YASKAWA Robotics
Global Player and Local Partner

5. Japan-Wirtschaftstag
24.10.2019 Rosenheim
In industrial automation, YASKAWA is one of the global leading technology providers.

- **Industrial robots**: 48,000 units
- **AC drives**: 2.2 Million production in 2018
- **Servos and motors**: 2.1 Million (each) production in 2018
- **Shipped units**: 430,000 units
- **Produced units**: 27 Million
- **Sold units**: 18 Million

**INNOVATION**

Inventor of Mechatronics

A GLOBAL LEADING TECHNOLOGY SUPPLIER FOR THE AUTOMATION MARKETS

€ 3.8 Billion
Sales p. a.

Regional presence
4 strategic business areas:
- Japan
- Asia (incl China)
- Americas
- EMEA

14,500
Employees

1915
Development of motors for mining

1950s
Development of DC Minertia-motors

1960s
Launch of DC servo motors

1970s
Development of first MOTOMAN robot

1990s
Launch of frequency converters and AC servo drives & motors

2000s
Robot portfolio: >100 different robots

2010s
Introduction of dual arm robot and first matrix converter

Split business units
- System technology: 46%
- IT: 35%
- Robotics: 12%
- Motion & Control: 6%

4 times awarded
TOP 100 GLOBAL INNOVATORS
THE 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 EUROPE: DYNAMIC GROWTH

Sales development
Fiscal year in million €


Split business units

- Energy: 14%
- Robotics: 51%
- Drives Motion Control: 35%

European development focus:

- Technology: Micro chips, SoC, ASICs
- Products: Inverters, High Power Motors & Generators, Positioners, Robot Variants
- Applications: Robot application software, Communication interfaces, Robot Turn Key Systems

€ 600 Millions Sales p. a.

1,900+ Employee development

Development resources: > 400 engineers

14 → 23 Entities

Robotics

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ROBOTICS DIVISION EUROPE

Key Industries:
- Welding (automotive)
- Exhaust systems
- Machine tending
- Packaging/handling
- Painting/coating

Key Markets:
- Automotive Tier 1
- Automotive OEMs
- General industry: Machine builders, System integrators

Design, assembly and commissioning of Turnkey Systems

Robots with customer- and application-specific options for System Integrators and OEMs

51% of employees

Red Dot Award
DRIVES MOTION CONTROL DIVISION EUROPE

- MM Award for matrix converter U1000
- Red Dot Award for decentralized frequency inverter V1000
- Innovation Price IT from Initiative Mittelstand for controls-division
- 650 employees

- Lift & escalator
- Pumps & compressors
- Textile machinery
- Water & wastewater

- Packaging machinery
- Wood working
- Metal- & glass processing
- Semiconductor

- Automotive production
- Food & beverage
- Building automation
- Conveyer
ENVIRONMENTAL ENERGY DIVISION EUROPE

Product benefits:
- More energy
- Higher electric quality
- Lower total lifecycle costs

14% of Drive train efficiency

14,000 MW installed capacity

220 employees

Permanent magnet generators

Converters

High-speed turbo motors

Wind

Marine

Pumps and compressors

14.000 MW
CONTINUOUS INVESTMENT IN EUROPE

Sustainable Growth

Contribute with our experience and competence to European innovation (Mechatronics, Humatronics)

New Markets

Clean Energy, Marine (electrification of vessels)

Production Sites

Cambernault Scotland
Ribnica Slovenia
Vaasa Finland
Torsås Sweden
Allershausen Germany
Kočevje Slovenia
Lappeenranta Finland
Stord Norway

Targets

Premier Customer Service
Expand local Production
Expand local Development Capacity
Set Technology Trends

Clean Energy, Marine (electrification of vessels)

YASKAWA’s contribution to Industrie 4.0
CONTINUOUS INVESTMENT IN EUROPE

Global Player – European Player

- New Markets
  - Clean Energy, Marine (electrification of vessels)

- Production Sites
  - Camberrault Scotland
  - Ribnica Slovenia
  - Vaasa Finland
  - Torsås Sweden
  - Allershausen Germany
  - Kočevje Slovenia
  - Lappeenranta Finland
  - Stord Norway

Close to customers

European Innovation

- Sustainable Growth
- Contribute with our experience and competence to European innovation (Mechatronics, Humatronics)

Targets

- Premier Customer Service
- Expand local Production
- Expand local Development Capacity
- Set Technology Trends

YASKAWA’s contribution to Industrie 4.0
EUROPEAN ROBOT FACTORY

Automotive Markets

Non-Automotive Markets

New Markets

Local Production

New Robot Factory in Slovenia

Local Development

New R&D Center in Slovenia
React fast to Customer Demands

Development of

Industrie 4.0 Solutions
Application Software
Customer specific requirements
Variants and modification of Manipulators
Customized Controllers

R&D centers in Slovenia, Germany and Sweden working closely together
40 YEARS OF DRIVING THE ROBOTICS WORLD
BUSINESS CHALLENGES BETWEEN JAPAN AND EUROPE

- Volatility of Exchange Rates
- Logistics, Transport and Taxes
- Decision Making Procedures
- Communication
- Innovation & Product Development
- Culture
## DIFFERENT PRODUCT DEVELOPMENT PHILOSOPHIES

### Supplier presents competence on Exhibition

- Customer approaches Supplier. => Both agree on customer specific narrow spec

### Customer commits to a purchase quantity

- Supplier develops and launches customer specific product

### Supplier widens the spec for international market.

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### Supplier does market research.

- Demand is general and unspecific.

### Supplier develops a product with widest possible spec. to fit to largest possible market

### Supplier presents a ready-to-sell product on exhibition

### Customers buy the product

### Supplier generates a derivate with reduced spec if a customer requests exclusivity.