

**YASKAWA**



YASKAWA EUROPE

# **WAREHOUSE AUTOMATION AND ROBOTICS**

COMPANY PRESENTATION



# **YASKAWA**

## **A GLOBAL AUTOMATION PLAYER**



**€ 4 Billion**  
Sales p. a.



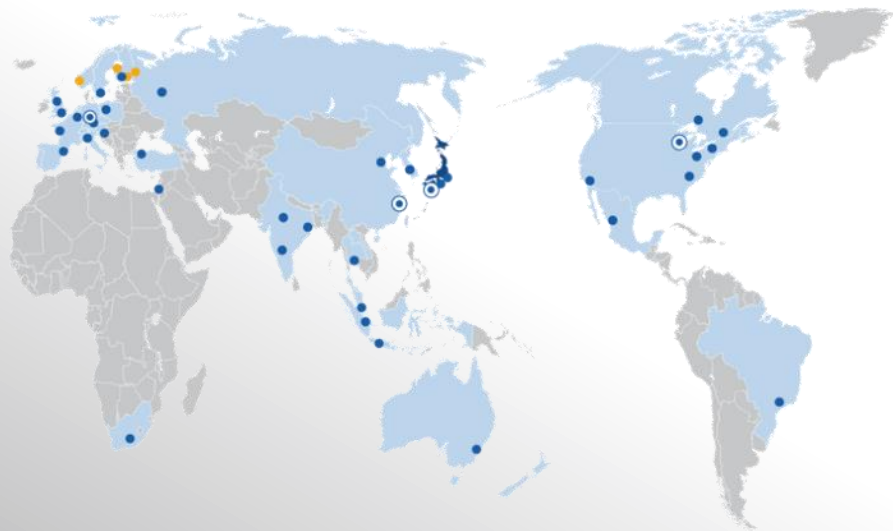
**~ € 9.5 Billion**  
Market Capitalization



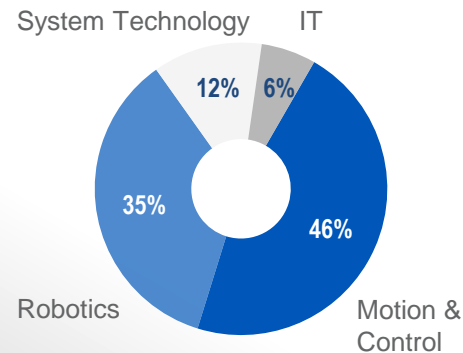
**18.000**  
Employees

# YASKAWA

## LEADING WORLDWIDE AUTOMATION SUPPLIER



### Business Units



6 times awarded  
**TOP 100 GLOBAL INNOVATORS**

DERVENT (2015 ... 2021)

