



JANUARY 2017

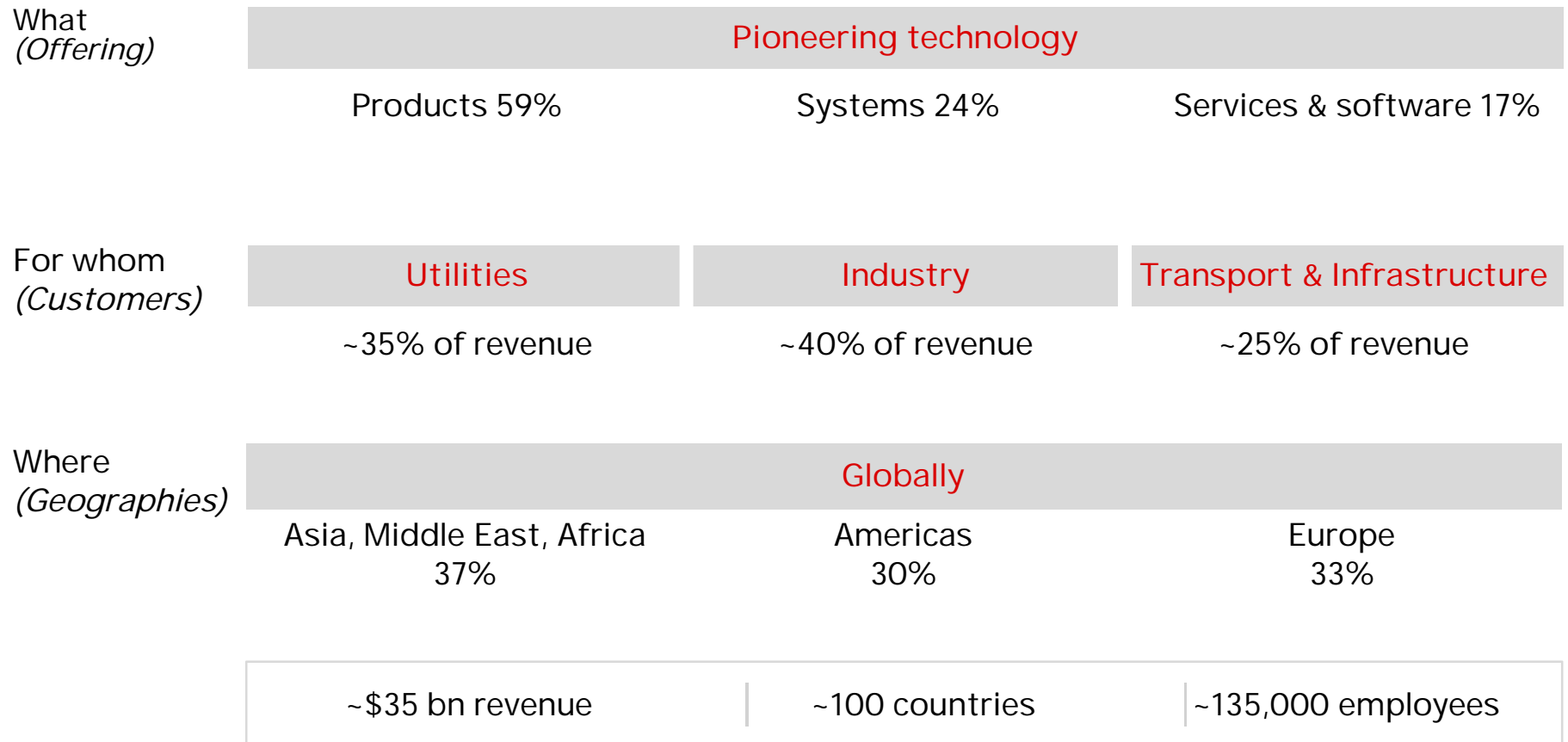
# ABB Xi'an Power Capacitor Co., Ltd.

Let's Write the Future. Together.

