




Gavà, 7 October 2015 – Jordi Ribatallada – New Applications

# ABB Robotics

# Jornada de formació ASPLARSEM

# Robotics overview

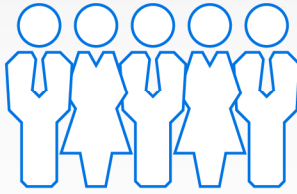
## Agenda

- 
- The ABB Group
  - Discrete Automation and Motion division -Robotics
  - Products & systems offer
  - Special solutions


# A global leader in power and automation technologies

## Leading market positions in main businesses

~150,000  
employees



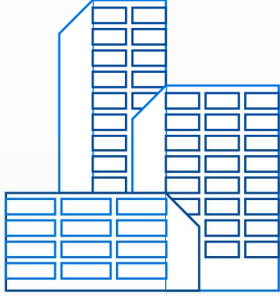
\$42 billion  
In revenue  
(2013)



Present  
in  
+100  
countries

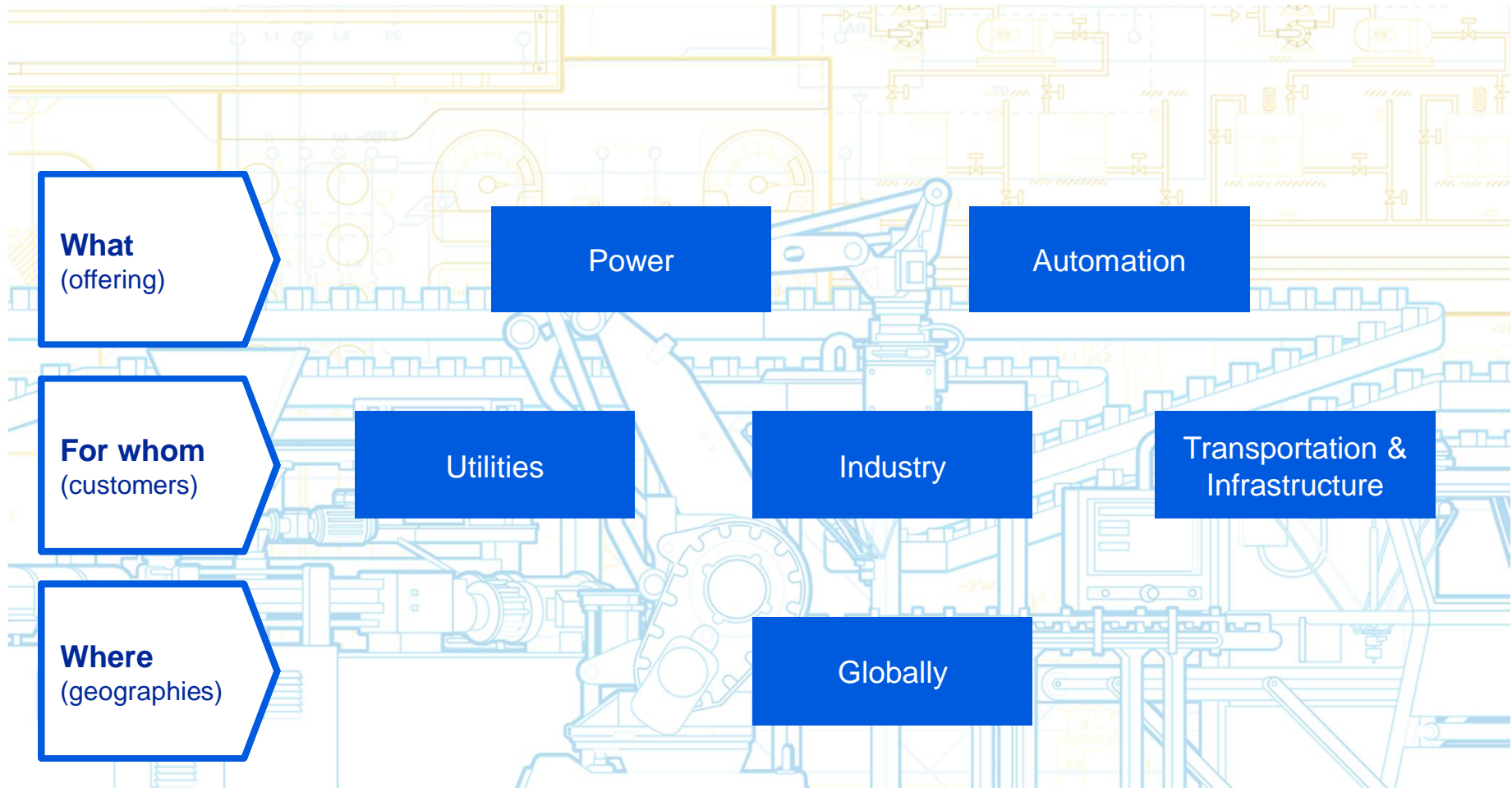


Formed  
in  
1988



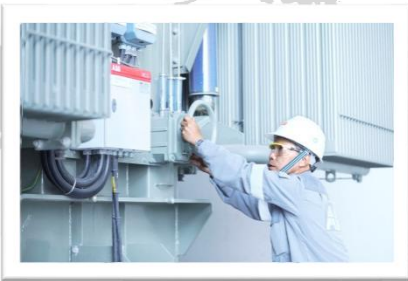
merger of Swiss (BBC, 1891)  
and Swedish (ASEA, 1883)  
engineering companies