1915

Motors  
for  
Mining

1950s

DC  
Inertia  
Motors

1960s

DC  
Servo  
Motors

1970s

Motoman  
Robots

1990s

Frequency  
Converters  
AC Servo  
Drives

2000s

Robot  
Portfolio >100  
different  
robots

2010s

Dual Arm  
Robots  
Matrix  
Converters

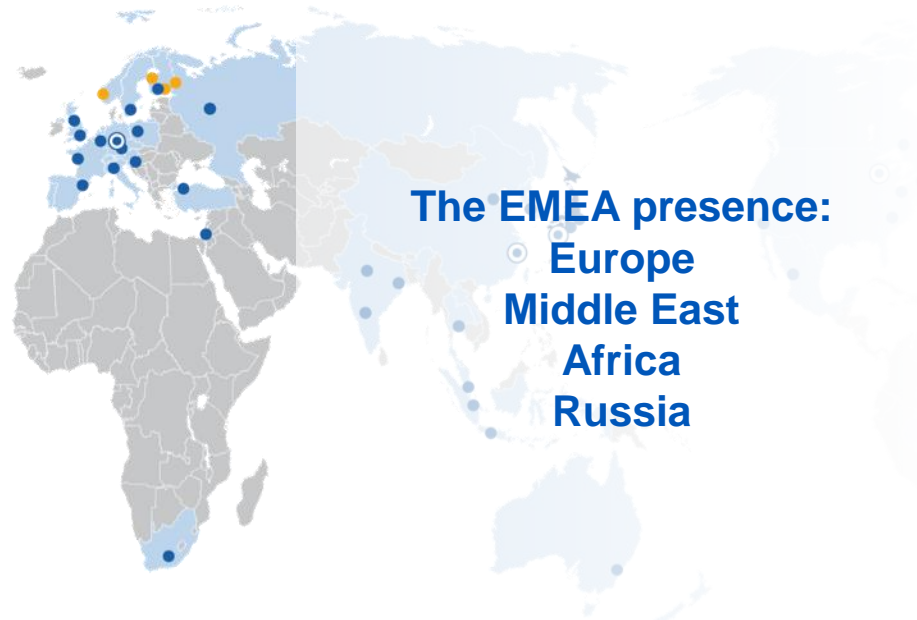
2020s

I3 Mechatronics  
Digital Factory  
Yaskawa  
Cockpit

2025s

NEXT Robot  
AI/Vision  
Technology

# A REGIONAL PARTNER FOR THE EUROPEAN AUTOMATION INDUSTRY



**The EMEA presence:**  
**Europe**  
**Middle East**  
**Africa**  
**Russia**

## YASKAWA Country Organizations in the most important Markets:

23 European  
YASKAWA entities

- 8 European  
Manufacturing locations
- Robotics
  - Drives Motion Control
  - Energy & Marine

## Sales Partners in all Markets in the EMEA Region:

100+ Channel Partners

- Drives Motion Control
- Energy & Marine

## Network of System Integrators

- Robots
- Motion Control

**1970s**

Foundation of  
YASKAWA  
Electric  
GmbH

**1990s**

Start Sales of  
Frequency  
Inverters  
and Servos

**2010**

Merger of Robotics  
and D&M into  
YASKAWA  
EUROPE GmbH

**2012**

Acquisition of  
PLC Supplier  
VIPA

**2014**

Acquisition of  
The Switch,  
a Player in Wind  
and Marine  
Energy

**2015/16**

Complete regional  
Management of  
YASKAWA EMEA

**2018/19**

1st European Robot Factory in  
Slovenia

Acquisition of ZF Factory  
Automation Business Unit in Italy



**YASKAWA**



# YASKAWA EUROPE

# **WAREHOUSE LOGISTICS**

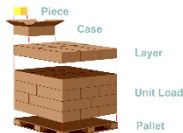
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May 2024

## MIXED SKU

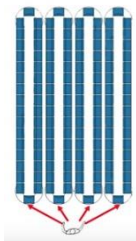


# ROBOTIC ORDER PICKING

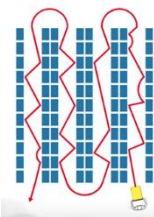


## PIECE PICKING

### GOODS TO PICKER



### PICKER TO GOODS



#### Piece Picking (Goods-to-Picker)



## CASE PICKING

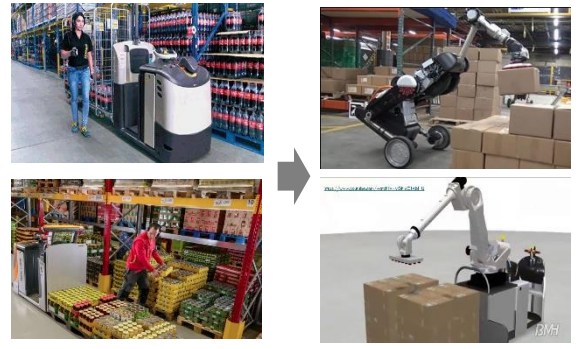
#### Case Picking (Goods-to-Picker)



#### Piece Picking (Picker-to-Goods)



#### Case Picking (Picker-to-Goods)



**Robotic Picking Technology** is a core technology to relieve and replace humans in Piece Picking and Case Picking Operations.

With the **Goods-to-Picker** philosophy, robot pickers are installed stationary while the goods are passing by. This technology is applied in larger warehouses and order fulfillment centers.

In the **Picker-to-Goods** concept, robots are moving through the warehouse. This concept is relevant attractive for brownfield automation of mid-size and small warehouses.



