



ABB LTD, CAPITAL MARKETS DAY, OCTOBER 4, 2016

Power Grids Next Level Stage 3

Partner of choice for a stronger, smarter and greener grid

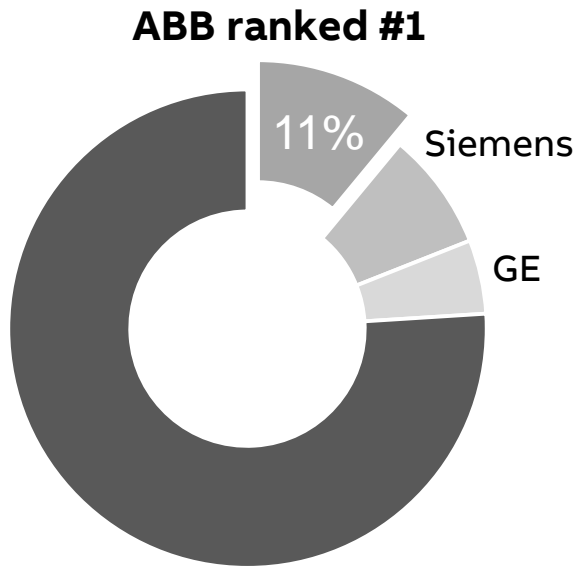
Claudio Facchin, President Power Grids Division

Partner of choice for a stronger, smarter and greener grid

Undisputed global leader

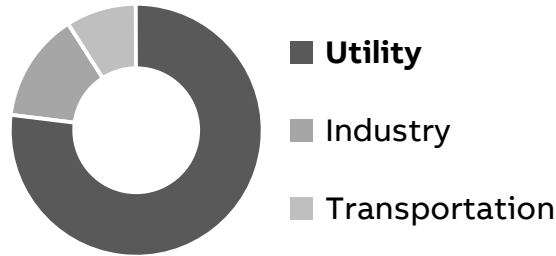
Global leader in a ~\$110 bn¹ market

Estimated market shares

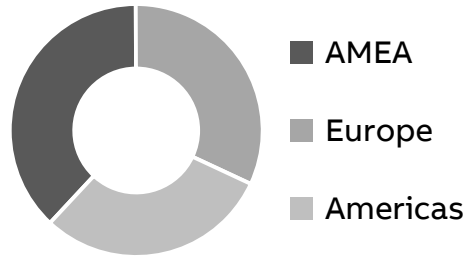


Power Grids revenue split

By customer segment in %



By region in %



Utility customers



Global leader in size, technology and profitability

Uniquely positioned and a pioneering technology leader

Enabling a stronger, smarter and greener grid

Stronger

Ultra High Voltage DC and AC
Resilient transformers
Power quality solutions & FACTS¹
Interconnectors



**Continuously breaking records:
more power over longer distances
(12 GW over 3,000 km)**

Smarter

Digital substations
Grid automation
Sensor-based technologies
Enterprise software solutions



**Digital substation: smart
configuration and interoperability,
up to 80% less cabling, up to 50%
fewer outages**

Greener

Eco-efficient Gas Insulated
Switchgear
Ultra low loss, amorphous core and
biodegradable oil transformers
HVDC Light² and FACTS for
renewable integration



