



Harikishan Narayanan, Head of Strategy and Business Development of ABB China, May 25, 2016

A reliable partner for a stronger China

New normal, new opportunities

ABB in simple terms

What
(Offering)

Power & Automation

Power ~ 40% of revenue

Automation ~ 60% of revenue

For whom
(Customers)

Utilities

~35% of revenue

Industry

~45% of revenue

Transport & Infrastructure

~20% of revenue

Where
(Geographies)

Globally

AMEA¹ 37%

Americas 30%

Europe 33%

~\$36 bn
revenue

~100
countries

~135,000
employees

Single "A"
credit rating

HQ Zurich

ABB in simple terms

Our customer value chain

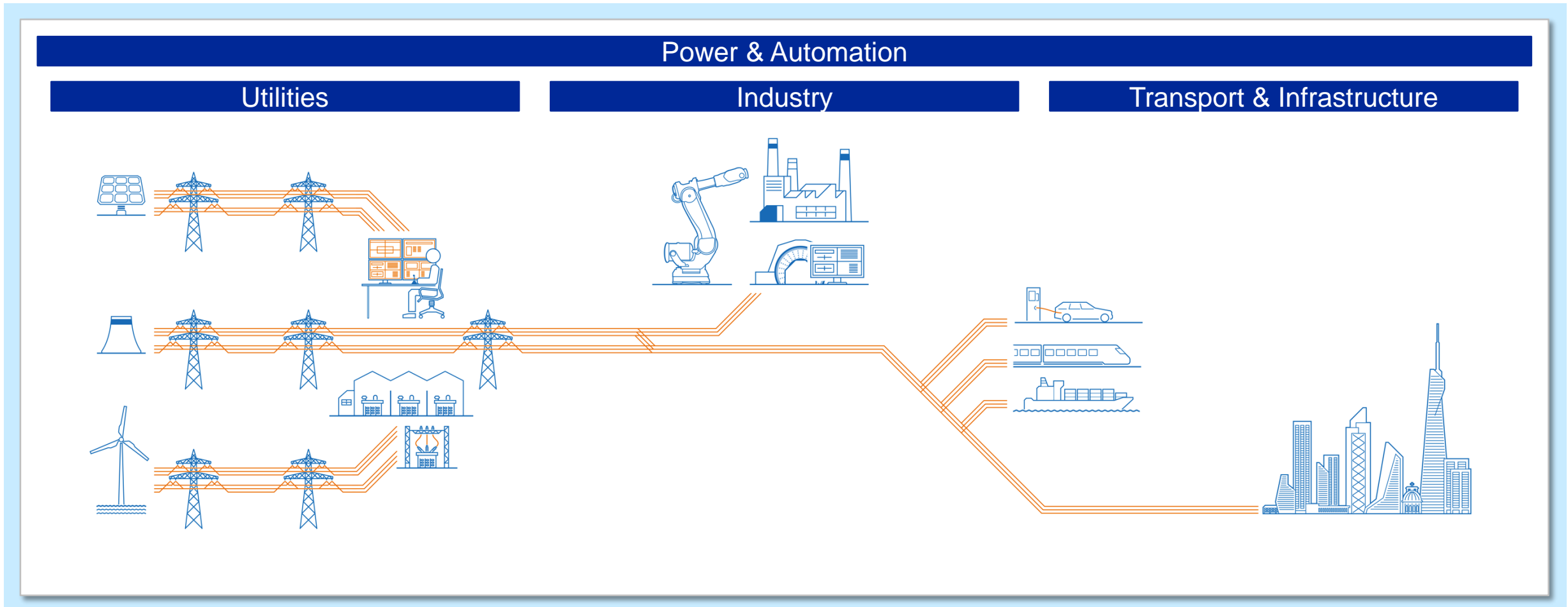
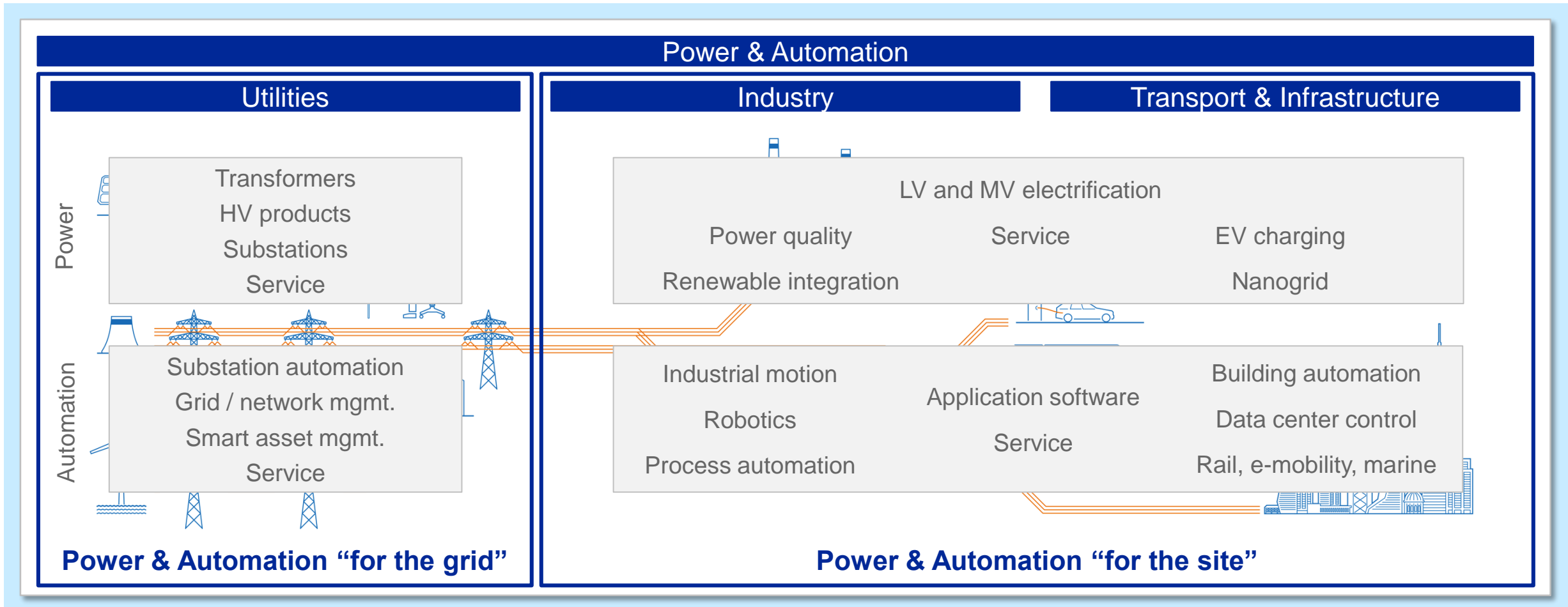


