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# ABB Electrification Investor Day

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# Important notices

This presentation includes 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”, “on track”, “framework” or similar expressions.

There are numerous risks and uncertainties, many of which are beyond our control, that could cause our actual results to differ materially from the forward-looking information and statements made in this presentation and which could affect our ability to achieve any or all of our stated targets. The important factors that could cause such differences include, among others:

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- costs associated with compliance activities
- market acceptance of new products and services
- changes in governmental regulations and currency exchange rates, and
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Some of the planned changes might be subject to any relevant I&C processes with the Employee Council Europe and / or local employee representatives / employees.

On December 17, 2018, ABB announced an agreed sale of its Power Grids (“PG”) business. Consequently, the results of the Power Grids business are presented as discontinued operations. The company’s results for all periods have been adjusted accordingly. Net income, EPS and Cash flow from operating activities include results from continuing and discontinued operations.

This presentation contains non-GAAP measures of performance. Definitions of these measures and reconciliations between these measures and their US GAAP counterparts can be found in the ‘Supplemental reconciliations and definitions’ section of “Financial Information” under “Quarterly results, annual reports and regulatory filings” on our website at

[www.abb.com/investorrelations](http://www.abb.com/investorrelations)

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# Meet the Electrification team

## Business lines



**Alessandro Palin**  
Managing Director,  
Distribution Solutions



**Giampiero Frisio**  
Managing Director,  
Smart Power



**Oliver Ittisberger**  
Managing Director,  
Smart Buildings



**Matthias Heilmann**  
Managing Director,  
Installation Products



**Mike Mustapha**  
Head of Global  
Markets



**Maryrose Sylvester**  
U.S. Country Managing  
Director

## Functions



**Christian Nilsson**  
Chief Financial Officer



**Amina Hamidi**  
Chief Technology  
Officer



**Tarek ElHadidi**  
Chief Information  
Officer



**Andrea Menti**  
Head of Operations







**Anton Kotov**  
Head of Strategy &  
Digital



**Monique Elliott**  
Head of Customer  
Experience

# Electrification in ABB's portfolio

	Electrification	Industrial Automation	Motion	Robotics & Discrete Automation
				
Market size	Global #2 \$160 bn	Global #2 \$90 bn	Global #1 \$80 bn	Global #2 \$80 bn
Mid-term growth	3%	3%	3%	6%
2018 revenues	\$13.0 bn <sup>1</sup>	\$6.5 bn	\$6.5 bn	\$3.6 bn
2018 op. EBITA %	12.8% <sup>1</sup>	14.1%	15.9%	14.6%
Employees	~55 k	~21 k	~20 k	~11 k



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**Safe, smart, and sustainable electrification**  
for our customers and partners





# What we will show you today

## 1 Driving growth

- Aligned to key mega-trends
- Well positioned in high-growth segments

## 2 Differentiating in our markets

- Scope and scale advantage
- Market leading core technology and innovation
- Digital creating value for customers

## 3 Creating value through operational excellence

- Continuous improvement
- GEIS integration, Installation Products turnaround



# ABB Electrification

## Understanding ABB Electrification

Driving growth

Differentiating in our markets

Creating value

Q&A

# Serving markets from source to socket

Products, solutions and services across utilities, industry, transport & infrastructure

## Utilities

Renewables  
Distribution

## Industry

Oil, gas & chemicals  
Food & Beverage  
Machine builders

## Transport & infra

Buildings  
E-mobility  
Data centers

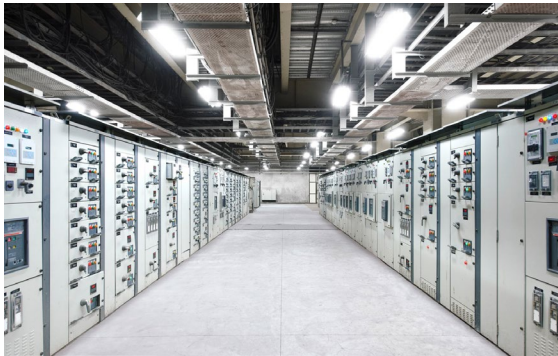




# Electrification business lines

Aligned to customer needs

## Distribution Solutions



~\$5 bn<sup>1</sup>

### #1 Medium voltage

Medium and low voltage control & protection products, systems & switchgear, automation & services

GEIS integration

## Smart Power



~\$3 bn<sup>1</sup>

### #2 Low voltage

Low voltage breakers & switches, motor & power protection, electric vehicle charging infrastructure & service

## Smart Buildings



~\$3 bn<sup>1</sup>

Miniature breakers, distribution enclosures, wiring accessories, building automation

## Installation Products



~\$2 bn<sup>1</sup>

### #2 Installation products

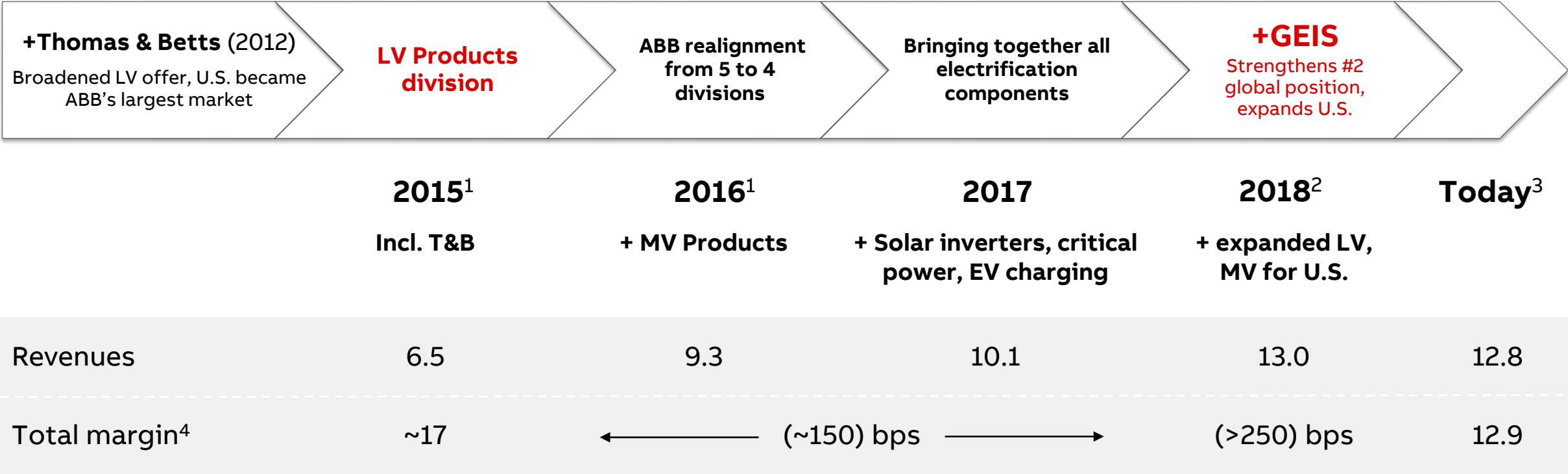
Wire & cable management, termination, fittings & other accessories

