



FEBRUARY 17

# ABB Group

Introduction of ABB Czech Republic

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# A global leader in power and automation technologies

## ABB Group

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Headquarters: Zurich, Switzerland

About 132,000 employees in around 100 countries

Orders received in 2016: 33,4 billion USD

Revenues in 2016: 33,8 billion USD

Listed on Stockholm, Zurich & New York exchanges

### 4 divisions:

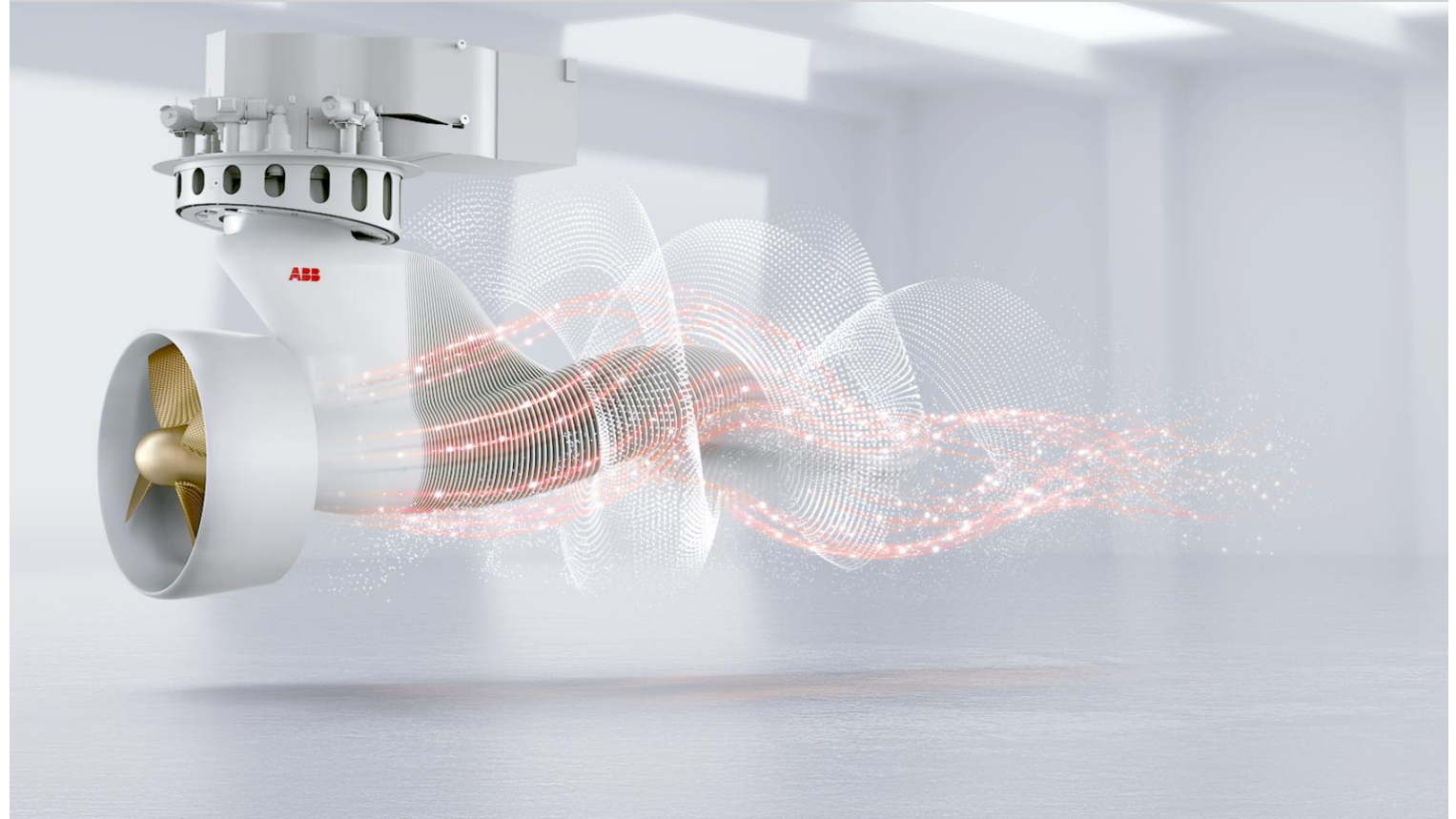
- Electrification Products
- Robotics and Motion
- Industrial Automation
- Power Grids



# ABB's vision

## ABB's vision

As one of the world's leading engineering companies, we help our customers to use electrical power efficiently, to increase industrial productivity and to lower environmental impact in a sustainable way.



