

Industrial Electro-Electronic Equipment

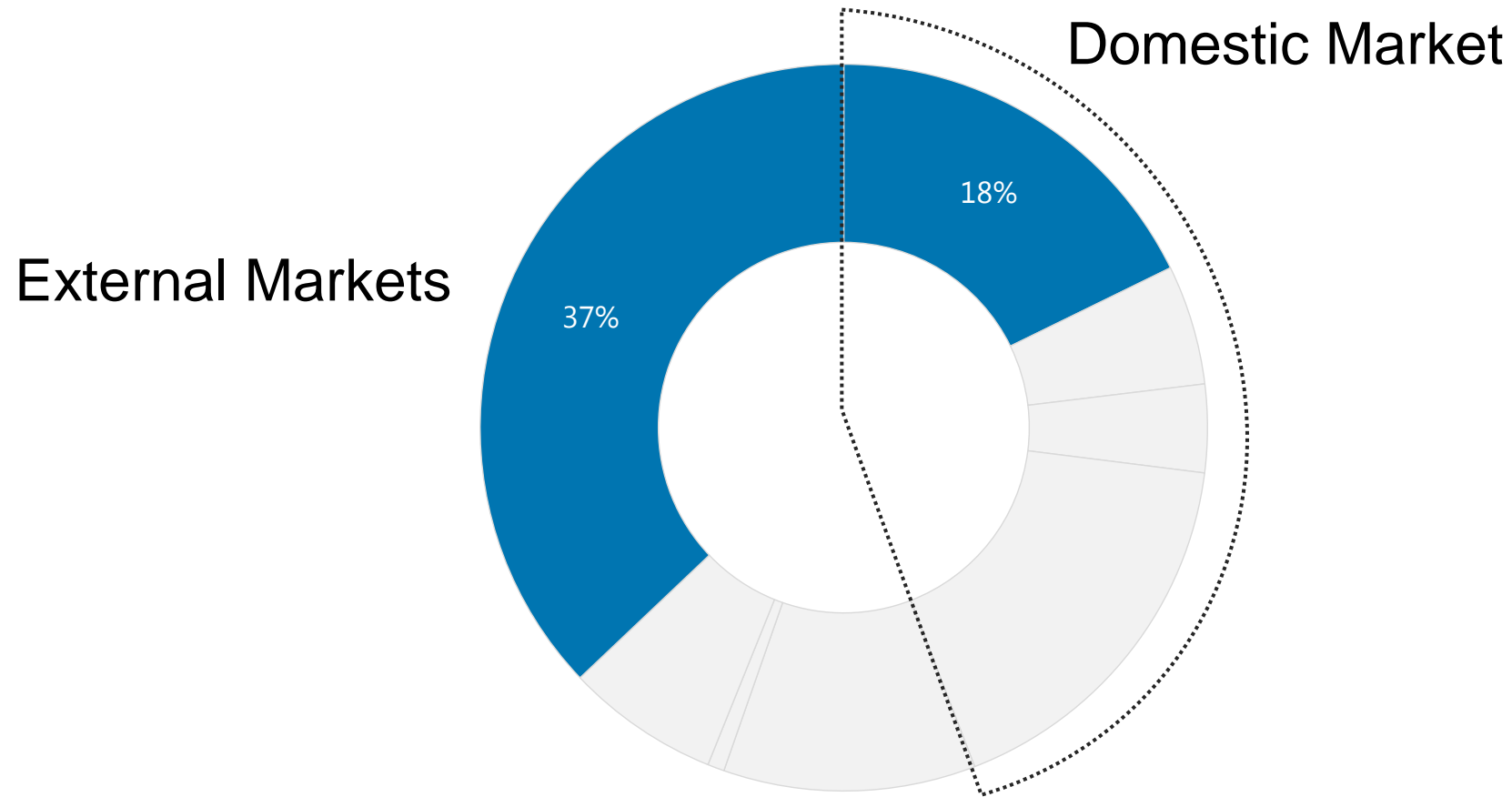
Mr. Siegfried Kreuzfeld



WEGDAY2018

Business Area

2017 Net Operating Revenues Breakdown



Industrial Electric Motor and Automation

Industrial Electric Motors



WEGDAY2018

WEG Motors

At a glance



+16,500
Employees



18
Manufacturing sites in 8 countries
3 continents



The most representative business in the group



Leader in Brazilian market of electric motors



50% of sales from high efficiency electric motors in 2017



+3,400
Distributors and Resellers