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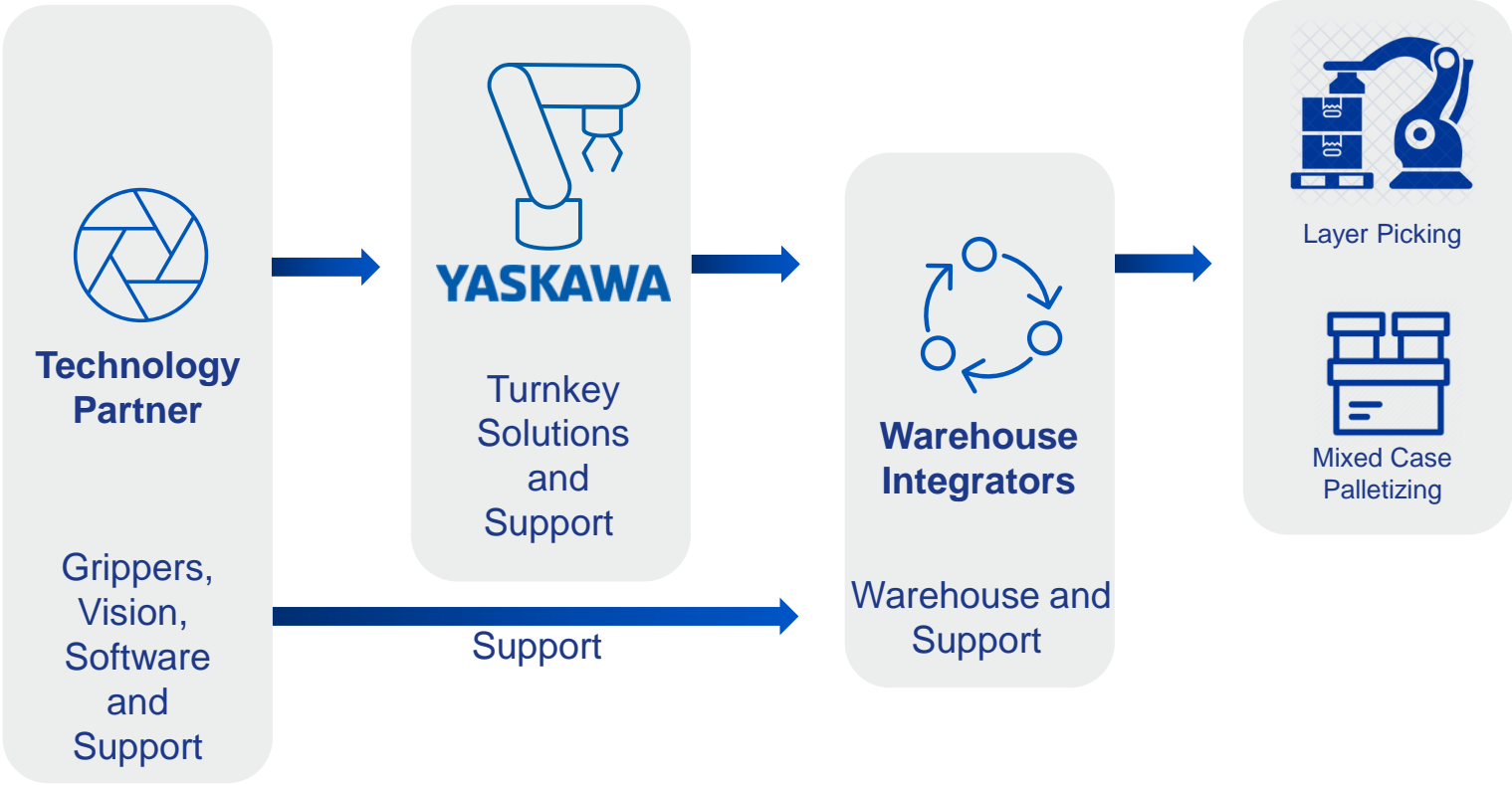
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# WAREHOUSE AUTOMATION AND ROBOTICS

YASKAWA SOLUTIONS



# STRATEGY FOR WAREHOUSE INTEGRATORS



# AUTOMATED MIXED CASE WAREHOUSE SOLUTIONS

Warehouse Management  
System (WMS)