# How we run our business lines

## Mid-term priorities

	Distribution Solutions	Smart Power	Smart Buildings	Installation Products
Focus	Margin	Profitable growth	Profitable growth	Turnaround
Priorities	Integrate GEIS New solutions design ABB Ability™ Asset mgmt.	Integrate GEIS ABB Ability™ Energy mgmt. Solar inverter business carve-out	Integrate GEIS ABB Ability™ Building mgmt. and IoT ecosystem	Turnaround Simplify portfolio
Skills & capabilities	Distribution grids Solution architects	Digital talent E-mobility	Building automation System integration	Operational excellence Supply chain turnaround
Salesforce spend	=	++	++	-
R&D investment	+	++	++	=
Capital intensity	-	-	-	-
Cash flow	++	+	+	++

# ABB Electrification build phase



(\$ bn or % terms, unless otherwise stated)

<sup>1</sup>Not recast for later portfolio changes; <sup>2</sup>Annualized performance for GEIS based on H2 18 contribution; <sup>3</sup>Last twelve months to end Q3 2019; <sup>4</sup>Operational EBITA margin





# Electrification operational EBITA margin

## High performing businesses (~60% revenues)

Distribution Solutions

Smart Power

Smart Buildings

~18%

<5%

12.9% operational EBITA<sup>1</sup>

## Businesses in change mode (~40% revenues)

Solar  
inverters

Exit  
>50 bps accretion

Installation  
Products

Turnaround

GEIS

Integration into  
high performing  
businesses

# ABB Electrification

Understanding ABB Electrification

**Driving growth**

Differentiating in our markets

Creating value

Q&A

# Aligned to key mega-trends

The world is going digital, urban, and electric

## Data and digitalization<sup>1</sup>



# 7.5x

Increase in data processed outside of originating core

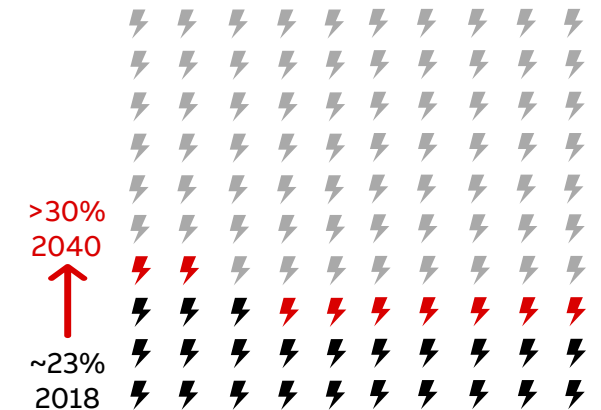
## Urbanization<sup>2</sup>

# +2 billion

people living in cities



## Shift to electricity<sup>3</sup>



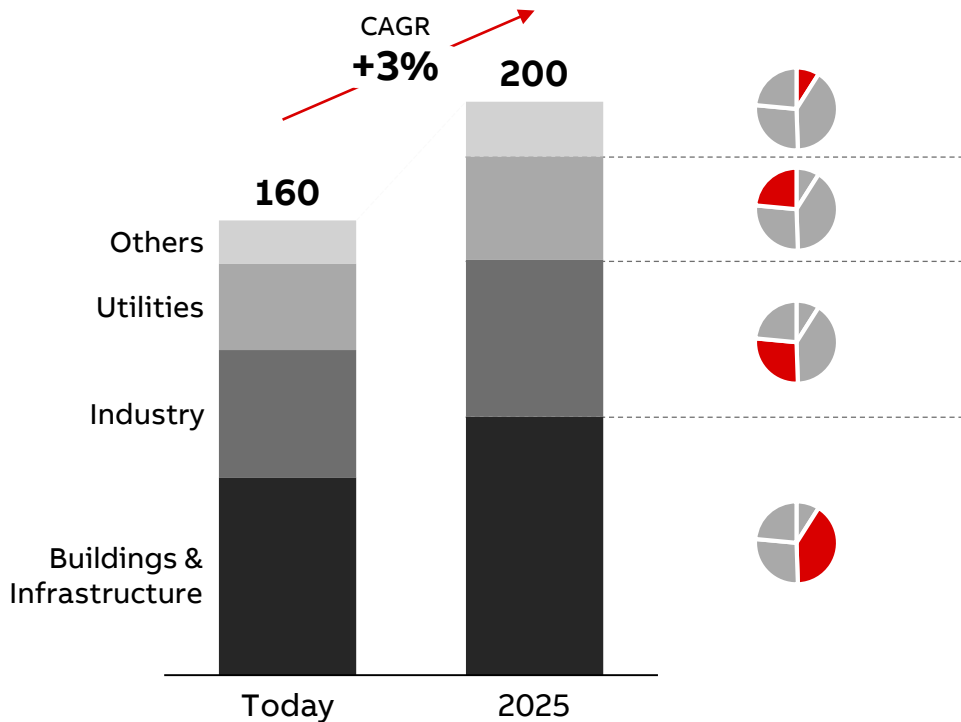
# +35%

Share of electricity in the energy consumption mix



# Well positioned in high-growth segments

## Global addressable market in \$ bn



## Business exposure

## Market growth drivers

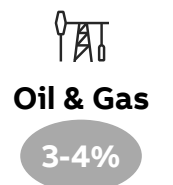
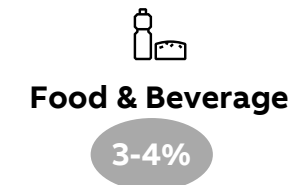
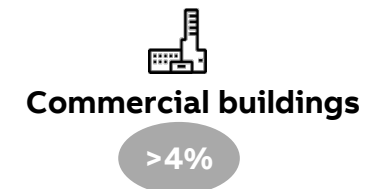
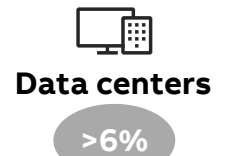
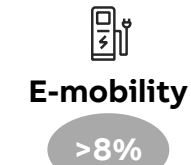
Electricity grows 2x faster than other energy sources