Speaker, position

# ABB in simple terms

A pioneering technology leader



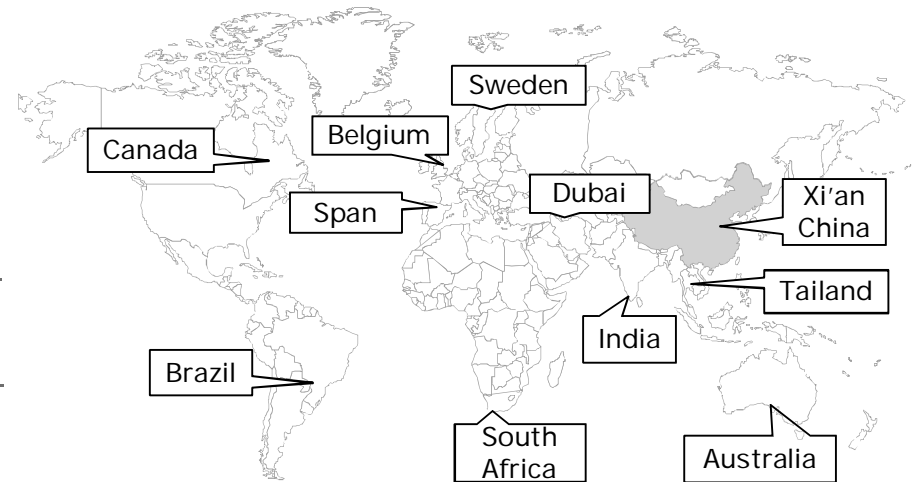
# ABB capacitors & filters

Focus on technology knowhow & customer needs

## About a century's technology focus

- 1910s Acquired Liljeholmens
- 1920s Entered Capacitor Field
- 1930s to produce series capacitors, and promote to the world
- 1950s Innovate internal fuse tech
- 1960s Design & produce HVDC capacitors
- 1970s World 1st of commercial thyristor - switched capacitor installation
- 2000s Whole voltage products & solutions to serve global needs

## Worldwide footprint, closer to customer



# ABB Xi'an Power Capacitor

Local development for China and the world

## Global feeder factory



- Whole voltage products
- ABB Technology Center for Power Capacitors
- ABB power quality center
- about 170 people & Area: 11,664m<sup>2</sup>
- Installed capacity: 45,000Mvar
- Test lab TUV certified
- Facility ISO9001 , ISO14001 , OHSAS18001 certified