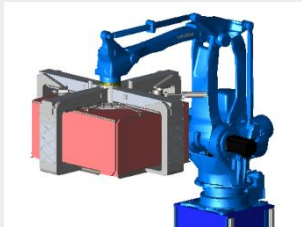


Warehouse Control System (WCS)



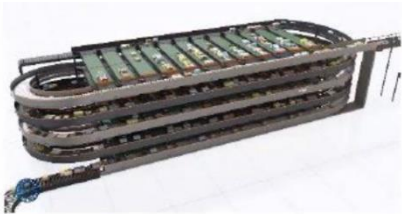
**INBOUND**

From Pallet Storage  
From Production  
From External



**DEPALLETIZING**

Layer Depalletizer



**PICKED / BUFFERED**

Capacity according to batch scheduling.  
Picking Process organised by customers  
orders, sequenced for MCP



**MIXED PALLETIZING**

Palletized by customer  
order weighing, wrapping,  
labelling



**OUTBOUND**

To Shipment

# YASKAWA PACKMASTER SYSTEMS

> 2020



## Manual PackMaster

- PackStation base package
- Stack Assist Tool (SAT)
- System can handle between 400 – 850 CPH (85% Utilization)



## Single PackMaster

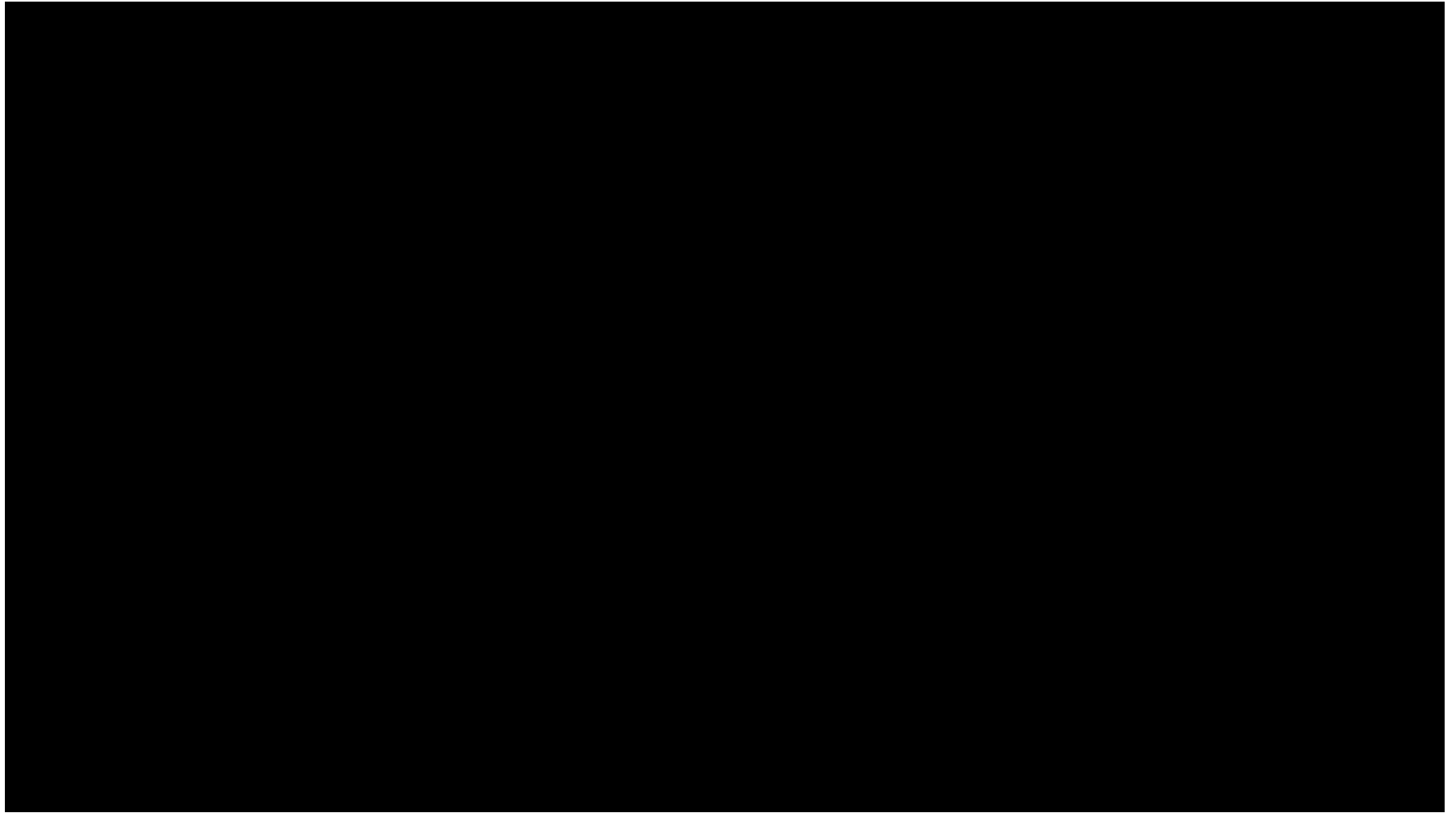
- Manual PackMaster
- Single GP180 robot with MCP gripper
- Motion planning and vision
- System can handle between 480 – 960 CPH)