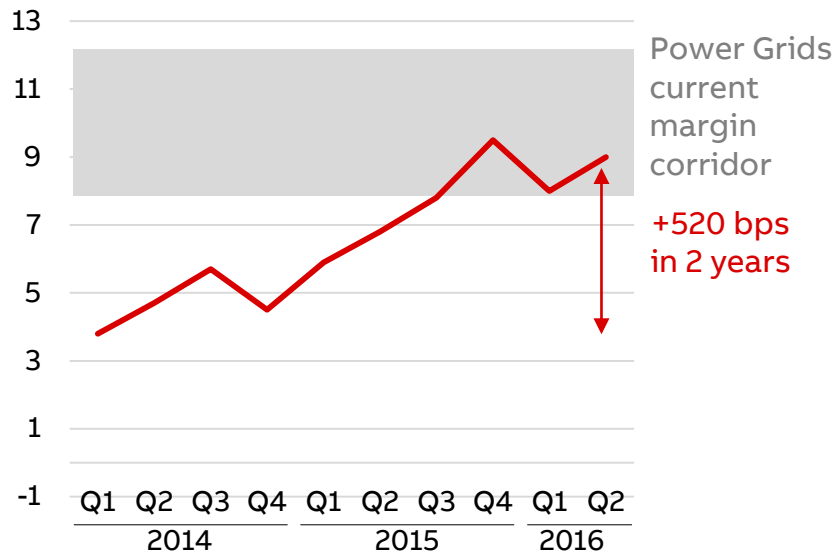
**Transformers: up to 70% less losses
GIS³: up to ~100% less greenhouse
gases
FACTS: more capacity in existing
lines**

A successful turnaround

Ready for sustainable growth and further margin accretion

Successful turnaround

Power Grids Op. EBITA margin¹ (%)



Step Change achievements to date

- Improved project execution yielding visible results
- 2 out of 3 Offshore Wind Connection projects delivered, 1 in final stages of completion
- Rigorous business & project risk management rolled-out
- New orders reflect shift in business model and backlog quality

Focus for 2017 & beyond

- Continuous improvement of tendering, execution & project close-out processes
- Continue to invest in project resource planning for more predictability
- Further strengthen project operations and engineering hubs

Power Grids Operational EBITA up 520 bps from Q1 2014 to Q2 2016

Strategic portfolio review

Way forward: continued transformation under ABB's ownership

Market attractiveness?

“Highly attractive”

Offering?

“Leading business with big potential for differentiation and digital”

Business model?

“Transformation to reduce risk and capture growth potential”

Ownership?

“Significant value upside for ABB shareholders”

