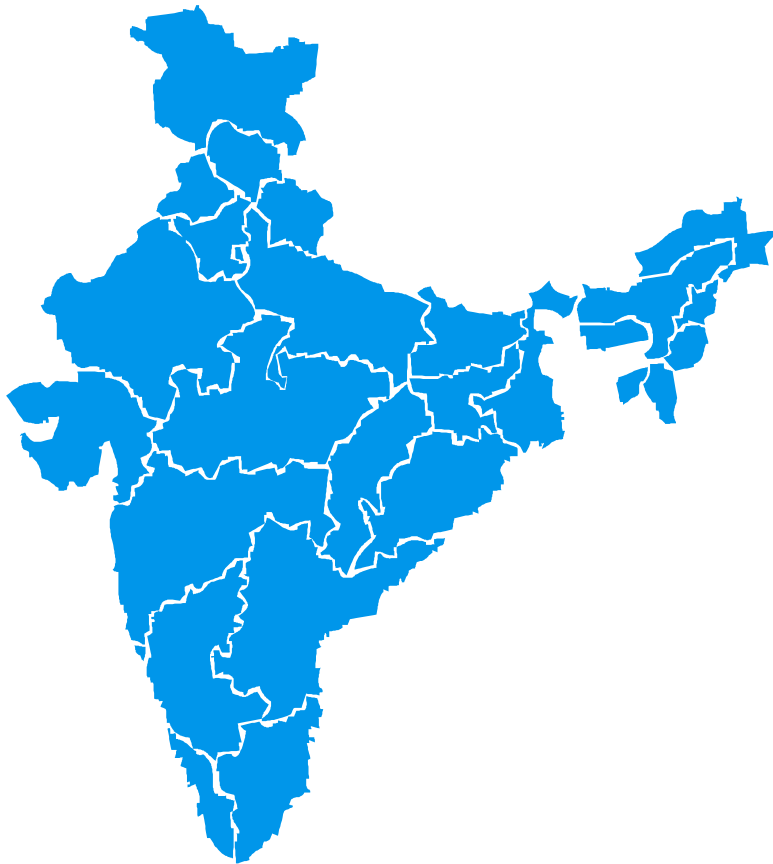




ABB in India Country overview

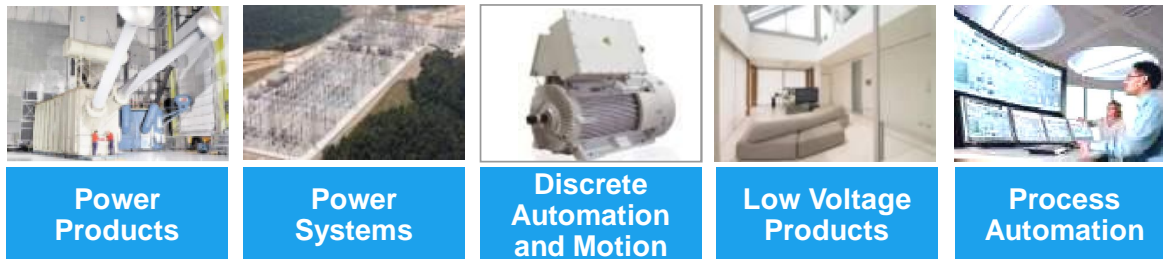
India: Country of opportunity



- Growing GDP ~ 8%
- Buoyant Index of Industrial Production – reaching ~17% growth
- Stable interest rates fostering investment
- Continuing government spend on infrastructure
- Financial market supporting capex in private enterprise
- Increasing international participation in developing mega projects
- Demand for power growing – more projects reaching financial closure
- Power capacity addition envisaged in 12th Plan: 1,00,000 MW