# ABB – in simple terms



# Services across the entire value chain

## Creating measurable performance improvements



### Responsive service

- Installation and commissioning
- Break and fix
- Technical support
- Spare parts
- Training



### Advanced services

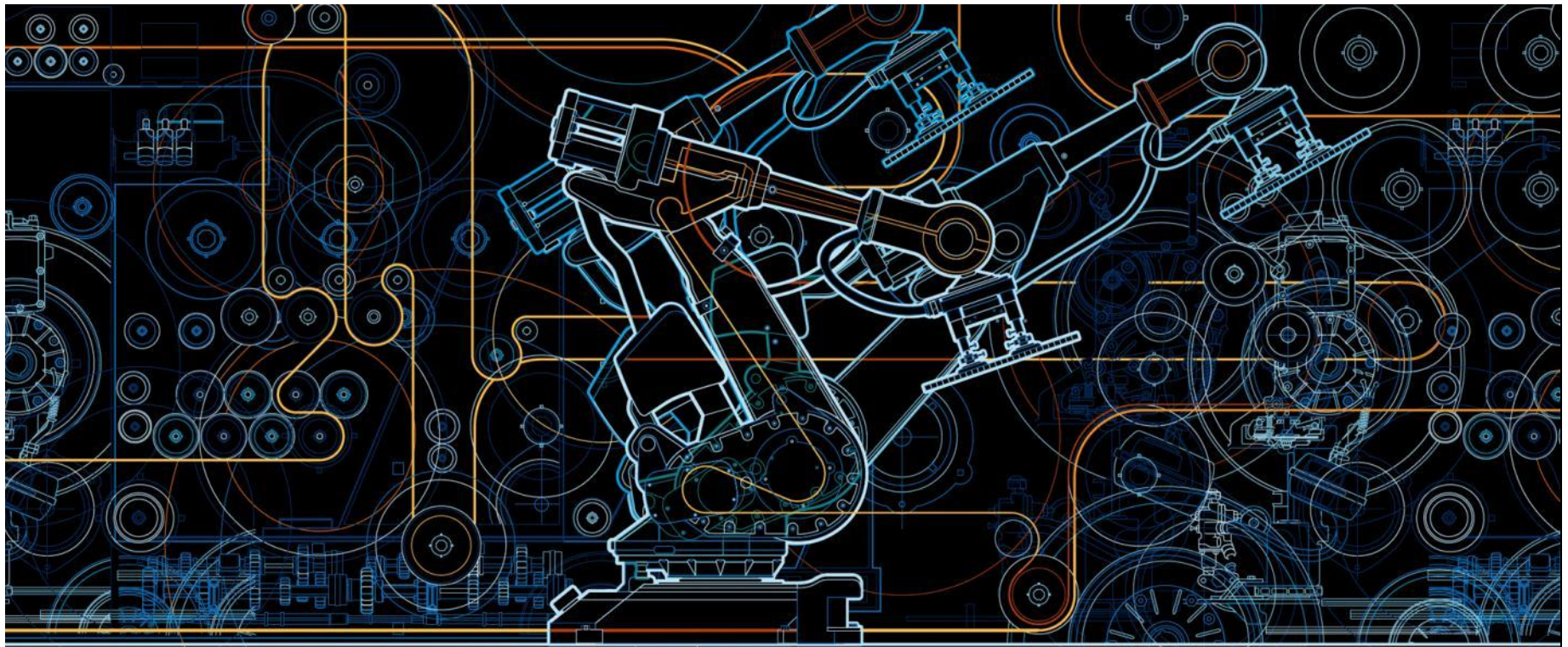
- Process improvement
- Lifecycle management
- Software services
- Evolution programs
- Optimization solutions
- Remote solutions



### Value-creating partnerships

- Co-develop solutions
- Strategic partnerships
- Value-based offerings
- Productivity and energy efficiency solutions
- Consulting





# Discrete Automation and Motion

## Driving customers industrial productivity and energy efficiency

# The top 10 reasons for robot investment

- Increase production output rates
- Reduce operating costs
- Improve process quality
- Improve workplace health & safety
- Increase product manufacturing flexibility
- Reduce material waste and increase yield
- Reduce labour turnover and difficulty of recruiting workers
- Save space in high value manufacturing areas
- Reduce capital costs (inventory, work in progress)
- Improve quality of work for employees

*Based on research carried out by the International Federation of Robotics (IFR)*

# Products & systems

## Overview



### **Robots**

Comprehensive range with capacity from 1kg to 630kg.