## Twin PackMaster

- Manual PackMaster
- Twin GP180 Robot with MCP Gripper
- Motion planning and vision
- System can handle between 800 – 1500 CPH

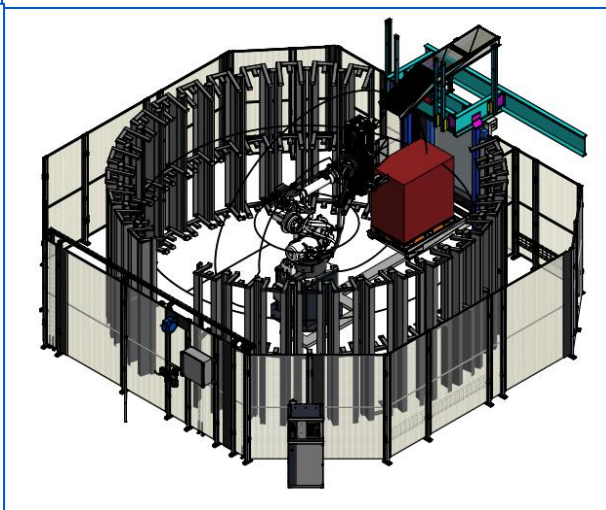
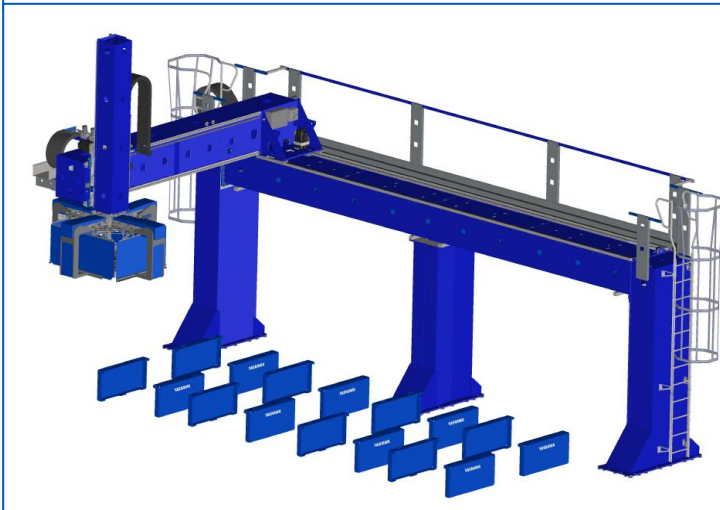
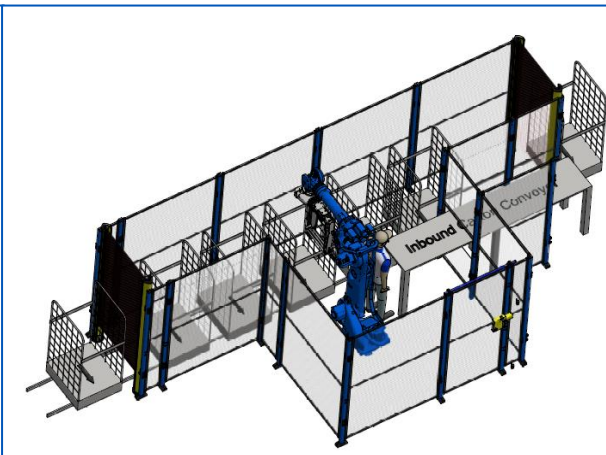
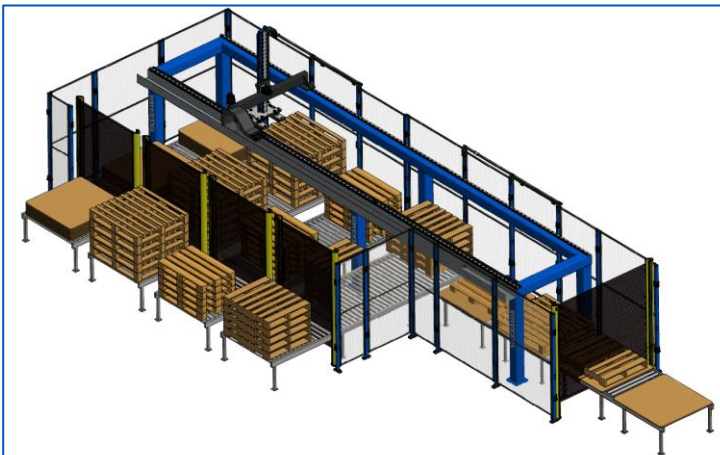
# TWIN PACK MASTER – DEMO SYSTEM IN YASKAWA NORDIC