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# Power and automation are all around us

## You will find ABB technology...



... orbiting the earth and working beneath it



... in the fields that grow our crops and packing the food we eat



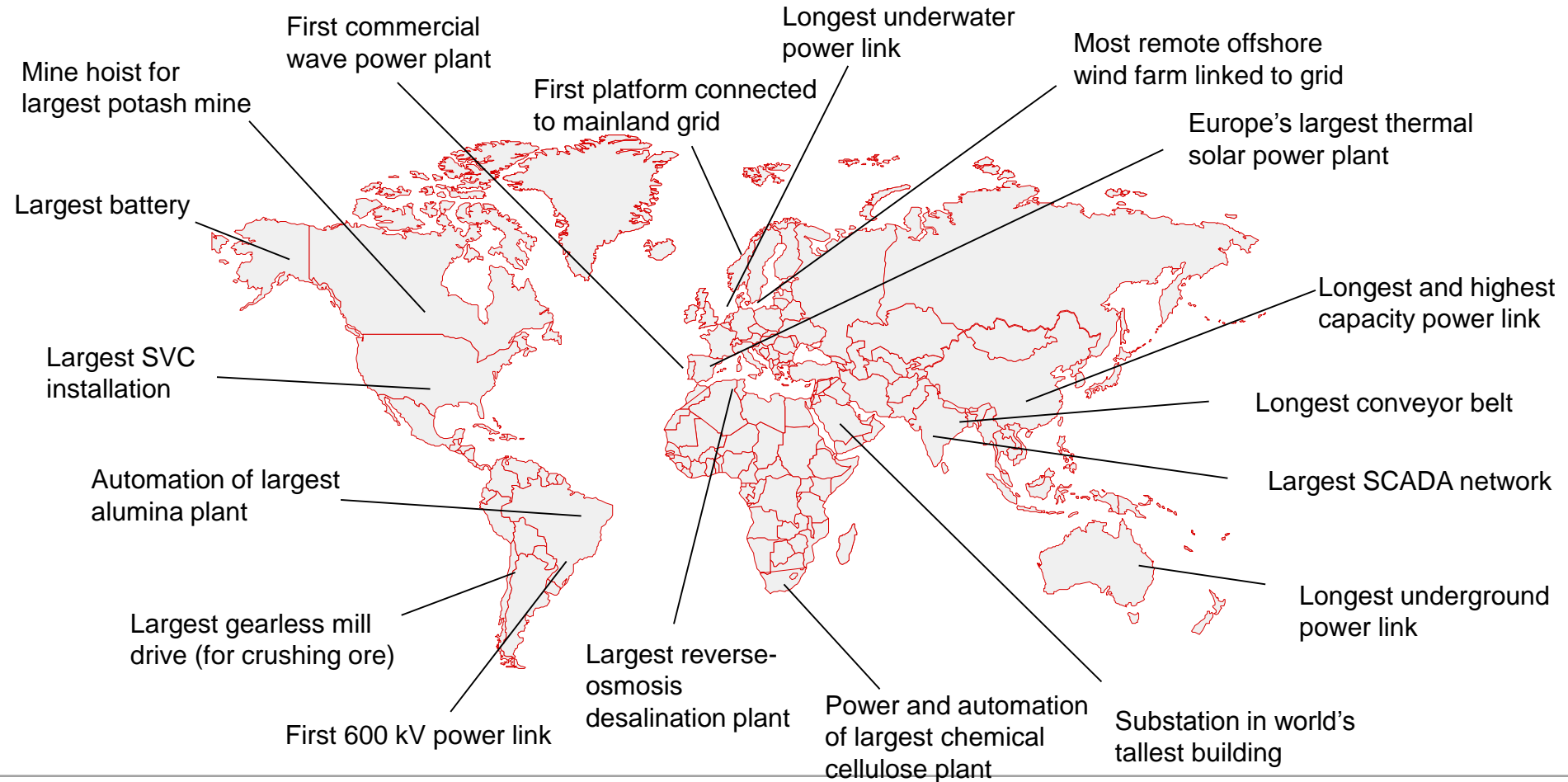
... crossing oceans and on the sea bed



... on the trains we ride and in the facilities that process our water

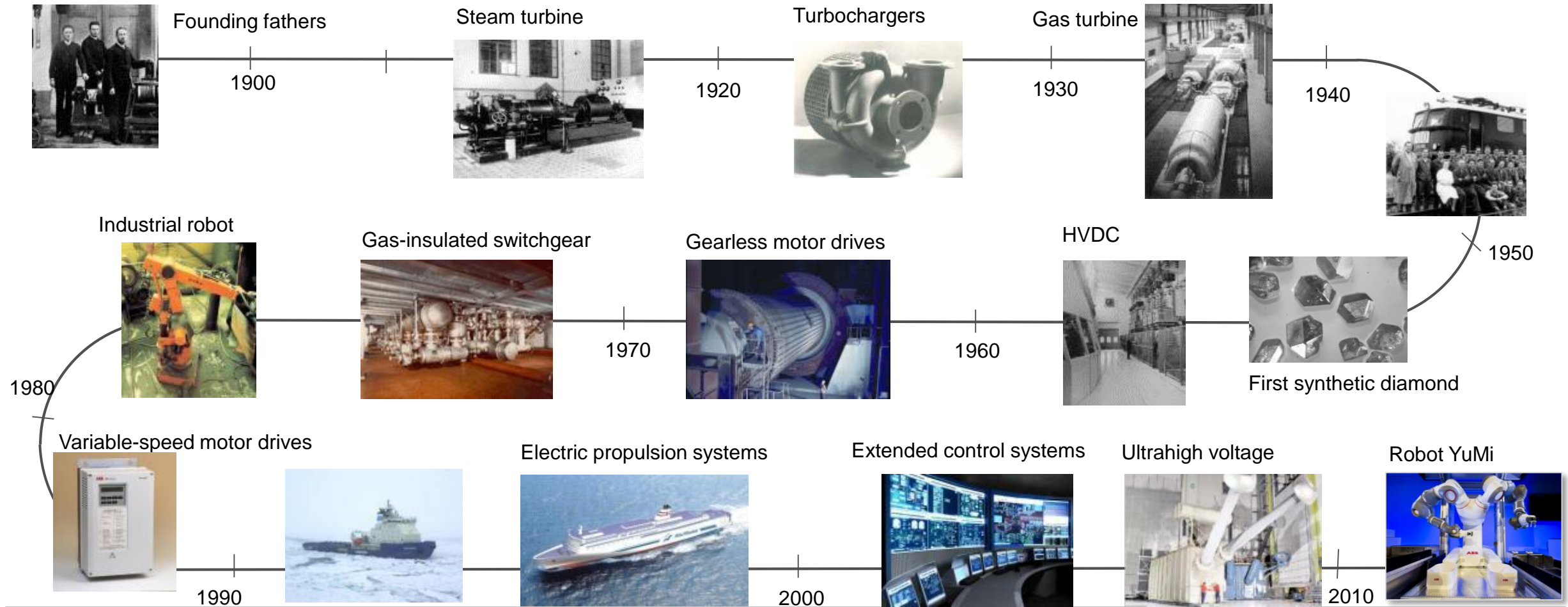
# Ground-breaking and nation-building projects

Pushing the boundaries of technology



# Shaping the world we know today through innovation

Pioneering technology since 1883



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# ABB's mission

## ABB's mission

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### Improve performance

ABB helps customers improve their operating performance, grid reliability and productivity while saving energy and lowering environmental impact.



### Attract talent

ABB is committed to attracting and retaining dedicated and skilled people and offering employees an attractive, global work environment.



### Drive innovation

Innovation and quality are key characteristics of our product, systems and service offering.



### Act responsibly

Sustainability, lowering environmental impact and business ethics are at the core of our market offering and our own operations.

# Global Awards

## ABB Group's Global Awards



### Ethisphere Institute names ABB as one of the world's most ethical companies

ABB was recognized because of its demonstrated leadership in ethical business practices. Nominations from companies in more than 100 countries and 36 industries. ABB was awarded in 2013 and 2014.