## World class facilities

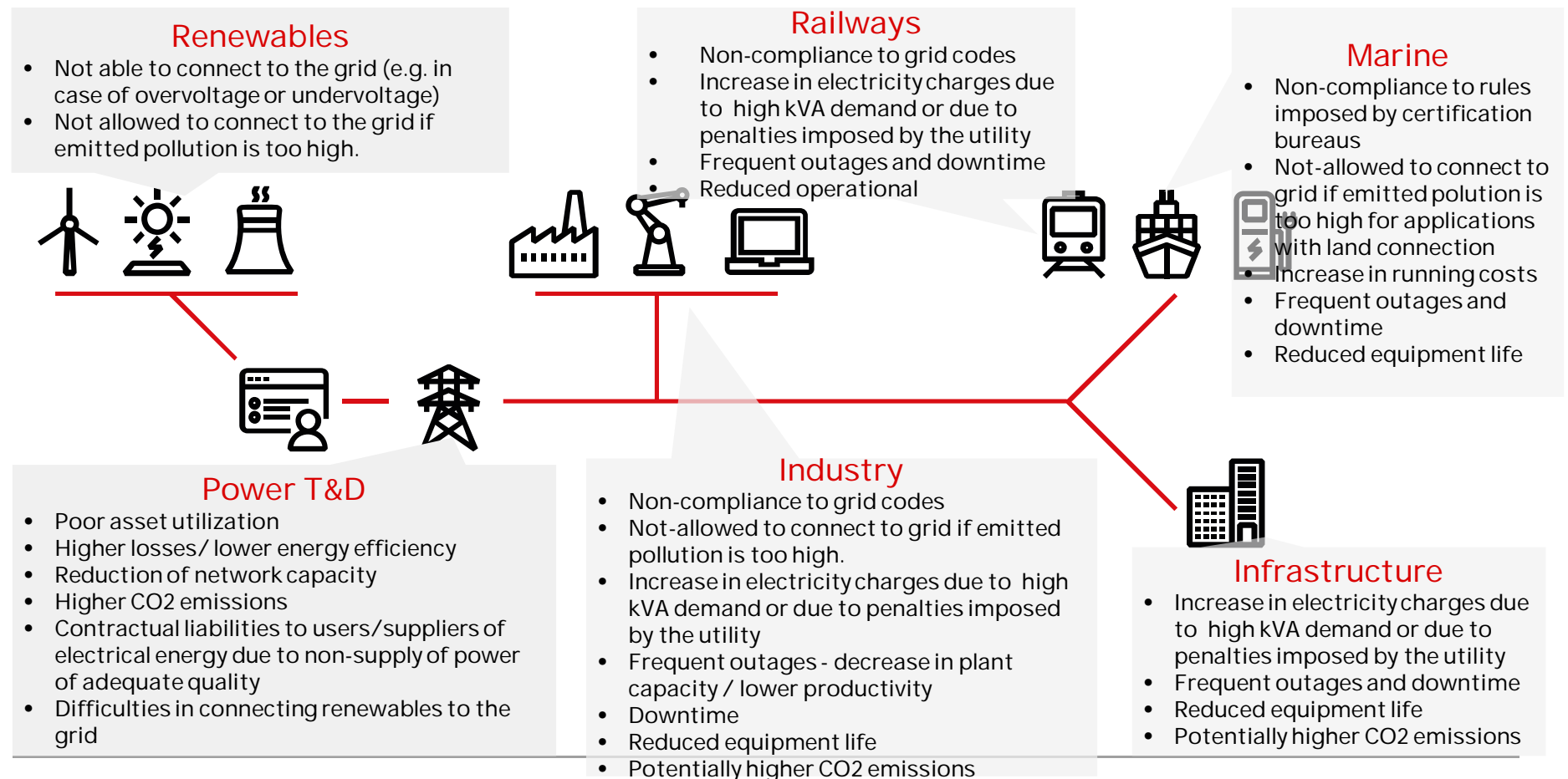
- Accumulated over 10 years manufacture / test experience from ABB's HV capacitor industry
- Advance producing principle to shorten manufacture period and improve production loading



- SAP system and Office 365 system, smart phone communication tools
- PLM, design documentary management system
- ABB SQP supplier auditing system
- BARCODE- production barcode management system



# Customer needs along whole power energy value chain



# Solutions for all voltage levels and segments

Meet different customer needs



## Capacitor installation for HVAC/DC

Reduce harmonics, supply reactive power, improve transmission capacity



## Series capacitor installation

Improve transmission capability, reduce loss, improve the stability of power grid



## Filter capacitor installation

Reduce the harmonic content in the network and improve the power quality



## Shunt capacitor installation

Improve power factor, reduce losses. Compact design, full protection and easy maintenance



## Capacitor unit

AC,DC wet capacitors, DC dry capacitors



## LV power quality solution

LV power factor correction components and solution, low voltage power active filter



**Services** Installation and test, spare parts, maintenance and on-site service, training, etc.

**Accessories** The range of high quality accessories for capacitor applications

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# New technologies enhance competitiveness by serving local needs

## ABB software

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- 3 fuse configuration , include internal fuse, external fuse and fuseless
- First originating / most advanced technology of internal fuse

## Local innovation

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- Provide technical, R&D support to local market needs, covering production, engineering, quality and raw materials etc.
- Continuously investment to develop new product , power quality solution to local markets

## R&D capability

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- Global R&D center in Sweden
- R&D center of power product in China
- Technical center of capacitor in Xi'an

## Technology acknowledgment

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- International patented certificates for compact capacitor installation, safety discharging installation of capacitor and one new type capacitor installation
- Gain national level technology and product certificate