Continued transformation

Program pillars

Sharpening our winning portfolio & business models

Focus on higher growth & profitability in core segments

Digitalize the portfolio

Strengthen the core whilst reducing risk and capital intensity

Strategic partnering to generate customer value

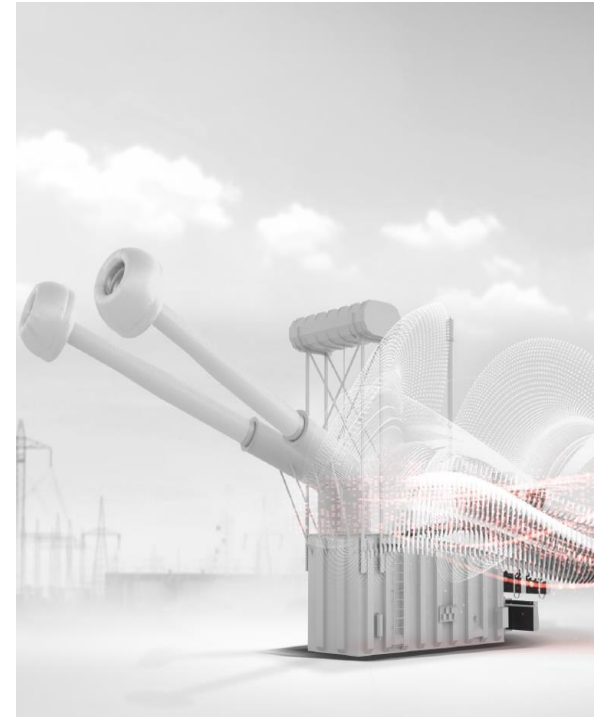
Drive for world-class execution

Deliver industry leading cost and quality

Top-quartile operating performance

Enhance service operations

Achieve world-class front-end performance



Substantial opportunity identified

A dynamic, changing market, creating unprecedented opportunity

Digitalization as a catalyst for growth

Energy revolution

Supply

- Dramatic renewables growth
- Increasing intermittency

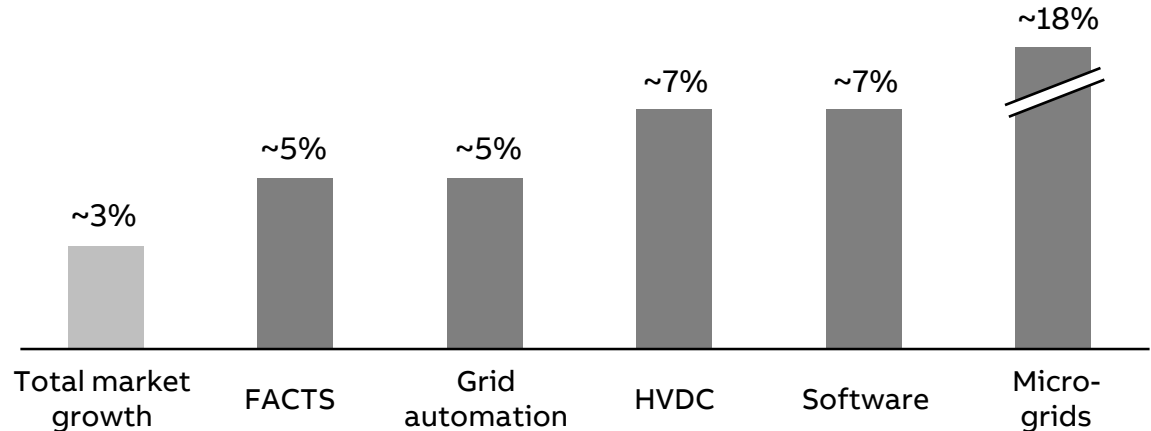
Demand

- Continuing electrification of society
- Emerging market consumption growth

Grid

- Increasing complexity, need for stability
- More feed-in, take-off points
- Bulk transmission and interconnectors
- Aging grids, need for upgrades

Power Grids global #1, strong focus on high growth segments



Total market above \$110 bn¹

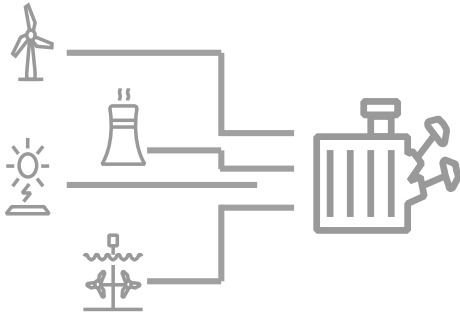
More than one-third of market growth is from the high-growth segments

Digitalization impacting across the value chain

Digitalization opens up new, large opportunities

Increased productivity: uptime, speed, yield

Digital equipment



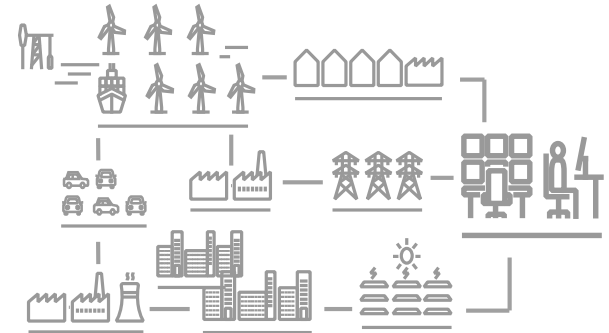
- Real-time supervision
- Higher reliability
- Maintenance optimization

Digitally-enhanced systems



- Faster installation, more configurable
- Power quality
- Better integration of renewables
- Managing volatile supply & demand

Operations and asset optimization software



- Real-time control
- Smart asset management
- Planning optimization

Differentiation via intelligent products, communication and software

Sharpening our winning portfolio & business models

Actively shaping for future growth and profitability

Strengthen core portfolio

Digitalization of leading transformer & HV portfolio

System integration and grid automation

Innovation leadership in HVDC and power quality

Microgrids and storage integration

Penetration of largest installed base, expand advanced service and software offering

