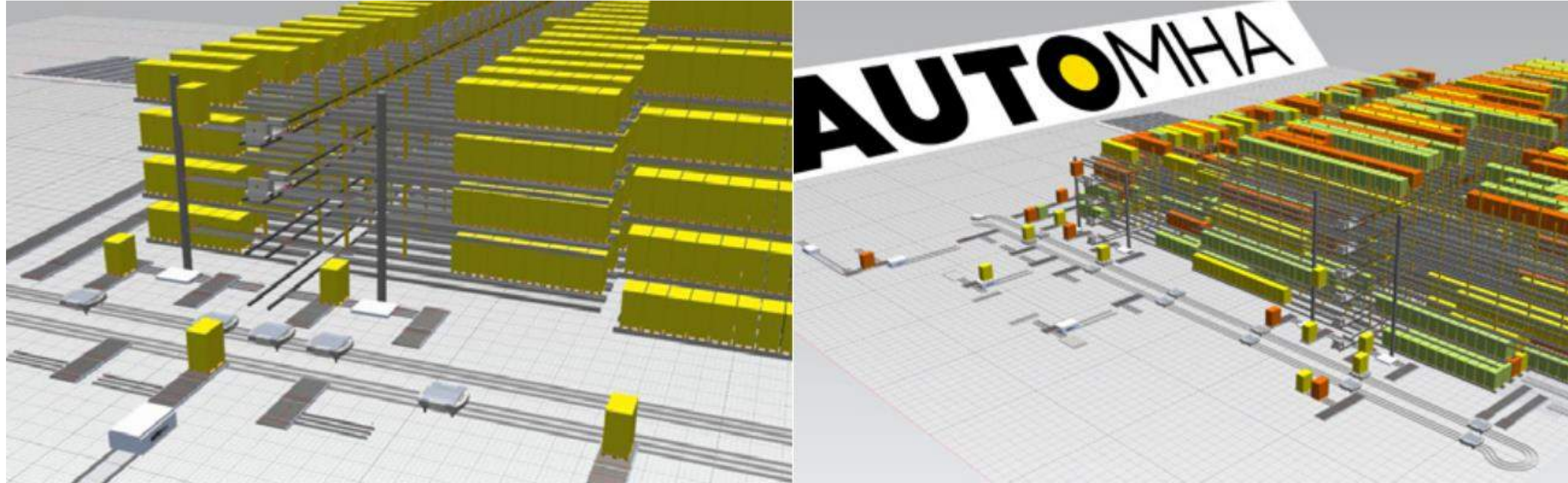
PRODUCT
LAUNCH
2021

CAPACITY
6,614 lbs
11,023 lbs

INSTALLATION
Indoor/Outdoor

MAX HEIGHT
39 ft

OUR SOFTWARE



SOFTWARE
AWM
Automha
Warehouse
Manager



SOFTWARE
HMI
Human
Machine
Interface



SOFTWARE
LOG
WCS for
PalletRunner



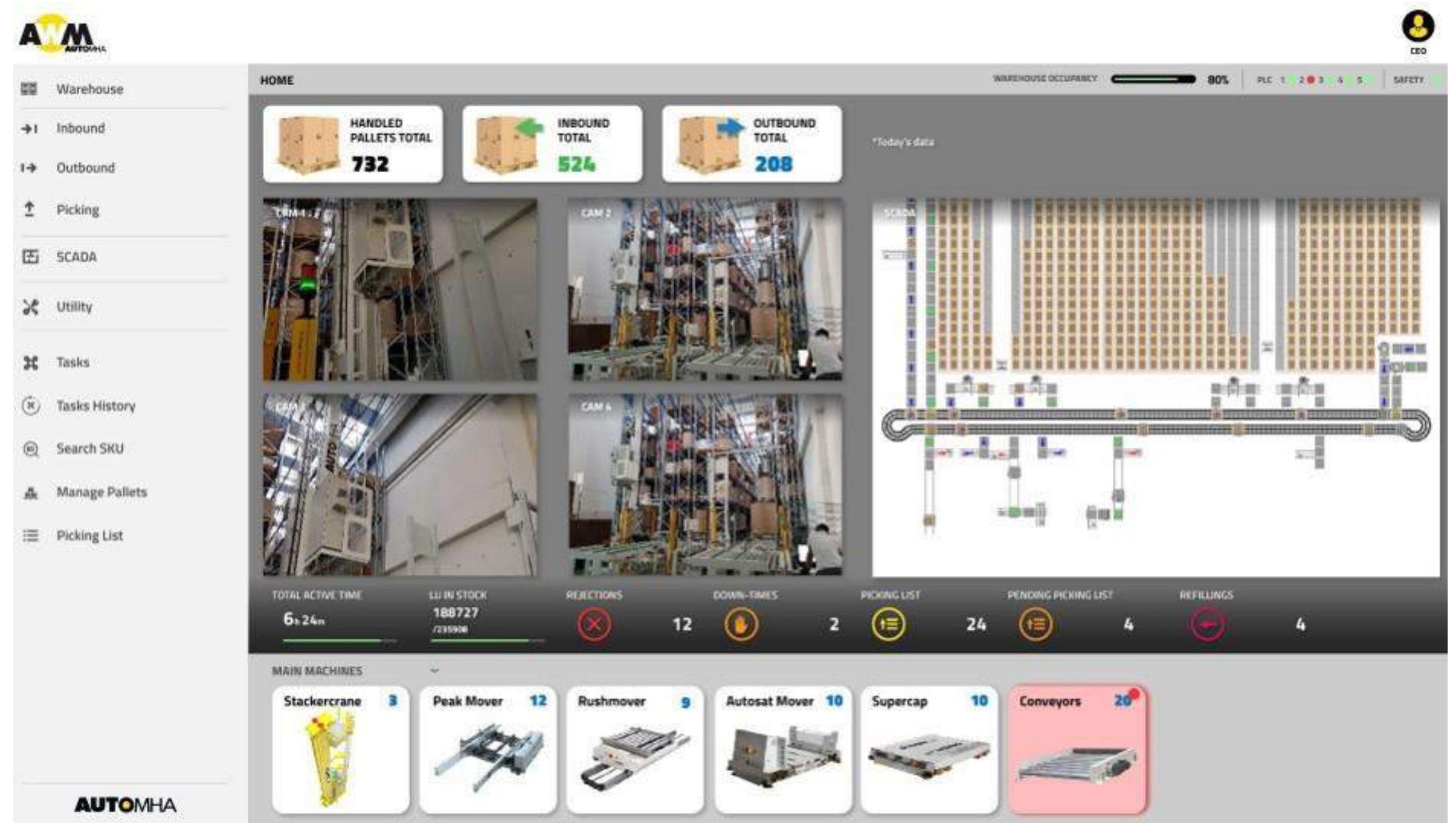
SOFTWARE
SYM
Simulation
Module

OUR AWM SOFTWARE