# Steady growth & continuous improvement

## Localization milestones



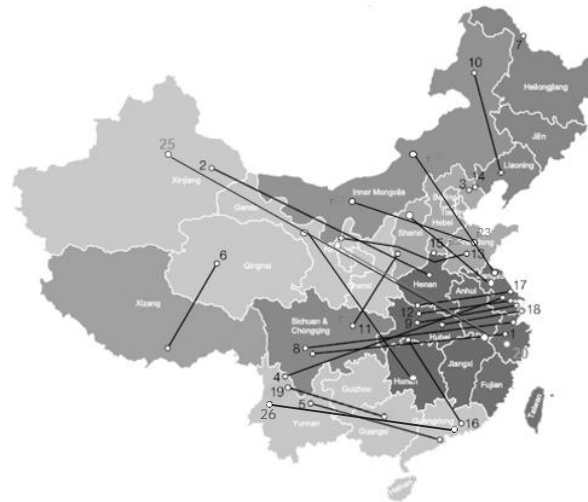


# Support national power grid construction

## UHV, HVAC/DC projects

### SGCC projects

- Three Gorges-Guangdong±500kV HVDC
- Guizhou-Guangdong±500kV HVDC , Y2002(I), Y2005(II)
- Three Gorges-Shanghai±500kV HVDC
- Northwest-Central China DC net link
- Jinping-Sunan±800kV UHVDC
- Huainan-Shanghai 1000kV UHVAC
- Hami-Zhengzhou±800kV UHVDC
- Xiluodu-Zhexi±800kV UHVDC
- Qinghai-Tibet±400kV HVDC
- Ximeng-Shandong 1000kV UHVAC
- 1000kV Mengxi- Southern Tianjin
- ±800kV Jinbei-Nanjing UHVDC
- ±800kV Shanghaimiao-Shandong UHVDC
- ±1100kV Changji-Guquan UHVDC
- 1000kV Ximeng-Shengli UHVAC