New sources of consumption

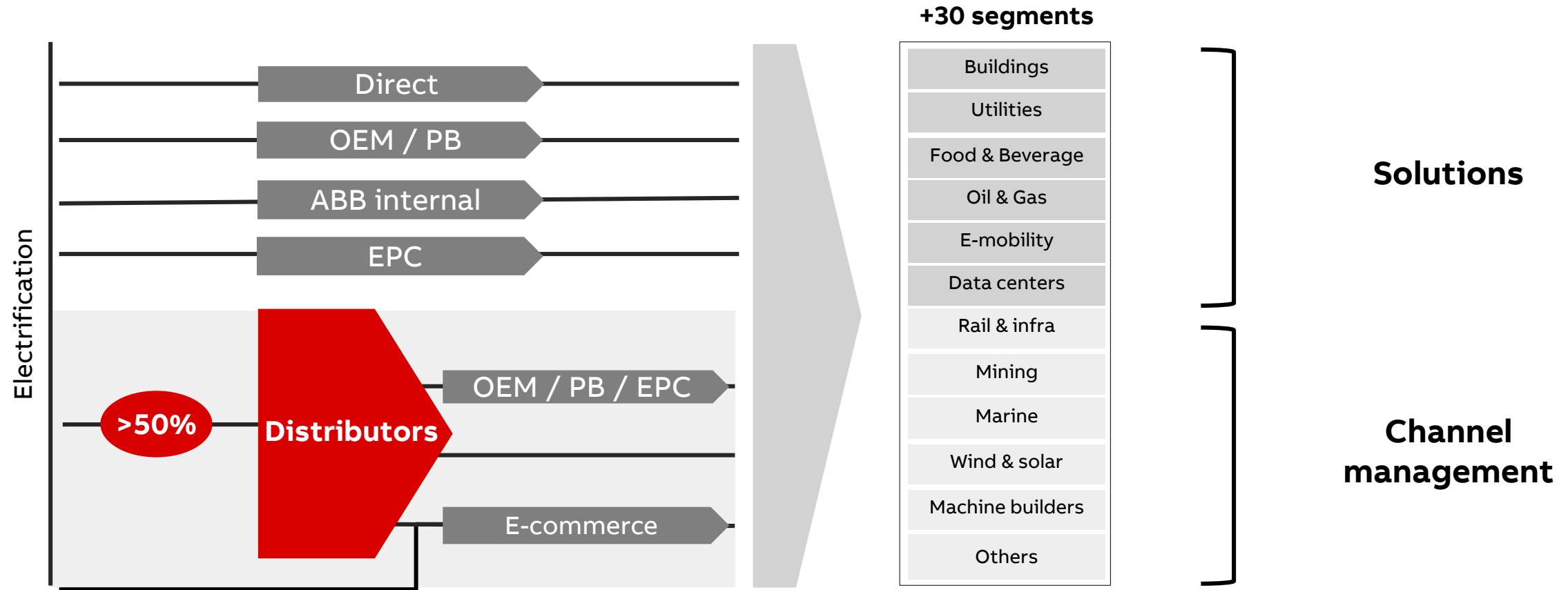
Rising importance of distributed generation

Expansion of E-commerce and digitalization

## High-growth segments<sup>1</sup>



# Distinct channels and solutions



# ABB Electrification

Understanding ABB Electrification

Driving growth

**Differentiating in our markets**

**Scope and scale   Innovation   Execution**

Creating value

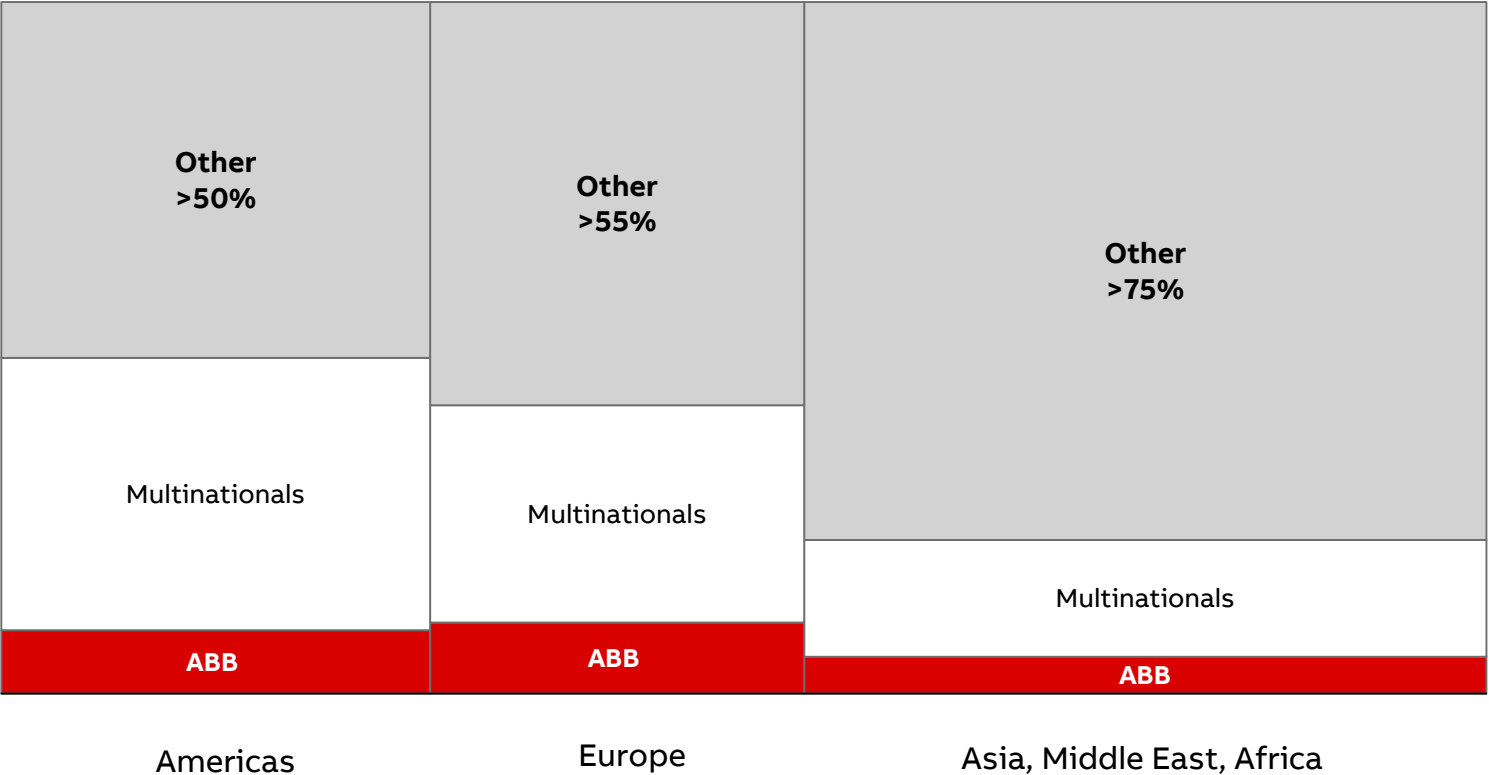
Q&A



# Scope and scale advantage

Local access combined with large scale advantage

Global electrification market structure<sup>1</sup>



Local offers / global core

- +
- Manufacturing scale (cost advantage)
- +
- R&D leverage
- +
- Global digital platform