### Thomson Reuters recognizes ABB as a Top 100 Global Innovator

This award recognizes companies around the world for their outstanding commitment to global innovation, the protection of ideas and the commercialization of inventions. The company employs some 8,000 technologists in more than 20 countries.



### Innovation isn't dead: MIT's 50 disruptive companies

Among the usual suspects such as Amazon, Apple, Facebook and Google the publication of the prestigious Massachusetts Institute of Technology cites ABB for “perfecting a circuit breaker for high-voltage DC lines” – a crucial step for widespread use of renewable energy.

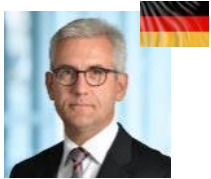


### ABB tops Fortune magazine list of the most admired companies for 2014 in its sector

Fortune's annual rankings are derived from a survey of 15,000 senior executives and industry analysts who rate companies on nine attributes ranging from innovativeness to the ability to attract and retain talent. ABB ranked first within its sector on five.



# ABB Group Executive Committee



**Ulrich Spiesshofer**  
CEO



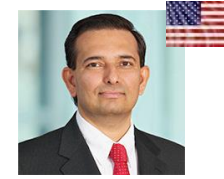
**Claudio Facchin**  
Power Grids



**Pekka Tiitinen**  
Robotics and  
Motion



**Peter Terwiesch**  
Industrial  
Automation



**Tarak Mehta**  
Electrification  
Products

Division Leaders



**Eric Elzvik**  
CFO



**Jean-Christophe  
Deslarzes**  
Human Resources

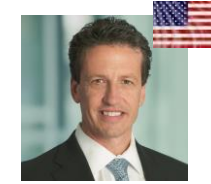


**Diane  
de Saint Victor**  
Legal & Integrity

Corporate Officers



**Frank Duggan**  
AMEA



**Greg Scheu**  
Americas



**Bernhard Jucker**  
Europe

Regional Leaders

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# ABB in the Czech Republic

## ABB CZ

### ABB divisions:

- Electrification Products
- Robotics and Motion
- Industrial Automation
- Power Grids