70,000

Motors produced per day



+70%
of motors sales outside Brazil



TOP 3
Largest global electric motors manufacturer



Largest manufacturing site for LV electric motors in the World

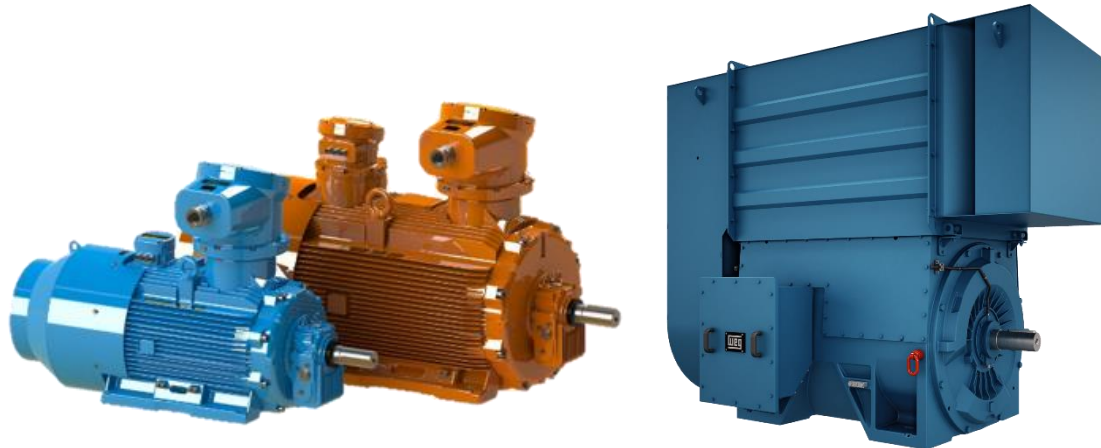
Products

Complete range of products to address all markets segments

Low voltage industrial motors



High voltage industrial motors

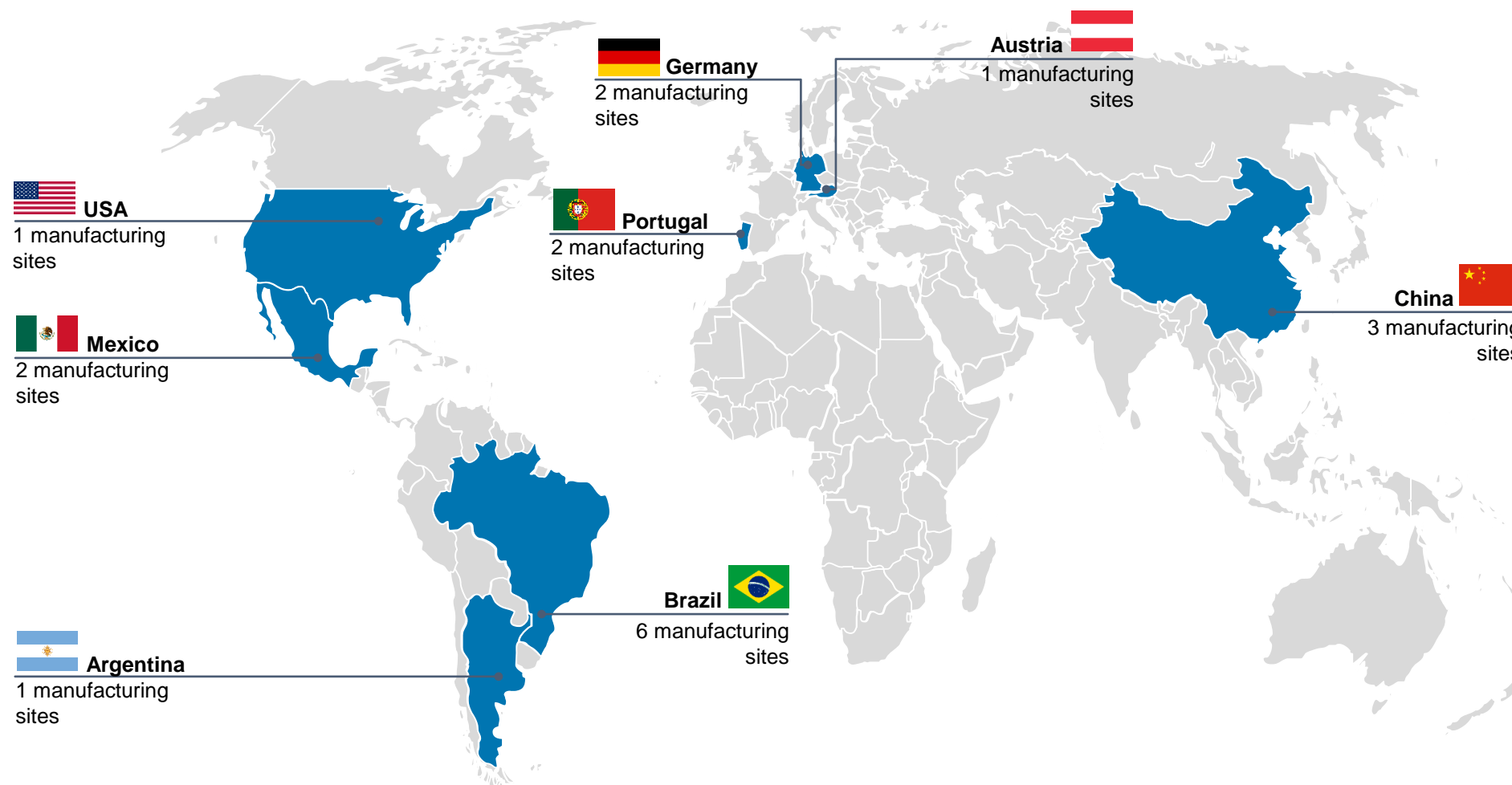


Gearboxes



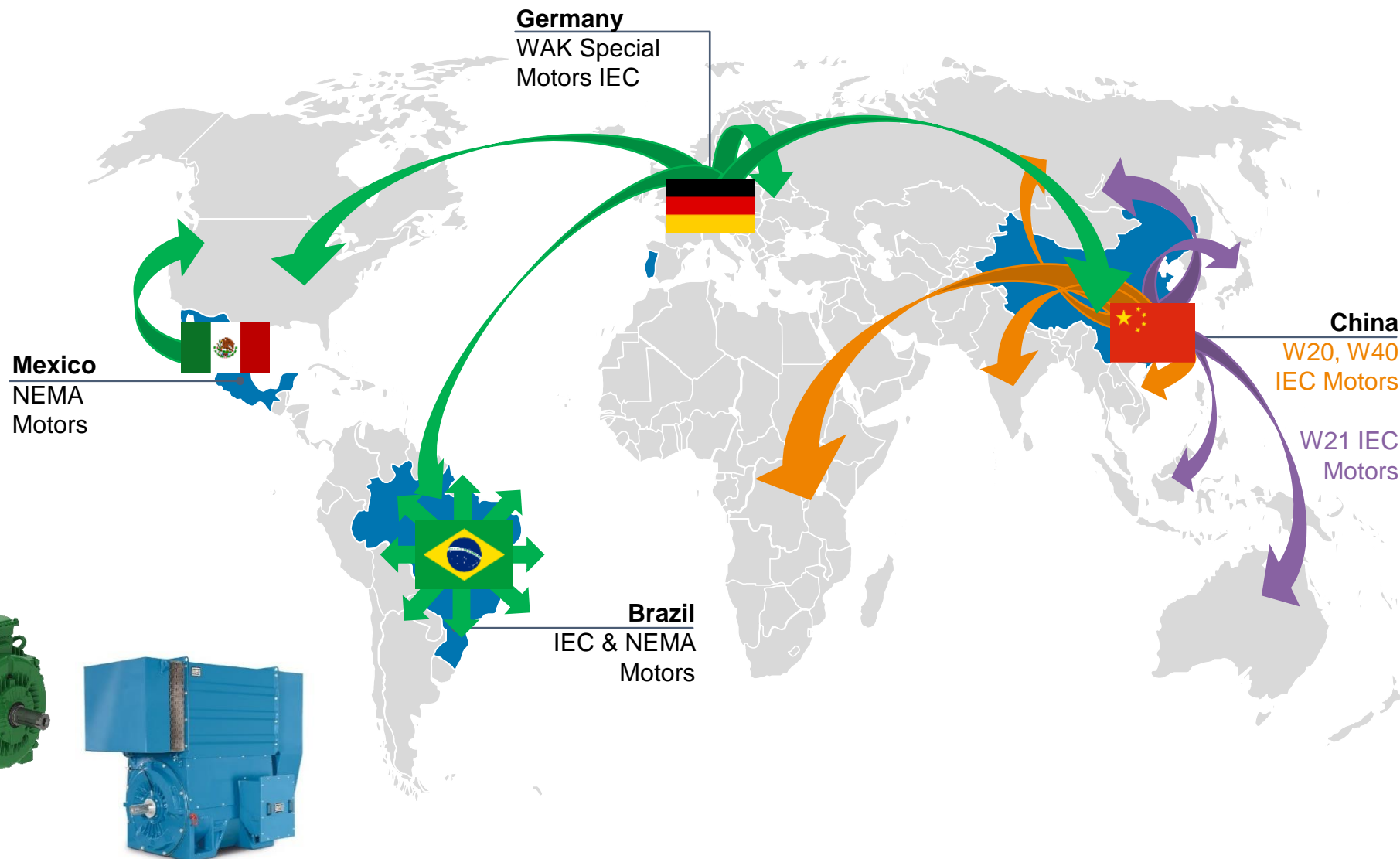
Global Footprint

WEG manufacturing sites have been strategically structured close to customer.