### **Application Equipment**

Fully integrated for welding, handling, gluing, sealing, painting



### **Software**

To support robots & systems throughout their entire life-cycle



### **Manufacturing Cells and Function Packages**

Modular cells based on globally proven solutions



### **Automotive Systems**

Fully engineered for BiW, Paint, Powertrain & Press automation

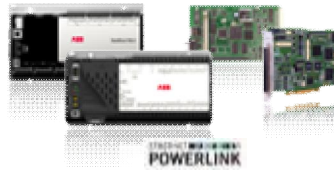


# A unique automation portfolio for integrated manufacturing solutions



**Robotics**

## Controllers



Motion controllers



Drive based controllers



AC500 PLC

## Drives



Micro



1ph servo



3ph servo / motion drives



AC drives

## Motors



Linear motors



Servo motors



AC motors

## Accessories



Jokab Safety

HMI + IO

# The ABB robot family

## Range suitable for a wide range of applications

Reach up to 3.5m

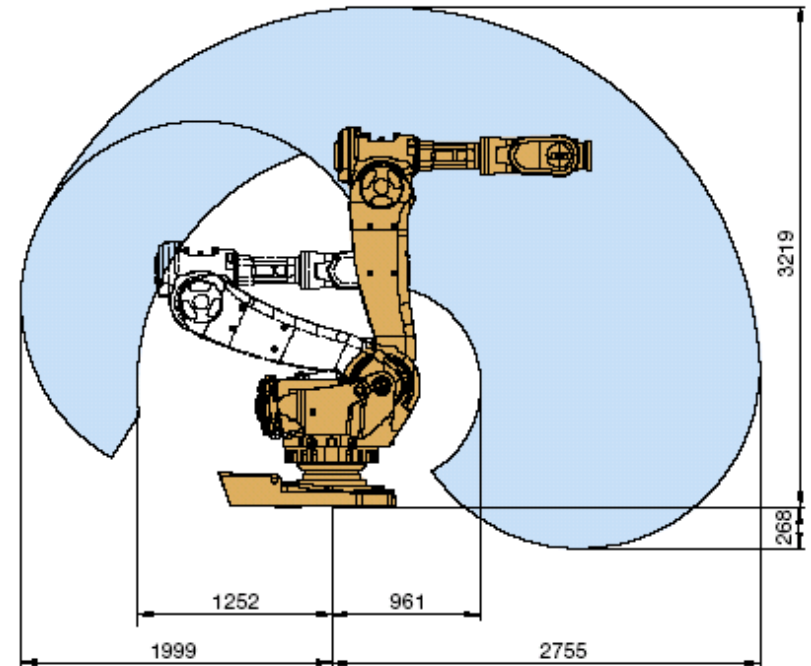


Payload up to 630kg

# Robot selection



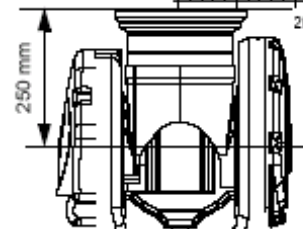
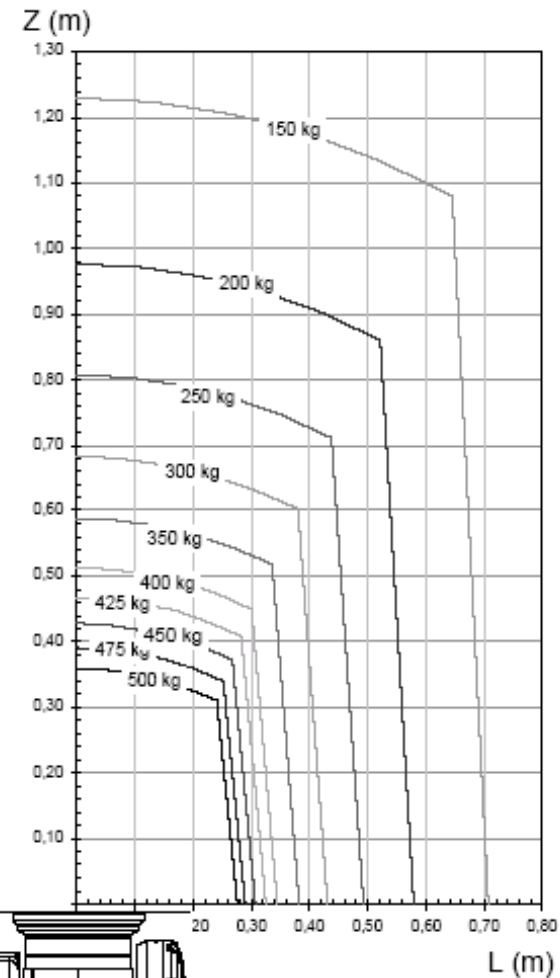
IRB 6650 – 200 / 2.75