More than 3.400 employees

Orders received in 2015: 15 billion CZK\*

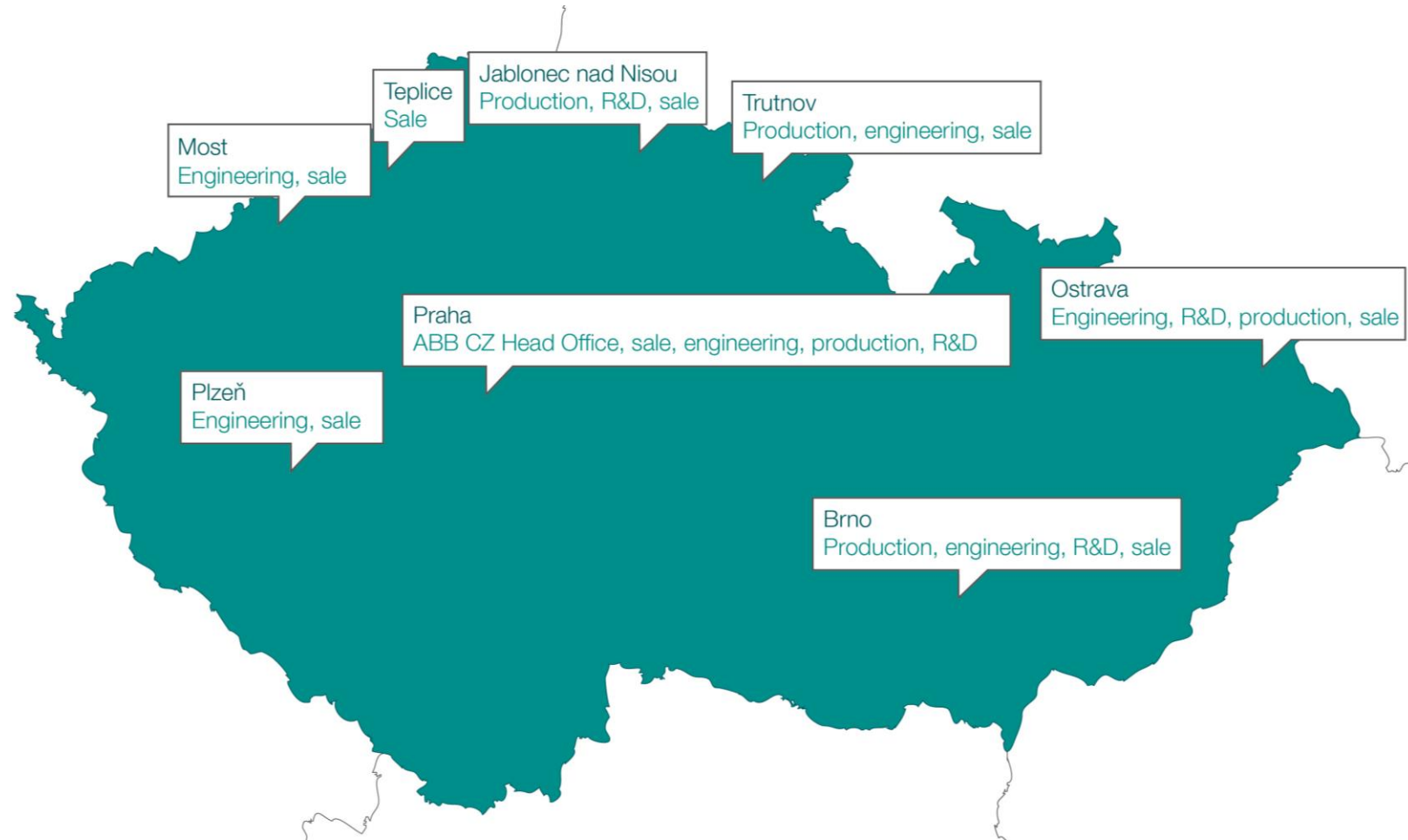
Revenues in 2015: 14 billion CZK\*

ISO 9001, ISO 14001, OHSAS 18001 certified

\*2016 data will be available as soon as possible.



# ABB in The Czech Republic



# What we offer in ABB Czech Republic

## Divisional structure and portfolio



EP

### Electrification Products

Full range of LV and MV solutions including modular substations, distribution automation products, switchgear, circuit breakers, instrument transformers and sensors, control products, wiring accessories, enclosures and cabling systems, KNX systems, ventilation, heating, security and data communication networks, solar inverters, power and electric vehicle infrastructure, lifecycle services.



RM

### Robotics and motion

Motors, generators, drives, mechanical power transmission, robotics, wind and traction converters, services.



IA

### Industrial automation

Control systems and application-specific automation and electrical complex solutions for industry and power generation, measurement and analytics products, drives engineering and lifecycle services, Operation Center Czech Republic.



PG

### Power Grids

Transmission and distribution grid systems for traditional and renewable energy integration, T&D infrastructure & grid integration solutions, HV substations and devices, power and distribution transformers, substation automation, equipment and systems for communication, automation and control networks, semiconductors, lifecycle services.

# Electrification Products division

## Medium Voltage Products - production and sales of medium voltage switchgear and instrument transformers and sensors (Brno)

- Regional focus feeder factory, production and sales of medium voltage air insulated switchgears for primary distribution
- Global focus feeder factory, production and sales of medium voltage instrument transformers and sensors
- Technology center – development of MV current and voltage instrument transformers and sensors and MV air insulated switchgear
- Service for medium voltage equipment
- Testing laboratory – HV, MV and LV testing
- Full-range service portfolio