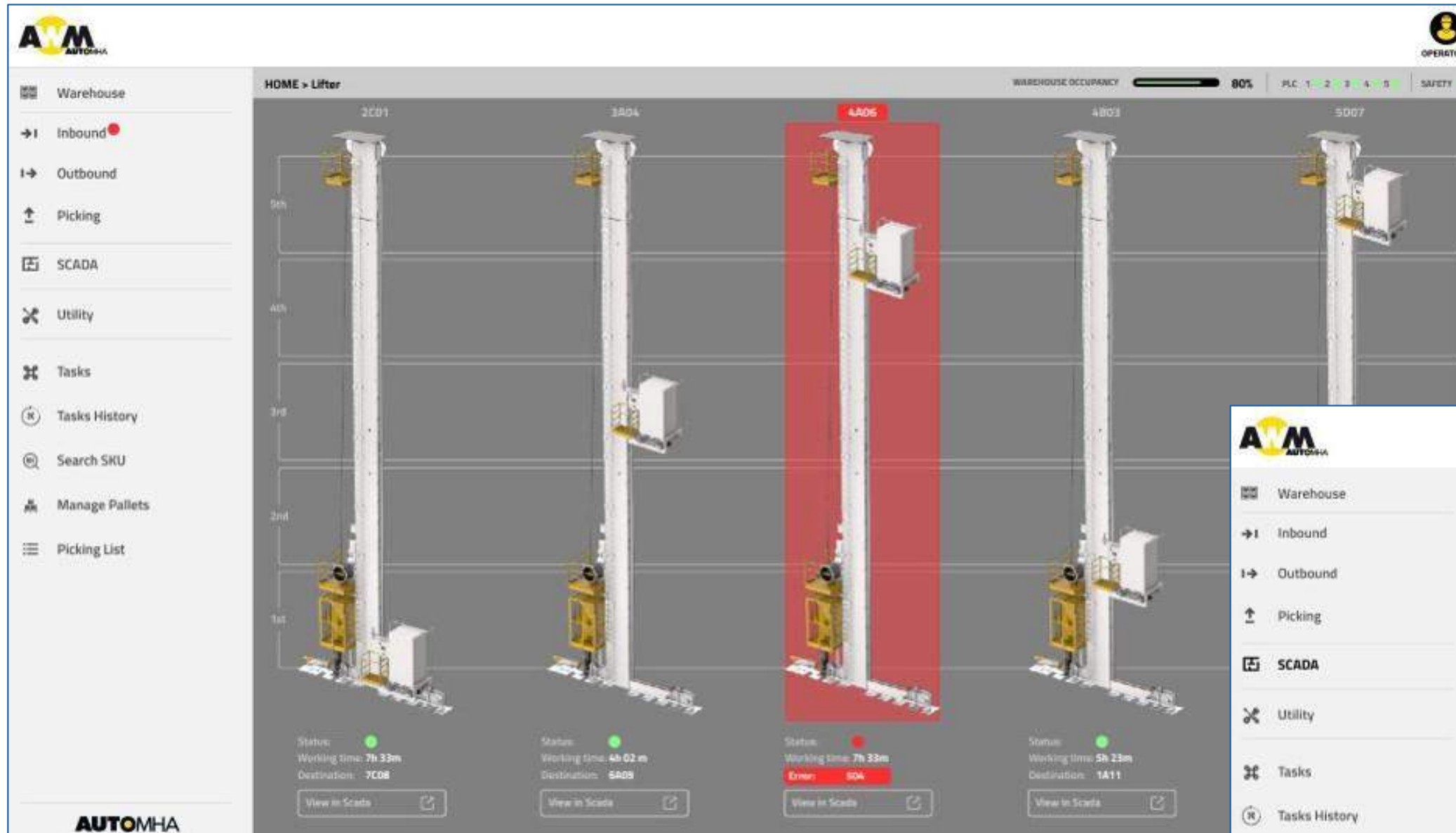


The AWM is the Warehouse Control System responsible for:

- Managing the storage and flow of inventory in order to store product and ship orders through the automation equipment.
- Communicating with our customer's ERP/WMS systems
 - Update inventory status, receive orders and receive necessary information about inventory
