



Ulrich Spiesshofer, CEO, Capital Markets Day, London, September 9, 2014

# ABB – Next Level

## Shaping a global leader in power & automation

# Important notices

Presentations made during Capital Markets Day 2014 include forward-looking information and statements including statements concerning the outlook for our businesses. These statements are based on current expectations, estimates and projections about the factors that may affect our future performance, including global economic conditions, and the economic conditions of the regions and industries that are major markets for ABB Ltd. These expectations, estimates and projections are generally identifiable by statements containing words such as “expects,” “believes,” “estimates,” “targets,” “plans,” “outlook” or similar expressions.

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- costs associated with compliance activities
- raw materials availability and prices
- market acceptance of new products and services
- changes in governmental regulations and currency exchange rates, and,
- such other factors as may be discussed from time to time in ABB Ltd’s filings with the U.S. Securities and Exchange Commission, including its Annual Reports on Form 20-F.

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Presentations also contain non-GAAP measures of performance. Definitions of these measures and reconciliations between these measures and their US GAAP counterparts can be found in “Supplemental Financial Information” under “Capital Markets Day 2014” – “More information” on our website at [www.abb.com/investorrelations](http://www.abb.com/investorrelations)

# ABB – Next Level

## Shaping a global leader in power & automation

Well positioned



Attractive markets

Profitable growth

Shifting the center of gravity

- Strengthening competitiveness
- Driving organic growth momentum
- Lowering risk

Incremental acquisitions and partnerships

Relentless execution

Leading operating model

Driving change through 1'000 day programs

Linked strategy, performance management and compensation

Business-led collaboration

Simplifying how we work together

Streamlining market focused organization

Leadership development

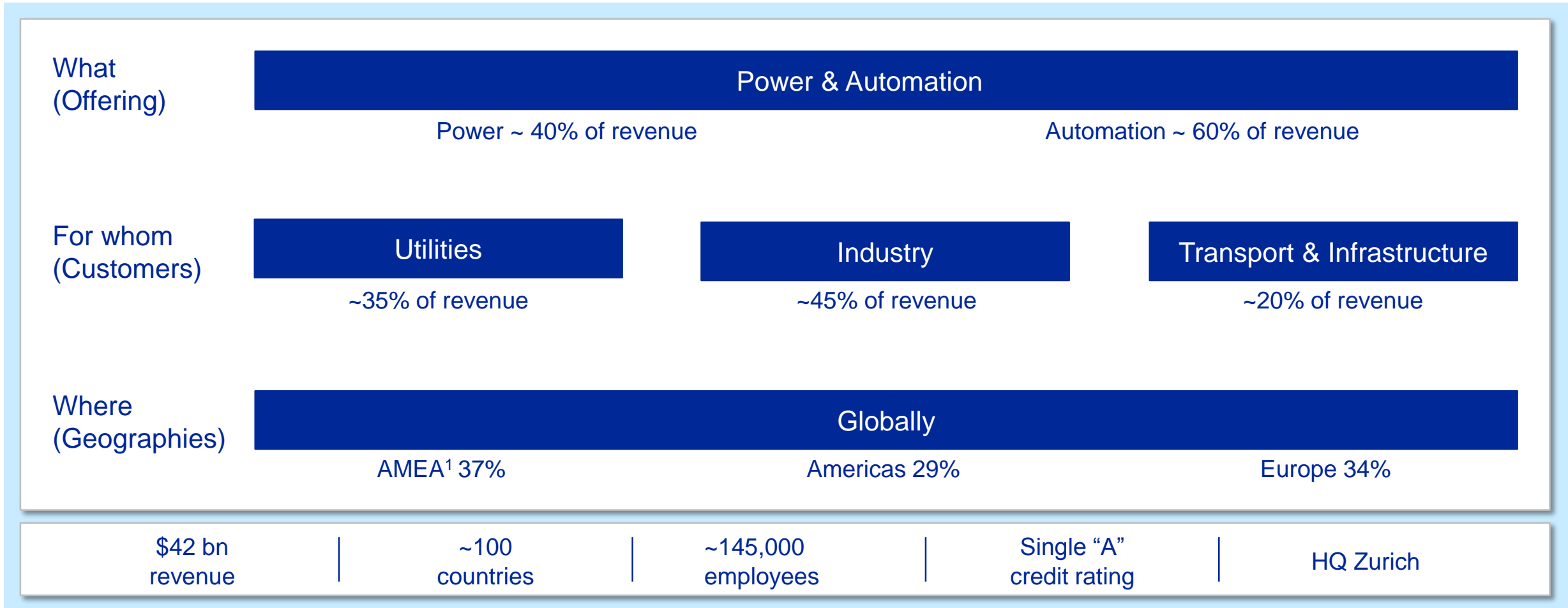
Delivering attractive shareholder returns

2014-2016  
share buy-back

Accelerating sustainable value creation

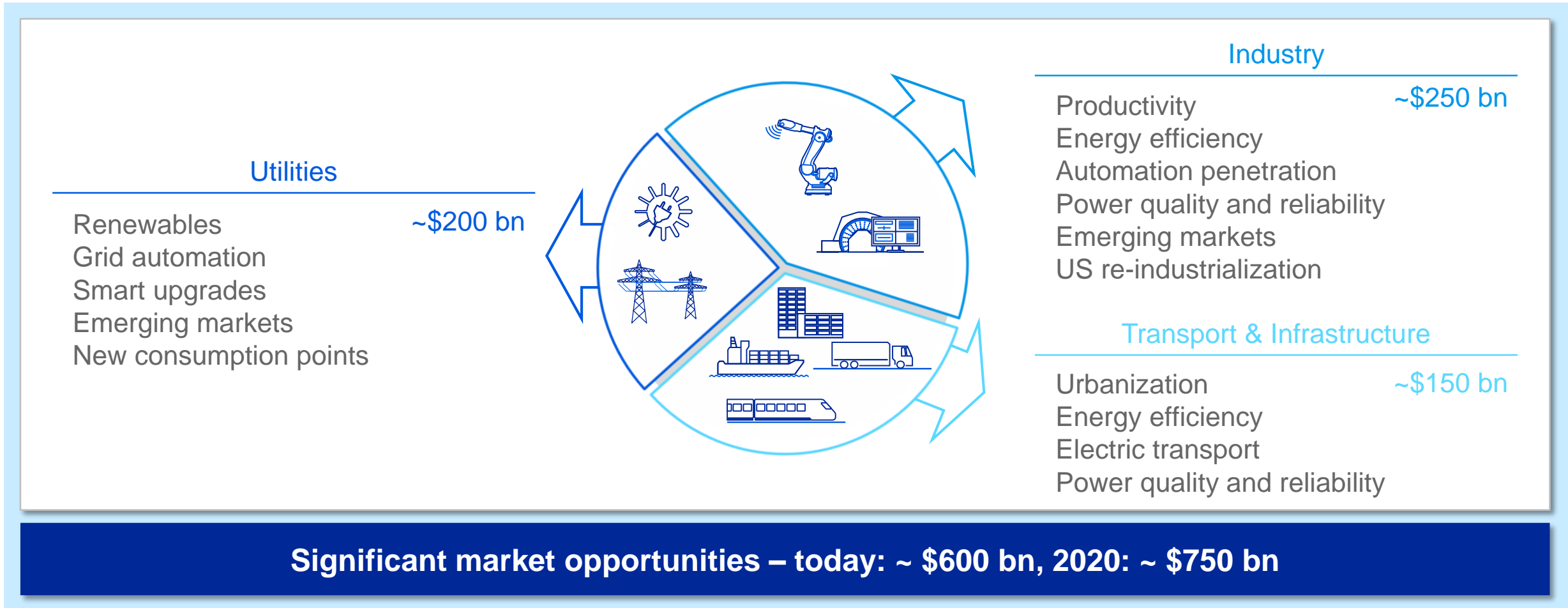
# Well positioned in attractive markets

## ABB today



# Well positioned in attractive markets

## Power & automation demand drivers in three customer segments



# Well positioned in attractive markets

## A leader in power & automation in all our segments – examples

### Power & Automation

#### Utilities



#1 in transmission and distribution  
Technology pioneer (FACTS<sup>1</sup>, HVDC<sup>2</sup> breaker, etc.)  
Deepest and broadest portfolio of offering footprint

Largest installed T&D<sup>3</sup> base  
Leading service capabilities  
#2 in solar inverters  
Strong innovative software portfolio

#### Industry



#1 in Distributed Control Systems  
#1 in gearless mill drives for mining  
#1 in industrial motion (motors and drives)

A leading robotics player  
Strong innovative software portfolio  
Leading service capabilities

#### Transport & Infrastructure



A leading player in infrastructure / building electrification  
#1 in electric propulsion for ships  
#1 in terminal automation for ports  
#1 for large industrial turbochargers

A leading player in electric train traction systems  
A leading player in high-speed train retrofits and  
wayside power systems  
A market and technology leader in EV<sup>4</sup> charging

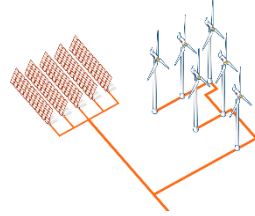
**Our aspiration: #1 or #2 in all segments**