ABB in simple terms

Leading Power & Automation offering (selected examples)



Next Level 2

Accelerating transformation

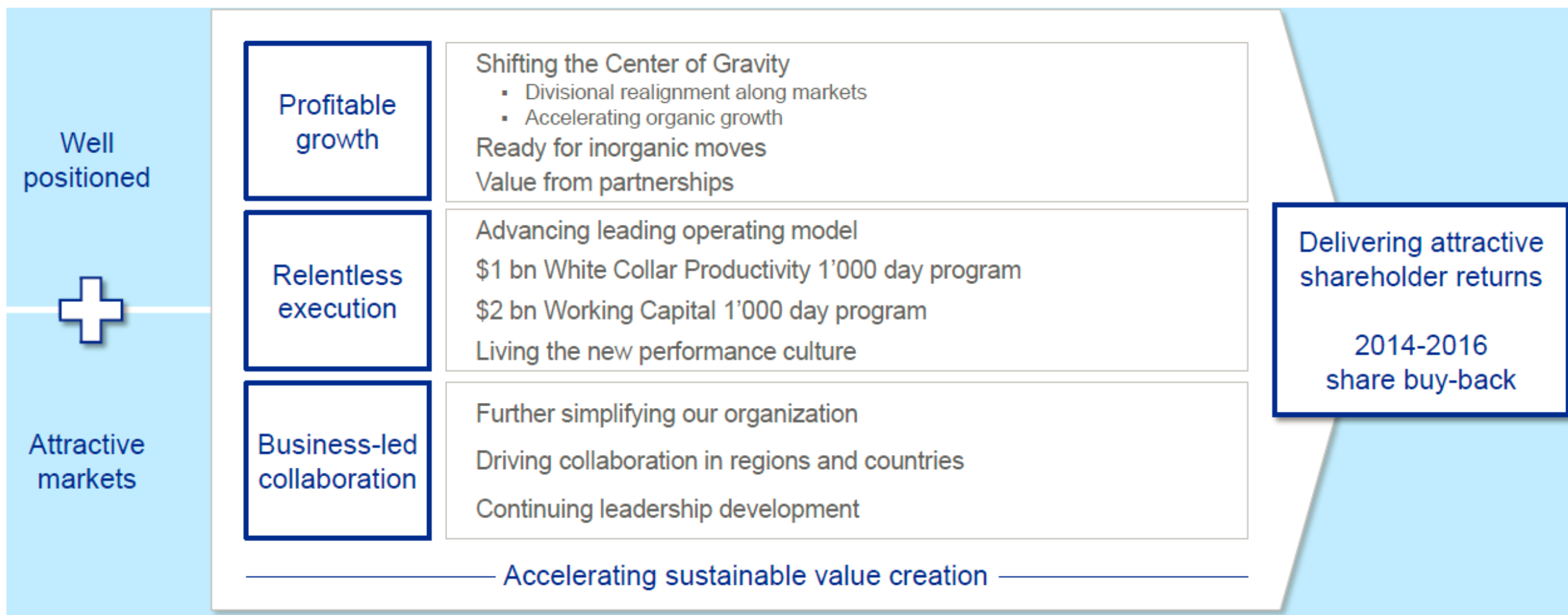


ABB in China – a success story

Present for more than 100 years and steadily growing

Strong local presence

- Over 90% of sales from locally-made products, solutions and services
- Over 2,000 R&D professionals

Extended footprint

- 40 entities in China
- ~18,000 people in 147 locations
- 16 service centers with national coverage
- Accumulated investment ~14.3 bn CNY

Made in China, for the World

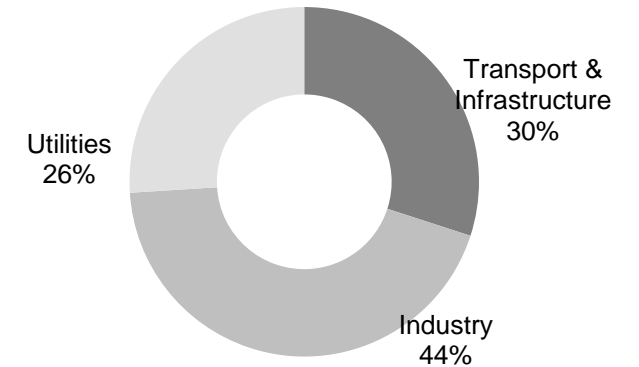
- Exports account for ~15% of orders received in China



Revenues 2015: 33.3 bn CNY

Customer segments 2015

Approximate share in %



Well positioned in China

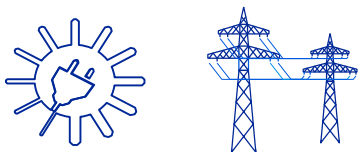
China's "New Normal" brings significant opportunities