- Reporting on the performance and status of the automation equipment including: Inventory levels, % of orders complete, alarm history etc.



AWM SOFTWARE



SCADA is the graphic platform that manages alarms, movements, in AWM.20 is closely linked to the system connected in real time to the automation.



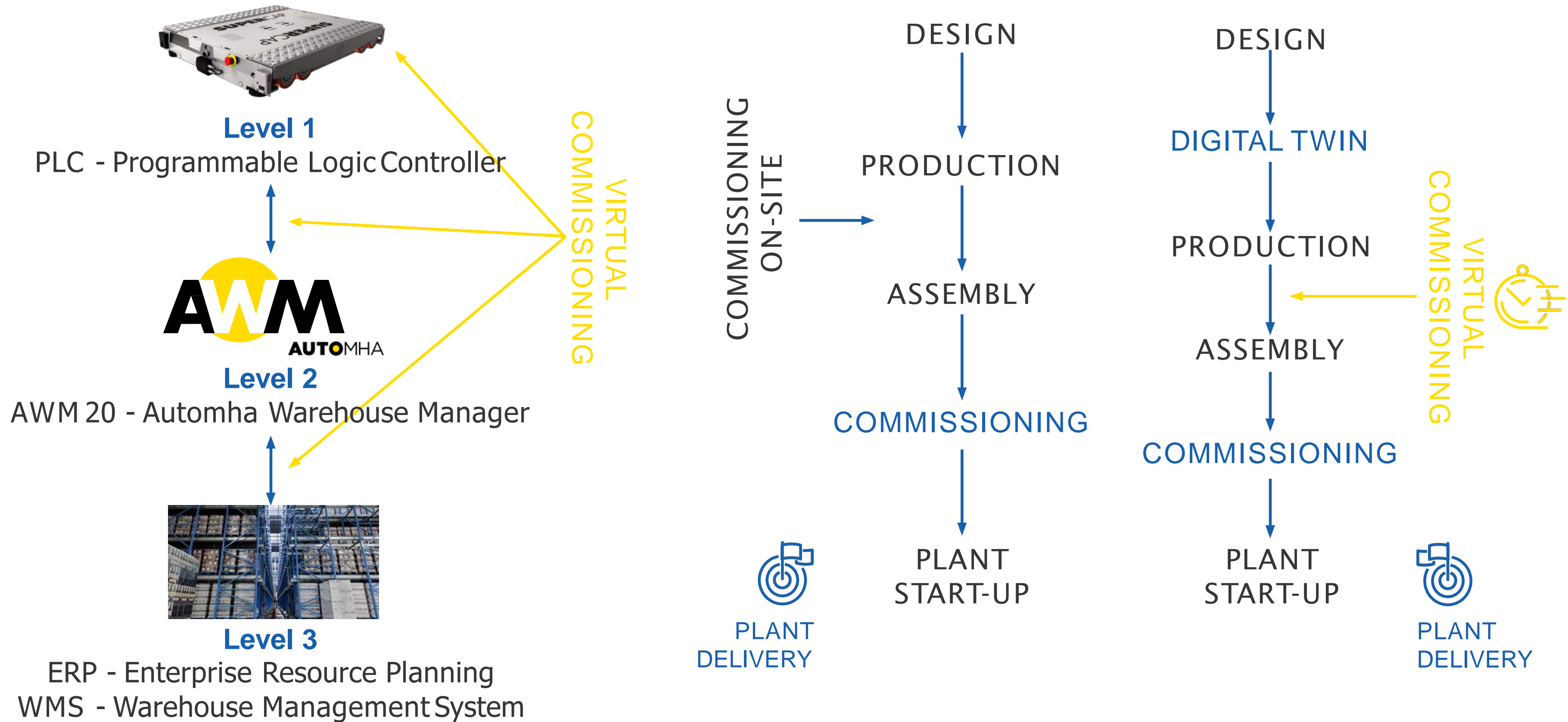
SCADA is integrated into the WMS platform, and provides;