# Well positioned in attractive markets

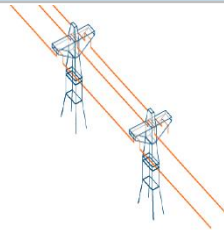
## Global trends – big shift in the electrical value chain

### Generation mix



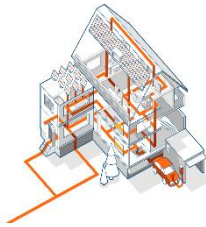
Renewable share: ~40% of capacity by 2035  
Greater volatility, less predictability  
More feed-in nodes

### Power transmission and distribution



Increasing complexity  
Control / information flow is key value driver  
Transmission: longer distances, higher voltages

### Micro- / Nano-grids



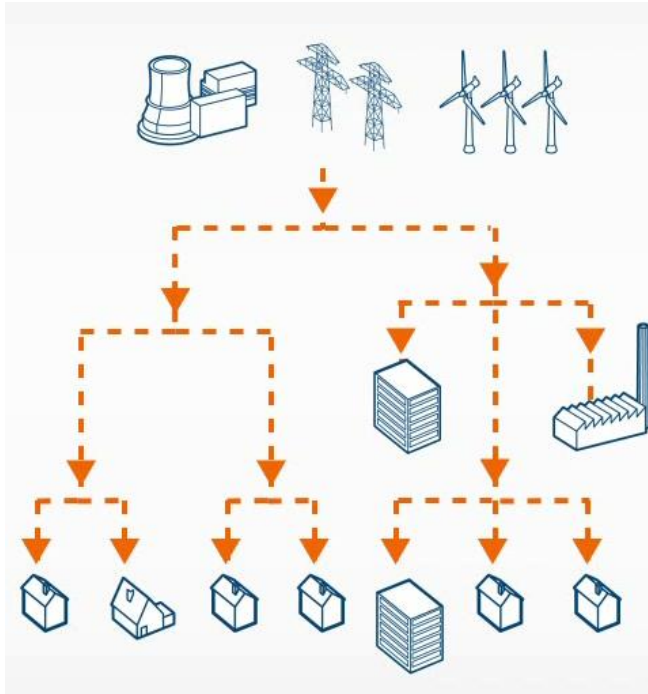
On- and off-grid  
Control / automation on “local” level  
Energy storage is key

**We are at the forefront of the change**

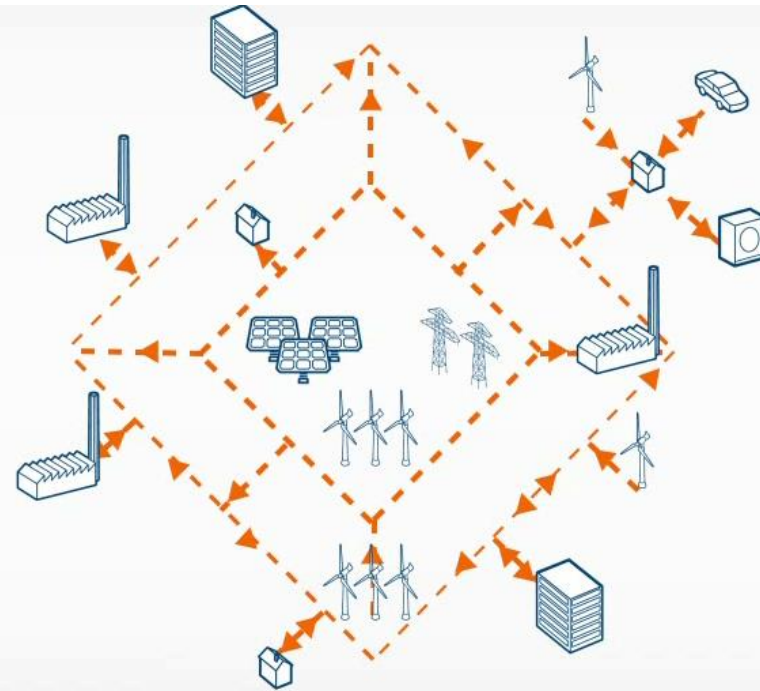
# Well positioned in attractive markets

## Global trends – big shift in the electrical value chain

Traditional grid



New grid



**We are leading the transition to the digital grid**

# Well positioned in attractive markets

## Breaking News – \$800 million Scottish HVDC Light order

### Caithness-Moray subsea power link, Scotland



Customer:

Scottish Hydro Electric (SHE) Transmission

Commissioning: 2018

Largest investment in North Scotland's electricity network since the hydro development era of the 1950s

Renewable integration in strengthened power networks

HVDC Light (VSC<sup>1</sup>) transmission link, scope:

- Two 320 kV land-based HVDC Light converter stations
- Submarine and underground cables ~160 km

Up to 1200 MW capacity – enough to serve 2 million Scottish people

**We commissioned 13 of the 14 similar HVDC links in the world**

# Well positioned in attractive markets

## Power: a leading partner in the “big shift”

### Strong portfolio today



Renewable power conversion

Power generation: control and electrification

Market, technology leader in power transmission

Power distribution portfolio

Broad software applications, incl. Ventyx

Early mover in micro- / nano-grids, energy storage

A leader in electric vehicle charging

Marine electrification

### Attractive strategic portfolio growth areas



Interconnections, ultra high voltage

Grid automation

- Control solutions
- Software

New grid topologies

- Micro- / nano-grids
- Energy storage

Power for industry and transport & infrastructure

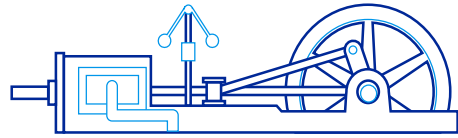
Advanced services

- Engineering / consulting
- Remote monitoring, analytics services

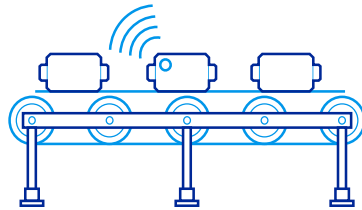
# Well positioned in attractive markets

## Global trends – 4<sup>th</sup> industrial revolution

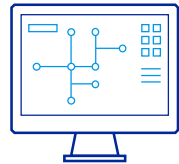
Industry 1.0 – 1712  
First practical steam engine



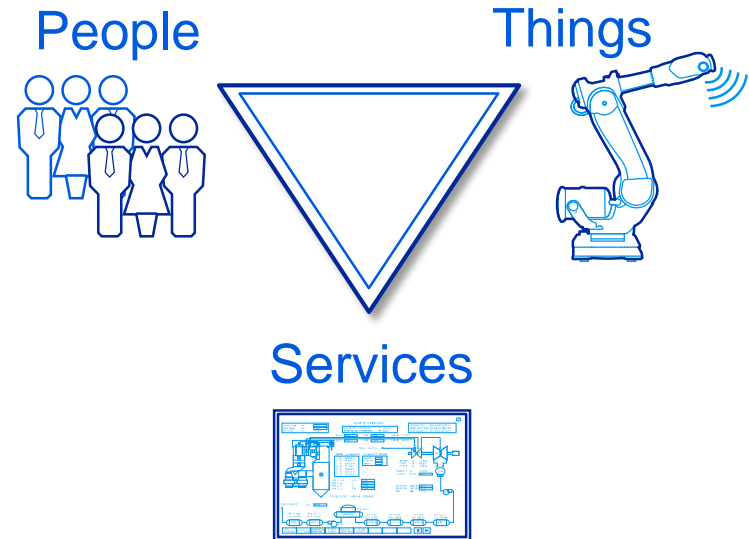
Industry 2.0 – 1870  
First elevated conveyor belts



Industry 3.0 – 1969  
Electronics / software based control



Industry 4.0 – today and tomorrow  
Internet of ...



**We lead proactively with new connected offerings**

# Well positioned in attractive markets

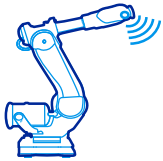
## Example – robotics remote service

### People



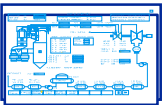
Clients can access actionable information from smartphones and tablets  
The information is available at any place, any time

### Things



Intelligent and connected robots  
Sending data to cloud servers for back-up, reporting, diagnostics, and benchmarking

### Services



Central service unit remotely monitoring robots to support clients 24/7  
Provides analytics to optimize robot usage and predict maintenance needs