Partnering to grow & de-risk

EPC¹ large substation global partnership with Fluor

- Enable growth & de-risk
- Build on Fluor's scale and expertise

FLUOR + **ABB**

Offshore Wind Grid Connections partnership with Aibel

- Aibel as EPC¹ and platform provider
- ABB as HVDC system sub-contractor

aibel + **ABB**

Better ownership

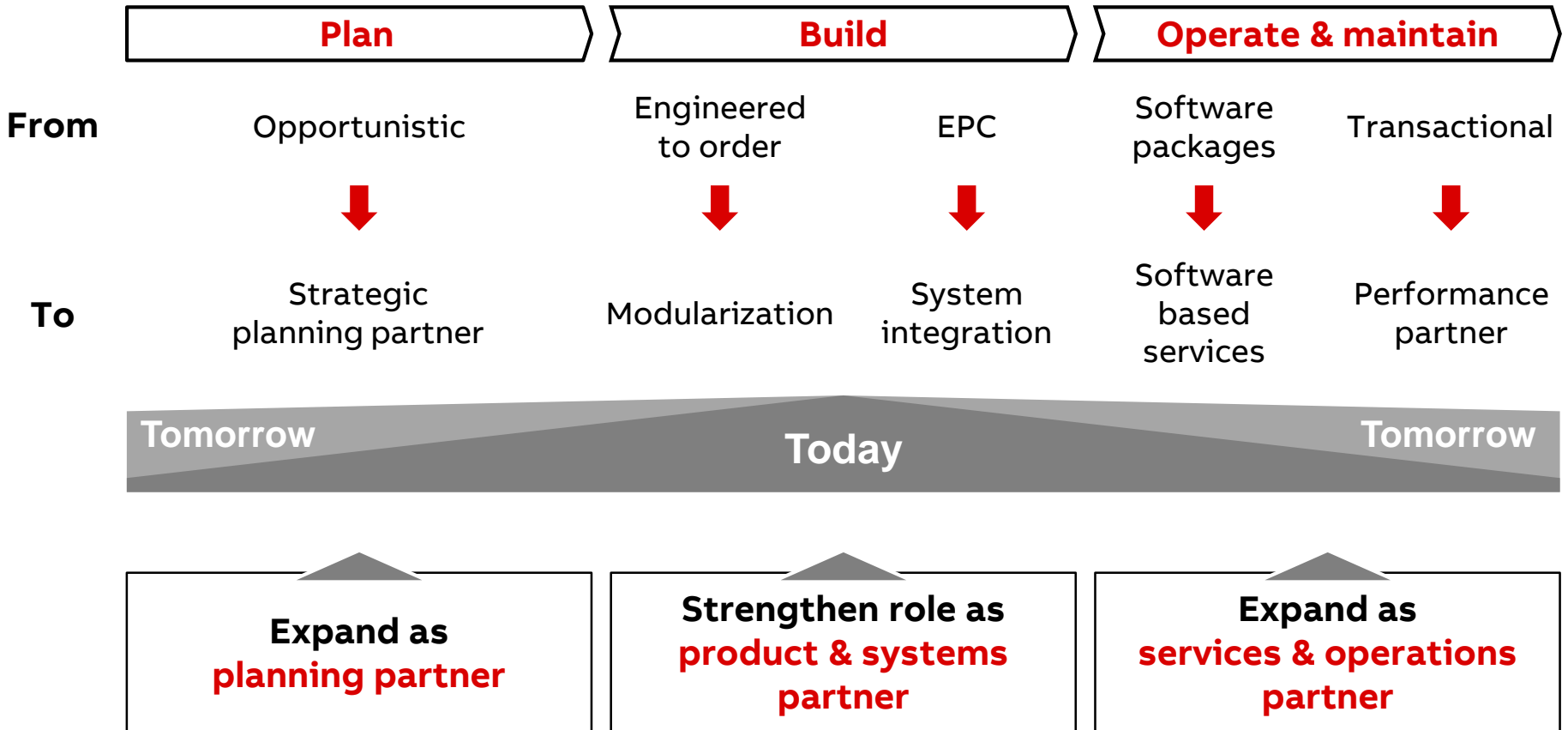
HV Cable divestment to NKT Cables

- Helps NKT to become a leading cables player
- Long-term strategic partnership
- Well positioned for renewable integration and interconnectors growth