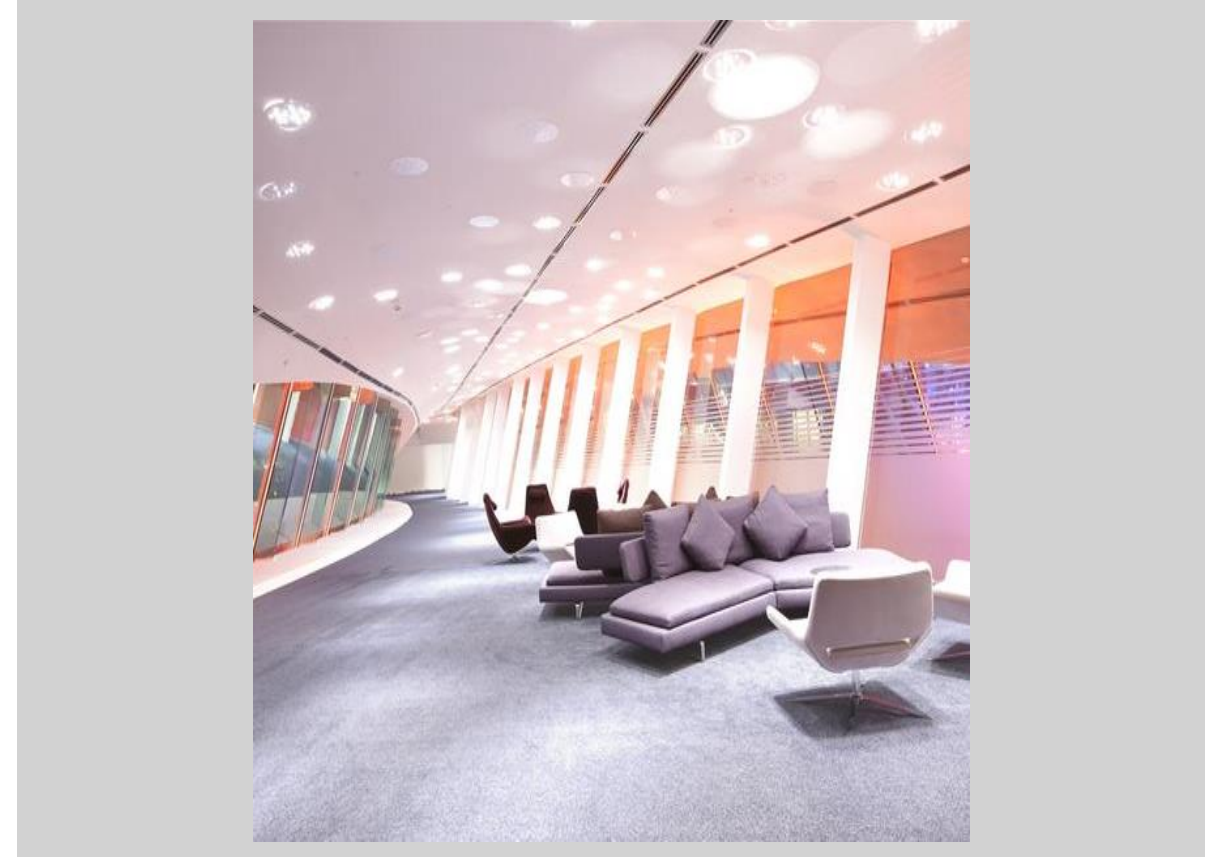
# Electrification Products division

## Production and sales of low voltage switchgear and instruments (Brno)

- Production of low voltage products, i.e. circuit breakers, contactors, thermal overload relays, motor starters and other
- Sale of the whole portfolio of low voltage products produced by ABB Group
- Production and sale of low voltage switchgear type MNS 3.0 and MNS iS
- Securing service in a whole range of the NN products

## Production and sale of building wiring accessories (Jablonec nad Nisou)

- Production and sale of wiring accessories (plugs, sockets, IK plus lighting, door entry system ABB Welcome)
- Production of the KNX installation system, Ego-n®, ABB-free@home® for modern intelligent building control



# Electrification Products division

## Power Conversion (Prague)

- Power and electric vehicle infrastructure
- Solar inverters



# Robotics and Motion division

## Robotics (Prague, Vestec, Ostrava)

- Industrial robots, positioners, application equipment and software
- Standardized manufacturing cells for material handling, machine tending, welding, cutting, painting and finishing
- Projects & Turnkey solutions, Engineering for systems in press automation, Body-In-White, paint processes, power train assembly
- Product and system service, consultancy
- Certified robots refurbishment
- European Welding and Cutting Application Center
- Global Repair and Reconditioning Center
- Training Center





# Robotics and Motion division

## Drives (Prague, Ostrava)

- Drives, motors, generators for a wide range of automation applications
- Drives service, motors and generators service



# Industrial Automation division

## Systems and solutions for industrial automation (Prague, Ostrava, Most, Brno)

- Complex automation and electrical solutions for technological processes including power generation, programmable logic controllers (PLC), distributed control systems (DCS) and drives engineering
- Measurement and analytics products
- Service portfolio for the installed base of ABB control systems across industrial segments



