



NOVEMBER 19, 2020

Motion

Capital Markets Day 2020

Morten Wierod, President of Motion
Mika Kulju, President of MO Drive Products division

What we will show you today

01. Market leader in an attractive market

- Mega trends remain intact and the need to reduce carbon emissions across all industries will drive further demand
- Resilient value contribution despite Covid-19
- Differentiation by technology leadership, deep domain expertise and global scale & coverage

02. ABB Way: Performance and growth

- Clear mandate for every division
- Refined divisional set up to drive growth and operational excellence
- Division deep dive: Drive Products Division

03. Sustainable shareholder value creation

- Increased margin corridor to 15–19%
- Continued execution on growth and profitability levers
- Sustainability at the core of our business



The world is going electric



The world is
changing fast



Climate change ↑



Population ↑



Urbanization ↑



Electric motion plays
a significant role in

Energy efficiency

Automation

Mobility



Energy efficiency
is a must

1/3 of the world's electricity is consumed by electric motors

<20% of the world's electric motors are controlled by drives



Demand for electric motion to double by 2040



Motion offering

Global #1

#1 in motors & drives

#5 in MPT

~\$80 bn

2019 market size¹

\$6.5 bn

2019 revenues

16.6%

2019 Op. EBITA

~20 k

Employees worldwide

Drives

Kilowatts to Megawatts

- Ability™ offering



- Low voltage drives



- Medium voltage drives



Mechanical power transmission

- Ability™ offering
- Bearings and power transmission



Electrical Motors

Kilowatts to Megawatts

- Ability™ offering



- IEC Motors



- NEMA Motors



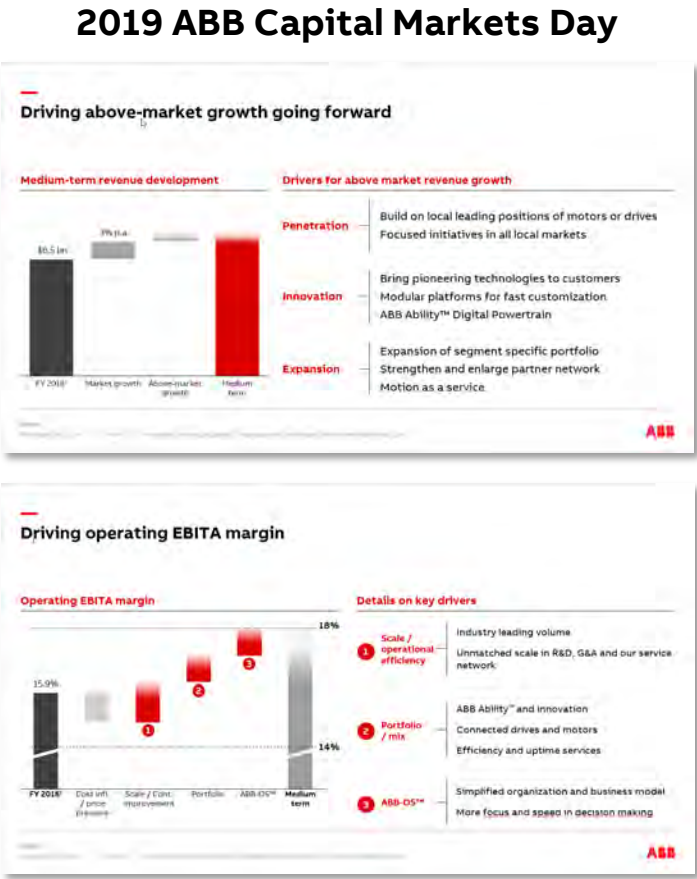
- Large Motors & Generators



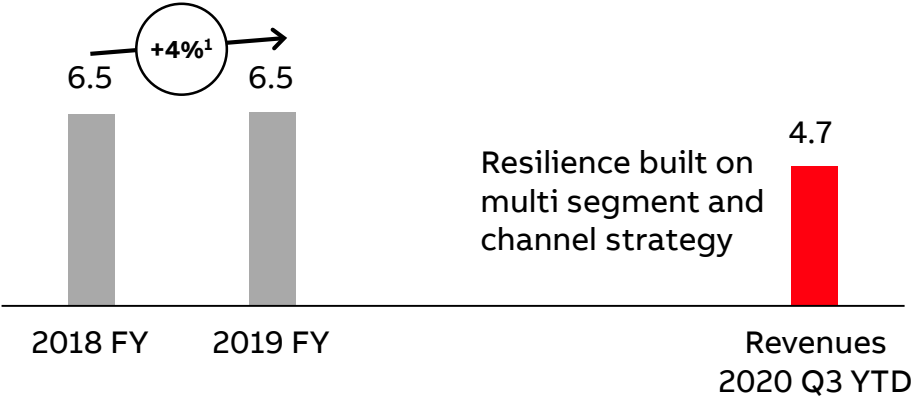
Resilient value contribution

Growth

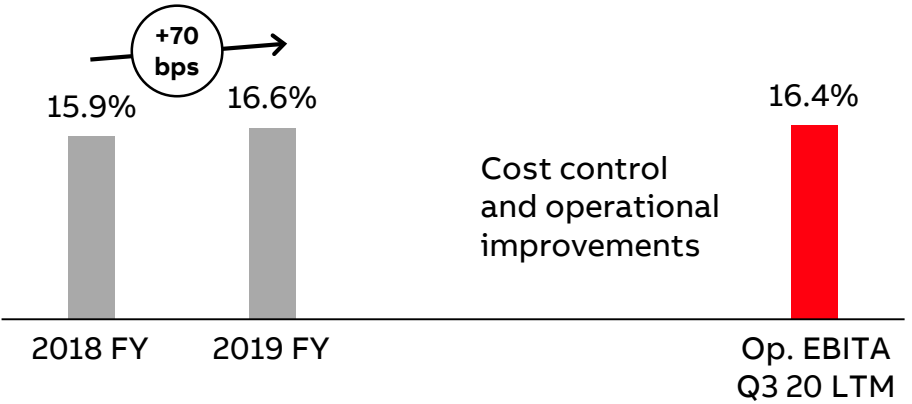
Profit



Medium term revenue growth ambition at 3% p.a. or better



Margin corridor was 14%–18%

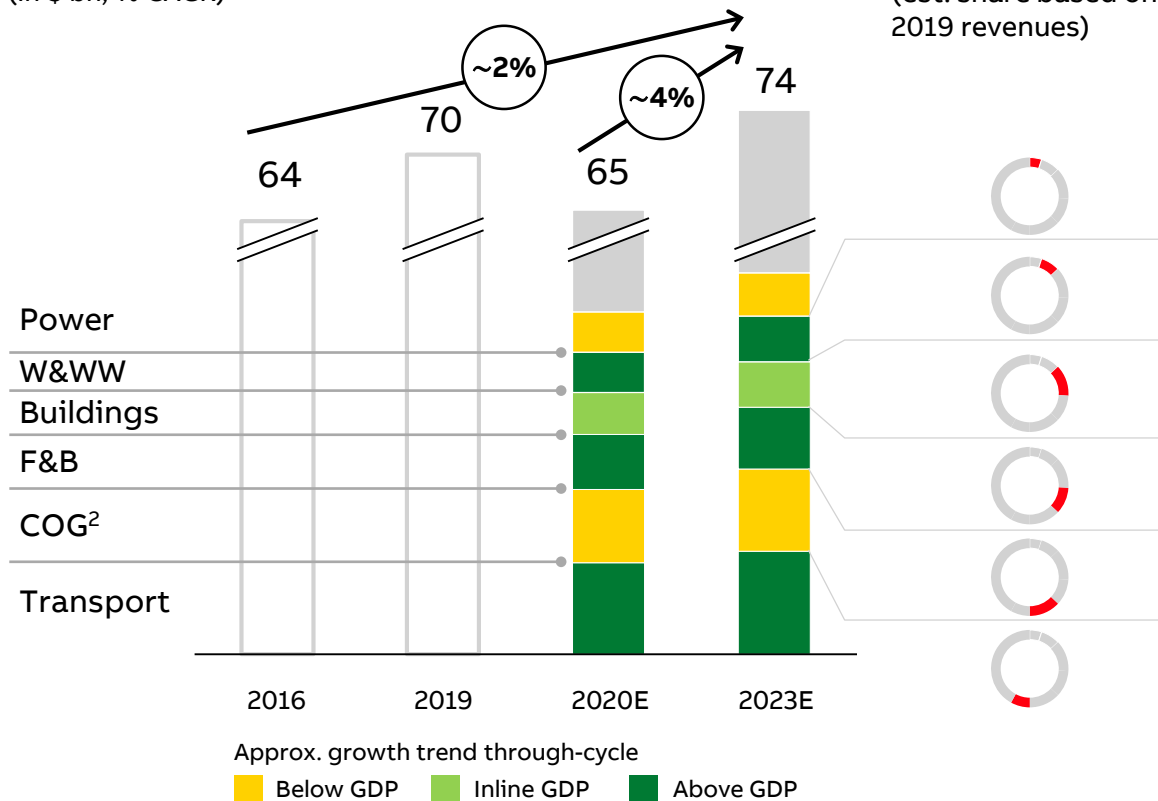


1. On a comparable basis, yoy

Global #1 in motion industries – leading from a strong foundation

Market size¹

(In \$ bn, % CAGR)



Customer needs & trends

Performance, efficiency & reliability