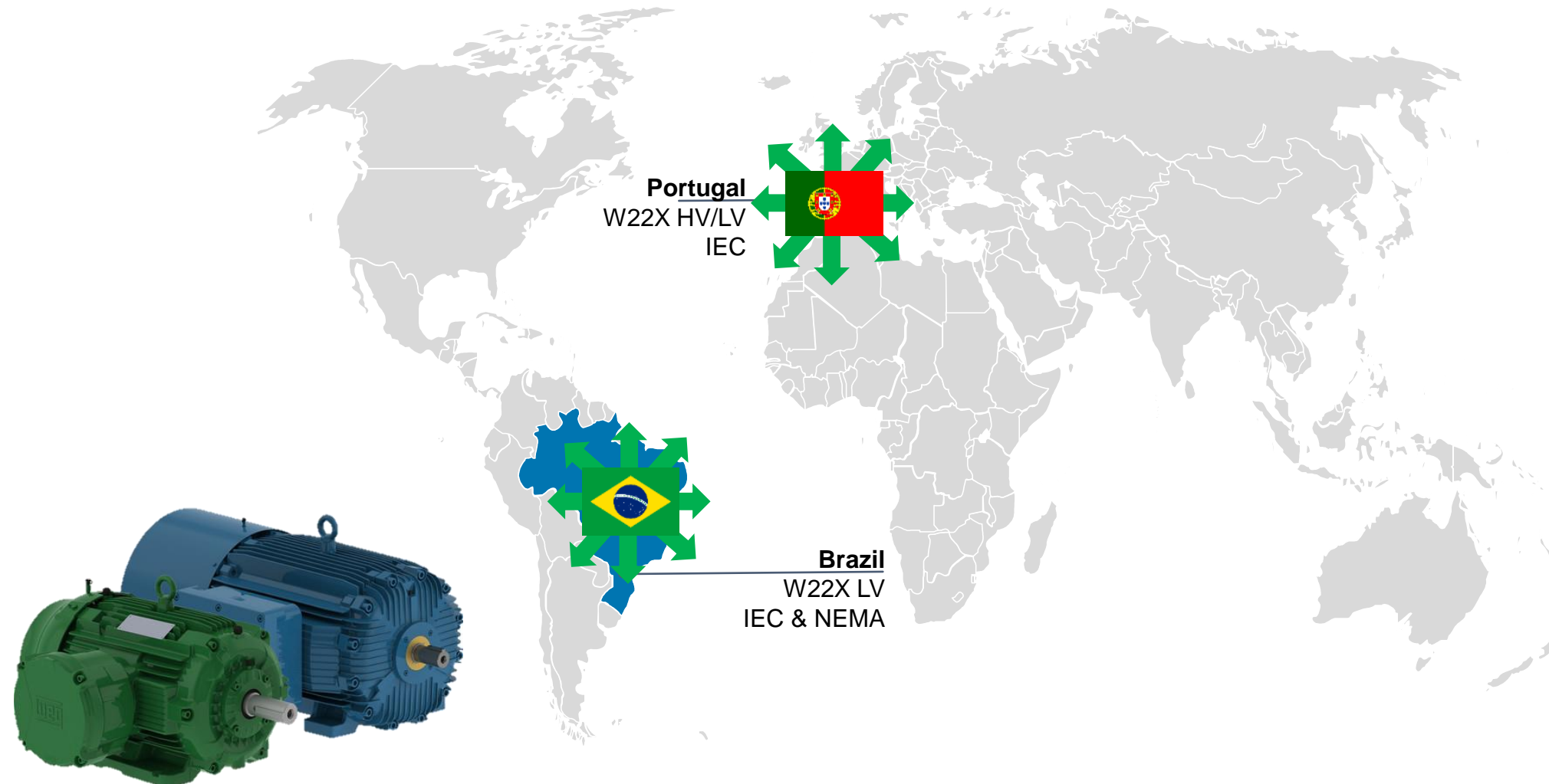
Global Supply Strategy

Industrial motors – W22, W40, W50, HGF and special motors



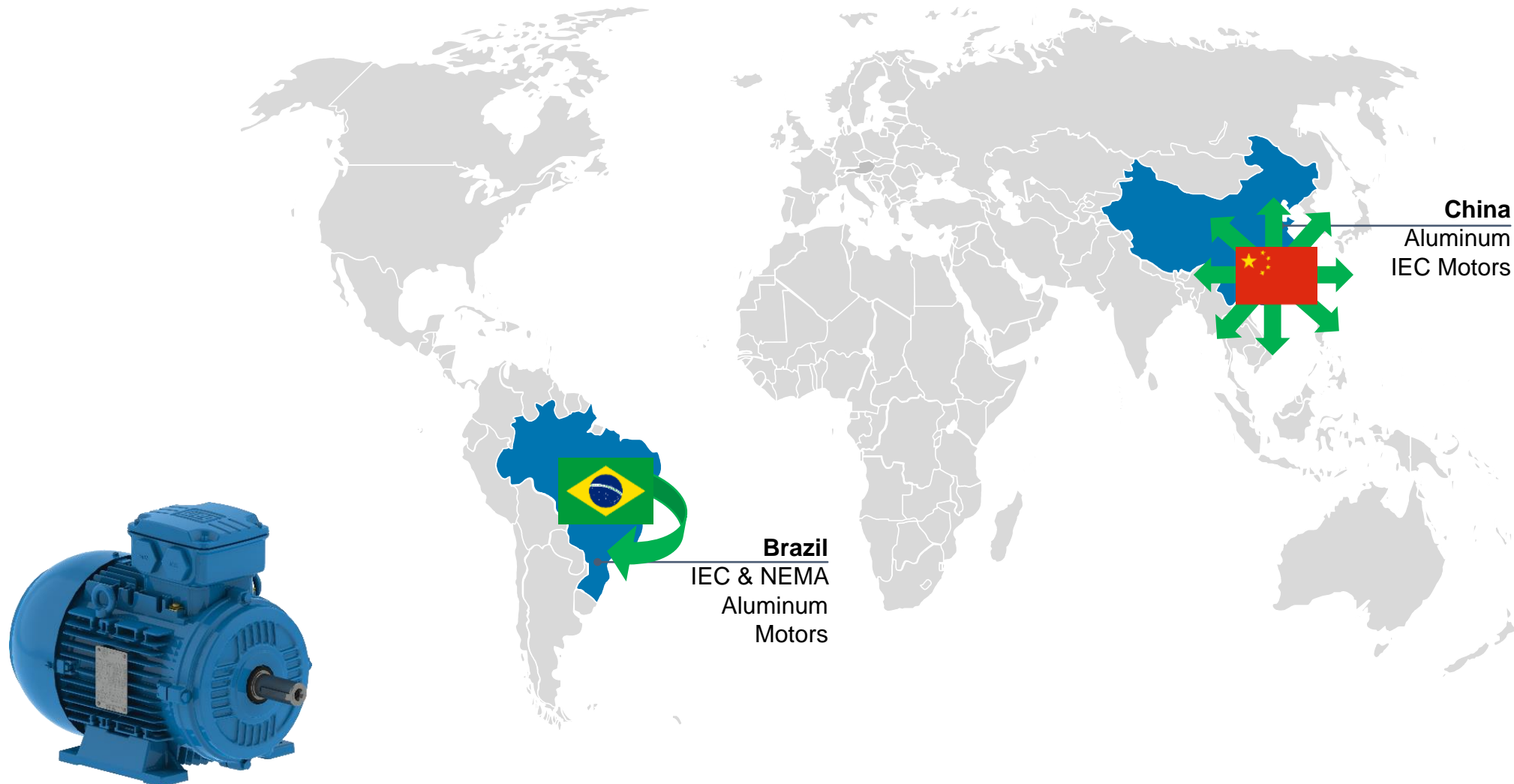
Global Supply Strategy

Explosion proof motors



Global Supply Strategy

Aluminum motors



Global Supply Strategy

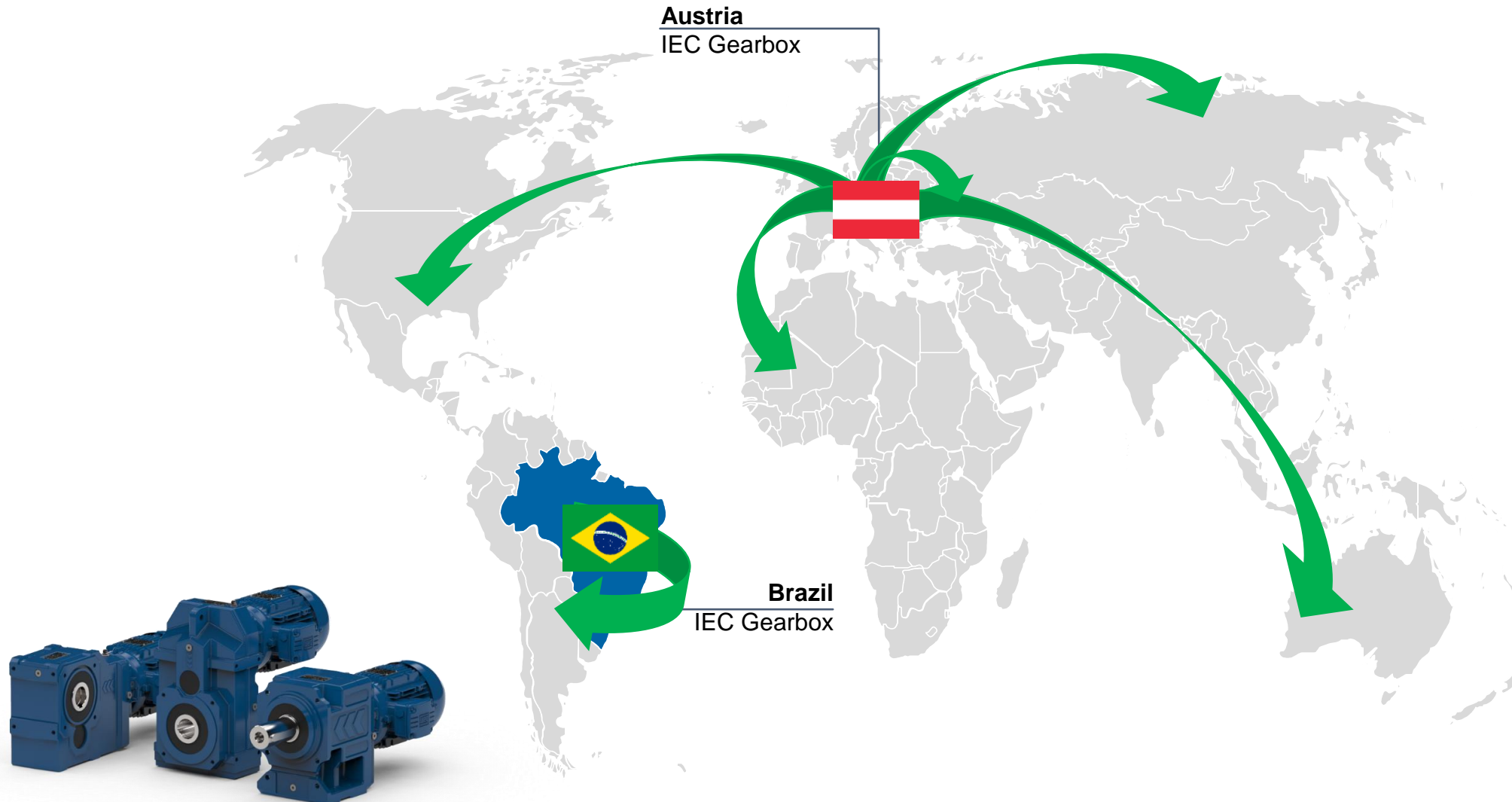
Rolled steel motors

Mexico
NEMA
Motors



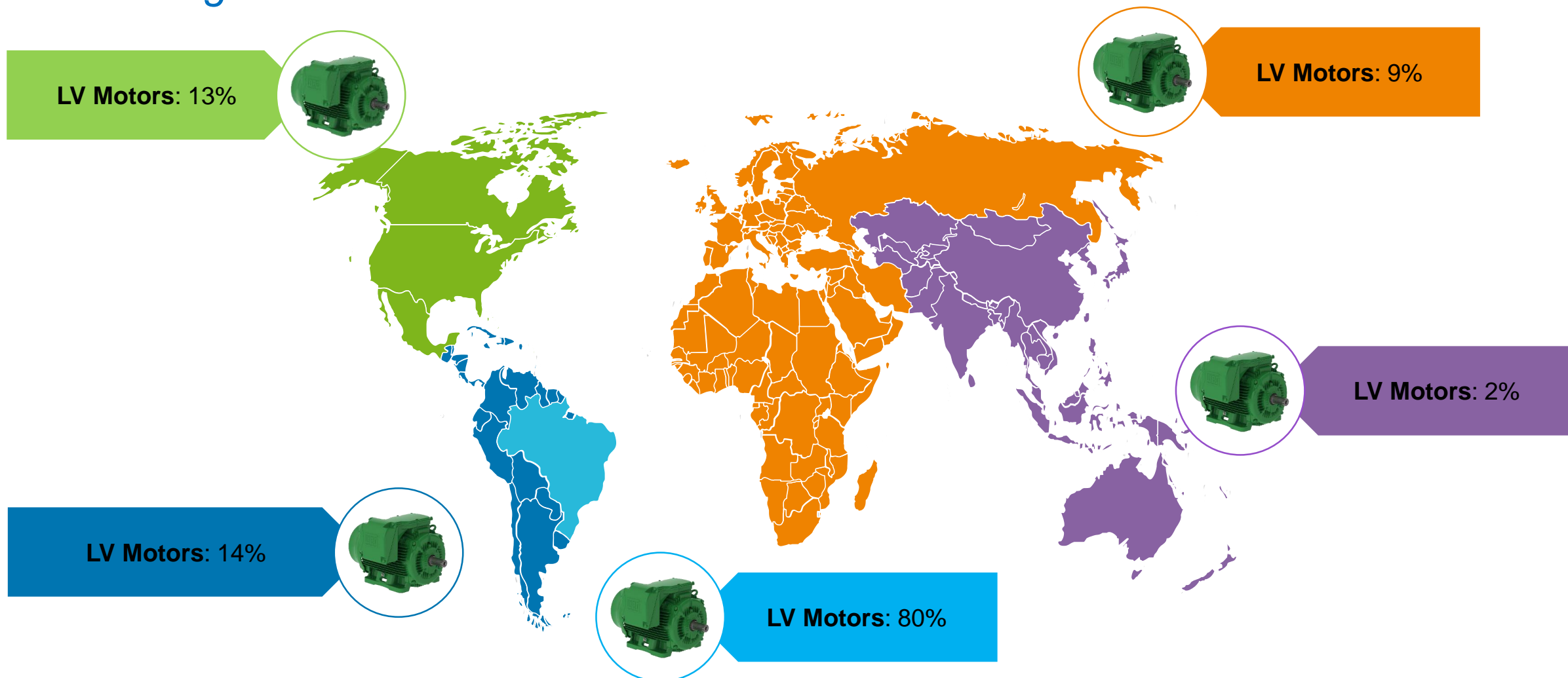
Global Supply Strategy

Geared motors and gear boxes



WEG's Market Share

Low voltage electric motors



Source: IHS - Low Voltage Motors Report, 2016

Investments

We've built a global production platform - Portugal



Investments

We've built a global production platform - China



Investments

We've built a global production platform - Mexico



* Estimated total. Currently working in foundry and machining structures. Will be completed by April 2019.

Investments

We´ve built a global production platform – Mexico: Foundry



New products portfolio

WEG motor scan

Motor monitoring solution



WEG Benefits

- Ready for Industry 4.0;
- New Business
- Add value to product (OEM's)
- Product and application knowledge improvement

Available

Overall Vibration
 Surface Temperature (°C or °F)
 Operating Hours (h)
 Maintenance Advice
 Battery Indicator