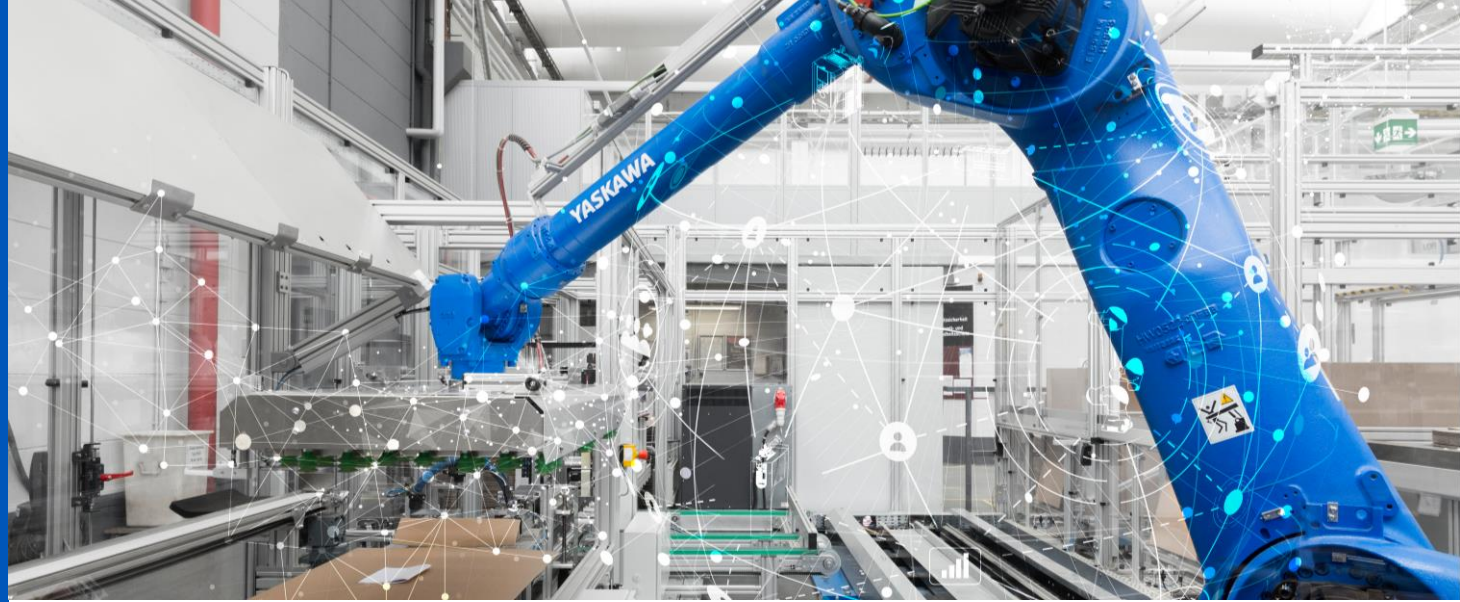


# CONTAINER UNLOADING

# OTHER SOLUTIONS TO WAREHOUSE INTEGRATORS



# YASKAWA

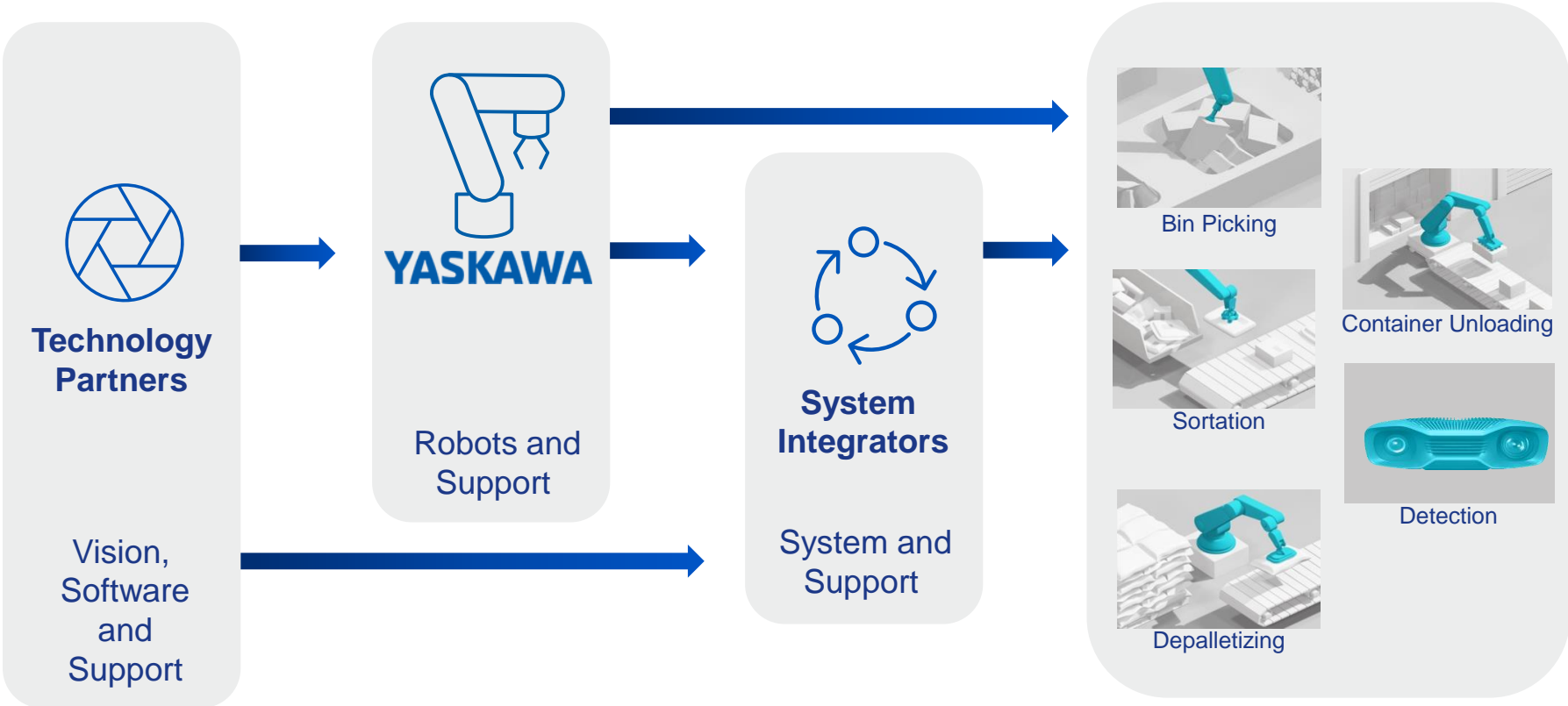