# Market leading core technology

Electrification's cutting-edge innovation DNA

## NeoGear switchgear



**Safest** product  
in the market

**25%**

space saving

**30%**

operational costs  
saving

**Major innovation in +\$35 bn market**

## Solid state breaker concept



**Architectural control  
point for electrification**

## Market-defining products

+

**Innovation ecosystem: >2,700  
technologists in 48 centers**

+

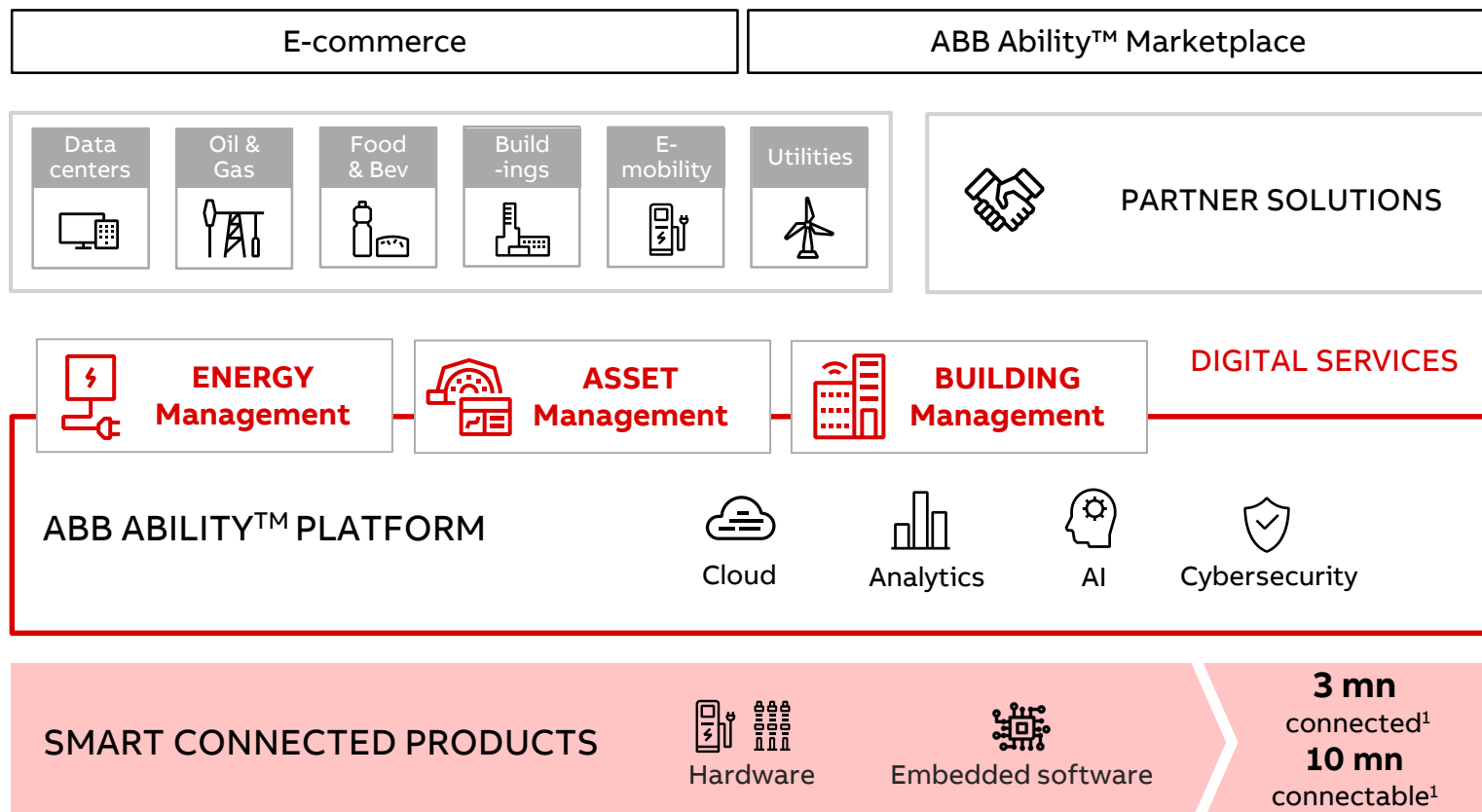
**R&D investment: >\$300 mn p.a.<sup>1</sup>**

↓

**70% Net Promoter Score<sup>2</sup> for  
innovation**

# Digital innovation

Creating customer impact and new revenue streams



**Ease of doing business  
(including E-commerce)**

+

**Scalable, segment-focused solutions**

+

**Subscription-based SaaS**

+

**Global cloud platform**

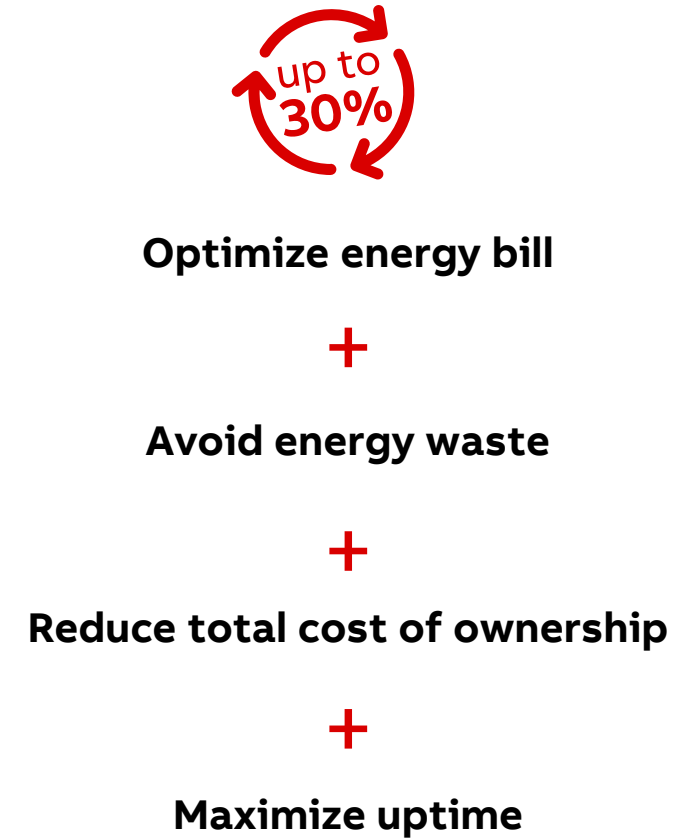
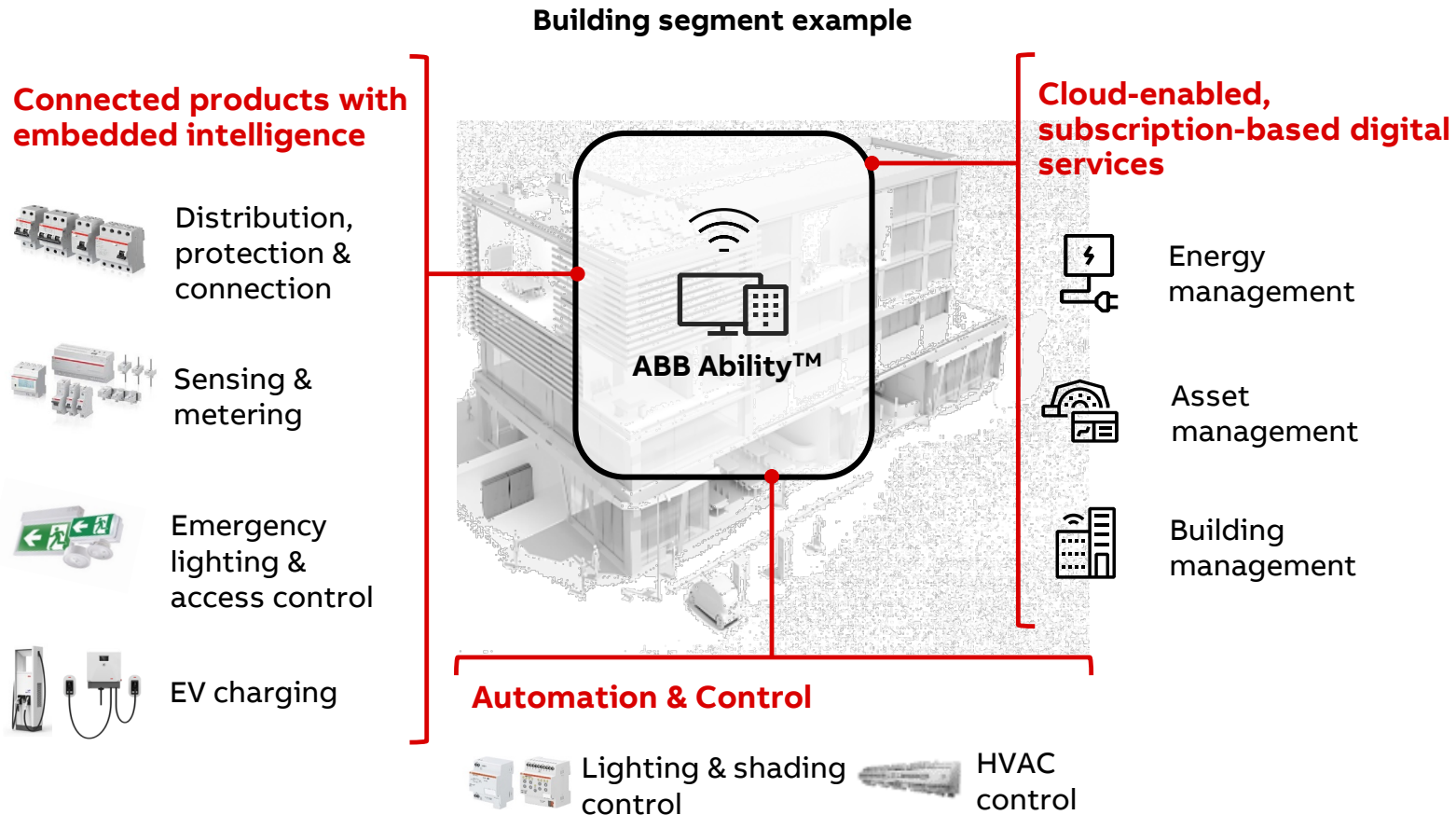
+