# Robot selection

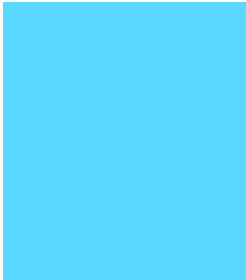


IRB 7600 – 500 / 2.3



# Dedicated 4 axis robot family & Collaborative robots

## Overview - picking, packing, palletizing



Serving fully  
integrated  
selection lines

**Collaborative robots**



**High speed pickers**



**Top loader and packer**



**Palletizers**





# Robot process and application equipment

## Fully integrated with your robot

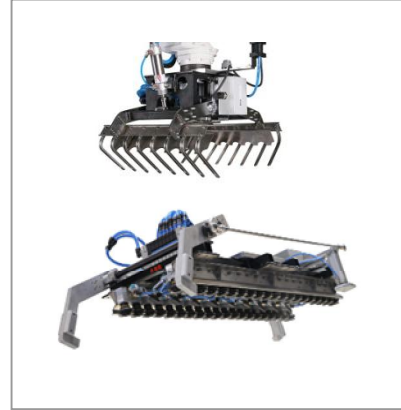
**Positioners**



**Motors**



**Grippers**



**Press tending tools**



**Gearboxes**



**Additional axis**



# Robot process and application equipment

## Fully integrated with your robot

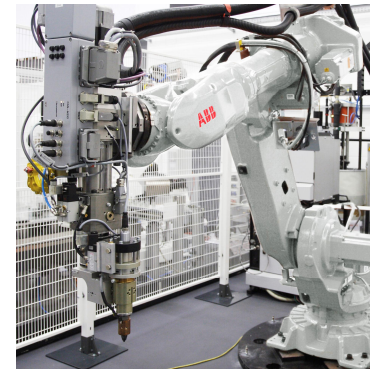
Vision



Force control



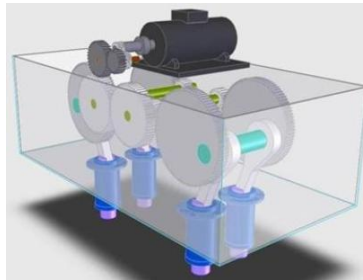
Dispensing



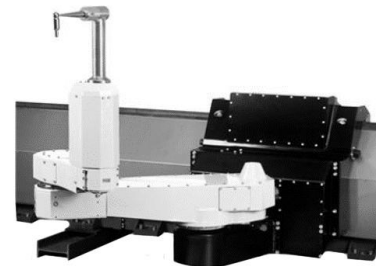
Dusting



Press synchronization



Door openers



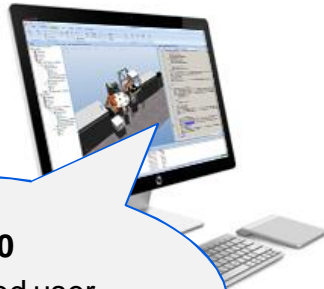
# Software

## RobotStudio - Smartphone simplicity for robots

### Programming

#### RobotStudio 5.60

With touch-enabled user interface taking advantage of new PC models



#### Remote Service

MyRobot for smartphones



### Supervision

### Commissioning

#### RobotStudio Online

Four apps for editing, calibration, jogging, and management, that will run on industrial tablets



#### ABB CP600

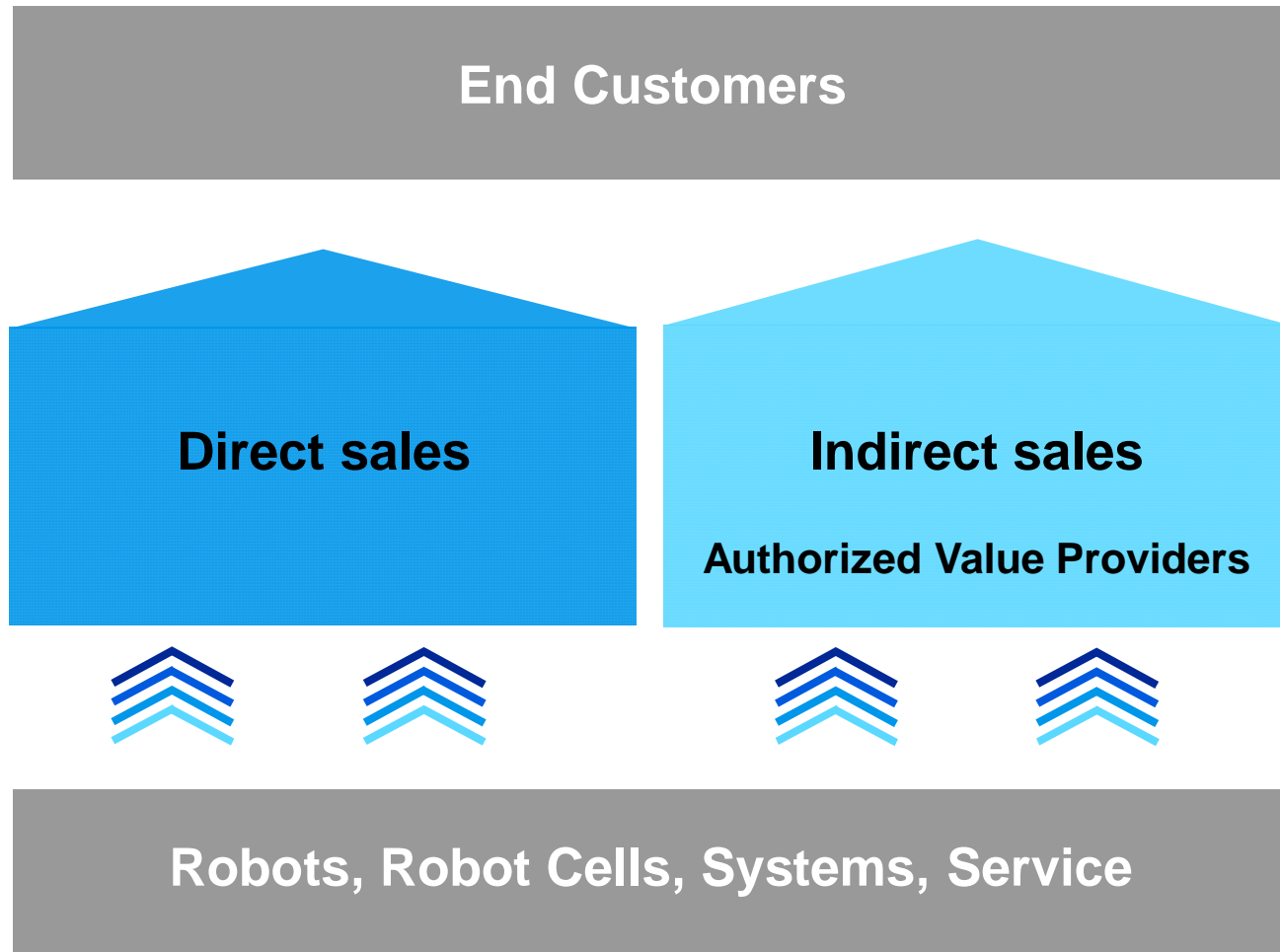
Operator Panels now compatible with IRC5