**Industry 4.0 in action**

# Well positioned in attractive markets

## Automation: a leading partner in the 4<sup>th</sup> industrial revolution

### Strong portfolio today



#1 in industrial motion motors and drives

#1 in process automation systems

Embedded software and intuitive programming

Application software for focus sectors, e.g.,  
oil & gas, mining

Broad offering and strong presence in key process  
industries

A leading robotics player

Innovative, value-adding services

### Attractive strategic portfolio growth areas



Next level of process automation

- Oil & gas
- Mining

Broader sector presence

- Discrete automation
- Building automation

Industrial motion solutions

Software

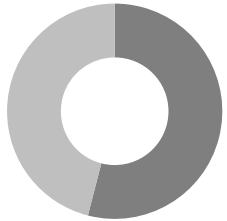
Advanced services

- Consulting / engineering
- Remote monitoring, analytics services

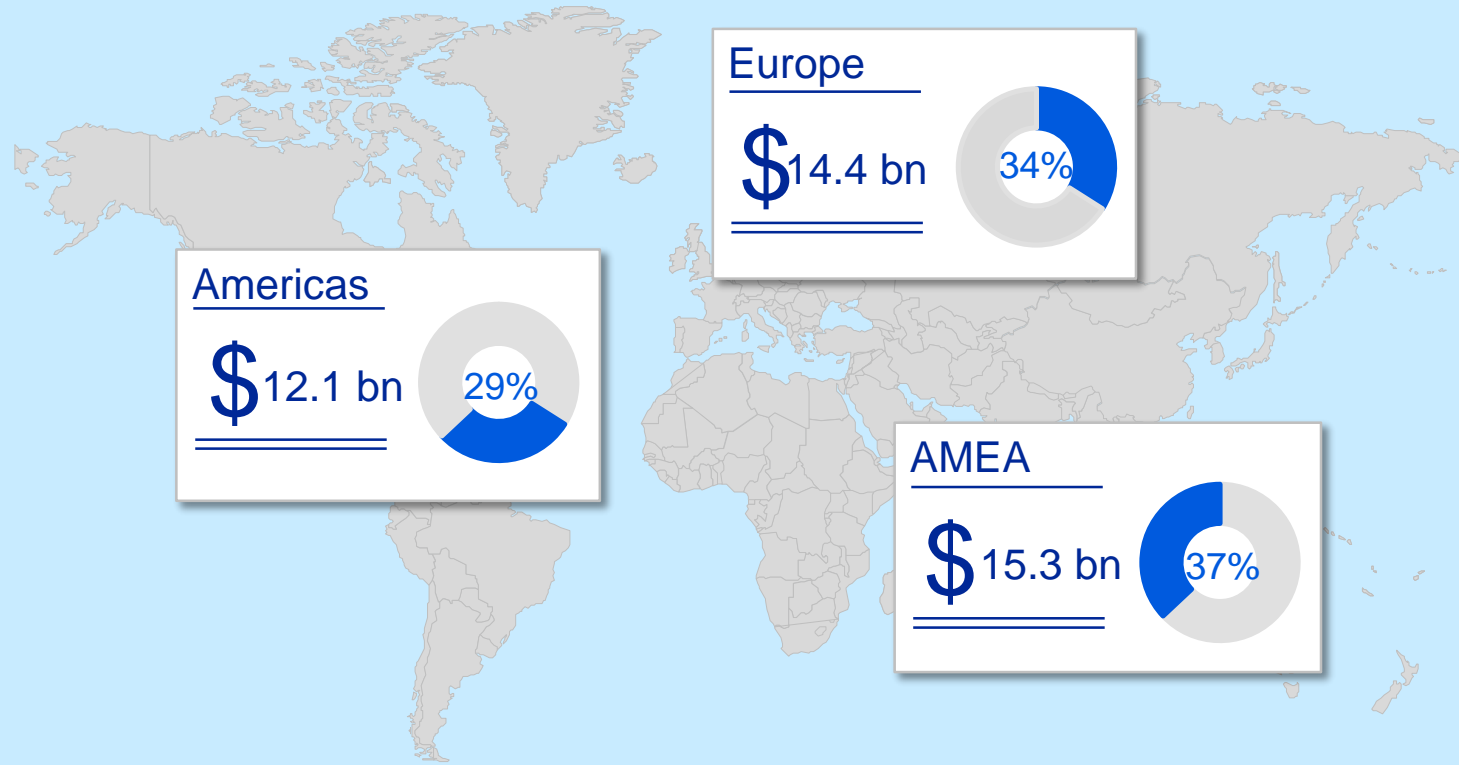
# Well positioned in attractive markets

## A true global player – team, culture, and presence

### Revenue split 2013



- Mature markets (54%)
- Emerging markets (46%)



### Top 200 managers

>3/4  
from outside  
Switzerland and  
Sweden

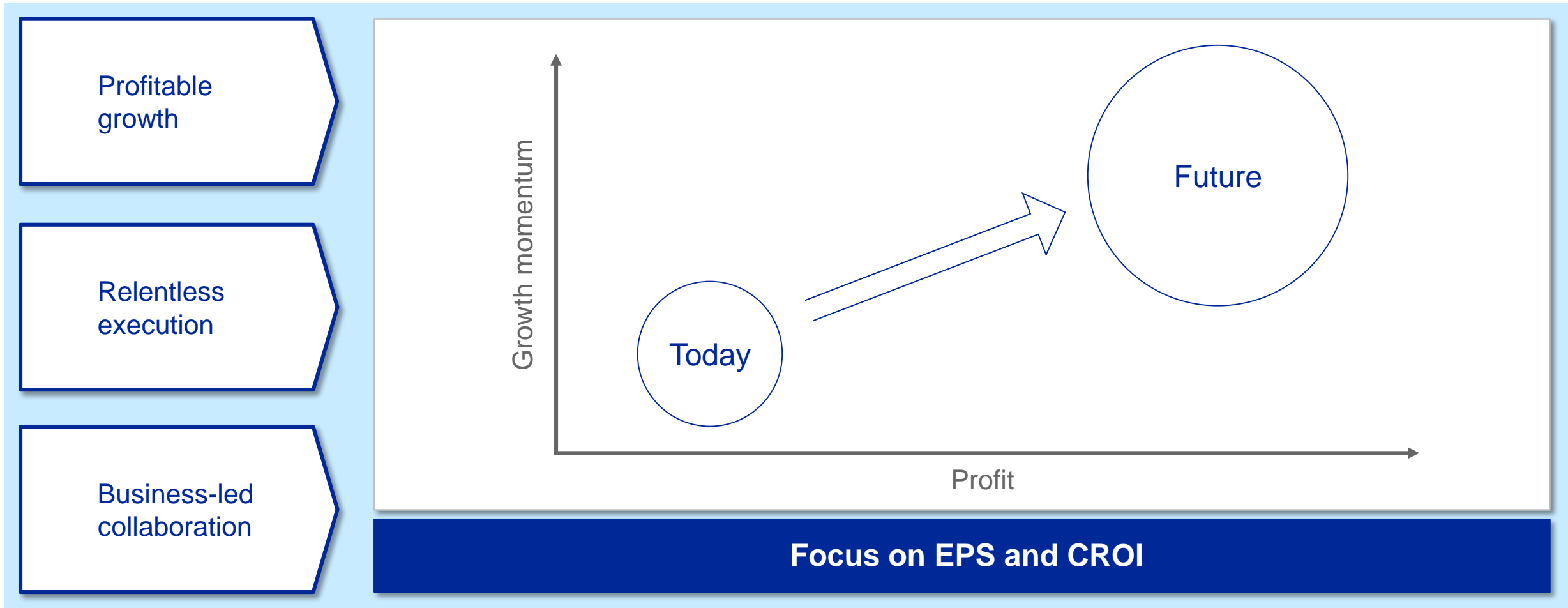
27  
nationalities from  
6 continents

8  
nationalities in the  
Executive  
Committee

**We are a unique global team with local presence everywhere**

# ABB – Next Level

## Accelerating sustainable value creation



# ABB – Next Level Profitable growth

Well  
positioned



Attractive  
markets

Profitable  
growth

Shifting the center of gravity

- Strengthening competitiveness
- Driving organic growth momentum
- Lowering risk