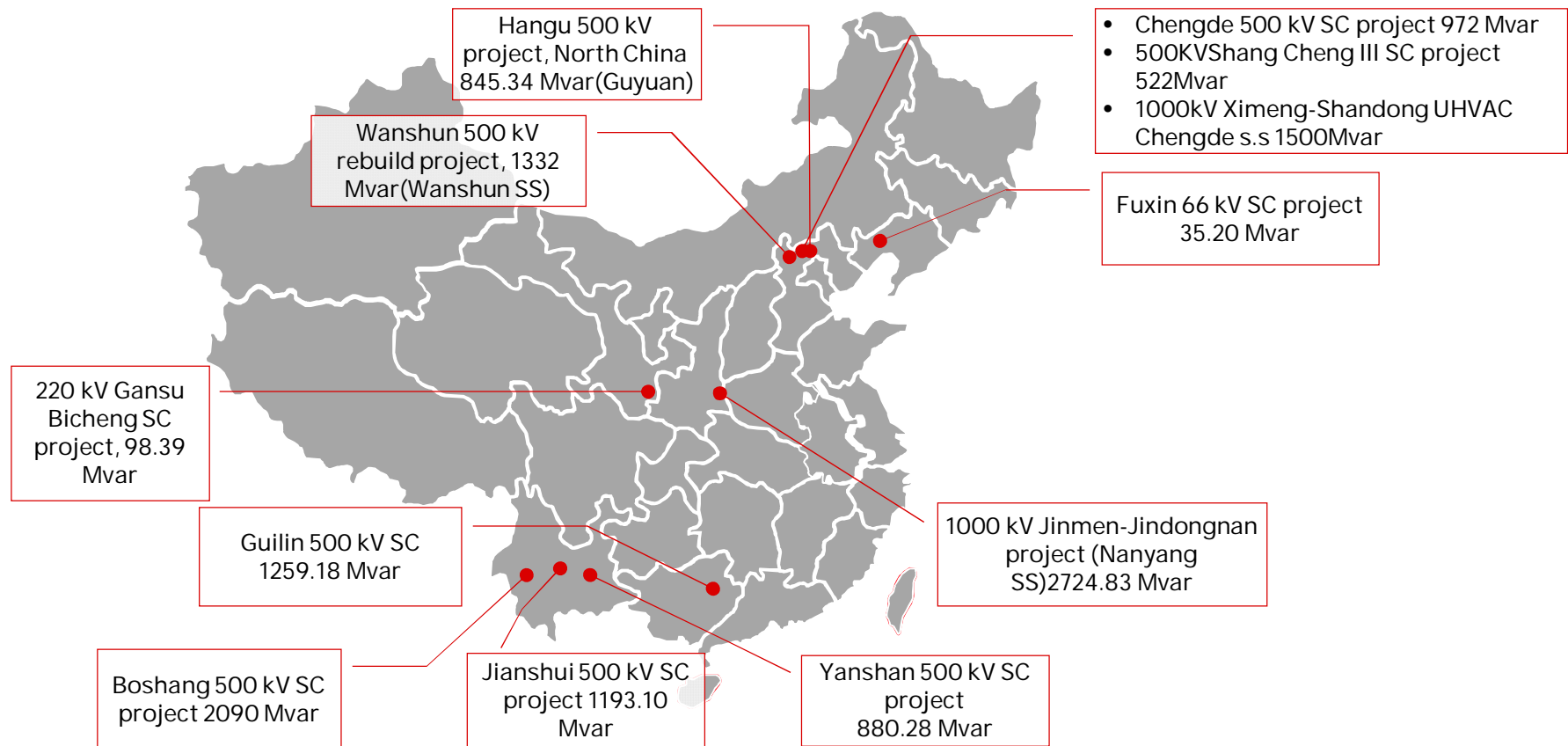


### CSG projects

- Yunnan-Guangdong ±800kV UHVDC
- Nuo zhadu-Guangdong ±800kV UHVDC
- Yunnan-Guangxi HVDC