# Industrial Automation division

## Operation Center Czech Republic (Ostrava, Pilsen)

- European engineering center for industrial automation
- High-quality services in various fields including: electrical engineering, design and commissioning of drives, development of SW applications for industry, automation software, IT systems and security, automation, distributed control system (DCS) engineering and commissioning, mechanical design as well as supply chain management, project support and bid & proposal services.
- Regional center for pulp & paper projects in Europe, Middle East & Africa (excluding Nordic region)



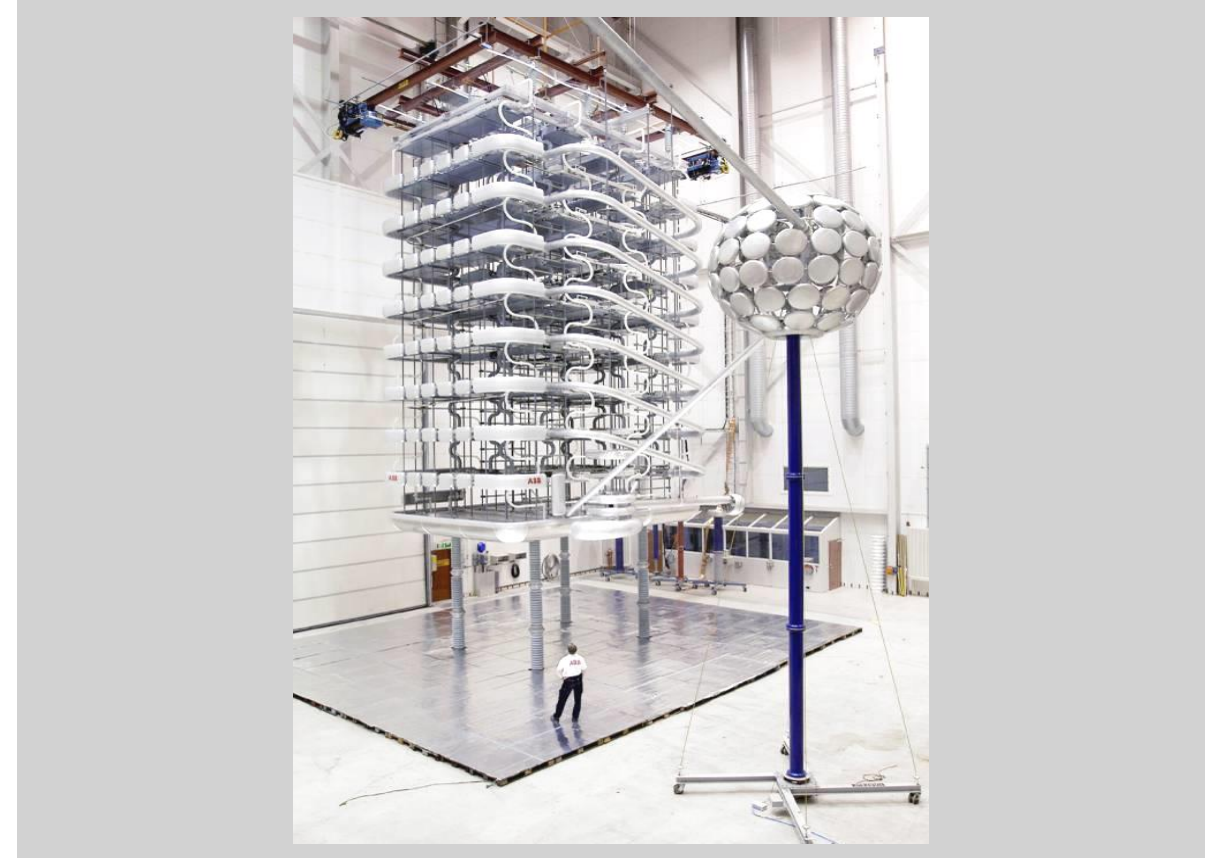
# Power Grids division

## Power Products High Voltage (Prague, Brno)

- Sales of Substations and HV devices, Power and Distribution Transformers and accessories, Generator Circuit Breakers, Surge Arresters
- Production of Gas Insulated Switchgear (GIS) components for HV applications (110kV - 550kV)
- Gas leakage testing (SF6), HV testing, service