- Graphic representation of the Items and LU handling;
- Alarms representation;
- Alarm management with reset of activities, or missions;
- SCADA activitylog;

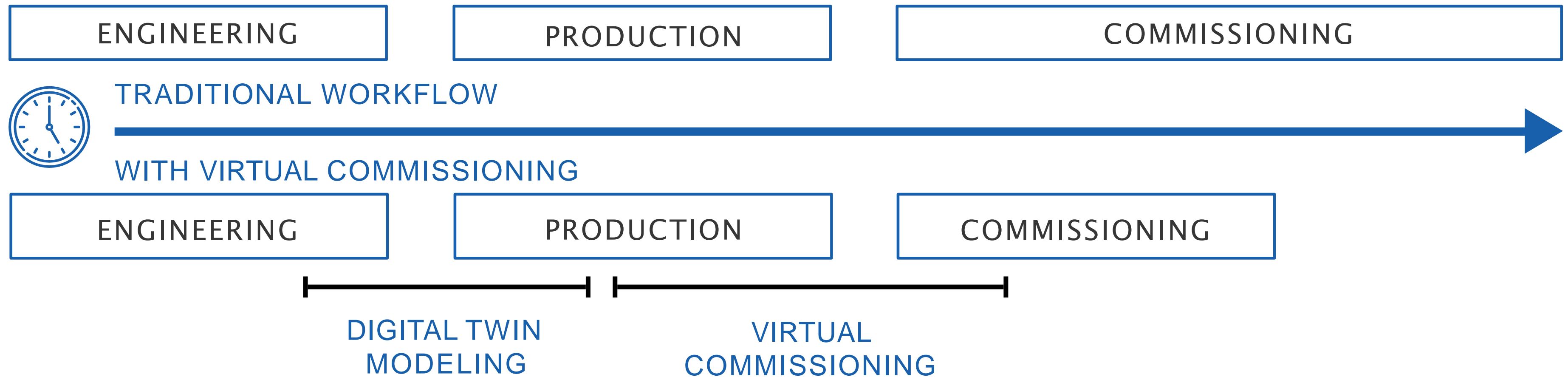
Because of this in every part of the platform it is possible to see the warehouse and LU handling status.

Scada allows the Core module of the WMS to carry out some activities on the handling according to the physical states of the warehouse.

VIRTUAL COMMISSIONING



VIRTUAL COMMISSIONING



- Test all designed elements and automation:
 - PLC (Programmable Logic Controller);
 - Motion Control;
 - HMI (Human Machine Interface);
 - Safety;
- Software debugging before component construction and before the entire manufacturing process;
- Significantly reduce on-site commissioning times;
- Anticipating the plant commissioning times;

- Implementation of cutting-edge solutions for logistics,
- Achievement of higher quality standards quantifiable in number of cycles per hour;
- Demonstration of the behavior of the system and the solution proposed by Automha;
- Reduction of software development times;
- System efficiency analysis;
- Security check;
- After-sales support.

AFTER-SALES SERVICES

RESIDENT TEAM

On-Site Resident Team who provide:

- Production Assistance;
- Preventive and Corrective Maintenance;

Being committed to operate towards the Highest system availability rates.

HELP DESK

Including customized coverage:

- Remote Access to our clients' systems;
- Software diagnose;
- Electrical & Mechanical troubleshooting;
- Activation of Emergency Support.

CALL OUT/STAND BY

Automha is able to provide Teams ready for emergency intervention

CORRECTIVE MAINTENANCE

It is performed after the detection of a failure with the goal to restore the original functionality.

PREVENTIVE MAINTENANCE

Maintenance activity performed at scheduled intervals, referred to the manuals supplied with the System, aimed at reducing the probability of failure or any degradation in the performance of the System and its components.

SPARE PARTS

- Maintaining the minimum level of stocking;
- Replacing or repairing those used;
- Managing purchase orders and checking the respect of delivery times;
- Planning yearly inventories.

LIFE CYCLE MANAGEMENT

Automha makes available a package of consulting services in order to reach & to keep high performance during all the life cycle of the automated warehouse.

TRAINING

Automha ensures a continuous, highly professional, and knowledge-based level of training provided by experts, to guarantee a qualified and constant service over time.

RETROFIT/UPGRADES

Automha is able to play an active role as a consultant for the continuous updating of the technologies installed, as well as for the study of system expansions, retrofits and technical upgrades that may become necessary to meet the changing operational needs of our customers.

HEALTH & SAFETY

H&S is the basis of Automha operations, according to our CSR Policy and Ethical standards, as well as the Quality Certifications ISO 9001, ISO 14001 and ISO 45001.