nkt cables

Sharpening our winning portfolio & business models

Strategic partnering with our customers throughout the life-cycle



Drive for world class execution

Industry leading cost and quality

Engineering efficiency

TrafoStar global transformer design platform

Meeting local requirements via modularization



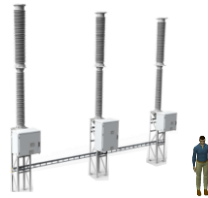
Guarantees uniform quality, high reliability, low maintenance & low losses

Emerging market competitiveness

245 kV live tank breaker, Indian innovation

Indian supply chain & manufacturing

Highly competitive in India



Increased market share by 15% pts.

Emerging market differentiation

New generation 145 kV GIS¹

Conceived and designed in China

To compete in China & globally

Modular, small footprint, easy to install



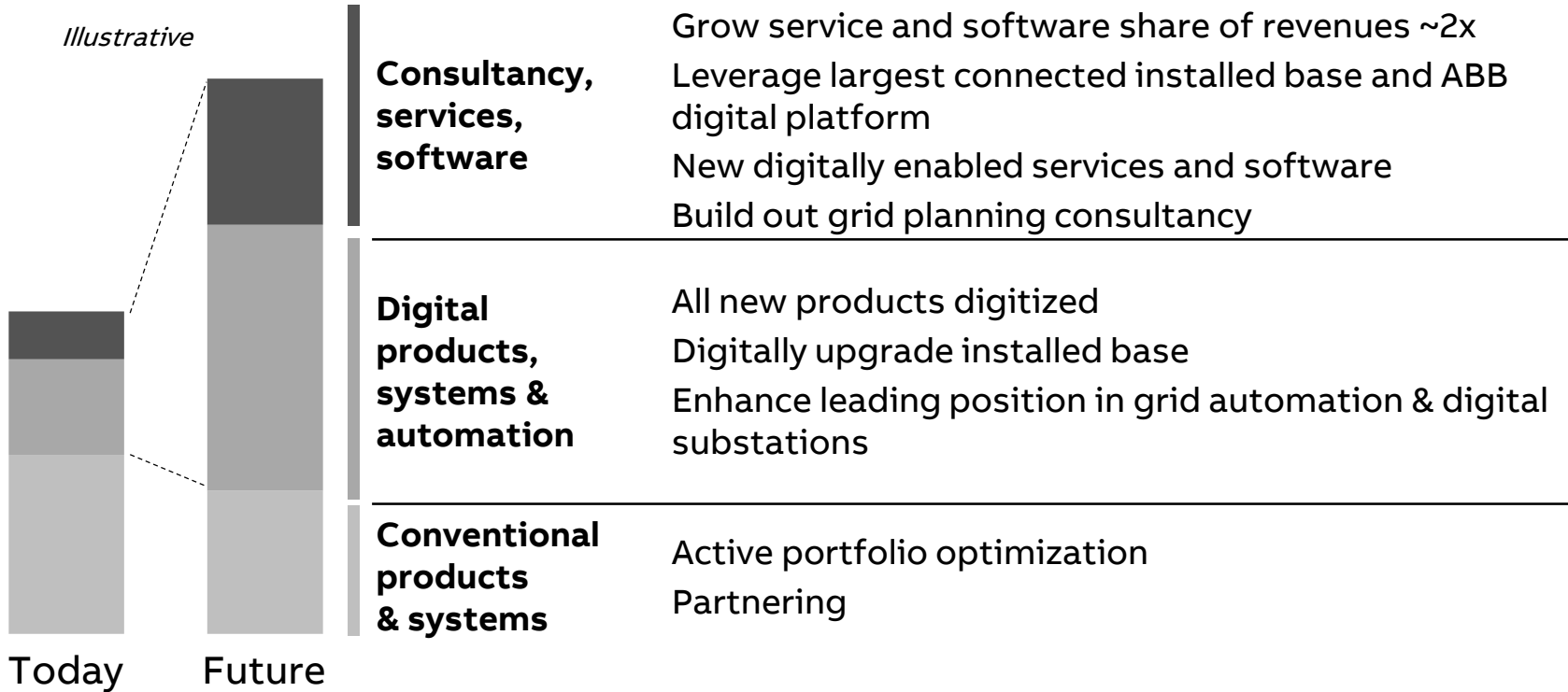
60% less greenhouse gas emissions

13% weight saving

Uniquely combining global scale and expertise with in-country design & manufacturing

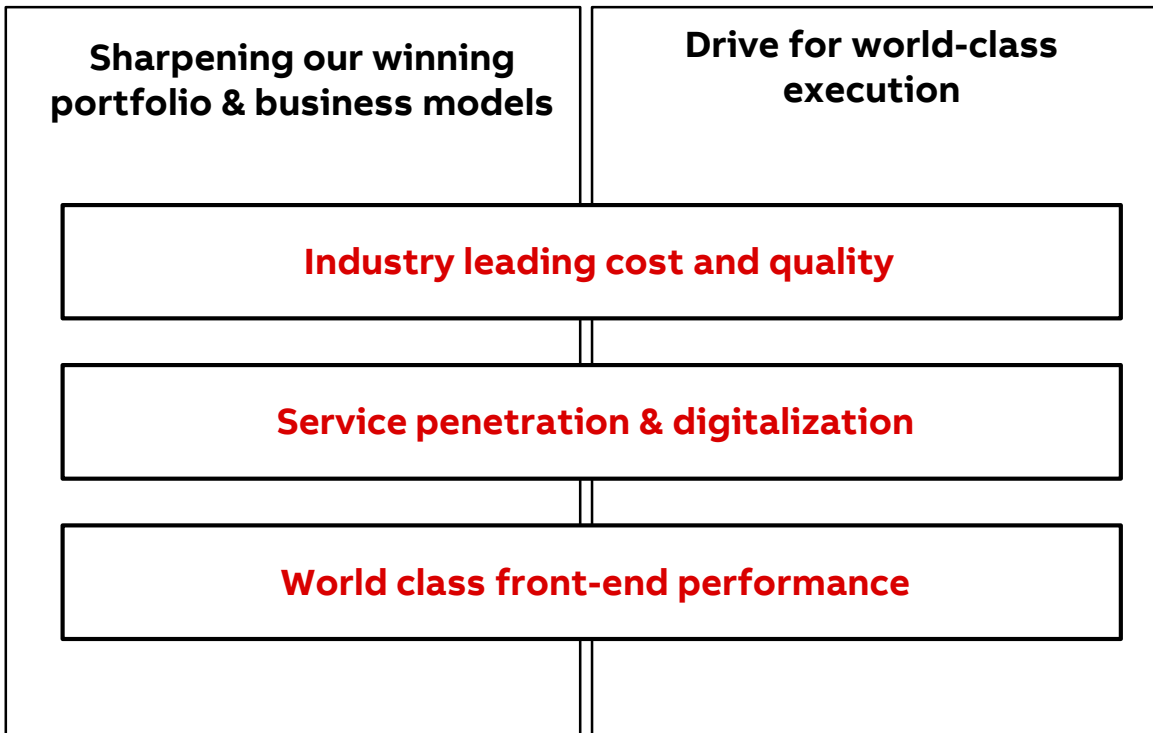
Transformation of business mix supported by world-class execution

Unlocking value by enabling a stronger, smarter and greener grid



Largest digitally connected installed base will provide further differentiation versus our competitors