Incremental acquisitions and partnerships

Relentless  
execution

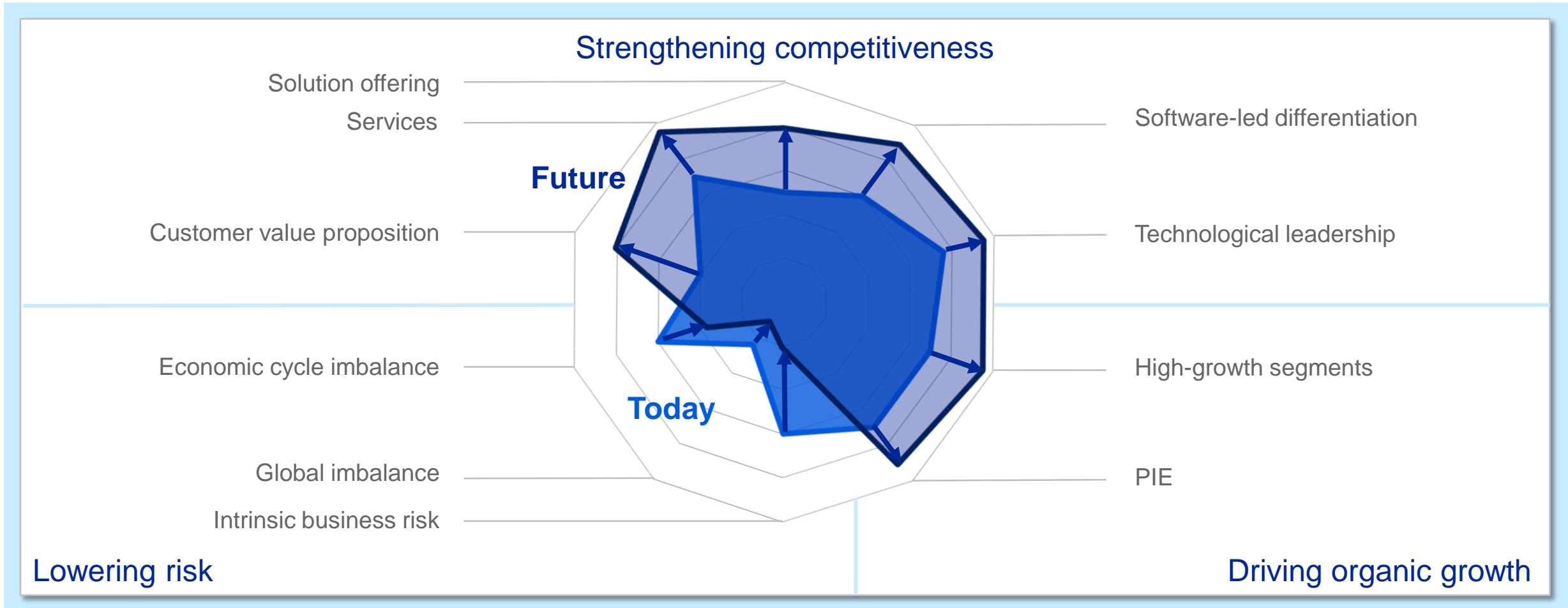
Business-led  
collaboration

Accelerating sustainable value creation

Delivering attractive  
shareholder returns

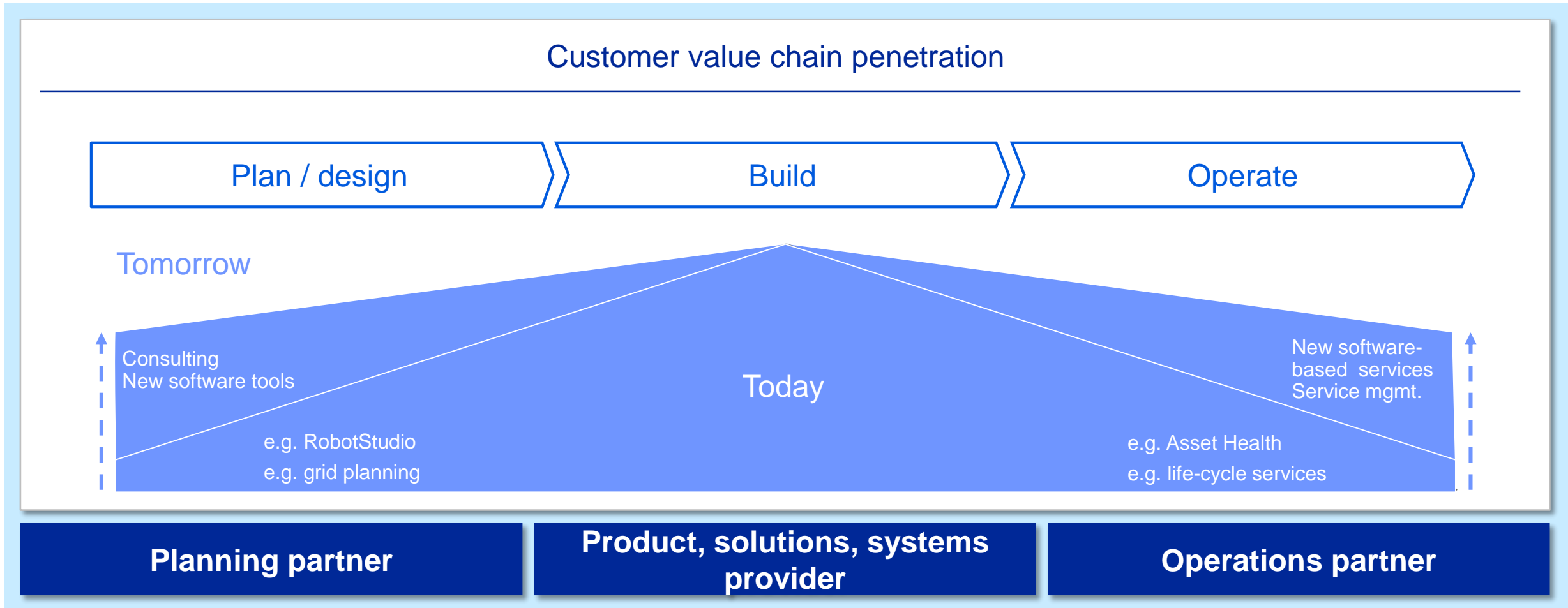
2014-2016  
share buy-back

# Shifting the center of gravity



# Shifting the center of gravity

## Expanding customer value proposition and relevance

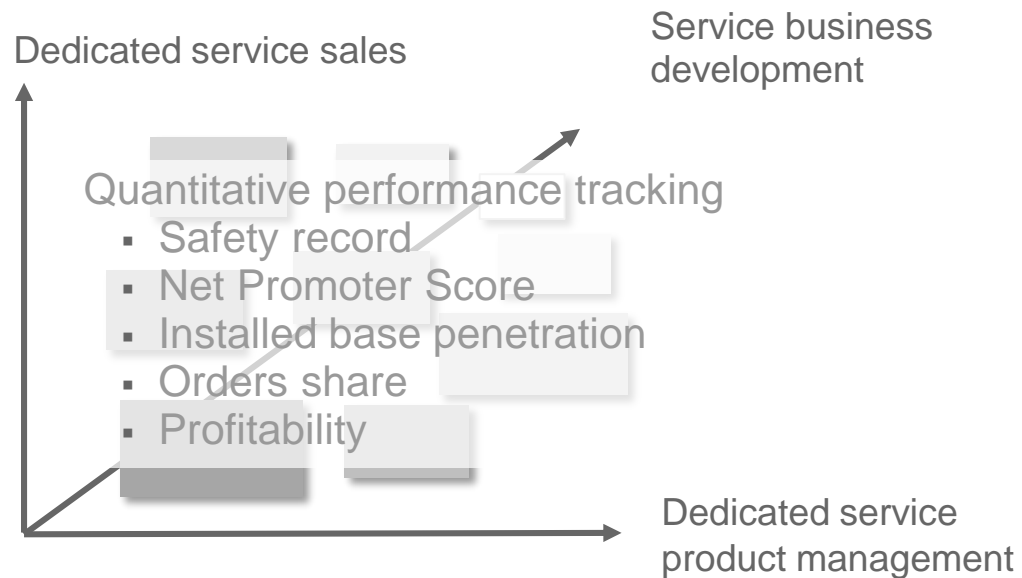


# Shifting the center of gravity

## Continuously increasing services / intensity and share



### Rigorous implementation of existing strategy



### Next level of services growth

#### Today

- Installed base penetration
- Service portfolio expansion

#### Additional levers

- Engineering, consulting expansion for target segments
- Software-based services
  - Remote monitoring
  - Analytics
- Partnerships and acquisitions

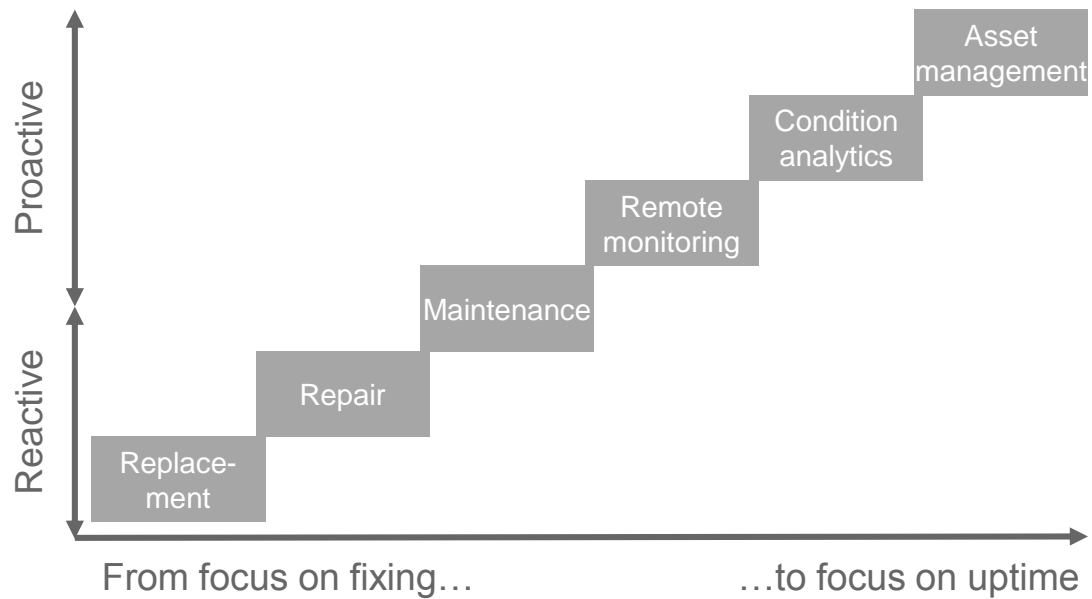
**Increasing service share of revenue by 1%-point annually**

# Shifting the center of gravity

## Continuously increasing services – example: expansion in mining



### Expanded services offering



### Example: remote monitoring for mining



Remote, real time monitoring

Maximization of Overall Equipment Efficiency (OEE), asset optimization

Global mining customers, e.g., Vale, Anglo American

**We constantly expand high value-adding services**

# Shifting the center of gravity

## Majority of offering with software content today



### ABB software business – some facts

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**Embedded software:** core of our electronics offering