## Automation and Control Networks (Trutnov)

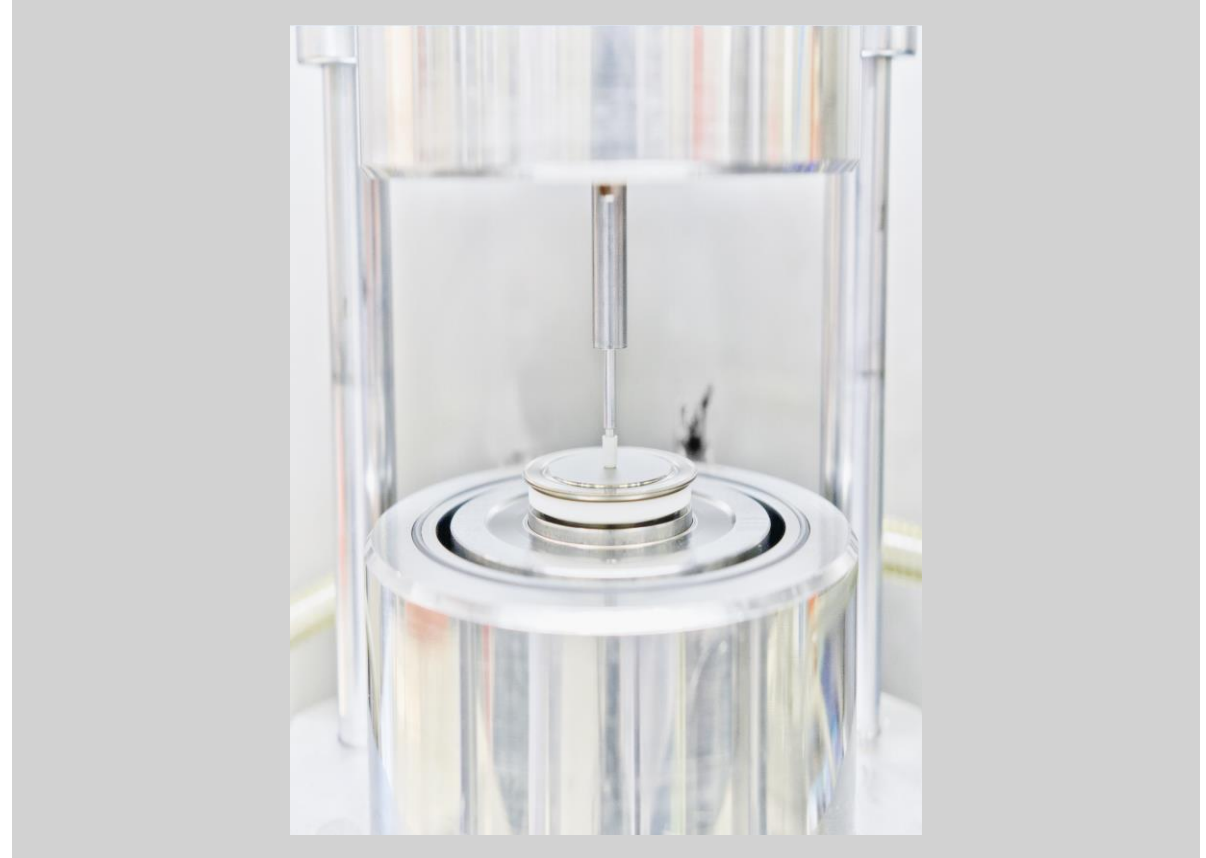
- Sales of products and systems for protection, monitoring and control of networks, substations and electric devices
- Regional Focus Factory (RFF) - engineering, cubicles production and testing
- Modernisation of HV and MV substation
- Control systems for distribution networks
- Substation automation service



# Power Grids division

## Semiconductors (Prague)

- Prague factory belonging to ABB Semiconductor group
- Development, production and sales of high power semiconductor devices
- Welding diodes for automotive industry
- Rectifier and avalanche diodes
- Fast recovery diodes for GTO and IGCT
- Phase control, fast, RCT and GTO thyristors
- Application and customer support



# Main ABB Customers in The Czech Republic





**ABB**