“Power Up” – our transformation program



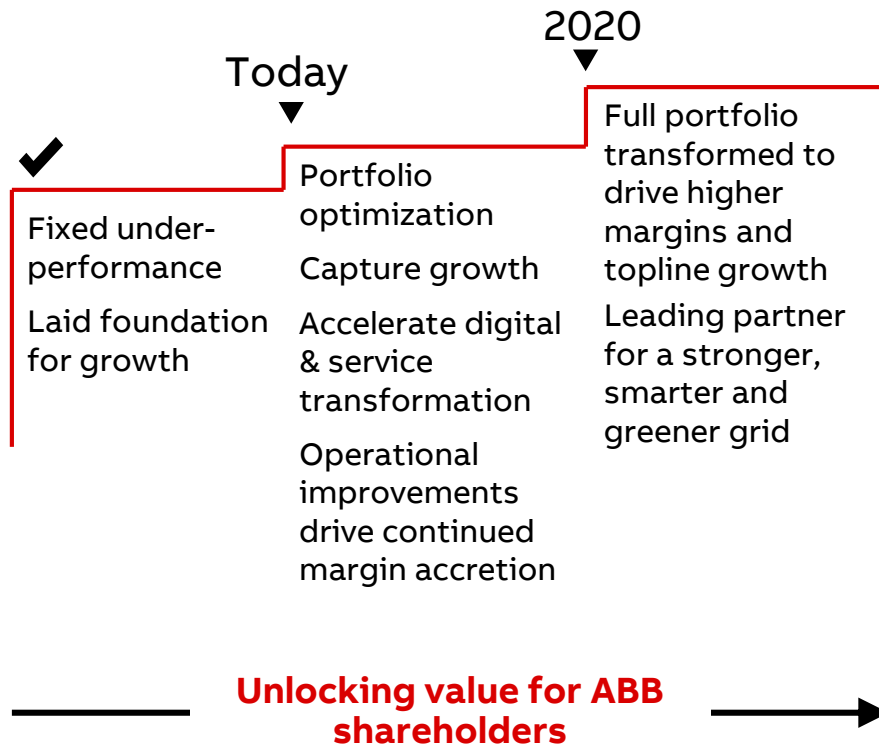
To deliver full transformation:

- \$200 mn investment 2017 – 2018
- Involving >500 staff
- Business led program
- Focused and entrepreneurial
- Aligned incentives

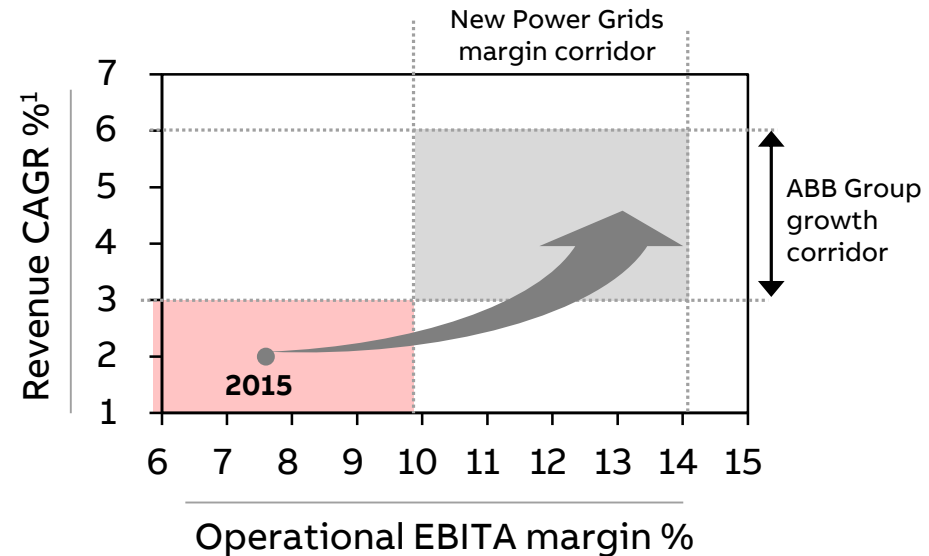
Fully resourced, incentivized, “Power Up” transformation program kicked-off