**Products with embedded intelligence**



# Digital innovation

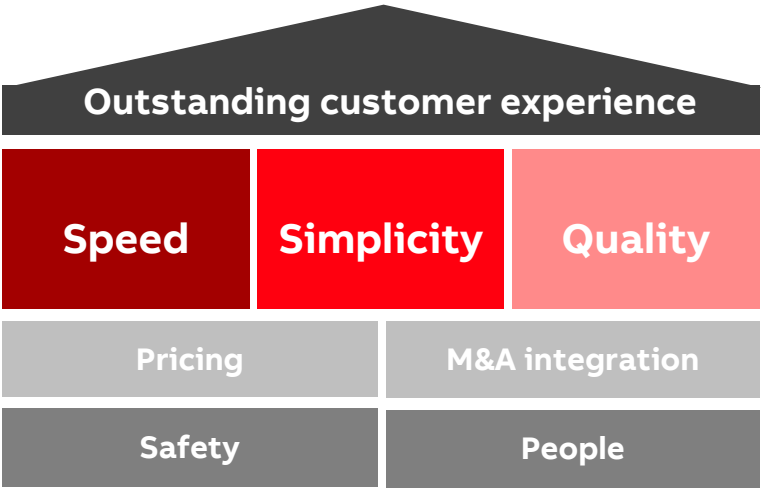
Creating value for customers



# Driving continuous improvement

Operational excellence framework to benchmark and drive success

## Operational KPI examples



# GEIS integration

On track

## Strategic rationale

### Market access

- North America
- Global installed base

### Performance improvement

- ABB technology leadership
- ~\$200 mn cost synergies by 2022

### Closing portfolio gaps

- Complementary NEMA, LV products

### Strategic supply partnership

## Integration status

### Organization

- 13k employees transitioned into ABB

### Footprint and product rationalization

- 13 facilities announced for closure
- Product substitutions ahead of plan

### Investing for growth

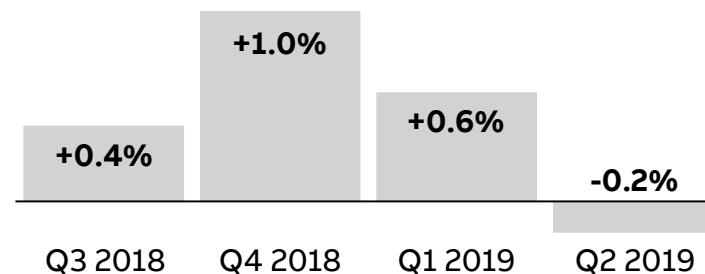
- Expanding 4 facilities in North America
- On track with ~\$480 mn<sup>1</sup> investment

## 'Best of Both' = success

### Cross-selling

>\$70 mn cross-sales YTD 2019

### Market share growth<sup>2</sup>



~2x market growth → total share gain ~0.5%

1/3 complete

# Installation Products turnaround

In progress

## Restoring the basics 2019

### Addressing issues

- Price / commodities mismatch
- Unfavorable mix
- Cost to serve

### Actions taken

- New leadership, simpler structure: +\$21 mn cost saving
- Net pricing +\$13 mn 2019 benefit
- Portfolio review

## 2020-21 actions

Optimize sales and channel structures to most profitable products

Strengthen pricing

Reduce cost to serve

Optimize manufacturing footprint

Talent upgrade

## Future direction

### Shift product mix

- Invest, expand specialty ‘Power Brands’ globally



- Scale up differentiated products

### Selective market approach

- Broad portfolio in North America
- Tailored offer globally
- Transition out of non-core countries

Re-establishing profitable growth in attractive segments



# ABB Electrification

Understanding ABB Electrification

Driving growth

Differentiating in our markets

**Creating value**

Q&A

# ABB Operating System (ABB-OS)

## ABB Operating System

### Speed

- Empowerment: faster decision making
- Shared service centers report to business
- Alignment on capital allocation

### Simplification

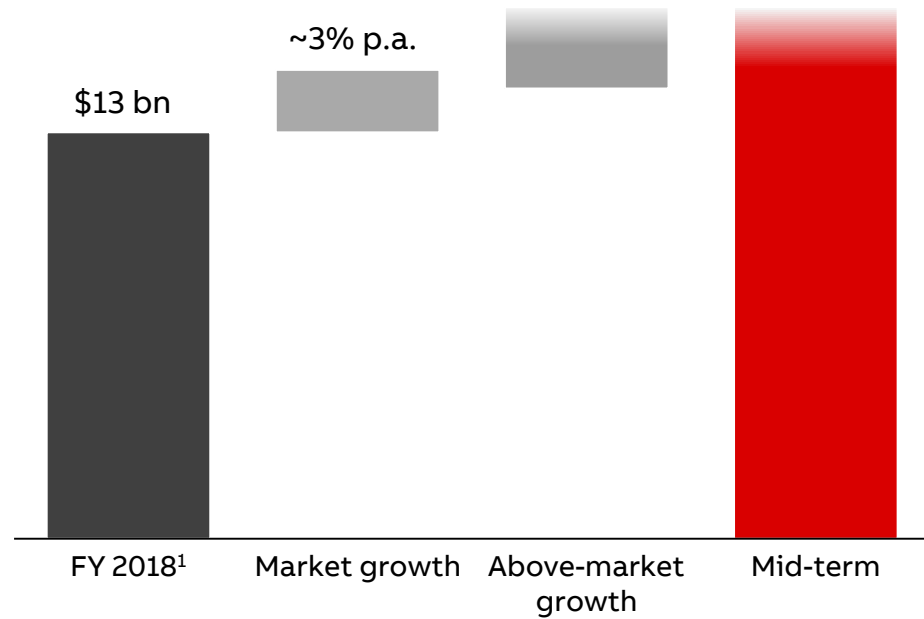
- From 6 to 4 operating business lines
- Integration of GEIS into business lines
- Reduction of legal entities