How ABB in India is organized

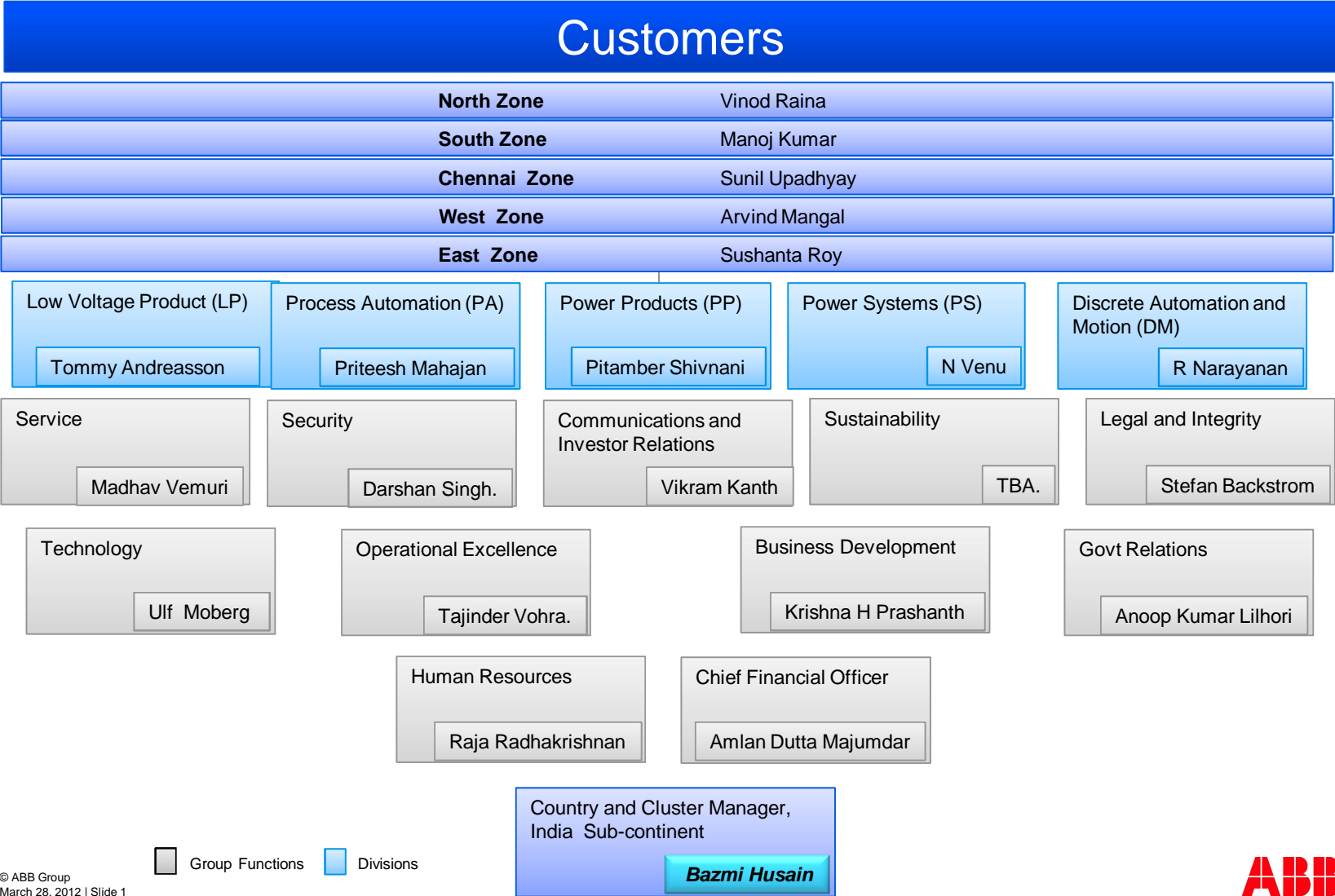
Five global divisions



ABB's portfolio covers:

- Electricals, automation, controls and instrumentation for power generation and industrial processes
- Power transmission
- Distribution solutions
- Low-voltage products
- PLCs, variable frequency drives, motors for discrete automation and process industries

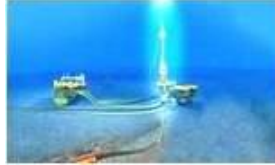
India country organization 2012



Power and automation are all around us You will find ABB technology...



orbiting the earth and working beneath it,



crossing oceans and on the sea bed,



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



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



in the plants that generate our power and
throughout our homes.