**Automation system software:** a leading DCS<sup>1</sup> player

**Application software:** for design, operations, and services

> 50% of offering is software-related

> 2'600 software developers

### Smallest software application

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3-pole contactor

~100 lines of software code

### Large software application

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Network Manager

>5 mn lines of software code

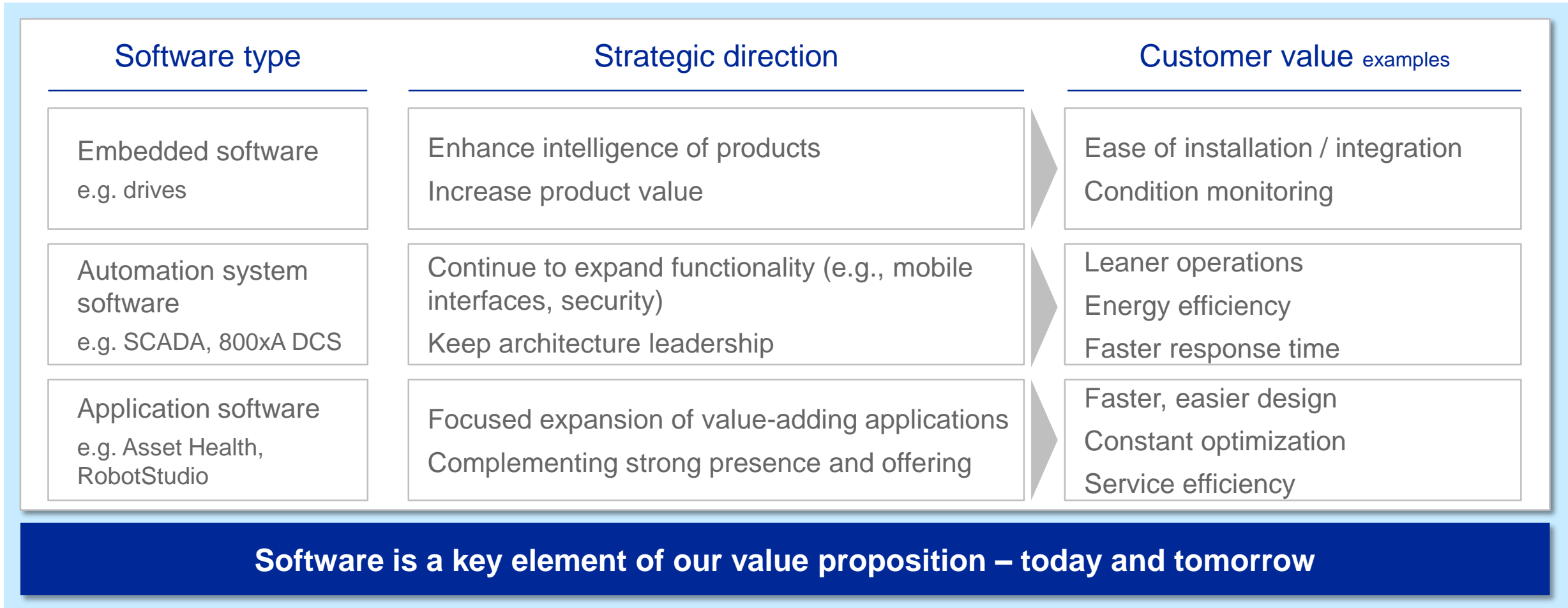
Same size as avionics and control system of Boeing 787

**A leading industrial software player**



# Shifting the center of gravity

## Accelerating software-led differentiation



# Shifting the center of gravity

## Expanding technology leadership – innovations for customer value



### “Big shift” in electrical value chain

#### Solar off-grid application

Solar power solution for rural power pumping



#### Efficient long-distance power transmission

525 kV HVDC cable



### 4<sup>th</sup> industrial revolution

#### Advanced maintenance-free sensor technology

Wireless, energy harvesting temperature, pressure sensors



#### Increased uptime, service efficiency

Remote robotics service



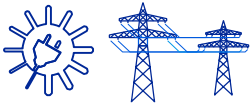
**+\$1.5 bn investment in R&D annually, 8,500 R&D staff in +30 countries**



# Shifting the center of gravity

## Focusing on high-growth segments – examples

### Utilities



Large micro-grids (on- / off-grid)  
Digital substations  
Software for grid automation and services  
Solar

Network control  
Asset upgrade / retrofit

### Industry



Oil & gas: facility of the future  
Oil & gas: disruptive subsea offering  
Mining 2.0

New robotics applications (e.g. electronics)  
Food & beverage: packaging

### Transport & Infrastructure



Data center electrification  
Rail retrofit projects and geographic penetration  
Distribution channel penetration

E-mobility: fast charging  
Micro- / nano-grids including energy storage  
Marine automation and electrification

**We are well positioned to access high-growth segments**

# Shifting the center of gravity

## Driving organic growth momentum through PIE



### Penetration

Selling more of our existing offering to accessible customers

Distribution channel cooperation between ABB, Thomas & Betts, Baldor



### Innovation

New offerings / value propositions – focused resource allocation

Emax2 – the world's first smart circuit breaker that saves energy



### Expansion

Expansion into high-growth segments

New robotics packaging solutions hub in Singapore



**NPS<sup>1</sup> of 46%<sup>2</sup> (+30%-points since 2010) and order momentum up (+13% in Q2)<sup>3</sup>**

# Shifting the center of gravity

## Driving organic growth momentum



### Navigation check by geographies, sectors

	Region A			Region B			...		
	Country 1	Country 2	...	Country 1	Country 2	...	Country 1	Country 2	...
	<b>Division</b>								
BU	■	■	■	■	■	■	■	■	■
Offering ...	■	■	■	■	■	■	■	■	■
...	■	■	■	■	■	■	■	■	■
BU	■	■	■	■	■	■	■	■	■
Offering ...	■	■	■	■	■	■	■	■	■
...	■	■	■	■	■	■	■	■	■
<b>Division</b>									
...	■	■	■	■	■	■	■	■	■

- Leadership position (top 2)
- Strong position (top 3 to 5)
- Weak position (outside of top 5)
- Not present

### Clear action plans

Initiatives	Country	Initiative	Description	Sponsor	...
	xxx	xxx	xxx	xxx	...
	xxx	xxx	xxx	xxx	...
	...	...	...	...	...

Targets	Region A		Region B		Region C	
	Country A	Country B	Country C	Country D	Country E	Country F
Initiative A	xxx	xxx	xxx	xxx	xxx	xxx
Initiative B	xxx	xxx	xxx	xxx	xxx	xxx
...	...	...	...	...	...	...

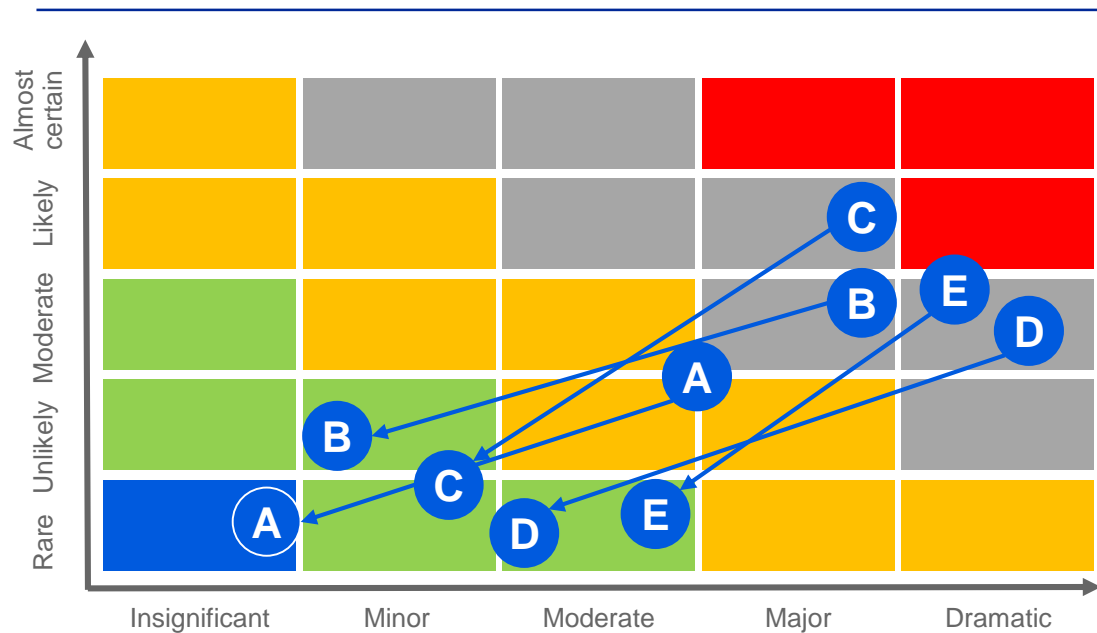
**We operationalize growth in an engineering culture**

# Shifting the center of gravity

## Reducing intrinsic business risk



Identifying relevant risks (illustrative)



Targeted risk mitigation (examples)

Reduction lever	Standardization / modularization	Pooling / best practices	Commercial terms	Partnering
Risk area				
Engineering				
Installation				
Project management				
SCM				
Business model (e.g. EPX)				
Recent examples	Substations	Marine / oil & gas	Offshore wind	Offshore wind