AUTOMHA Experience



AUTOMHA Example Project – AutoSatMover ASRS



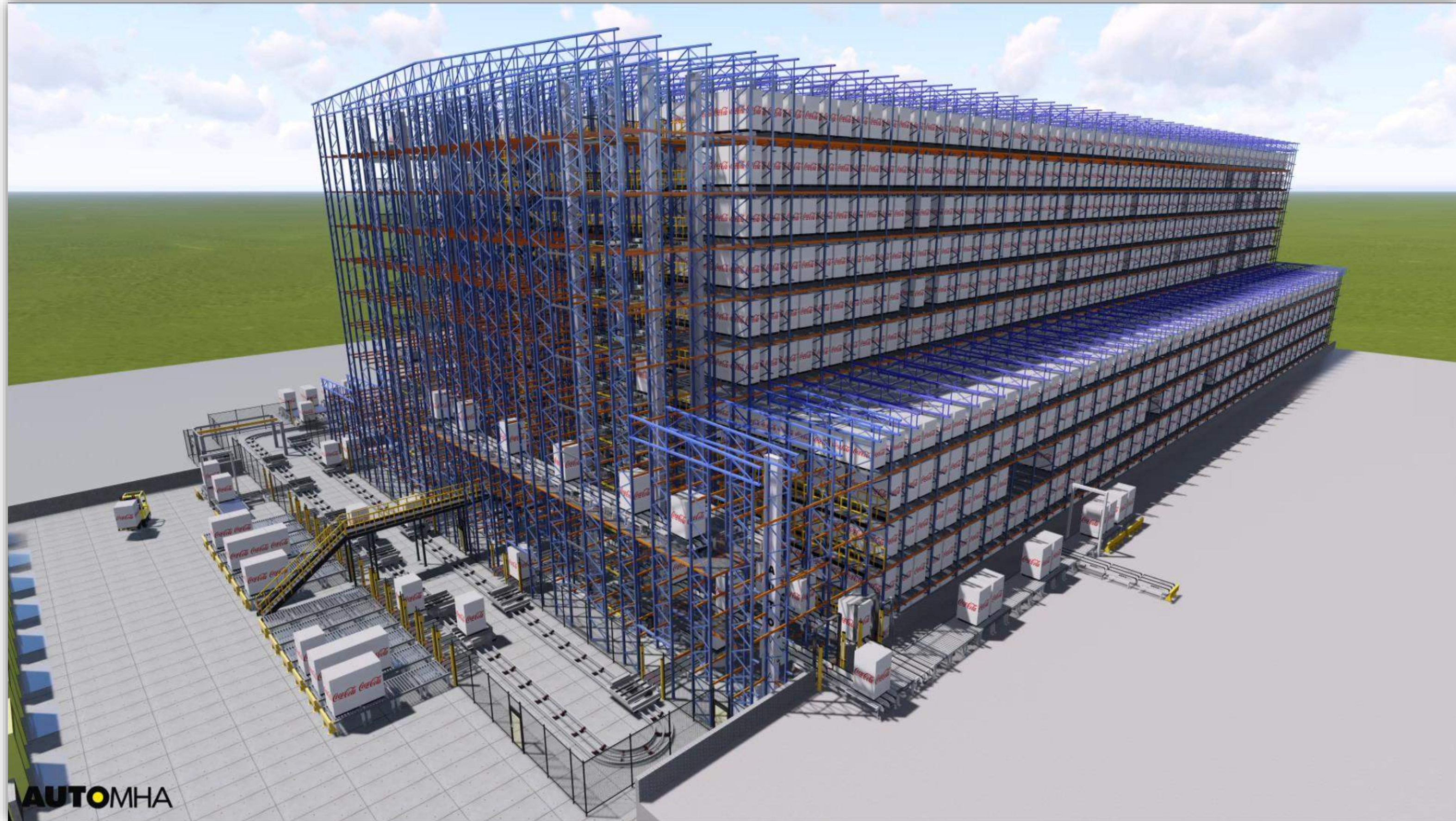
14,400 Pallets in 30,000 sq ft at 92 ft tall / 16 AutoSatMovers / 240 pallets per hour

AUTOMHA Example Project – Stacker Crane ASRS



AUTOMATIC STORAGE AND RETRIEVAL MACHINE DOUBLE MAST INCLUDING SHUTTLE CRADLE & ALL ITS ACCESSORIES

AUTOMHA Example Project – AutoSatMover ASRS



18,000 Pallet Locations / 11 Levels / 22 AutoSatMovers / 8 Lifters / 15 RushMovers