### Accountability

- Country structure integrated into business
- Tailored employee incentives
- Direct owned costs vs. allocated costs

# Driving above-market growth

## Mid-term revenue development



## Approach

### Scope and scale

- Common sales organization across business lines
- Local sales coverage in +100 countries

### Innovation

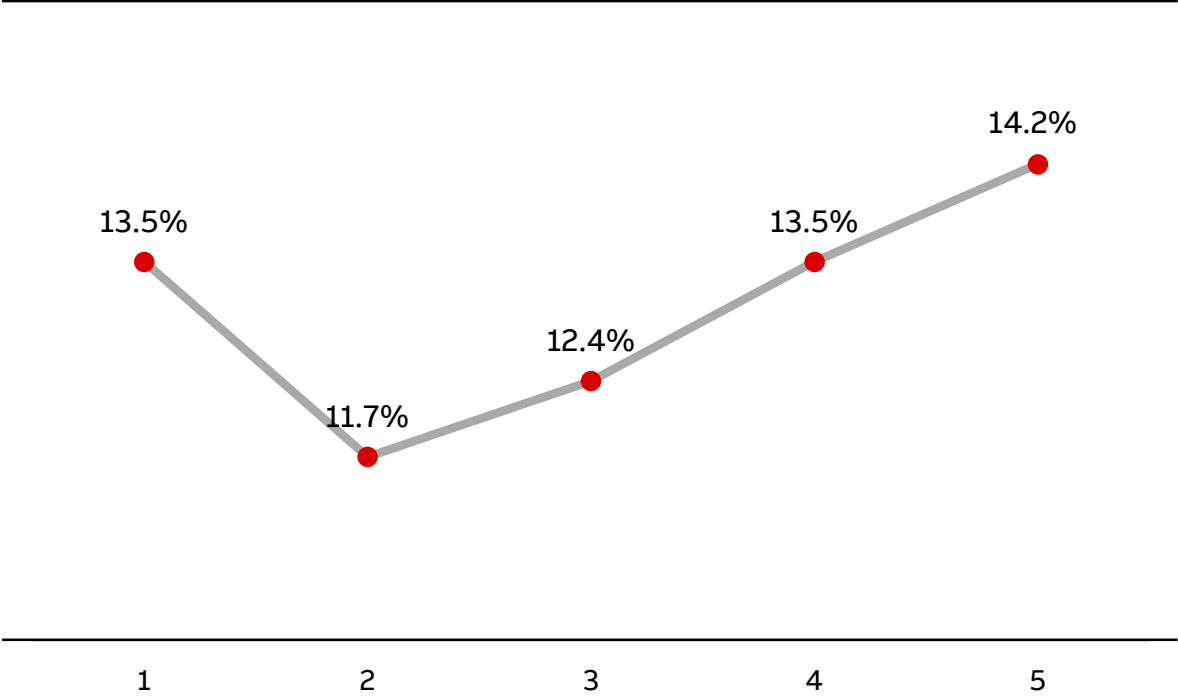
- Core technology innovation
- Scalable solutions for key segments
- Digital services on ABB Ability™

### Execution

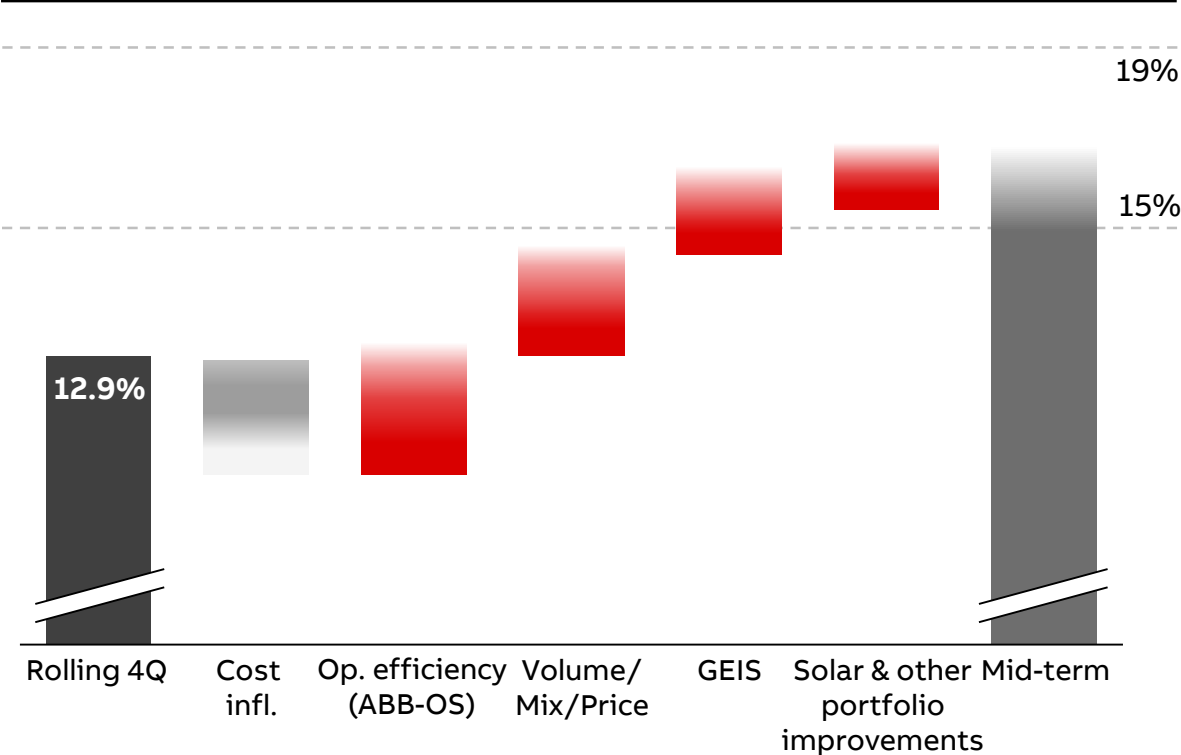
- GEIS integration: 'Best of Both'
- Customer focus via ABB-OS simplification