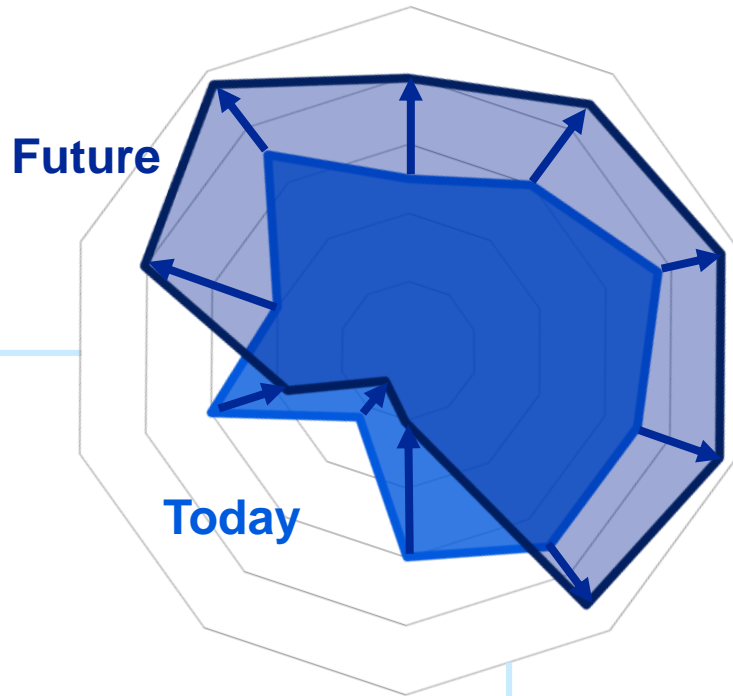
**We will deliver lower volatility, higher predictability, higher margins**

# Shifting the center of gravity

## Summary



Strengthening competitiveness



Accelerated organic growth momentum

Reduced risk

Improved margins

Lowering risk

Driving organic growth



# Profitable growth

## Incremental acquisitions

~30 acquisitions since 2010, \$6 bn of revenues<sup>1</sup>

### Expansion

More than doubled presence in largest economy of the world – US  
A leading position in solar

### Value

Solid integration track record  
Delivered synergies  
Maintained strengths and teams  
Live “best of both worlds”

### Discipline

Successful portfolio pruning of non-core assets  
Stopped pursuits in line with our criteria  
Integration score card as basis to link performance with compensation

Most recent transaction: Spirit IT



ABB

Gas flow computers and measurement control software

Spirit IT

Liquid flow computers and measurement control software

Portfolio completion

Enables to capture high-growth unconventional oil & gas exploration opportunities

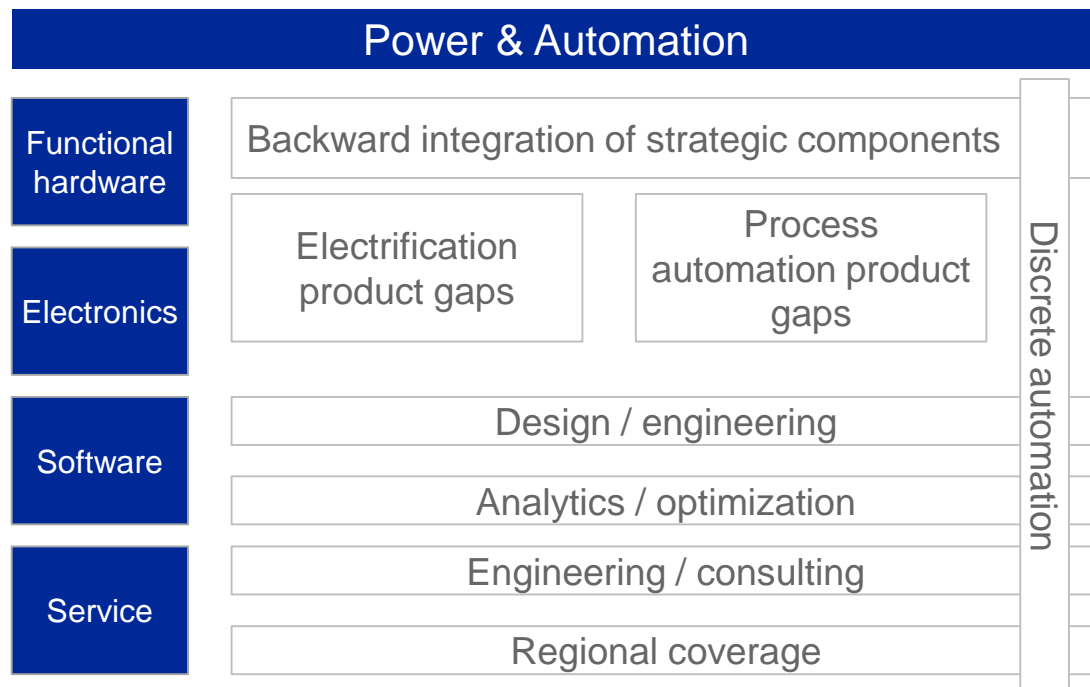
**Proven track record of value enhancing M&A**



# Profitable growth

## Clear strategic direction, proven criteria for acquisitions

### Strategic direction (examples)



### Criteria

- Accelerating profitable growth
- Impactful and value creating
- Complementary strengths
- Cultural fit
- Integration capabilities available
- Financial criteria
  - Return > WACC by end of year 3
  - IRR > WACC plus specific hurdles
  - Financing designed to retain “A” credit rating
  - EPS-accretive

# Profitable growth

## Partnerships for increased customer value



### Partnership for energy storage

**ABB**

Packaged energy storage solutions and grid connection capabilities  
Global market access



**BYD**

Scale in batteries from automotive and electronics  
Battery integration and mgmt. system knowledge

Leading grid energy storage solutions

### Partnership for commercial building automation

**ABB**

Building automation expertise



**PHILIPS**

LED lighting expertise

Seamless integration of LED lighting systems and building device control

Spirit

Complementing partners

Customer value

Incremental growth

Criteria

Fit of offering and capabilities

Leading players in their fields

Good cultural fit

# ABB – Next Level Relentless execution

Well positioned



Attractive markets

Profitable growth

**Relentless execution**

Business-led collaboration

Leading operating model  
Driving change through 1'000 day programs  
Linked strategy, performance management and compensation

Delivering attractive shareholder returns

2014-2016  
share buy-back

Accelerating sustainable value creation

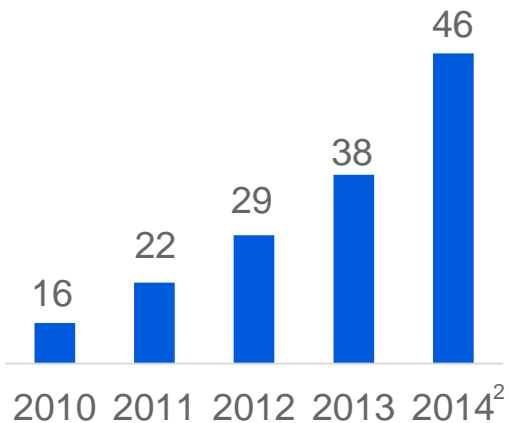
# Leading operating model

## Broadening success in customer satisfaction and cost / SCM

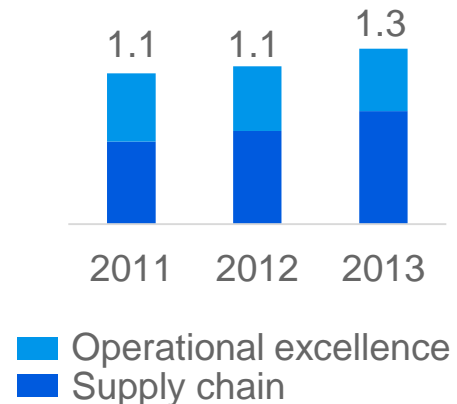


### Results

Customer satisfaction –  
NPS<sup>1</sup> in %



Cost savings  
\$ billions p.a.