AUTOMHA Example Project – AutoSatMover ASRS

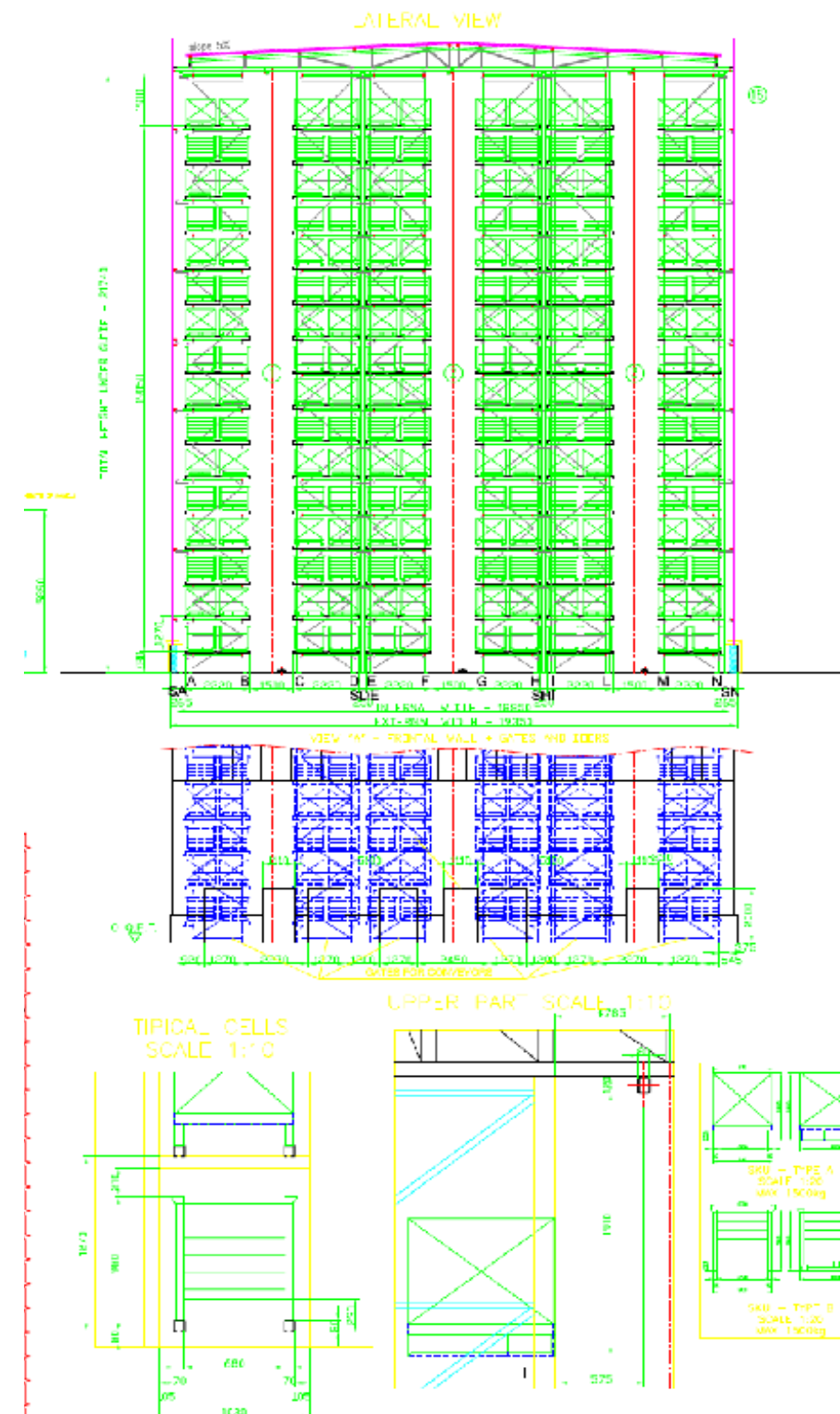


AUTOMHA Example Project – AutoSatMover



2 Lifters, AutoSatMover System – 90 pph

AUTOMHA Example Project – Stacker Crane ASRS



4,800 Pallet Locations / 16 Levels / 3 Cranes / 72' clear

AUTOMHA Example Project – Freezer AutoSatMover ASRS



Engineering Department – Technical & Functional Specs



16. PICKING AREA

Below in Figure 25 is shown the top view of the Picking Area.