ABB

Helping customers optimize their energy use

Forecast rise in electricity
consumption by 2030

Source: IEA, World Energy Outlook 2008

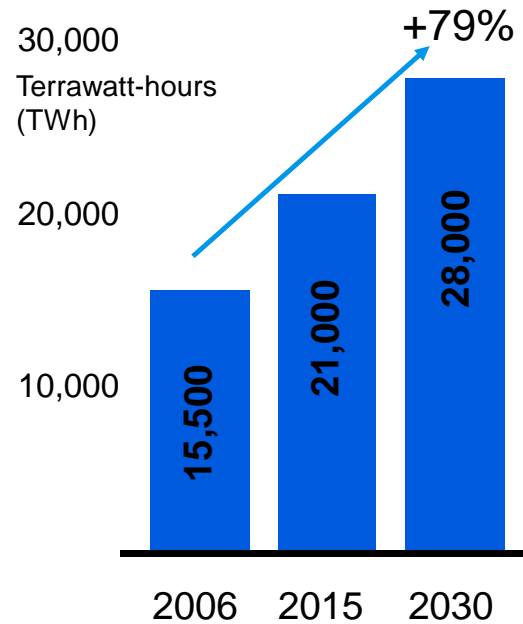
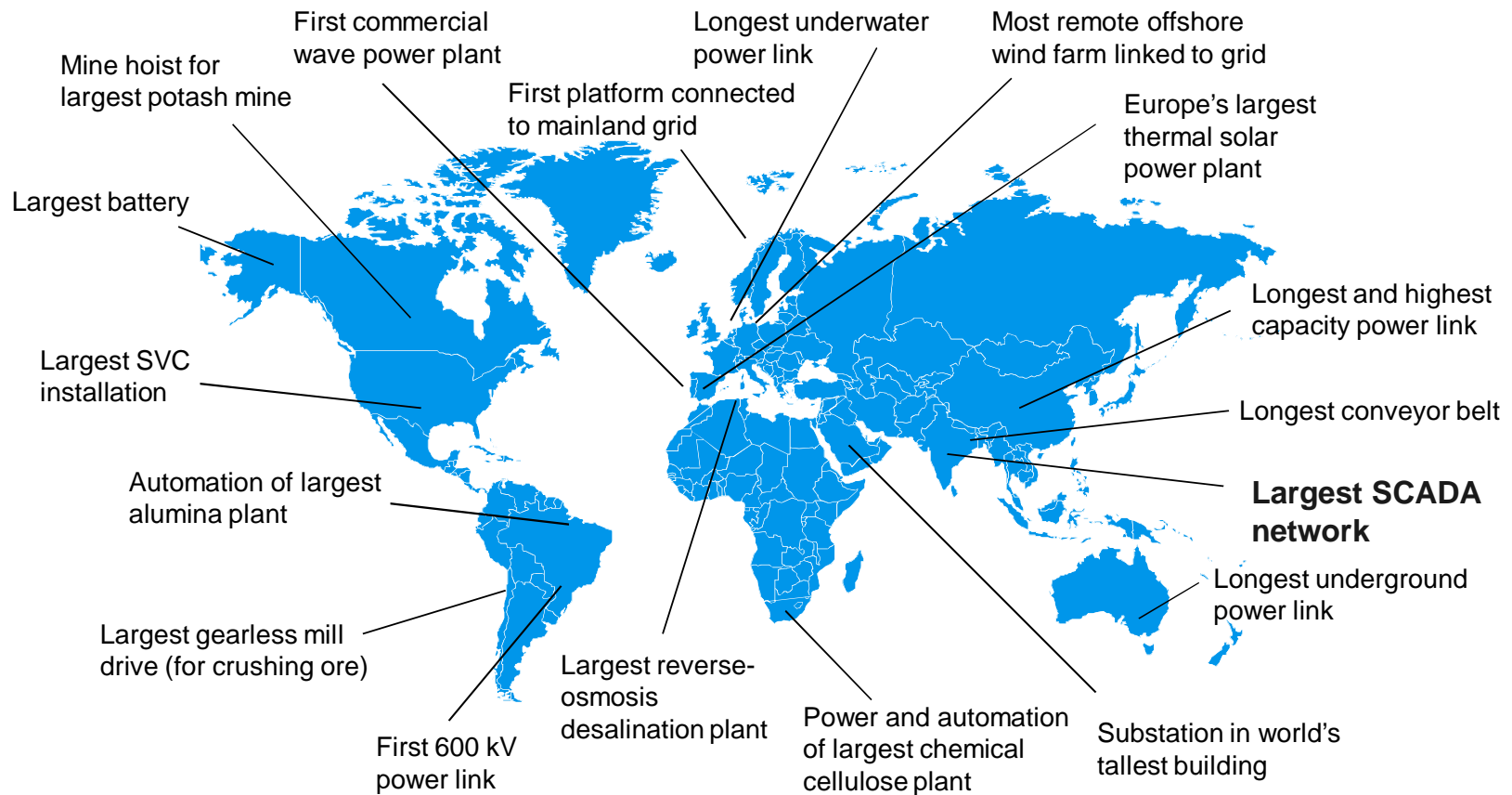