### Operation



# Two channel market approach



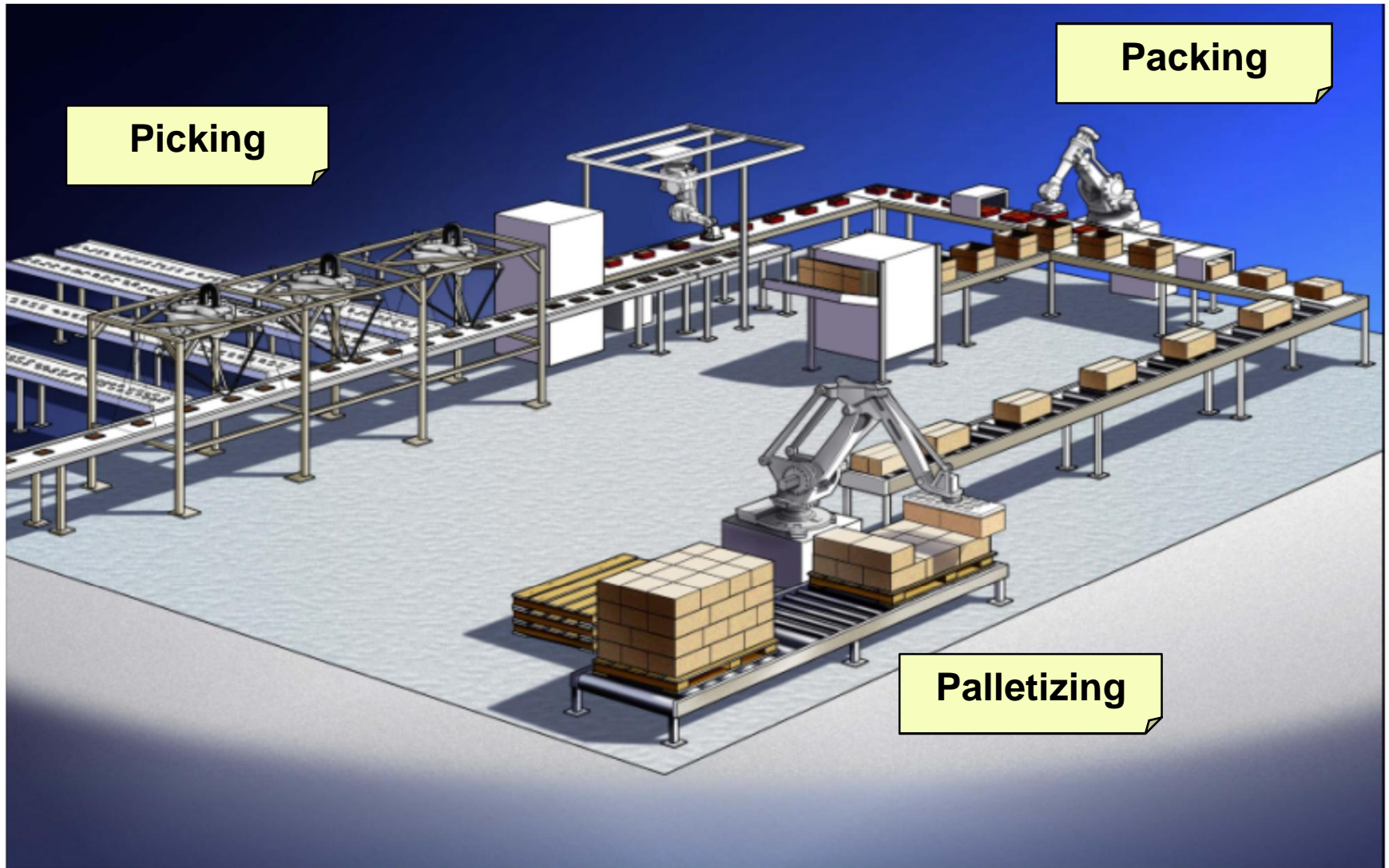
# Selection process

## Special solutions

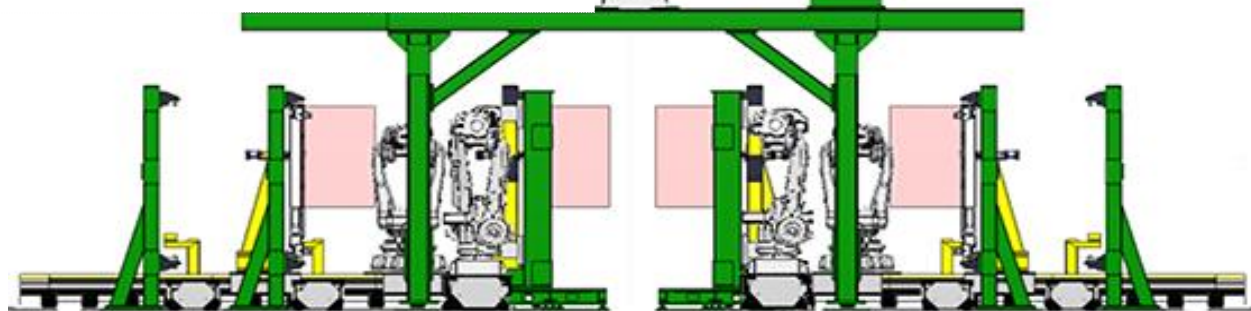
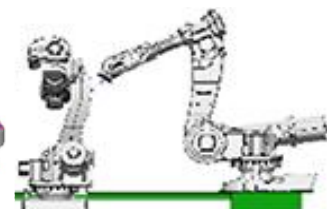
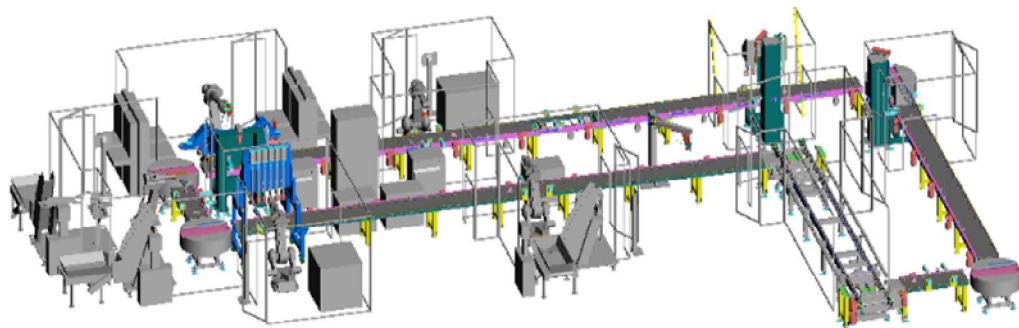