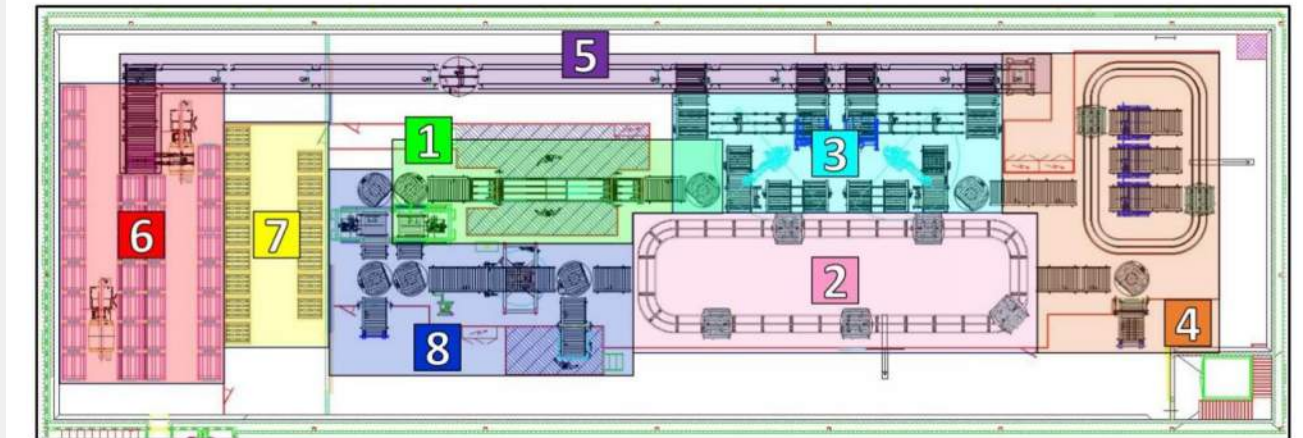
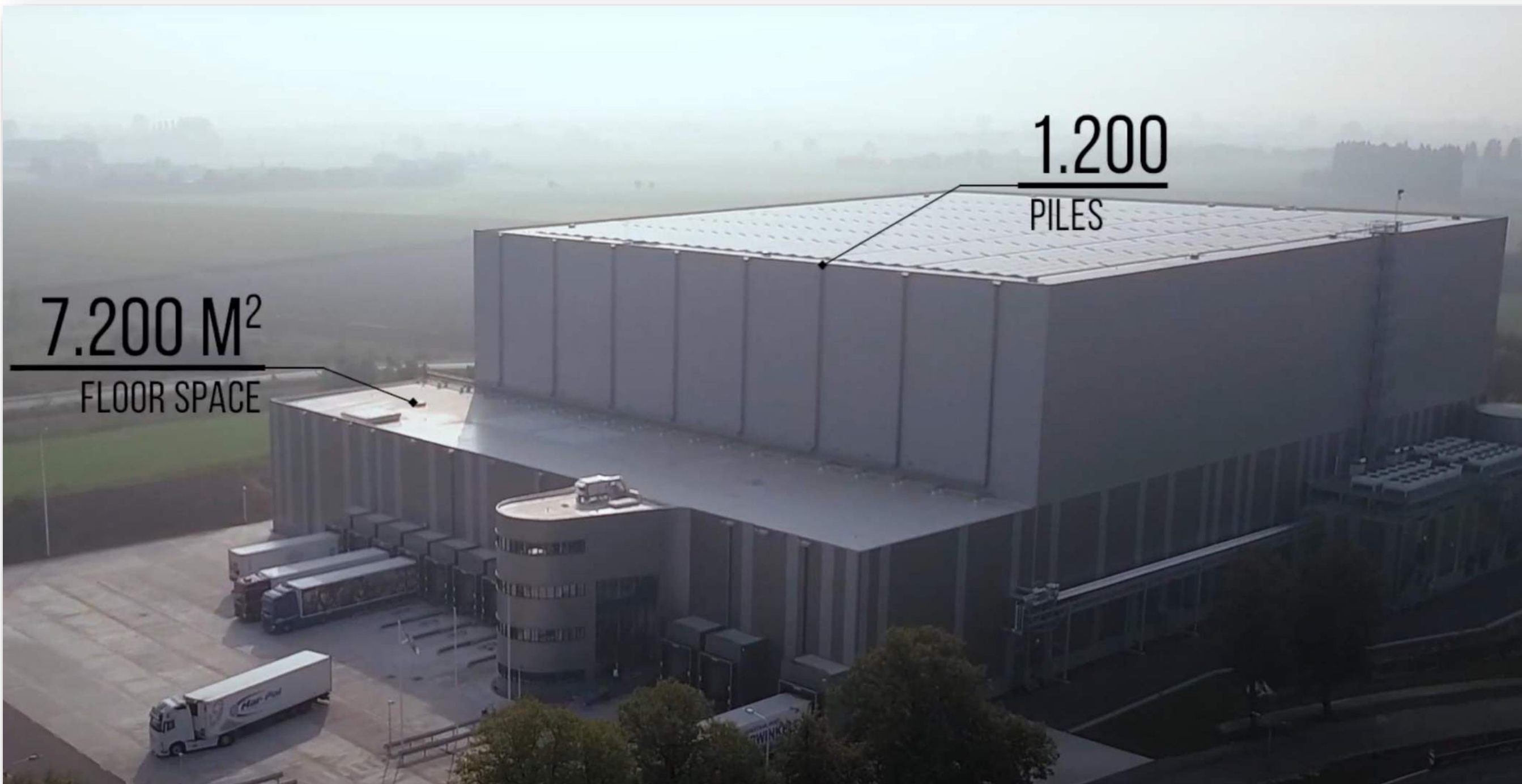


Figure 25

All evidenced areas are characterized below.

1. LUs Accepting and Dewrapping Area;
2. Rush Mover Loop 1;
3. Robots Area;
4. Rush Mover Loop 2;
5. Vertical Loop;
6. Layers Automated Warehouse;
7. Pallets Manual Warehouse;
8. Wrapping, Labelling & Outbound Area.