ABB power and automation solutions are:

- Meeting rising demand for electricity
- Increasing energy efficiency and reducing CO₂ emissions
- Improving productivity to raise competitiveness of businesses and utilities

Ground-breaking and nation-building projects

Pushing the boundaries of technology



Improving capacity, reliability and efficiency in the grid

A pioneer in smart technologies



Challenge

- **Delhi, India:** Electrify one of the largest metro projects in Asia

ABB solution

- Custom engineered SCADA solution
- Maximum efficiency, optimal space use with minimal losses



- **Maharashtra, India:** State of the art, turnkey electrification solution for thermal power plant that supplies increased power to western grid

- Modular eBoP solution for 300MW generating units that provide optimized and integrated solutions for complete plant electricals



- **Bangalore, India:** Improve reliability in grid serving 53 million people in Karnataka

- Network management with real-time control
- Key building block for smart grid

Tackling society's challenges on path to low-carbon era

Helping customers do more using less



Challenge

- **India/Bangladesh:** Provide a complete automation solution for world's longest trans national, single-belt conveyor

ABB solution

- Custom engineered System 800xA control solution
- Energy efficient drives and motors



- **India:** Help the largest steel blast furnace in India maximize their production efficiency

- 800xA automation solution helps to increase productivity from 7850 tons per day to 9000 tons per day



- **India:** Complete electrical and automation solution for one of the largest cement manufacturers in the world

- Composite solution with plant electrics, drives and motors
- Elimination of hardware communication between MCC and DCS by using Profibus communication with intelligent MCC



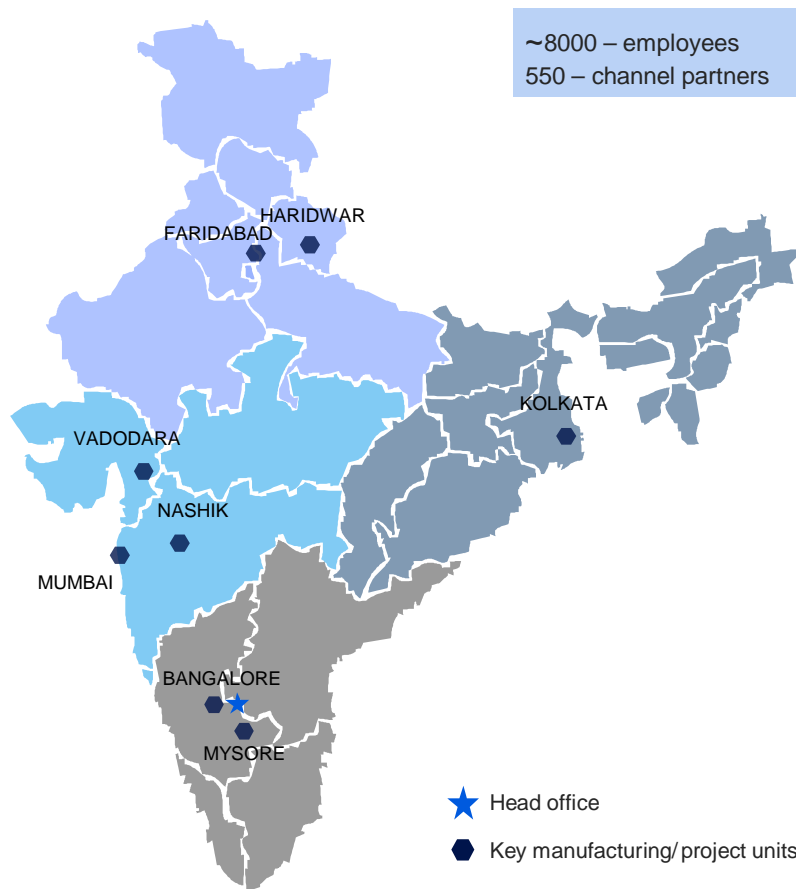
Our ambition, your legacy. What makes ABB a success? Our people.