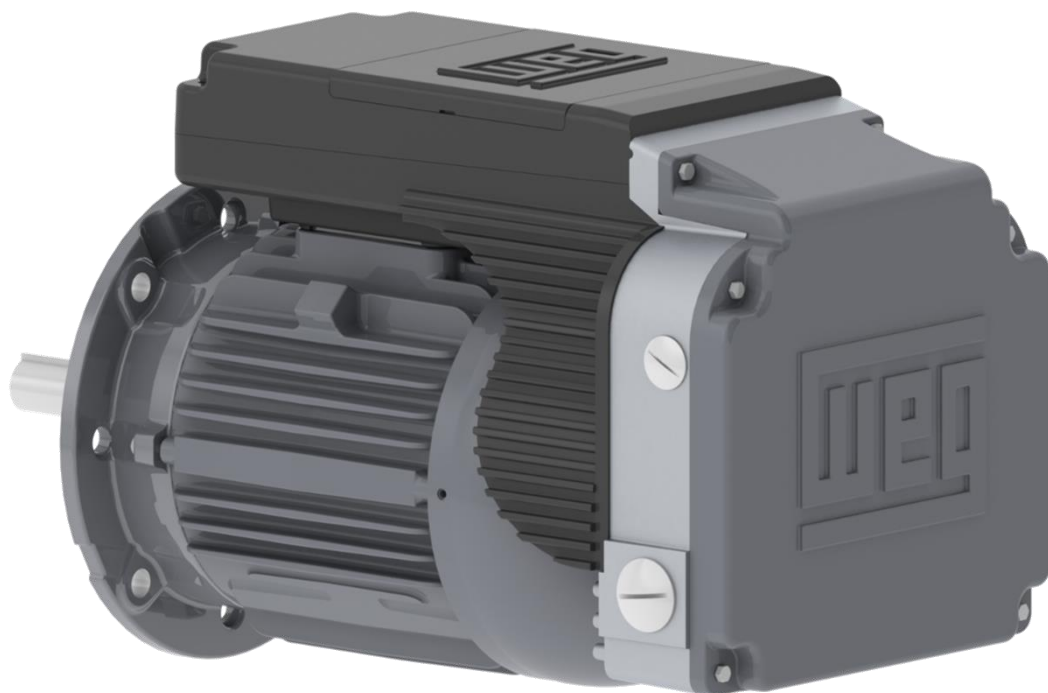
Coming Soon

Cooling Condition
 Bearing Condition
 Speed (rpm)
 Airgap Eccentricity
 Rotor Winding Health
 Energy Consumption (kWh)
 Load / Efficiency (%)
 DOL Intermittent or VFD

New products portfolio

Smart motor

Integrated variable speed solution



Features

- Optimum integration with Motor
- Enhanced power density with special drive heatsink design
- Interchangeability
- Integrated HMI

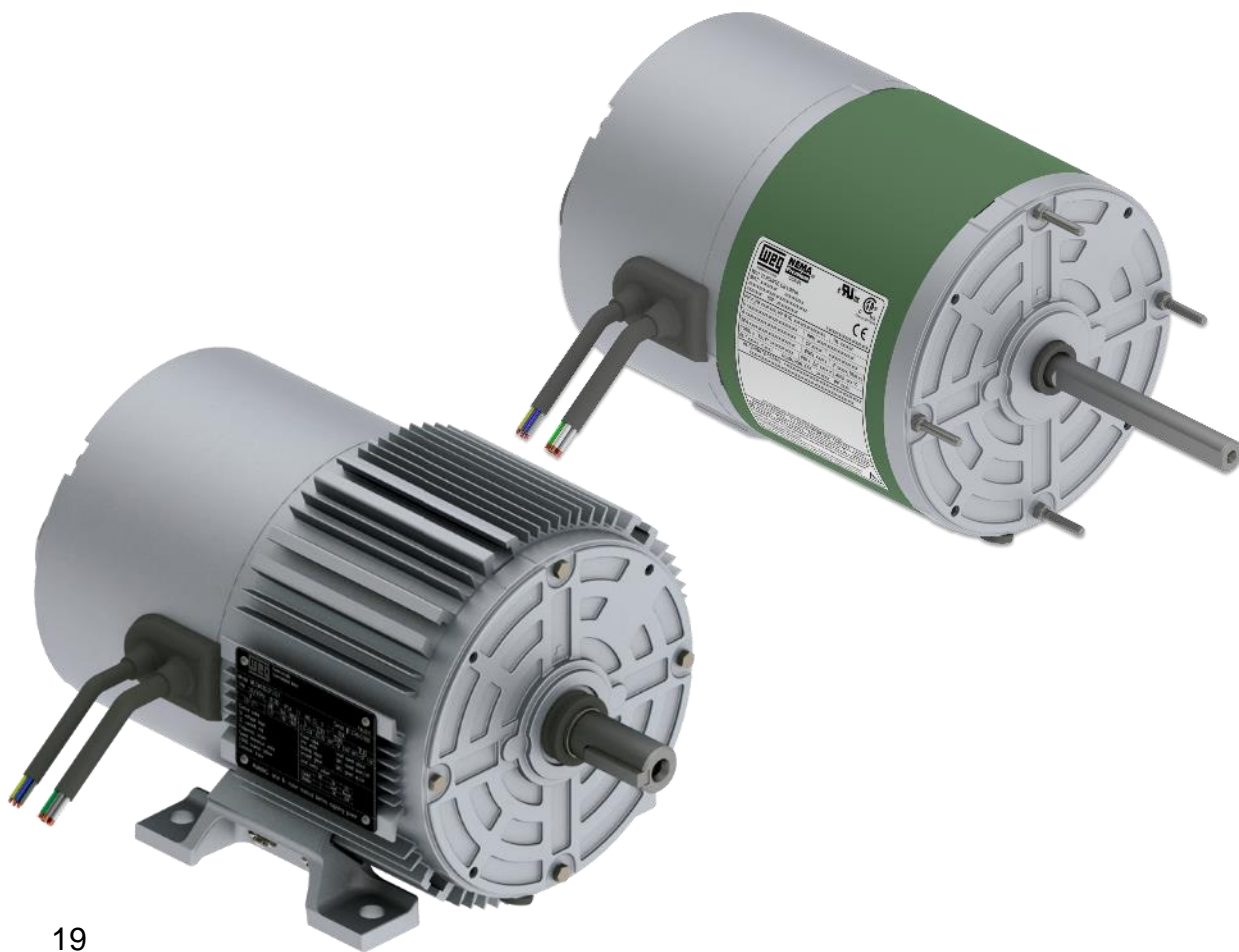
Benefits

- **Ready for Industry 4.0**
- **New Business**
- **Add value to product (OEM's)**
- Product and application knowledge improvement

New products portfolio

ECM - electronic commutated motor

The simple and efficient solution for air movement applications requiring speed variation



Features

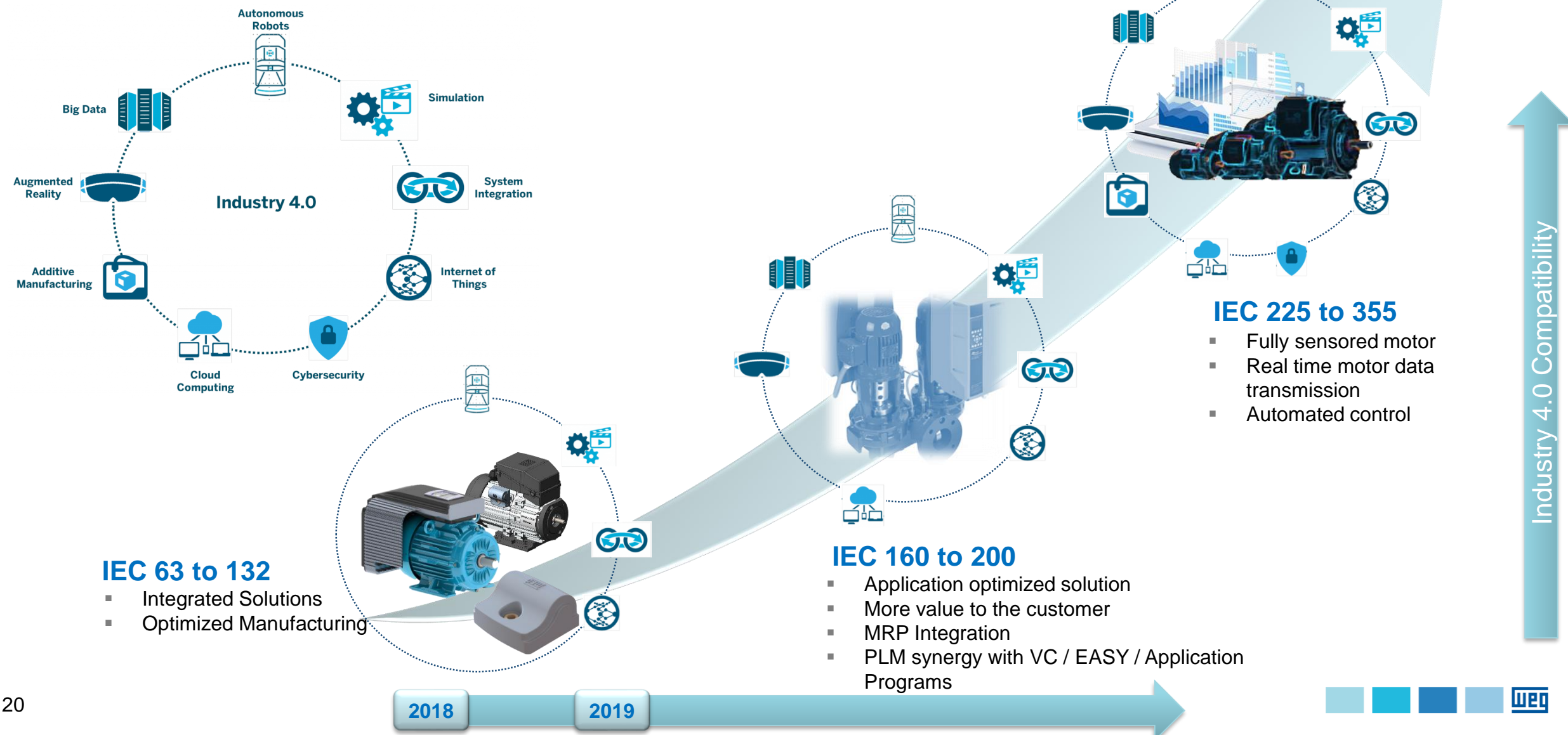
- Permanent Magnet
- Comply with the latest versions of standards and regulations
- Total efficiency (drive + motor) – IE5