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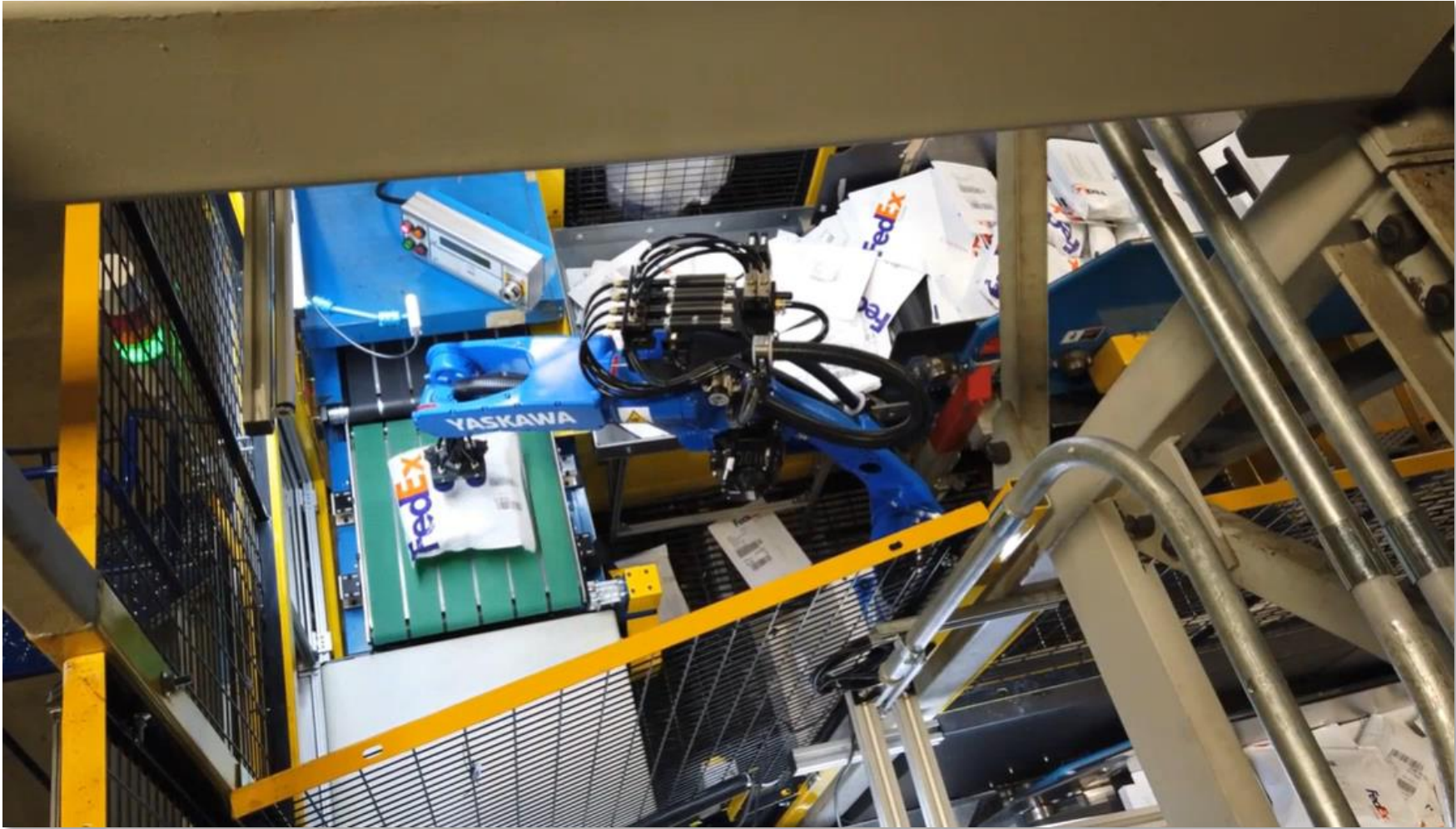
## WAREHOUSE AUTOMATION AND ROBOTICS

ROBOTIC SOLUTIONS – TECHNOLOGY PARTNERS

# STRATEGY FOR SYSTEM INTEGRATORS











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