### Focus

Keep momentum in NPS and cost  $\Delta$   
Drive white collar productivity, shared services

- Enhance customer service
- Free up resources for growth
- Speed, quality, service, cost

Push capital efficiency

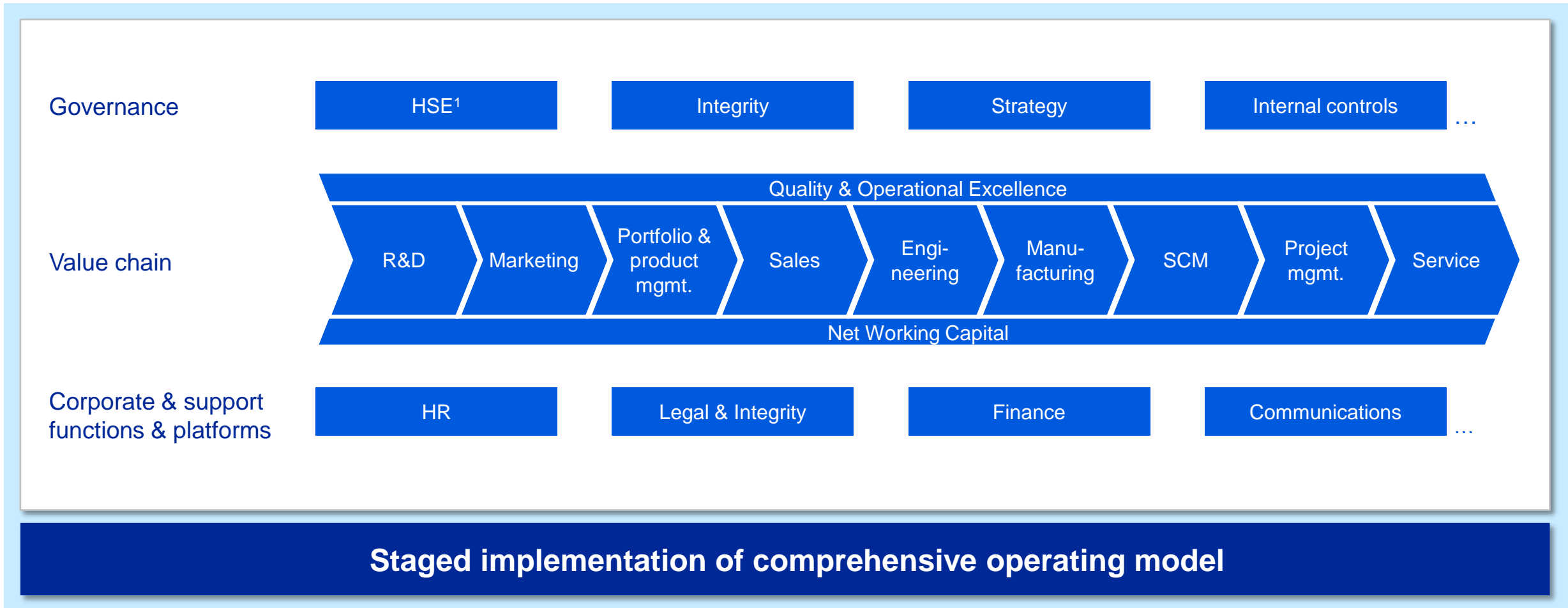
- Disciplined investments
- Inventory reduction

Reflected in performance management and compensation

**We deliver sustainable momentum**

# Leading operating model

## Broadening success: wider scope, Next Level results



# Leading operating model

Relentless execution dashboard – simple, powerful performance mgmt.



	KPI	Customer			Cost			Cash				Total points	2013 baseline points	
		OTD Request in Place	CCRP's Resolved on Time	Field Failure Rate Metric in Place	Cost reductions as % cost	OPQ as % COS	Productivity Coefficient	DPO		Inventory Turns				DSO
	Details						Δ*	Actual	Δ*	Actual	Δ*	Actual		
ABB	Points Actual													
	2014-06													
	2013-12													
PS	Points Actual													
	2014-06													
	2013-12													
PP	Points Actual													
	2014-06													
	2013-12													
LP	Points Actual													
	2014-06													
	2013-12													
DM	Points Actual													
	2014-06													
	2013-12													
PA	Points Actual													
	2014-06													
	2013-12													

Δ\*: Delta improvement from prior year end

**Rigorous measurement driving continuous improvement**



# Leading operating model

## Completing Power Systems “step change”

### Situation

Small number of complex project situations with operational issues

Low-margin projects in the backlog weigh on profits

Need to improve operational and risk management

Much better grip on situation compared to beginning of year

### Status

Base business growth on track

Leadership strengthened

Off-shore wind situation improving

- New business model implemented
- Capabilities enhanced
- Key project milestones achieved

Solar EPC: on track to close 90% by end of 2014

Cost out plans on target

### Strategy

Adapt the business model

- Derisk EPC, change business model
- Remain turnkey provider with right risk-return profile
- New model: system integrator

Grow the profitable base business

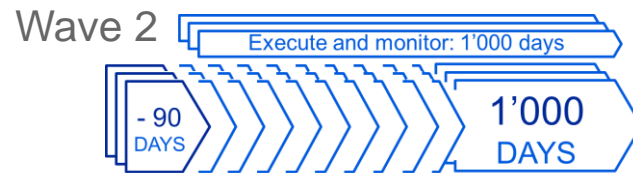
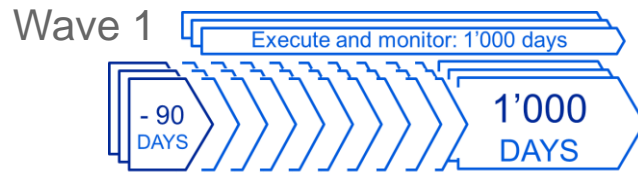
- Leverage market visibility and channels, strong global presence
- Consulting and services
- High-growth opportunities

**Good progress made, solid grip on risks for 2014 / 2015, actions underway**



# Driving change through 1'000 day programs

## Clearly defined objectives, milestones, accountabilities



### Objective: “say-do”

- Focus on high-impact strategic priorities
- Align whole organization behind these priorities
- Develop and execute clear plans towards success
- Dedicate appropriate management resources

### Approach: focused waves

- Focused implementation in waves
- Executive sponsor, business owner, allocated teams
- Coordinated by project office reporting to CEO
- High quality implementation plans
- Progress tracking on Executive Committee level, linked to performance management and compensation

### Examples

Geographies: e.g. Africa

Operations: e.g. Net Working Capital

**Jill Lee newly appointed Head of Next Level program, reporting to CEO**

# Linking strategy, performance management, and compensation

## Balanced scorecard, robust targets



### Financials

Financial KPIs

### Operations

Relentless execution dashboard

### Change

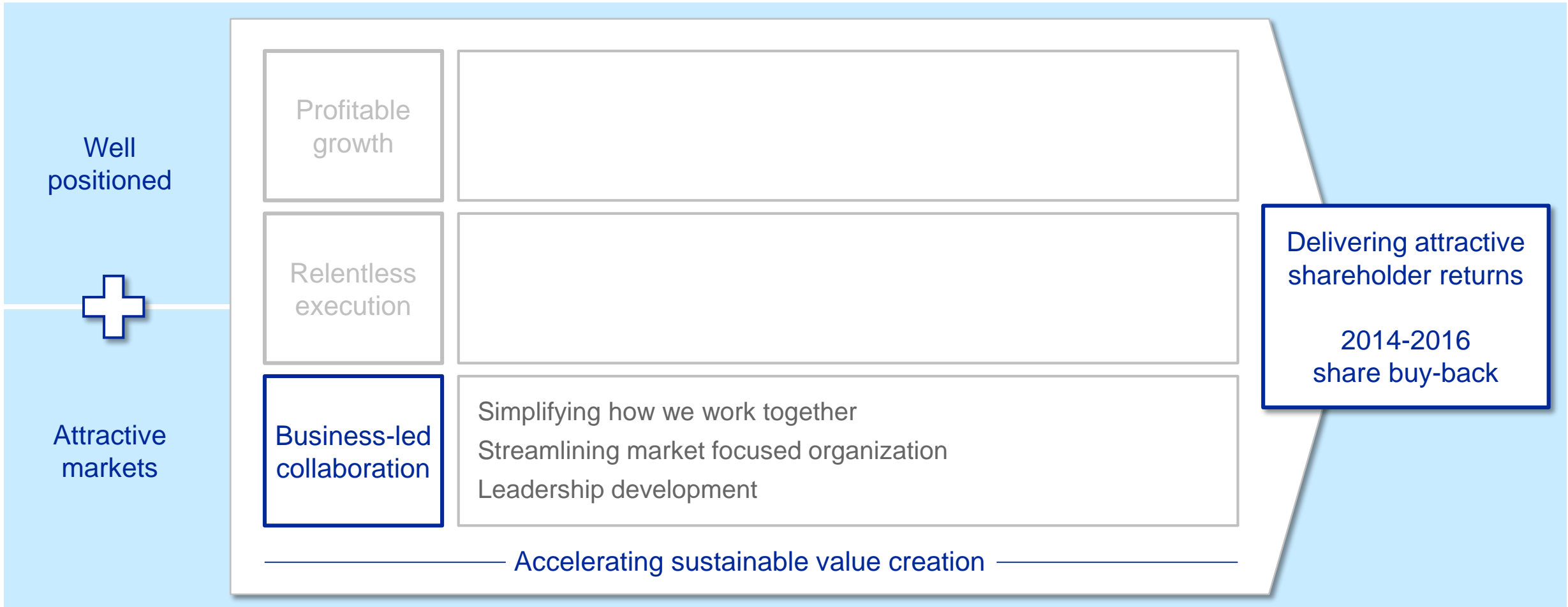
1'000 day programs

### Leadership

Behavioral / leadership targets

**Aligned incentives with institutional and individual performance**

# ABB – Next Level Business-led collaboration



# Simplifying how we work together

## Key principles



### Customer-focused

Next level of external focus in daily operations  
Strengthened cross-business customer collaboration  
Effective empowerment closest to the customer