Benefits

- High performance solution
- Simplicity: The best cost-benefit solution to replace permanent slip capacitor motors (PSC);
- Optimized design: Low cogging torque and low torque ripple;
- Multi-mounting solution:
- Steel frame: rods, belly-band, foot, flange, resilient base
- Aluminum frame: foot, pads, rods, flange

Investments

Motor Concept – W23 Motors Concept / Industry 4.0



IEC 63 to 132

- Integrated Solutions
- Optimized Manufacturing

IEC 160 to 200

- Application optimized solution
- More value to the customer
- MRP Integration
- PLM synergy with VC / EASY / Application Programs

IEC 225 to 355

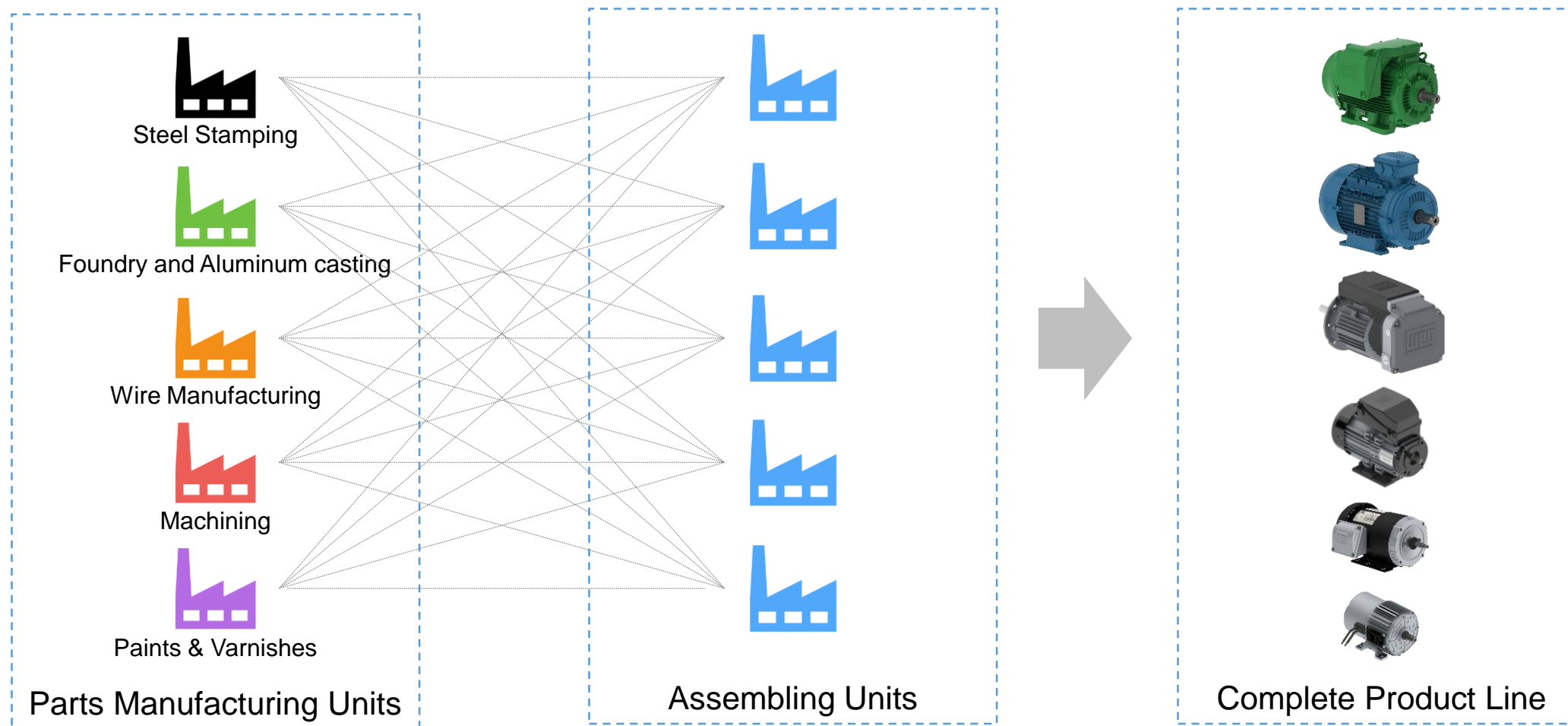
- Fully sensed motor
- Real time motor data transmission
- Automated control

Industry 4.0 Compatibility



Competitive Advantage

Vertical integration allows production flexibility to supply small batches of customized products that are matched to perfection to our customer's needs



We do **mass customization**, not mass production

Key Messages

Electric Motors

- Continue investing in capability to improve our main strength: to be vertical integrated and flexible in customization
- Investment cycle in the main Industrial Parks almost completed with new opportunities of expansion already planned
- Continue developing technology and new products
- Growth opportunities coming from recovery of main markets and Brazilian economy



Automation



WEGDAY2018

WEG Automation

At a glance



+3,700
Employees



12
Manufacturing sites in 9 countries
4 continents



Largest Manufacturer and leader in Brazilian market of frequency inverters and soft-starters



Leader in supply of electric centers in Brazil



Exports to **55** countries



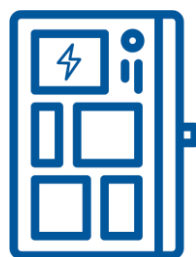
89
Patents



+1,500
Distributors and Resellers



Largest Brazilian Manufacturer of control systems, switchgear and low voltage protection