- **Collaborative:** Combined talent of local and global workforce results in leading-edge solutions for our customers
- **Creative:** New answers come about from complex problems by looking at the familiar from unfamiliar angles
- **Compliant:** We share a sense of responsibility for the customers we serve and the communities we work in. We support a competitive, free enterprise system.
- **Cross-cultural:** We encourage diversity, value-difference and support individuality, drawing talent from around the world to bring new perspective to any challenge we face.
- **Consultative:** We believe in solving customer problems with in-depth understanding, exceptional insight and a partnership approach.



Strong local presence in sales, engineering, service, and manufacturing



- Head office- Bangalore
- Global Corporate Research Center
- 14 Manufacturing facilities
- 23 Marketing offices
- 4 Training centers
- 8 Service centers
- 3 Logistics warehouses
- Listed on Bombay Stock Exchange and National Stock Exchange, India

Long history of local investment in manufacturing



- Long history of local manufacturing and investment in the region – first manufacturing facility 1967 in India, newest factory 2010 for Wind Mill Generators, Vadodara
- International quality certification (ISO 9001,14001,18001 certified)
- Manufacturing and/or assembly performed in locations across India, much of which supplies local demand
- Global factories for Power Products, Low Voltage Products and Discrete Automation and Motion
- Manufacturing facilities have unique energy savings systems such as solar panels for energy and water recycling systems

Global Corporate Research Center



- Established in 2002 in India
- R&D footprint with 40% of BUs
- Lifecycle support for over 30 products
- 29 invention disclosures approved
- No. of engineers: 1000+
- University cooperation with IIT, IISC Bangalore, IIIT Bangalore

Research cluster areas

- Control and optimization
- Industrial communications
- Industrial software systems
- Network management systems
- 800xA
- Robotics and drives



Engineering centers

Process Automation and Power Systems



Process competencies – Process Automation

- Metals, Minerals, Oil, Gas & Petrochemicals, Pulp & Paper, PIP, Marine and Plant Electrification



Process competencies – Power Systems

- Grid Systems, Substation Automation and Power Generation



- Engineering operation centers located in Bangalore and Chennai with 700 employees, delivering engineering for prestigious projects worldwide



- Local delivery of a variety of projects ranging from aluminum smelter electrification to inter-state electrical grid control

Our customers

Delivering reliable products and solutions to prestigious projects



- Automation solutions for various steel plants in India- Tata Steel, JSW, Bhushan Group



- Delivery of automation and power solutions to help power a stadium in Delhi for the Commonwealth Games 2010
- Robotics painting solution for Tata Motors



- Plant electrification and automation for steel plants around India- JSW
- “Invisible” substation solution to power help power city of Bangalore- KPTCL



- Distribution automation solution- Delhi airport new terminal 3
- Network management solution that is the first step towards a smart grid in Karnataka- KPTCL



- Electrification solutions for Delhi and Bangalore metros

Committed to making our communities even better



Education

- Providing infrastructure, aid, teachers' training and mid-day meals to schools
- Scholarship programs for engineering students

Supporting the differently-abled

- Program for training and employing differently-abled people



Environment

- Providing remote villages with access to basic electricity
- Greening projects at ABB locations and in cities where we are present

India's growing role in ABB Group



- 5th largest contributor to the group business volumes
- Global factories set up recently
 - Transmission relays
 - Distribution relays
 - Low-voltage motors – efficiency class 1
 - Low-voltage breakers and switches
 - Wind generators
- Increased sourcing of products
 - Examples: power transformers, medium voltage breakers and systems, high voltage machines and automation panels
- Power systems, process automation and robotics operation centers delivering engineering services overseas
- R&D establishment employing ~1000 people (over 700 engineers)

Power and productivity for a better world

ABB's vision for India



- Continue to build the technology needed to meet the demand of tomorrow, today
- Preferred partner for renewables, energy efficiency, industrial productivity and grid reliability
- Recognized good corporate citizen
- Preferred employer and talent source for ABB worldwide

Power and productivity
for a better world™