# Reaching margin corridor during 2020

## Momentum since GEIS acquisition



## Mid-term outlook

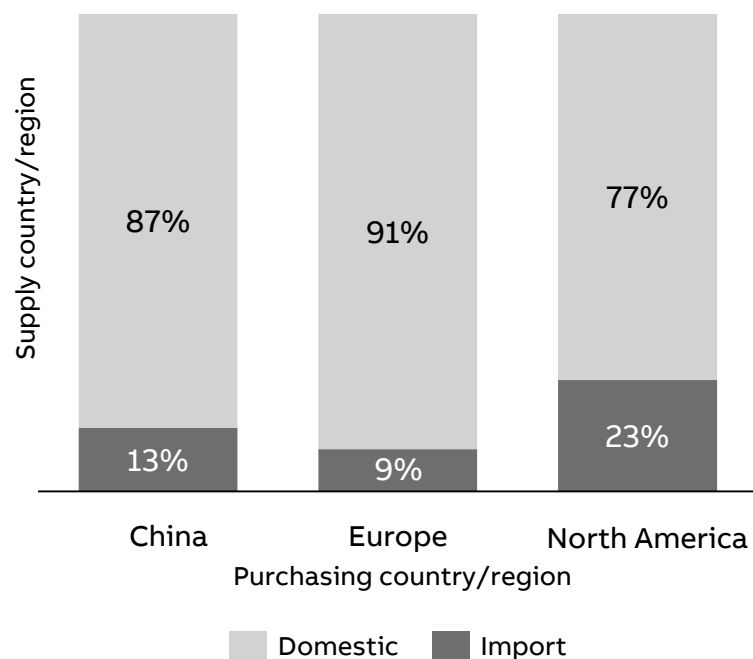




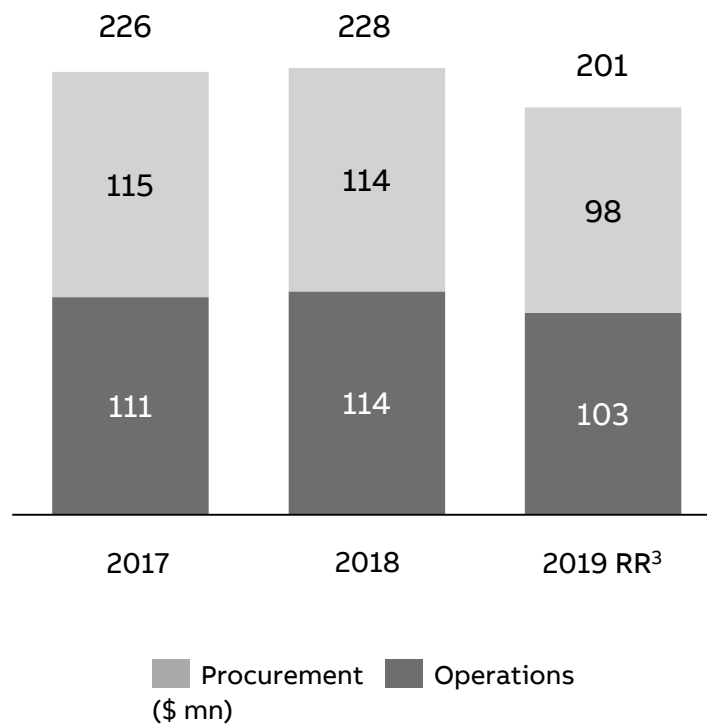
# Optimizing gross margin

## Cost management and pricing strategy

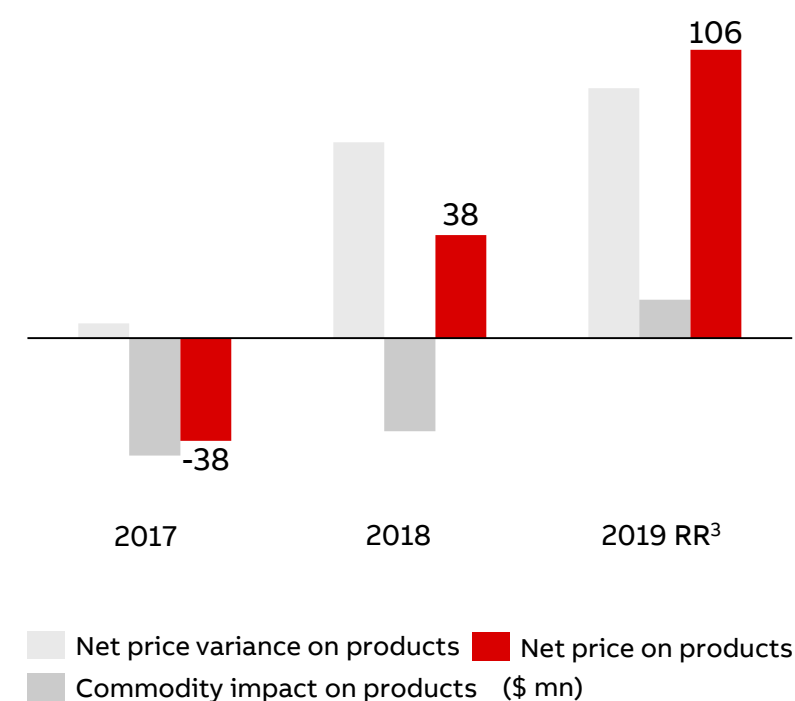
### Balanced material distribution<sup>1</sup>