# Selection process



# Selection processout – Different Layouts





# Assembly & disassembly on site (Special solutions)



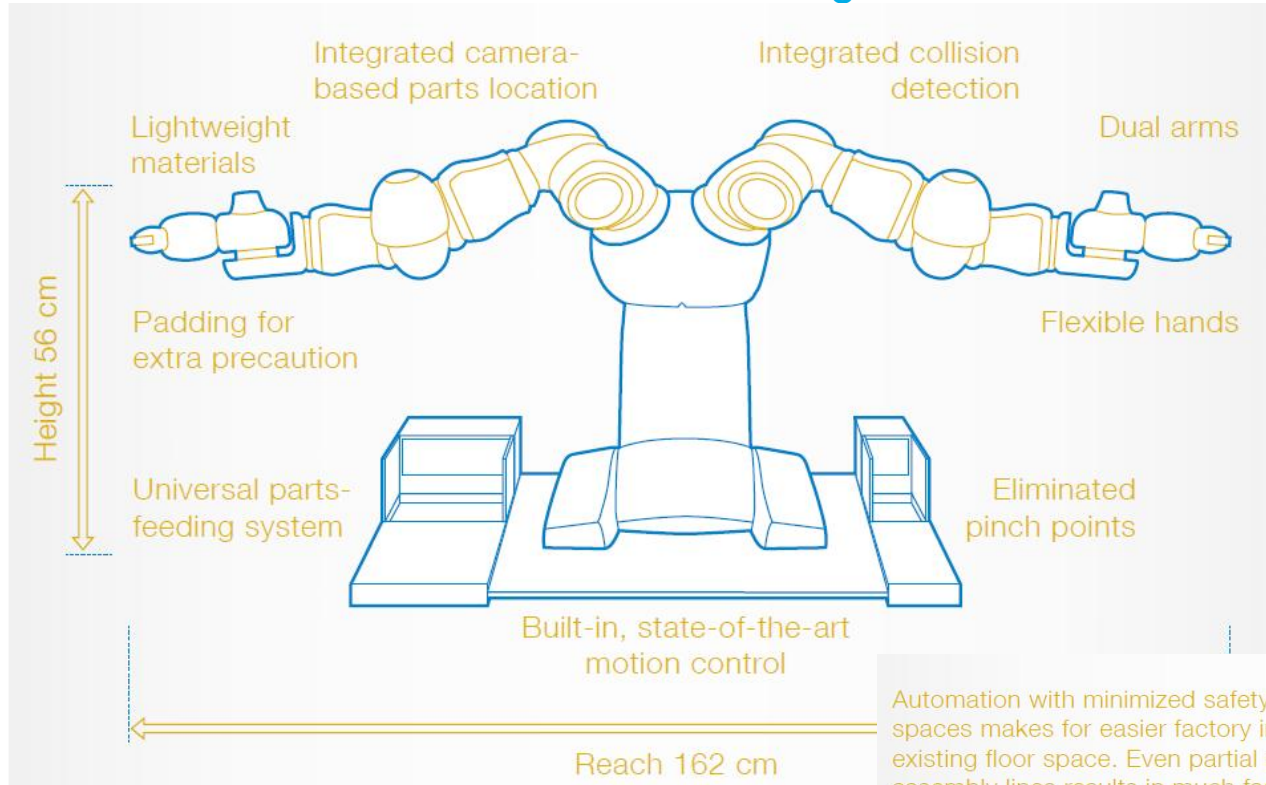


# Truck washer system (Special solutions)

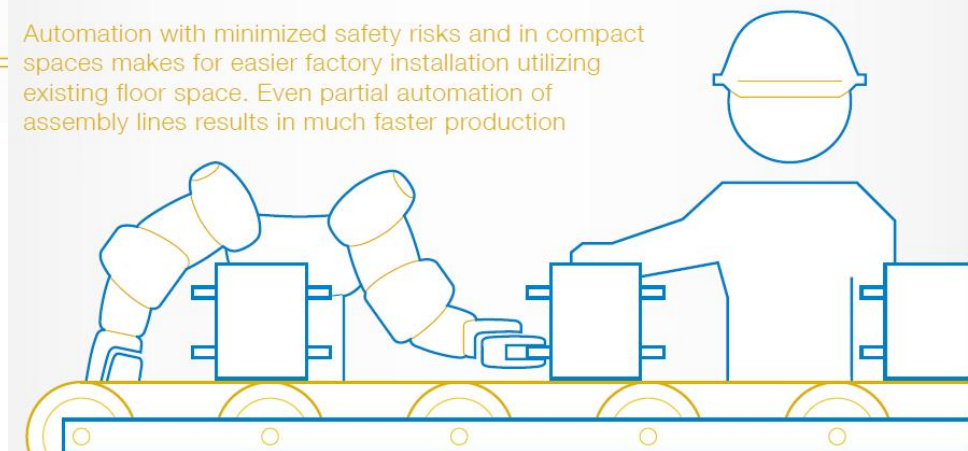


# Selection process

YuMi®: Creating an automated future together. You and me.