Smart technology leads intelligent upgrading

New drivers bring new opportunities

Energy structure evolution

- Smart grid
- UHVDC
- Micro-grids/integration of renewables
- Energy storage



Improvement in industrial productivity

- Industrial robot
- Power quality and reliability
- Equipment for the processing industry
- Made in China 2025 program



Demand from rapid urbanization

- Smart home and green building
- Data center electrification
- E-mobility
- Power quality and reliability



Belt and Road initiatives

- Infrastructure connectivity (grid, railways, roads, airports, ports, logistic centers)
- Mining and metal
- Oil and gas



Our offerings address the needs from China's "New Normal"

Power technologies ensures sustainable energy development

ABB contributes to 24 of China's 32 HVDC projects

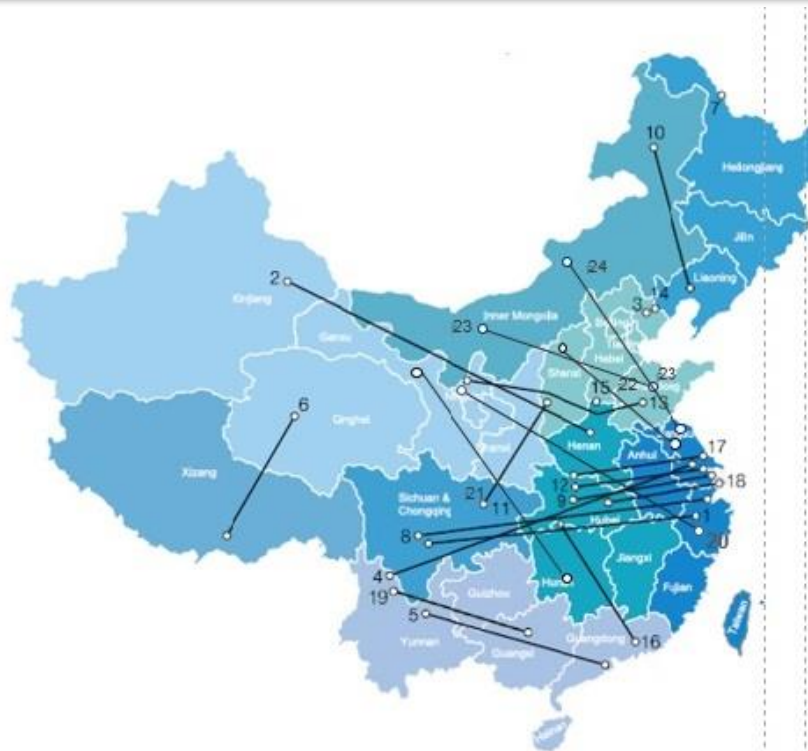
China: targets under "New Normal"