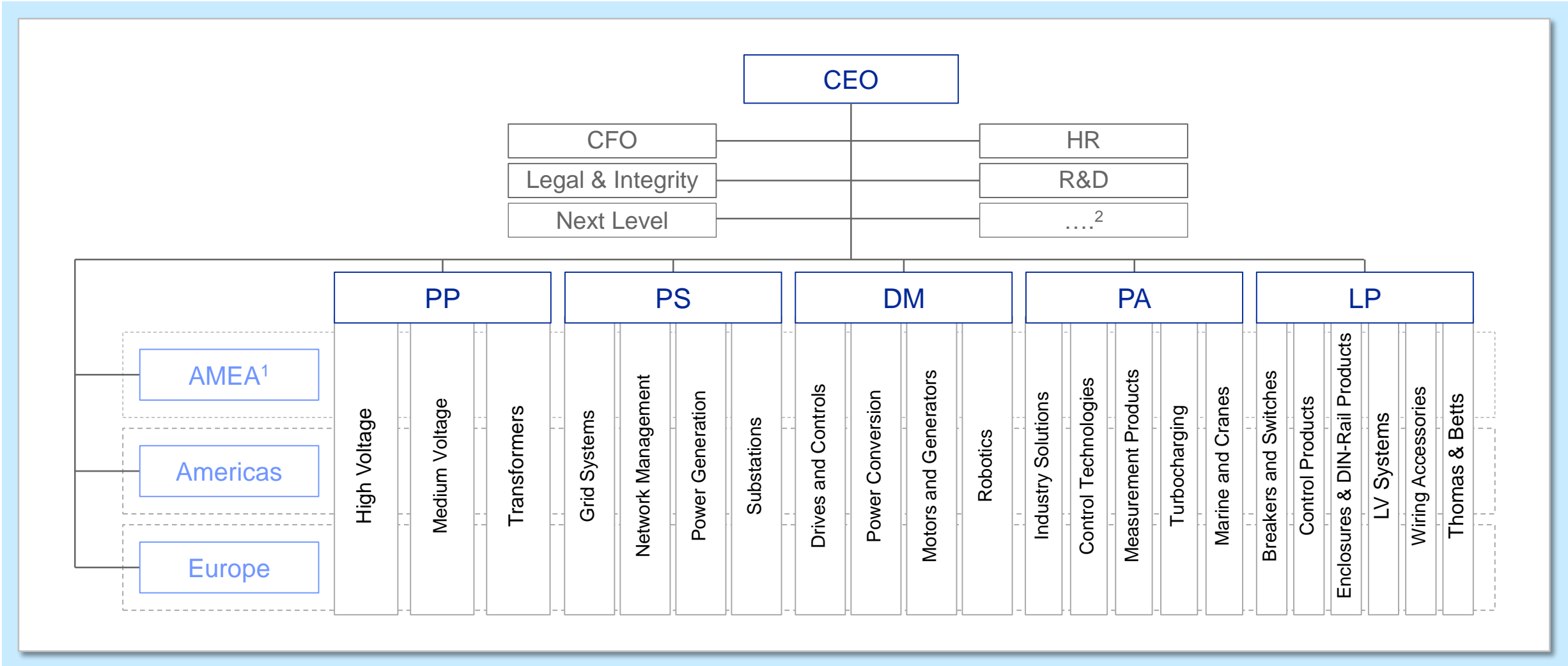
### Business-oriented

Undiluted global business line responsibility as core of ABB  
Efficiency and effectiveness through shared service centers

### Clear, simple, efficient

Simple and fast internal processes  
Clear roles and responsibilities for everyone

# New organization as of January 2015



# Leadership development

## Executive Committee as of January 2015



Ulrich Spiesshofer  
CEO



Bernhard Jucker  
Power  
Products

Division Leaders



Claudio Facchin  
Power  
Systems



Pekka Tiitinen  
Discrete Automation  
and Motion



Peter Terwiesch  
Process  
Automation



Tarak Mehta  
Low Voltage  
Products



Eric Elzvik  
CFO

Corporate Officers



Jean-Christophe  
Deslarzes  
Human Resources



Diane  
de Saint Victor  
Legal & Integrity



Frank Duggan  
AMEA

Regional Leaders



Greg Scheu  
Americas



Veli-Matti Reinikkala  
Europe



# David Constable proposed for election as new member of the Board of Directors

## David Constable

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President and CEO of Sasol, a leading integrated energy and chemicals company based in South Africa

Former Group President of Operations of Fluor (29 years in leadership positions)

52 years old

Canadian national

## A wealth of industrial experience

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Solid track record in change programs, reset operating models and processes

Strong experience in EPC and process industries

First hand world-class project execution experience

Broad international background (North / South America, Africa)

## A strong complementary addition to the Board of Directors

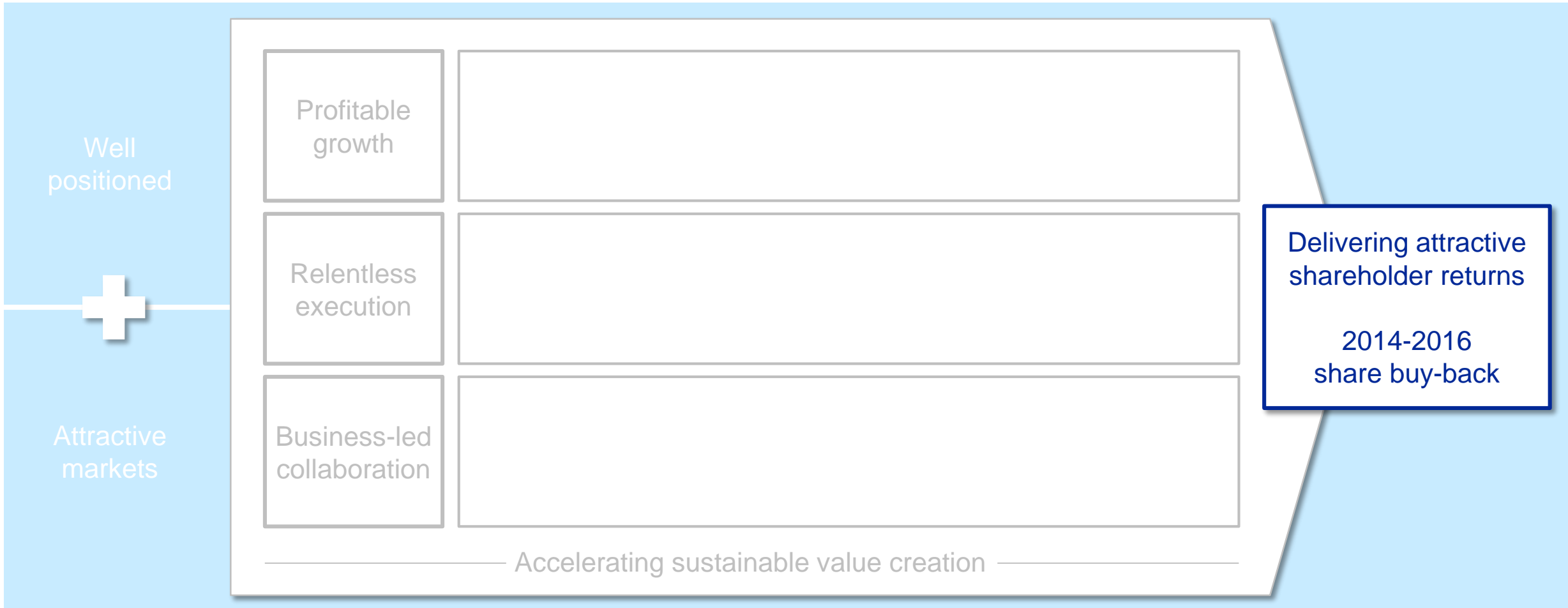
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Strengthening Board experience in process industries, EPC and Africa, a growth region for ABB

**ABB shareholders will vote on the nomination of David Constable as new Board member at the April 30, 2015 Annual General Meeting**

# ABB – Next Level

## Shaping a global leader in power & automation



# Delivering attractive shareholder returns

## Group financial targets 2015-2020

Revenue growth <sup>1</sup>	4-7%
Operational EBITA % <sup>2</sup>	11-16%
Operational EPS growth CAGR <sup>3</sup>	10-15%
FCF conversion to net income	>90%
CROI % <sup>4</sup>	Mid-teens

**Shareholders participate in strong cash generation through \$4 bn share buy-back**

# Shaping a global leader in power & automation

## How we will deliver

### New

- Shifting center of gravity of portfolio
- Comprehensive operating system
- 1'000 day programs
- Performance management stronger linked to strategy
- Simple, customer-focused organization, leadership appointments

### Recently added

- Accelerated organic growth momentum through PIE
- White collar productivity
- NWC management
- Power Systems “step change”
- Relentless execution dashboard

### What stays

- Health, safety, and environment, integrity first
- Power & automation focus
- Cost take-out discipline
- Focused, incremental M&A
- Unique global team and culture

# ABB – Next Level

## Shaping a global leader in power & automation

Well positioned



Attractive markets

**Profitable growth**

Shifting the center of gravity

- Strengthening competitiveness
- Driving organic growth momentum
- Lowering risk

Incremental acquisitions and partnerships

**Relentless execution**

Leading operating model

Driving change through 1'000 day programs

Linked strategy, performance management and compensation

**Business-led collaboration**

Simplifying how we work together

Streamlining market focused organization

Leadership development

**Delivering attractive shareholder returns**

**2014-2016  
share buy-back**

Accelerating sustainable value creation

Power and productivity  
for a better world™