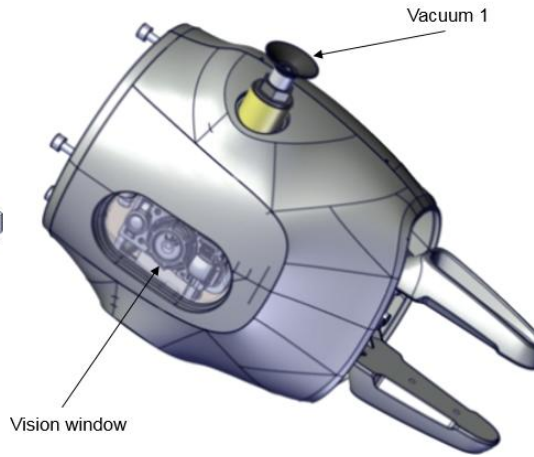
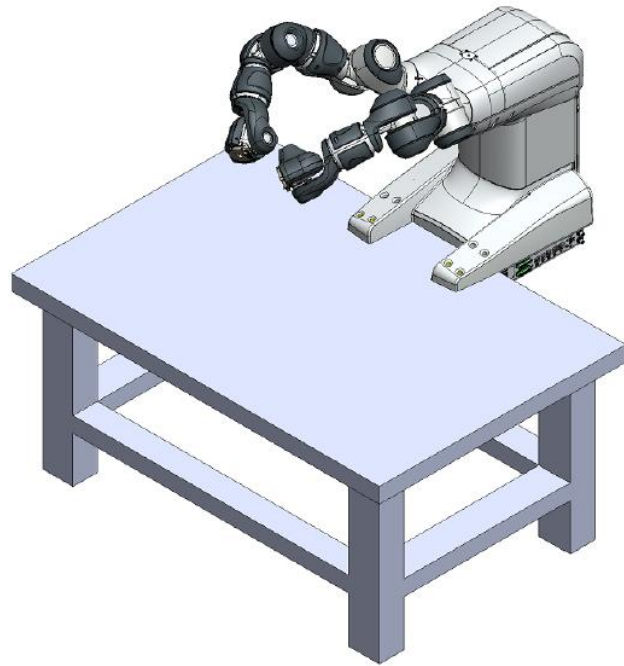
Automation with minimized safety risks and in compact spaces makes for easier factory installation utilizing existing floor space. Even partial automation of assembly lines results in much faster production