Non-fossil fuels in primary energy to reach 15% by 2020 (from current 11%) and 20% by 2030

Clean energy power generation capacity to reach 1.52 billion kW by 2030, or about 50% of national total

Build strong smart grid by 2020

HVDC is truly shaping the grid of the future



- Pioneered HVDC technology more than 60 years ago
- Awarded over 110 HVDC projects, accounting for half the global installed base
- Introduced world's first hybrid circuit breaker for HVDC in 2012 to enable future DC grid
- Developed ± 800 HVDC and ± 1100 UHVDC with SGCC

Automation technologies support industrial upgrade

Improvement of energy efficiency and productivity under Made in China 2025

China: targets under “New Normal”

Productivity to grow 7.5%/year by end of 2020

Energy consumption per unit GDP reduced by 16.6% by end of 2020

Intelligent upgrading and advanced manufacturing

Industrial robot density expected to increase from 30 in 2013 to 100 robots per 10,000 workers by 2020

“Made in China 2025” action plan and “Internet +” strategy

Energy efficiency and industrial productivity significantly improved

- In China, ABB drives save 243 billion kWh of power by 2014
- Its energy-efficient motors helped Chinese customers save 24 billion kWh of electricity



- ABB is the only multinational company with a truly localized value chain for industrial robots in China, including R&D, production, sales, engineering, and services
- ABB robotic solution helps automotive, 3C and other industries improve productivity and product quality
- The latest example is for Gree’s Zhuhai plant, where robots help improve efficiency by 30% and improve work environment



Demand from rapid urbanization

Transport and infrastructure

China: targets under “New Normal”

Rail network to reach 120,000 km by 2020, with 60% electrified

5 million electric and hybrid vehicles to be sold by 2020

60% of population urbanized by 2020 vs 54.8% in 2014; half of new buildings to be green by 2020

One billion m² green buildings from 2010-2015

Urban rail networks & wireless smart home system

Rail for new-type urbanization

- ABB's products and technologies are applied throughout all high-speed rails in China



E-mobility for sustainable transport

- Fast chargers for private and public use



i-jia smart home system

- Developed in China for China
- No separate wiring; mobile apps give users control from anywhere



Respond to “the Belt and Road” initiative

Partner with Chinese companies to go global

Supporting CN EPCs active outside China

- More than 4000 CN EPC contractors approved for overseas business. In 2015 newly signed contracts worth over 1,300 billion CNY (YoY, 9.5%)
- Dedicated EPC Sales manager appointed
- Strategic cooperation agreement signed with Sinoma
- Value based sales strategy for different types of EPCs

SCADA project of Kazakhstan-China Gas Pipeline Line C, Kazakhstan

Advanced automation control system will be offered by ABB to support the pipeline achieve more efficient and stable operation

KARABIGA power plant project, Turkey

ABB provided high-voltage motors for the circulating water pumps of coal-fired unit as well as controlled starter transmission (CST) products for the drive system of coal conveyor at the power plant



MAV/MEV project of Early Power Plant at Rumaila Oil Field, Iraq

ABB provided gas insulated switchgear (GIS), generator step-up transformer (GSU), step-down transformer (SDT), power management system & power distribution control system (PMS&PDCS) and automation control system

Offshore accommodation platform project, Abu Dhabi

ABB provided packaged motor and drive solution, including ACS800 drives, AMI series high-voltage motors and M3BP low-voltage motors to help customers to reduce investment and maintenance work

Local service continues to grow steadily

Meet customers' immediate demand with customized services

Opportunities for ABB service business

Customers' need to upgrade manufacturing facilities

Increasing customer demand for lifecycle services and asset management to improve capacity and optimize energy efficiency