Largest Manufacturer of electric panels in Latin America



Automation Systems for various segments



130
Technical assistance

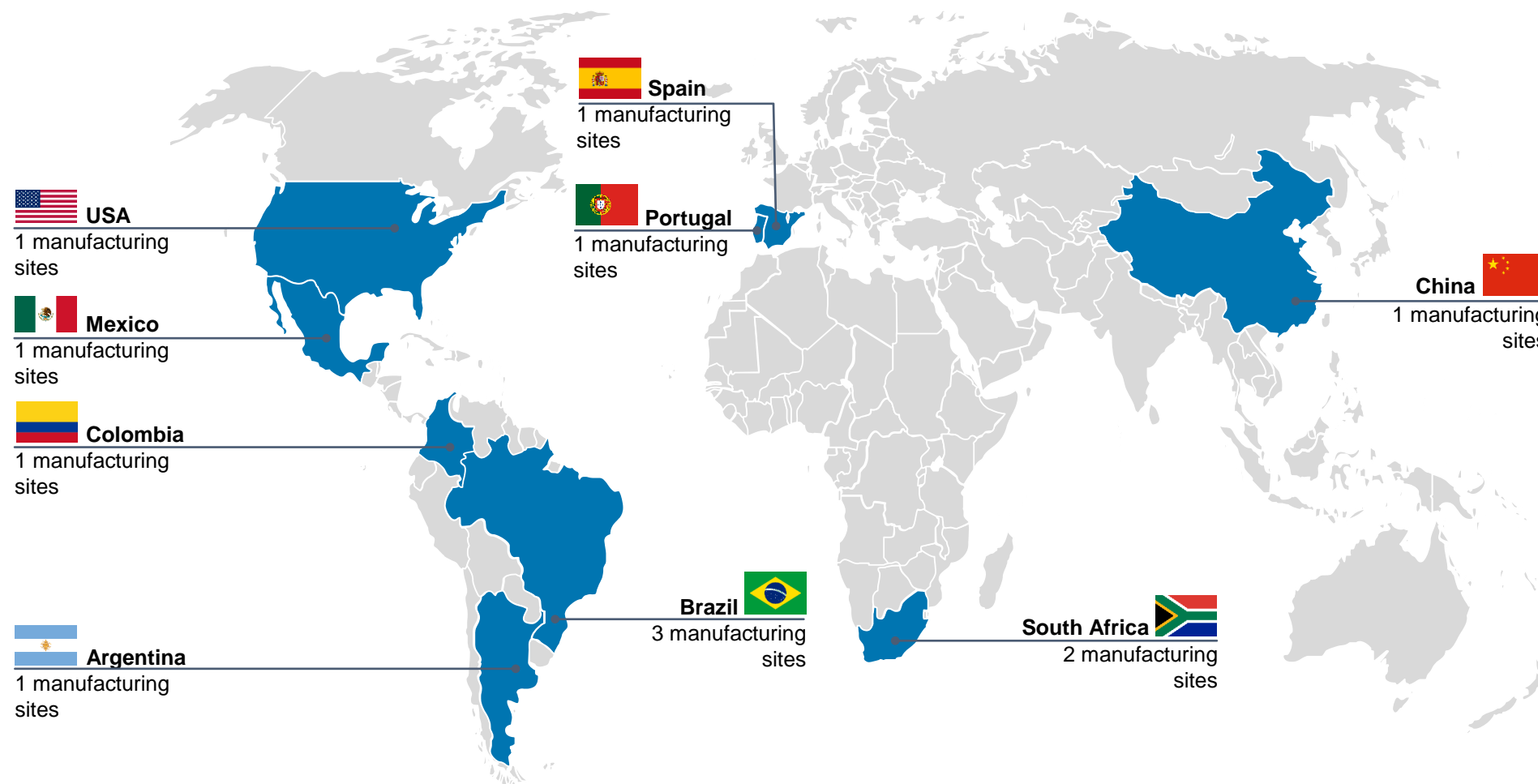
Products

Complete range of products to address all markets segments



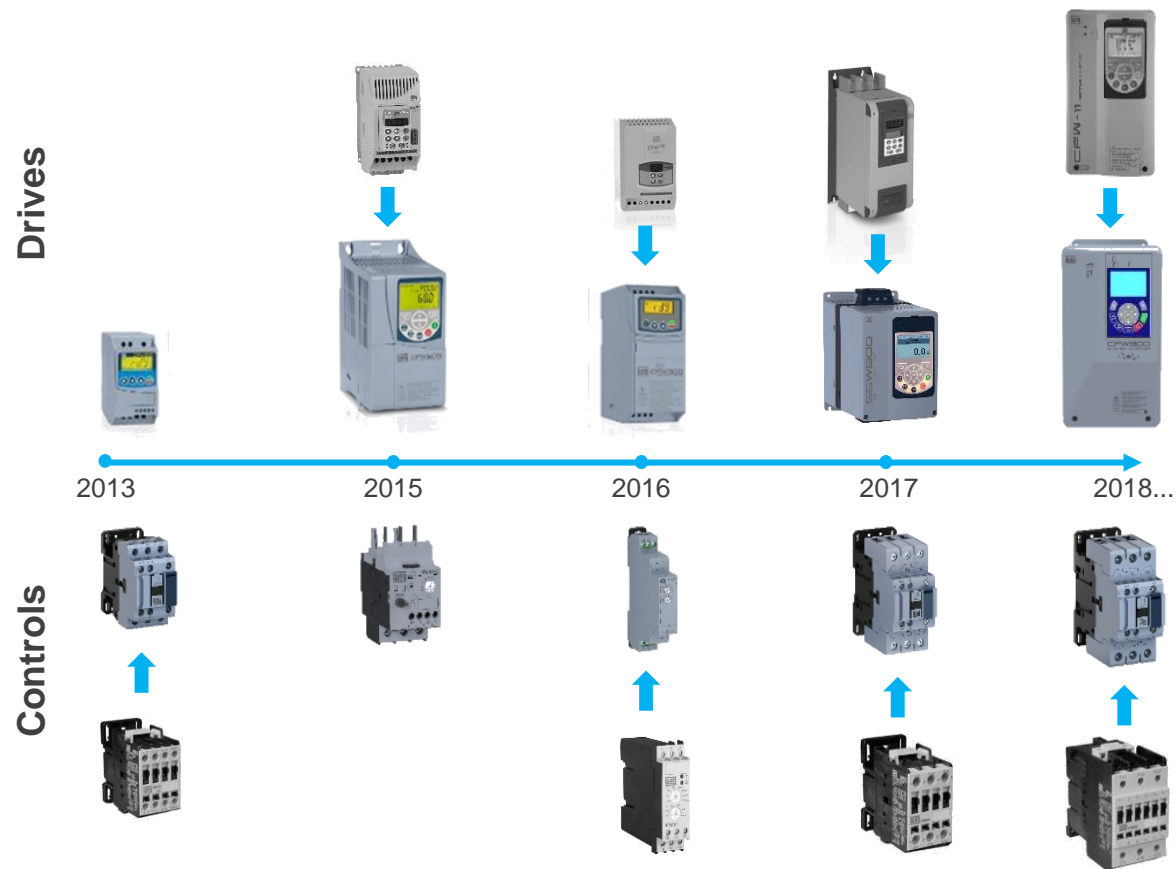
Global Footprint

WEG manufacturing sites have been structured to supply according to the current market demand