- Yunnan Yongren-Funing±500kV HVDC
- Dian Xibei-Guangdong ±800kV UHVDC

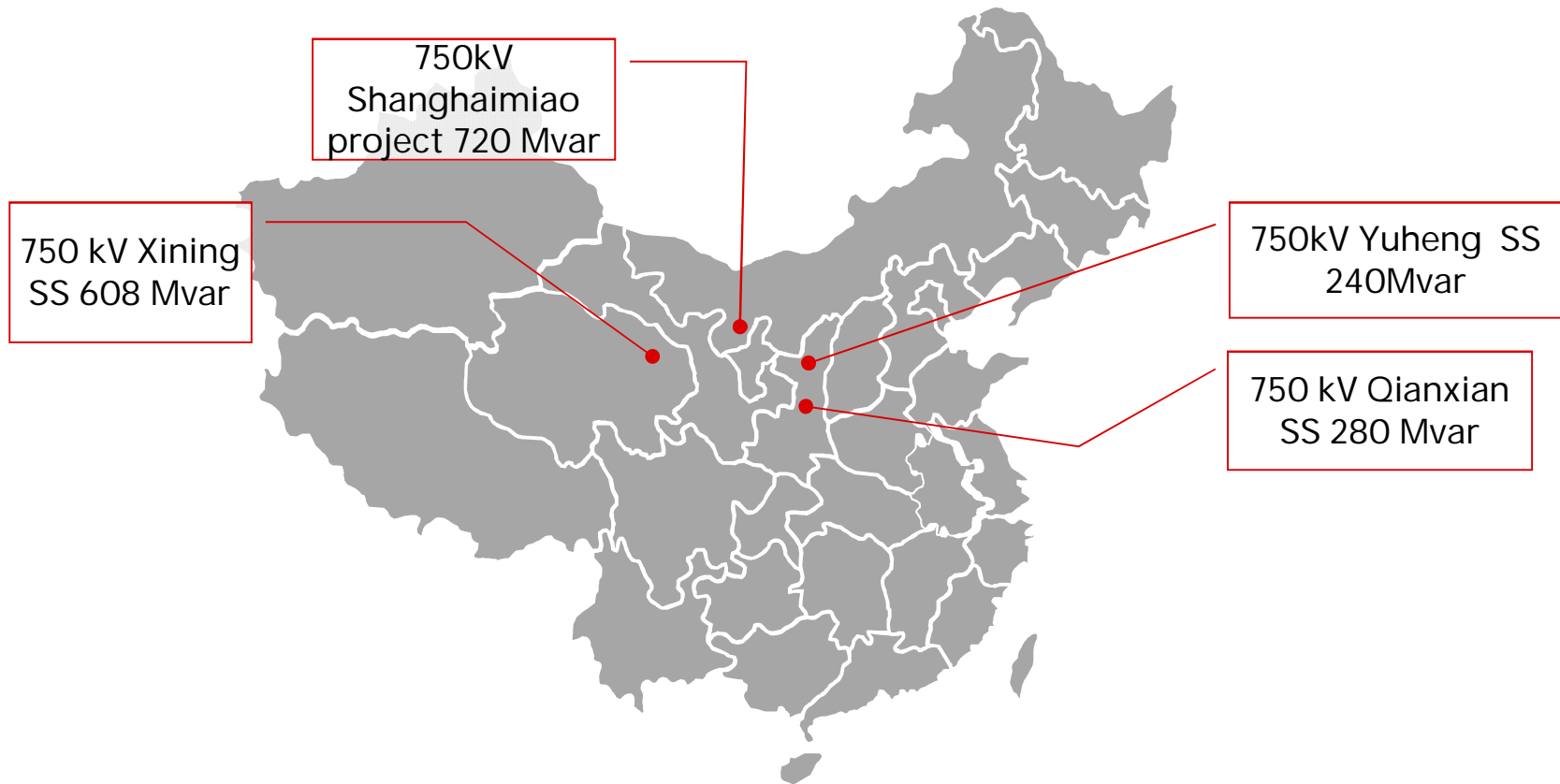
# Support national power grid construction