Power Grids: significant revenue and margin expansion ahead

Execution roadmap



Industry-leading value creation



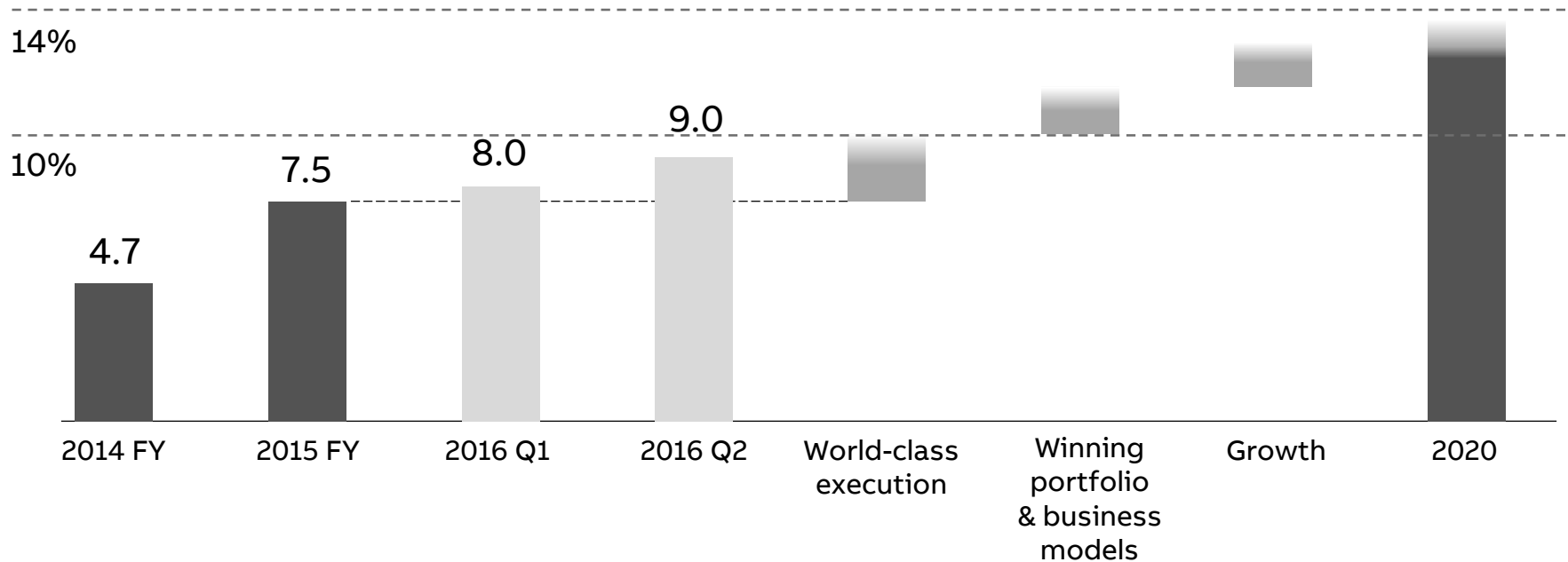
**New margin corridor 10 – 14%,
to be entered in 2018**

Targeting growth above market

Robust transformation plan to continue margin accretion

Mainly driven by execution and portfolio mix

Operational EBITA margin %



Massive margin improvement, mainly driven by self-help

In summary

Significant opportunity to unlock value for ABB shareholders

Market and competitive position

World-market leader in size, technology, global presence and profitability

Market with attractive growth and unprecedented differentiation opportunities, arising now

Transformation

“Power Up” transformation program

- Sharpening our winning portfolio & business models
- Driving for world-class execution
- Delivering sustainable growth
- New margin corridor: 10 – 14%, to be entered in 2018

Clear benefit from ABB Group and ABB’s digital platform



ABB