A team of 1,500 professionals and local service network including 16 4S service centers, 39 repair workshops and 100+ authorized service centers

Service in China achieved 10%+ CAGR between 2011 and 2015

Cross divisional collaboration to provide customized services

- Preventative maintenance services for HV/MV switches and breakers at Peking University, delivering flexible customer solutions and enlarging current market coverage



- A full package of preventative maintenance solutions, including drive products, PLCs, and system safety evaluation services to Shanghai Caojing Power Plant
- ABB's services significantly improve the plant's reliability and continue ABB's push from reactive to proactive service offerings



Innovation helps local customers create more value

Innovative technologies enhance market competitiveness

Local innovation capacity

- ABB Corporate Research Center in China is one of the 7 global research centers with worldwide leadership in the fields of insulation materials, small-piece assembly robots, hybrid HVDC technology and renewable energy integration technology
- During the past 5 years, ABB China doubled R&D experts in number, and achieved 20%+ of CAGR in applied technological patents and 30%+ of CAGR in PCT & invention patents
- Over the past 3 years, ABB invested over 10 million yuan to conduct extensive cooperation with around 20 Chinese universities and research institutions

Key Innovations

Green power solutions

Environmentally friendly gas insulation switchgear
HV disconnecting circuit breaker with fiber optic current sensor



RO solutions

YuMi® dual-arm robot
Compact SCARA robot



EV and smart building solutions

Terra 53Z DC fast charging for EV
HD series door entry system



Relentless execution to increase productivity and reduce NWC

Drive change for growth and competitiveness

ABB Xiamen Electrical Control Gear Co. Ltd.: Net Working Capital Improvement



- Net working capital as % of revenues continuously at “minus” position
- Sustainable improvement on cash conversion cycle
- Average inventory turns increased by 5 turns

ABB Shanghai Transformer Co. Ltd.: Growth & Operational Excellence



- Significant growth in orders and profitability
- Productivity improvements by >50%
- Operational excellence: significant improvement in all key performance indicators, ranking in top 3 of global Product Group units

ABB Xinhui Low Voltage Switchgear Co. Ltd.: Continuous Improvement Program



- Objective to achieve world class manufacturing
- Improved health/safety/environment in the factory
- Total throughput time reduced for all production lines
- 5,600m2 released from workshop layout & process optimization

Global Business Services: A Key Driver of White Collar Productivity



- Move from a fragmented shared service set-up to an optimized global / regional shared service center footprint
- Drive further global standardization enabling increased efficiency and quality
- Expand scope of activities and further consolidation of transactional tasks

Deeply engaged in our local communities

CSR initiatives with associations and universities

ABB Cup national automation thesis contest



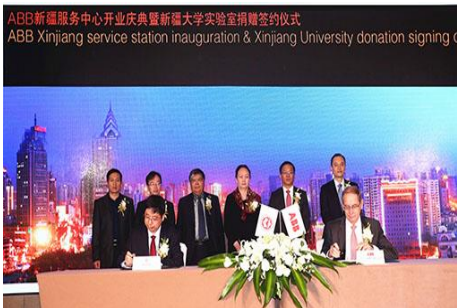
- Exclusively sponsored by ABB, and organized by Chinese Association of Automation (CAA)
- Provides a platform of technical exchange and experience sharing for the development of intelligent industry
- Over the last 10 years, 6,558 contestants, 3,140 theses, 7 collections of theses including ~600 high-quality theses

ABB University innovation contest



- Over the last 4 years, more than 5,000 students from 200 colleges and universities participated in the contest
- In total, 753 submissions have been received with 71 winners

Cultivation of local talents in Xinjiang province



- ABB donates power and automation equipment worth 1.7 million CNY to Xinjiang University for setting up a new laboratory, and provides 100,000 CNY as a scholarship annually in the next 5 years

Randstad's "2016 Most Attractive Employers in China"



- The most attractive employer in China's industrial manufacturing field
- Ranked the third on the list of "Top 20 Most Attractive Chinese and Foreign Employers"

ABB – a true long-term partner for China

Ready to serve China and a better world



Global leader in power and automation



World leader in manufacturing and energy restructuring

Well balanced presence in all regions of the world

Strong record in technological innovation

At the forefront of big shifts in power and automation

Full value chain localization in China

New Normal brings new business opportunities

Made in China 2025 aims to transform manufacturing from big to strong

Belt and Road initiatives serve as a platform for Chinese companies to go global

China and ABB – our long joint journey will continue

Power and productivity
for a better world™