## Series projects



# Support national power grid construction

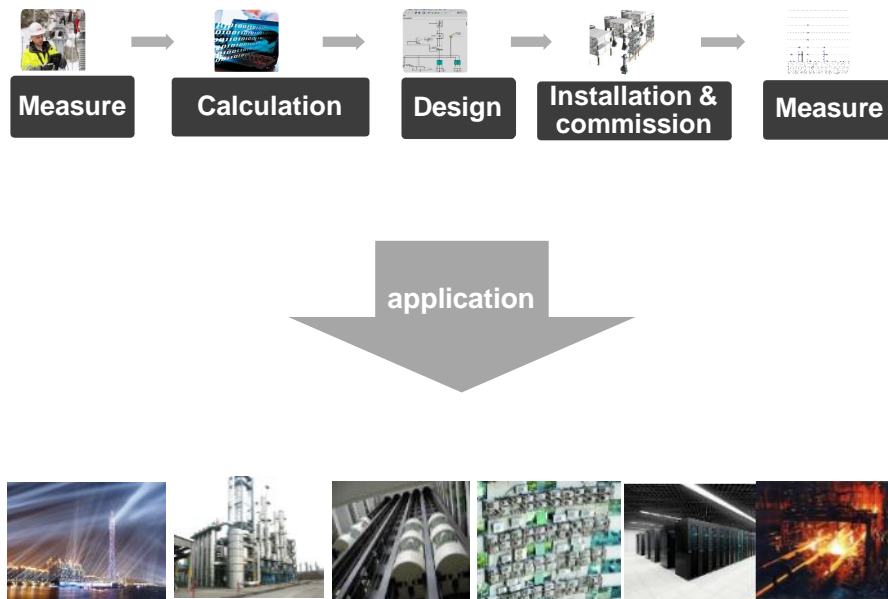
## 750 kV HVAC projects



# Devote to improve power quality

A complete program with complete support

## Tailor made solution



## Case1 Baiyin Lead-Zinc Smelting Plant Project



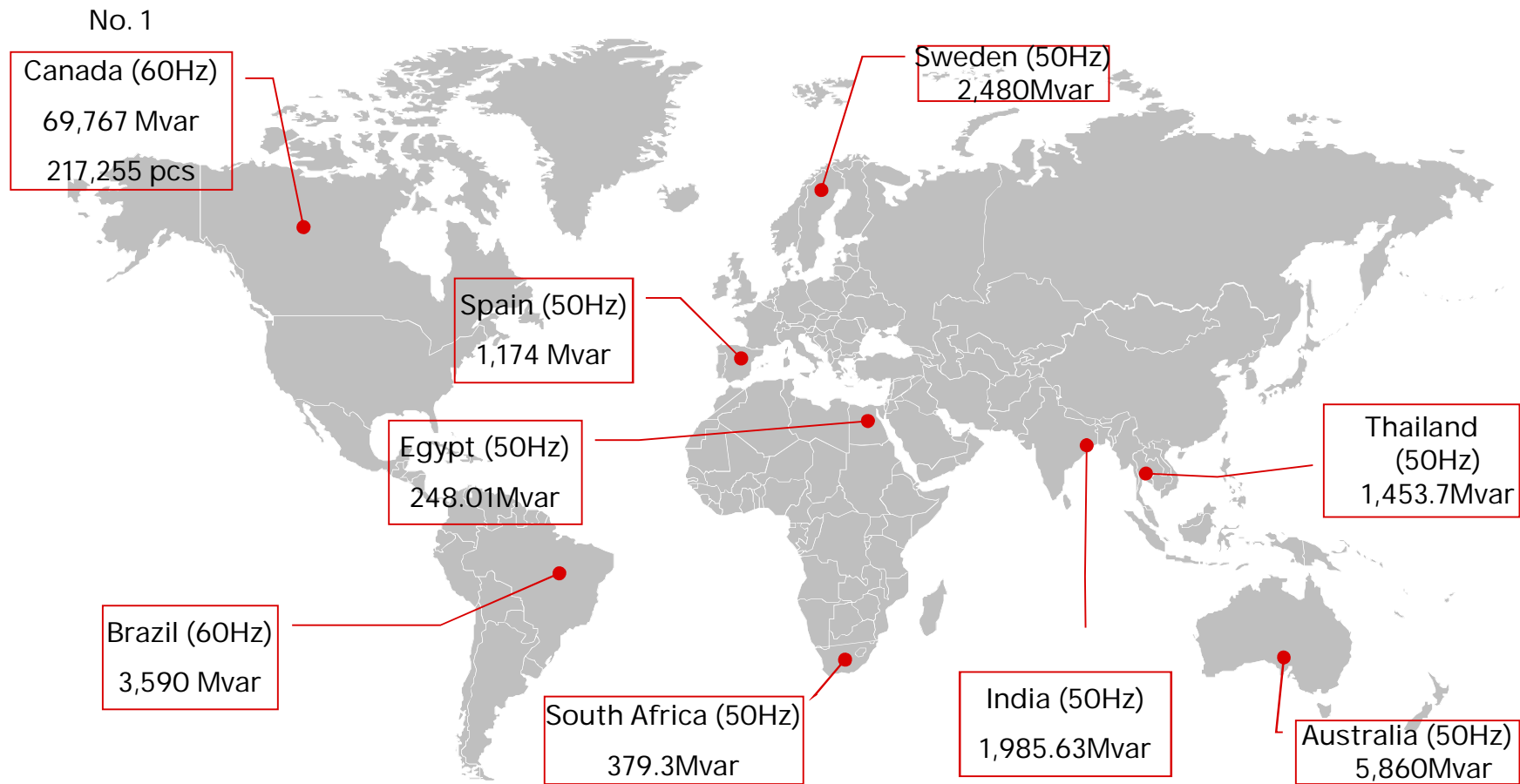
- site measuring, and system modeling & simulation, and present initial proposal;
- Install over voltage protection device and into operation, no noise and over current declined, but not stable operation;
- analyzing the operation result to know the cause is harmonic amplification, and verified by system simulation, then guide to operation successfully

## Case2 Malaysia Samalaju 275 kV project



- Provide customer with a full range of solution, includes: the analysis, calculation and simulation of system, the filter system design, the parameter determination, four sets of filter equipment, instruction and training for the site installation, test, commission and operation of filter bank.
- have been in operation and performed well.

# In China, for China and the world



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# Xi'an ABB- Your reliable partner

Ready to serve China and a better world

## Integrity

we adhere honest commercial moral, zero-tolerance to all illegal actions



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## Cooperation

Determination, respect and responsibility are the philosophy we act on to establish good relationship both inside and outside



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## Sustainability

Through capacitor products and the technology to help our customers improve power & production efficiency; to help our employees achieve their career dream; to practice social responsibility; to create a better world



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**ABB**