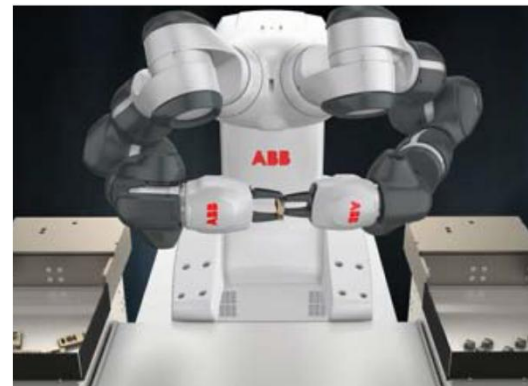


# Selection process

## Collaborative solutions



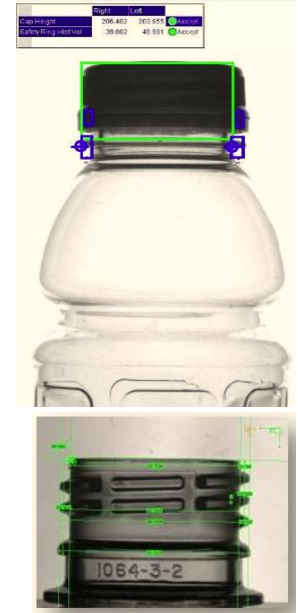
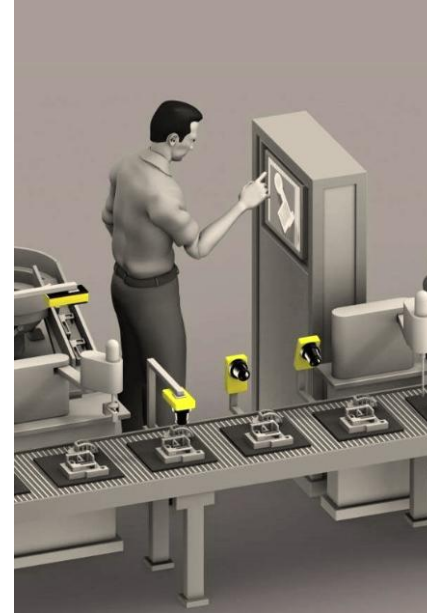
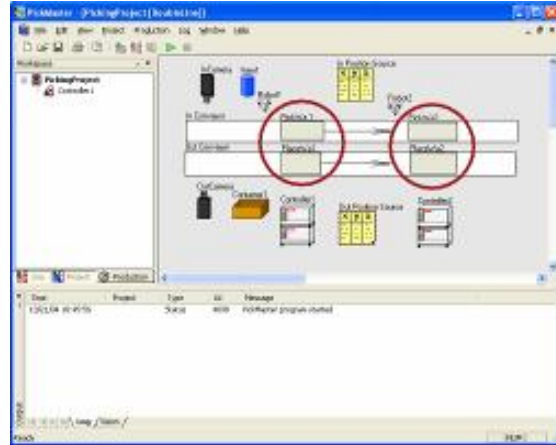
It makes it possible to handle static sensitive parts



# Selection process

## Vision integration

## Handling



### MAIN APPLICATIONS

Machine Tending  
Material Handling  
Spot Welding



**ABB**

# Service offer

## A partnership for productivity improvement



### **Parts and Logistics**

The right part, in the right place, at the right time



### **Field Service**

Assists you to get the best possible uptime



### **Training**

Reduces your cost with professionally trained employees



### **System Service**

Offers you solutions for optimization and refurbishment



# “We have a passion for robotics”



- **ABB is committed to being a world-leader in robotics.**  
We are capable of designing, producing and delivering the highest quality robots, systems and services to meet the needs and expectations of our customers
- **Quality will be built in to everything we do.**  
This will be evident each time we deal with our customers
- **Service is a key part of our offer.**  
We will support our customers with the highest quality, most responsive service organisation, in the industry
- **Technology and innovation are part of our DNA.**  
We will continue to invest heavily in R&D to ensure we meet our customers needs - both today and in the future

# Our robotics team





Power and productivity  
for a better world™