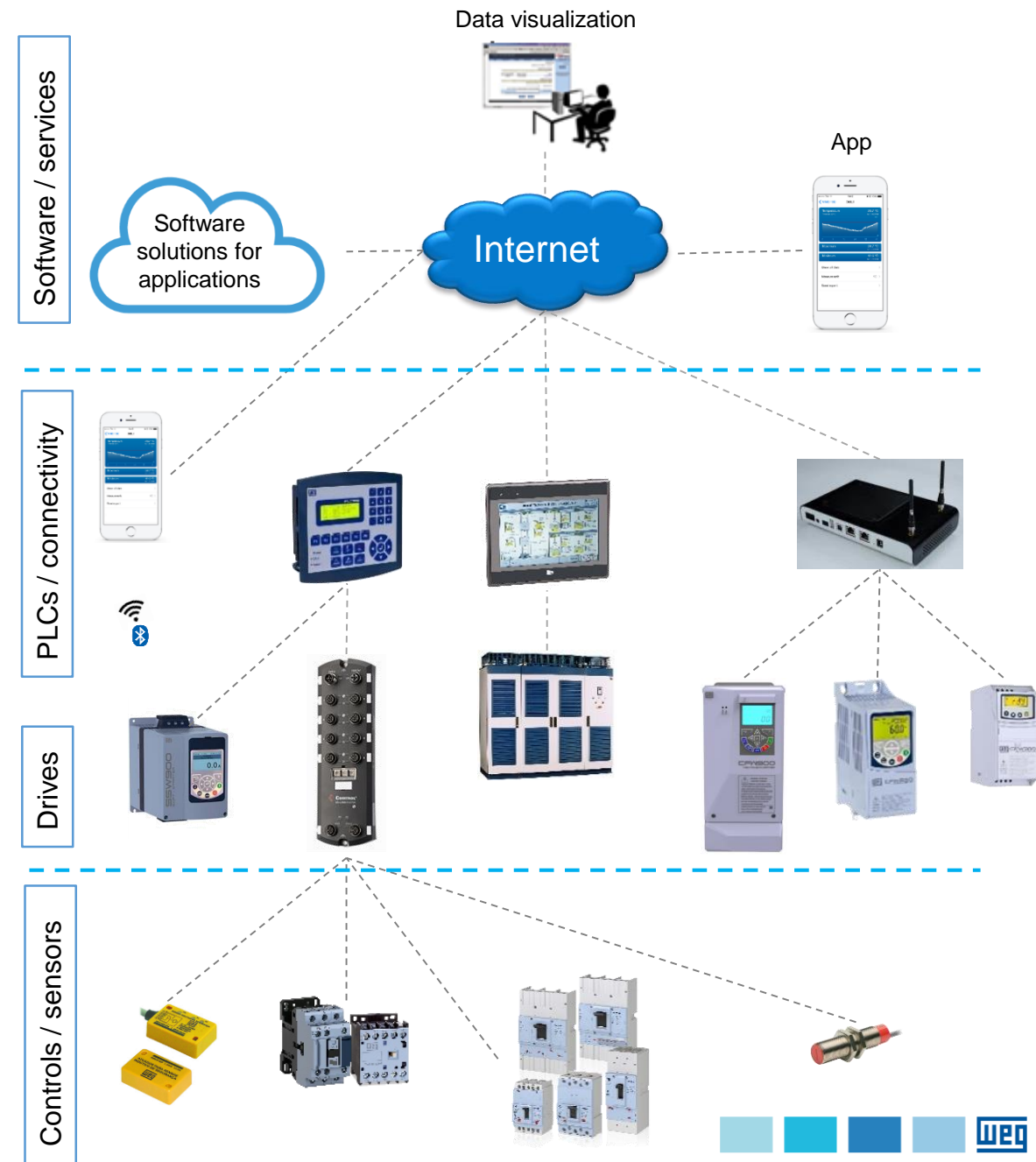


Investments

New Products Portfolio

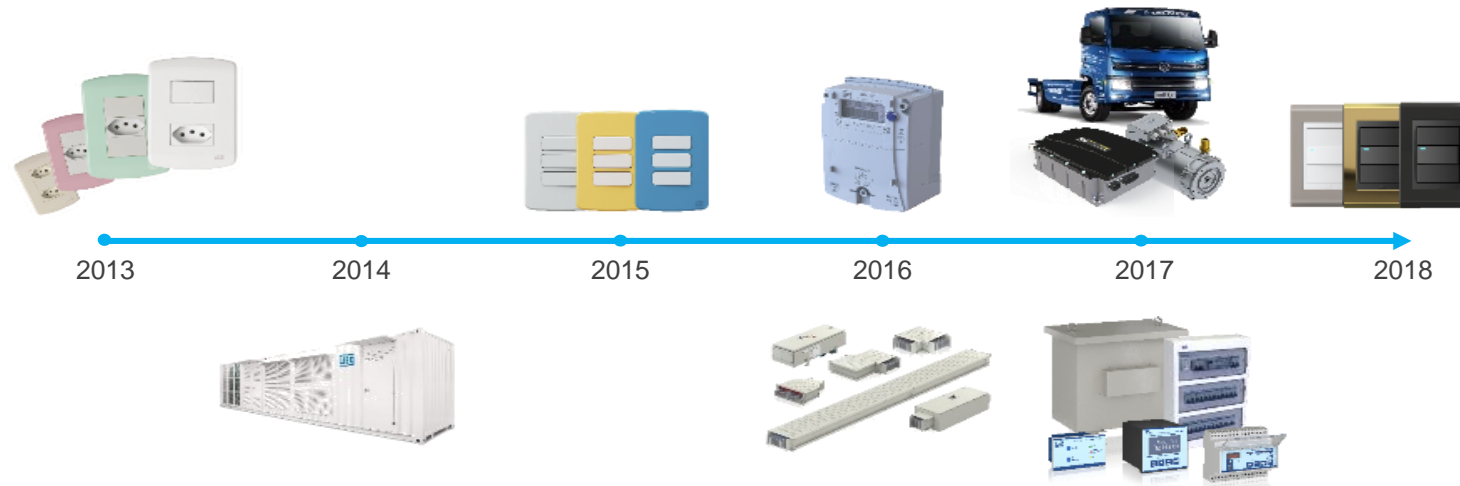


- State of the art;
- Higher productivity;
- More competitiveness;
- Incorporation of connectivity blocks to publish data on the internet.



Investments

New Business and Markets' Development



ELECTRIC MOBILITY



e-Delivery VW/MAN

BUILDING & INFRASTRUCTURE



Hospital in Juiz de Fora city, state of Minas Gerais/Brazil

Electric Mobility

We have products and technology to address the growing demand for electric mobility

Powertrain for several applications

Trucks



CVW500



VUC500

Bus



Special light vehicles



IND300



CVW300



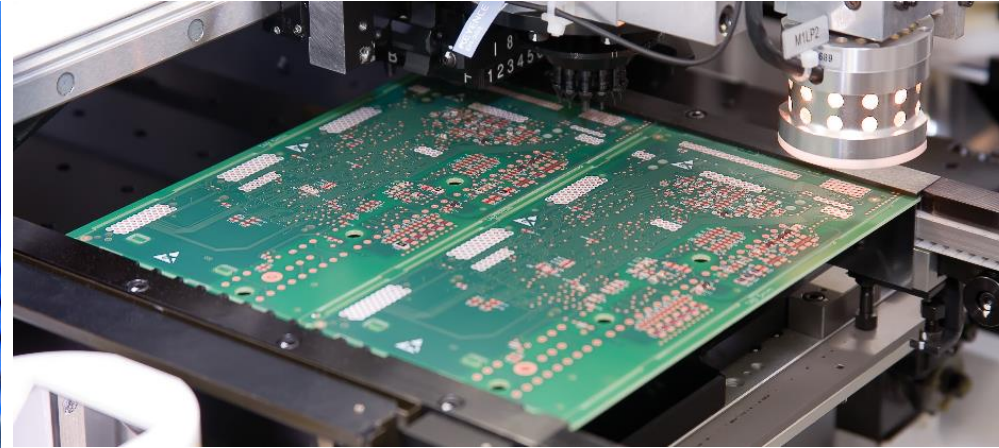
Marine

Complete solution including the entire ship management and monitoring system



Investments

We´ve investing in industrial plant automation and process optimization aiming to increase the competitiveness of our products



Key Messages

Automation

- International expansion aiming to address specific customers needs with manufacturing sites in 9 countries
- Investment in China to be more competitive to address in the first step the Asia-Pacific drives market
- Updated in terms of products portfolio and technology to compete worldwide
- Constant growth in domestic market through gain in market share and new products launch