NOTE: Layers Automated Warehouse and Pallets Manual Warehouse are the only refrigerated areas, whose exercise temperature corresponds to -18°C ; all remaining areas work at a temperature included between 0° and 5°C .



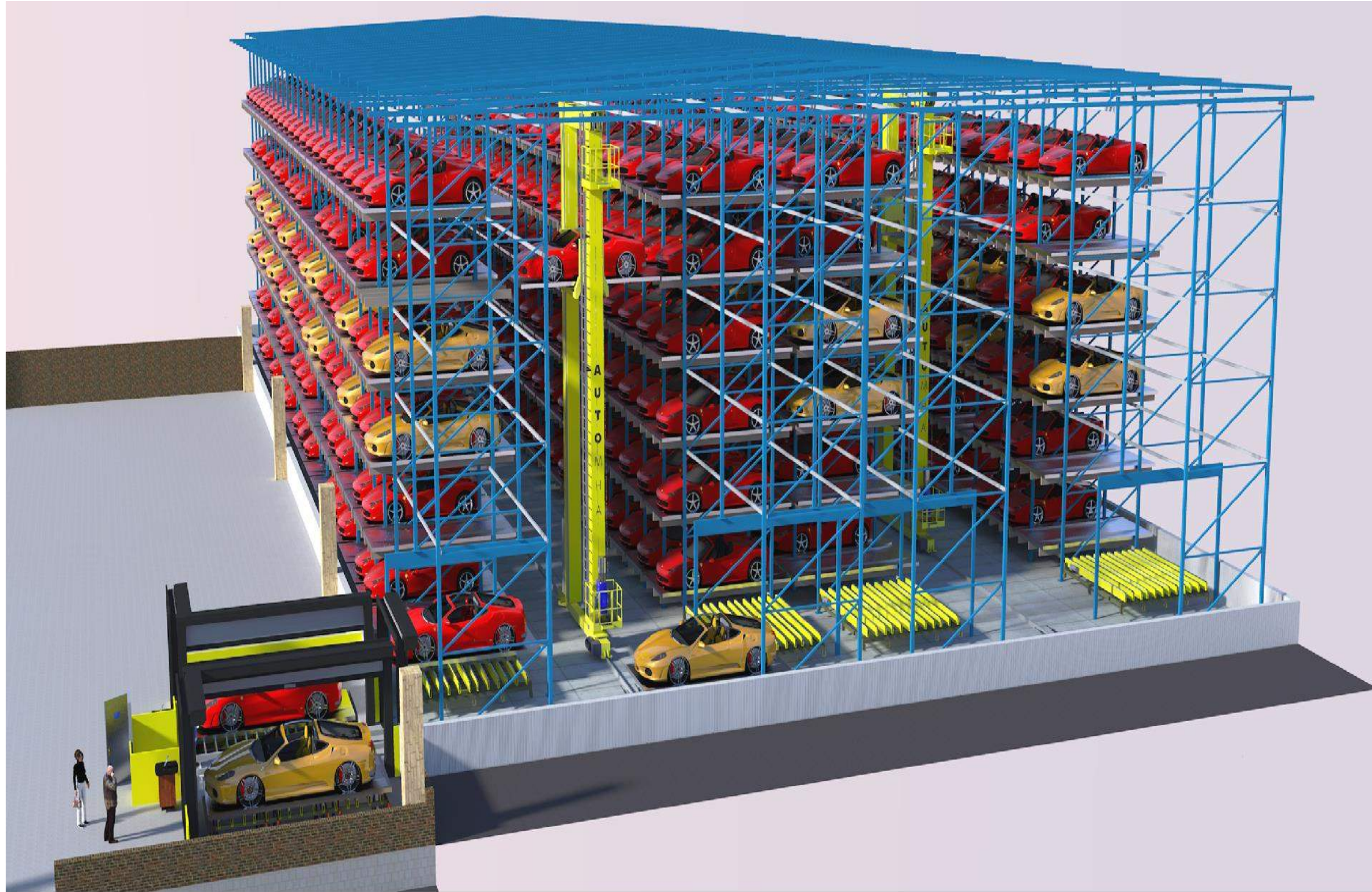
40,000 Pallet Locations / 11 Levels / 33 AutoSatMovers / -13F Freezer / Picking on Mezzanine

AUTOMHA Example Project – Freezer AutoSatMover ASRS



59,800 Pallet Locations / 13 Levels / 4 Lifts / RushMover System / 26 AutoSatMovers / -22F Freezer

AUTOMHA Example Project – Stacker Crane ASRS



504 Car Locations / 6 Levels / 2 SRM Cranes / Handling from \$200k to \$1MM+ Cars

Questions? Feel free to reach out!



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828-205-3535

Pre-Sales Services Offered:

- Data Analysis and Site Review
- Concept Design
- Technology Comparisons
- Budgetary Numbers