### Procurement & op. productivity savings

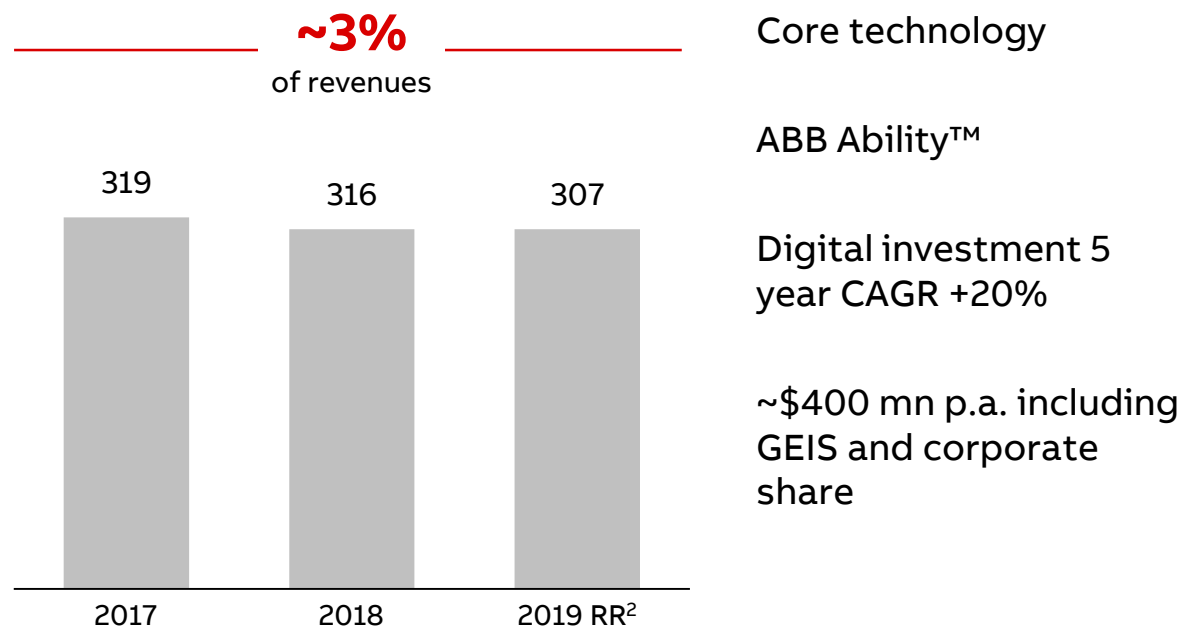


### Product pricing actions<sup>2</sup>

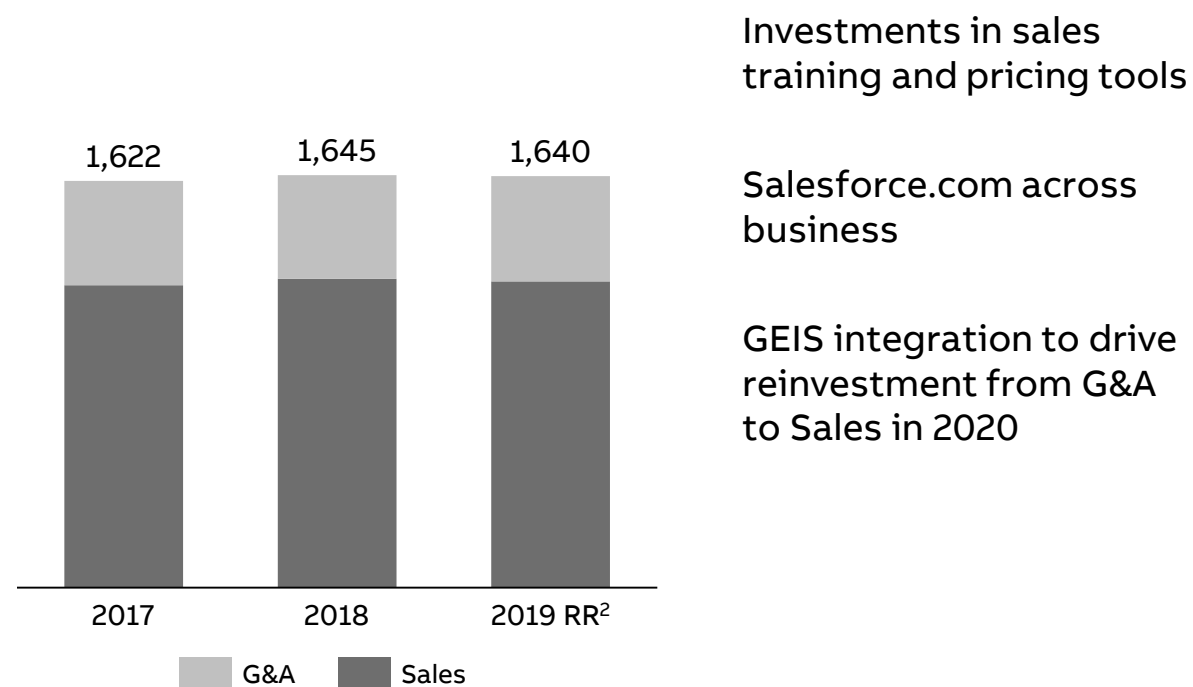


# Managing growth investment

## R&D investment (\$ mn)<sup>1</sup>



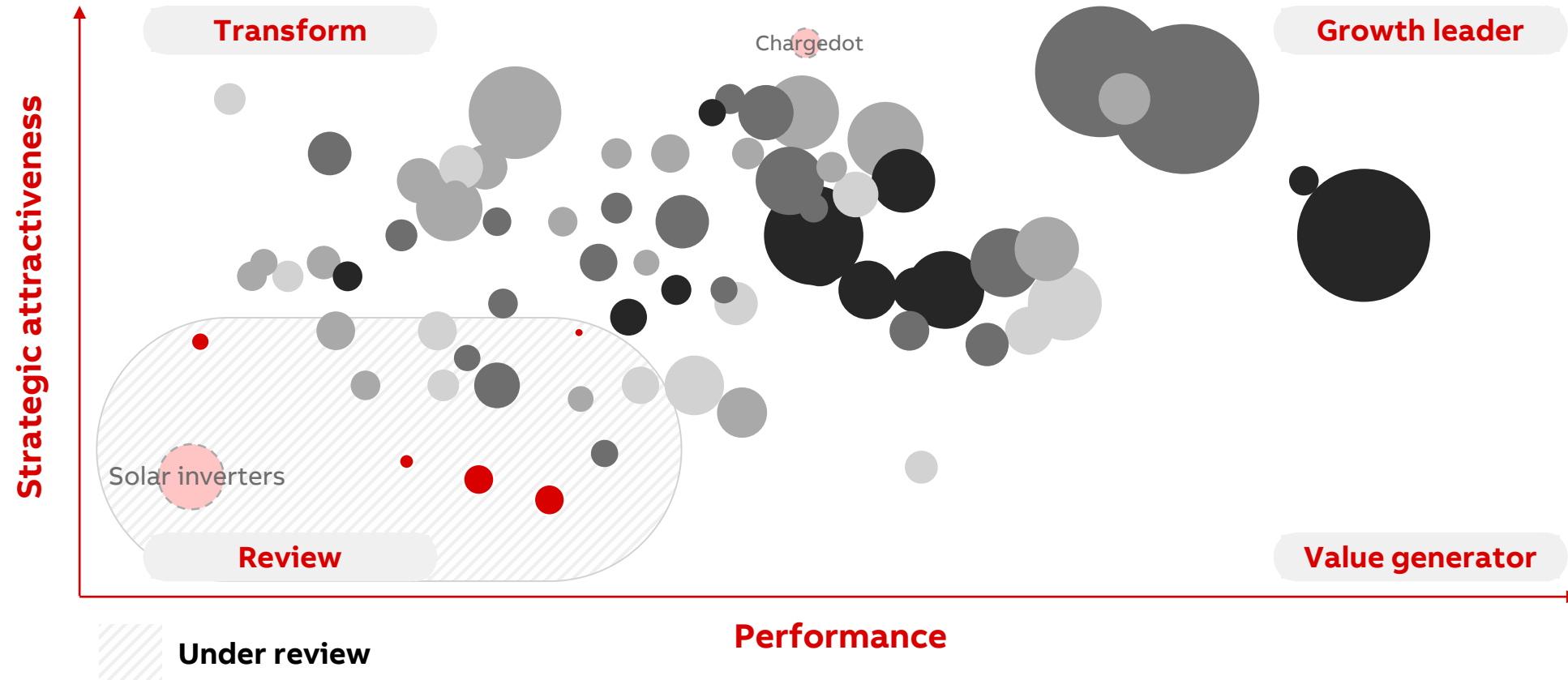
## SG&A investment (\$ mn)<sup>3</sup>



# Enhancing our portfolio

Continuing systematic portfolio management down to a product line level

Illustrative



# Electrification CFO priorities

## Attractive growth



Above market growth  
Continuously reinvesting in R&D, digital and sales

## Disciplined execution



Delivering ~\$200 mn GEIS cost synergies  
Pricing, operational efficiency, cash generation

## Continuous portfolio management



Solar inverter exit agreed  
Other portfolio actions ongoing

**Reaching operational EBITA margin corridor of 15-19% during 2020**



# Safe, smart, and sustainable electrification

## **1** Driving growth

- Aligned to key mega-trends
- Well positioned in high-growth segments

## **2** Differentiating in our markets

- Scope and scale advantage
- Market leading core technology and innovation
- Digital creating value for customers

## **3** Creating value through operational excellence

- Continuous improvement
- GEIS integration, Installation Products turnaround



**ABB**