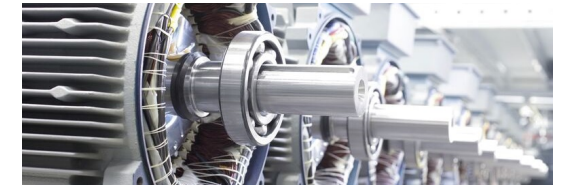
Increasing application complexity

Digitalization across the whole value chain

Digital commerce

Enabling a business case for sustainability

Our key differentiators



01. Technology leadership



02. Domain expertise



03. Global scale and coverage

Pioneering Technology Leader driving innovation in motion industries

1

Staying ahead by pushing the boundaries today and for tomorrow



2018
Washdown motor



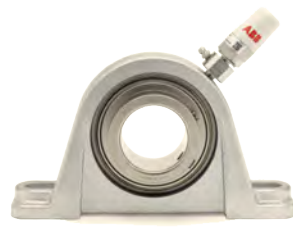
2018
Subsea drive



2018
Analytics & Digital centers



2016
ABB Ability™
Smart Sensor for motor



2018
ABB Ability™
Smart Sensor for bearing



2019
ABB Ability™
IoT Drive Connect

Industry leading investment in R&D

Be **connected**, learn faster

ABB Ability™ Digital Powertrain

- ABB Ability™ remote condition monitoring
- Smart analytics and AI

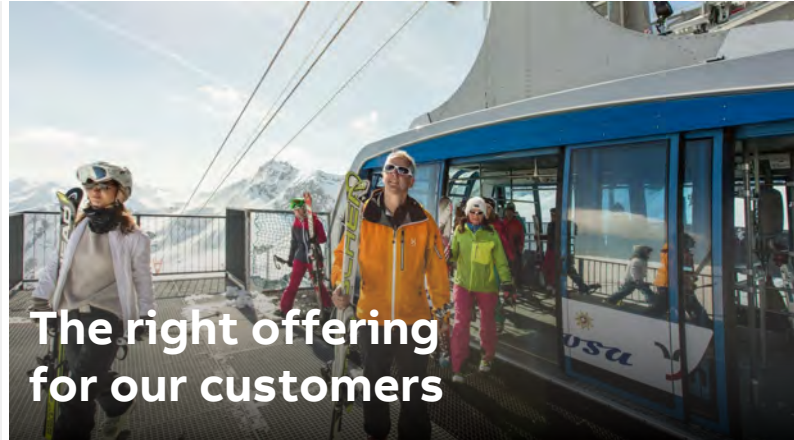
Domain expertise and most comprehensive offering

2



Deep domain expertise:

- 3,500+ ABB Motion solution experts helping customers every day
- Application expert communities with our channel partners

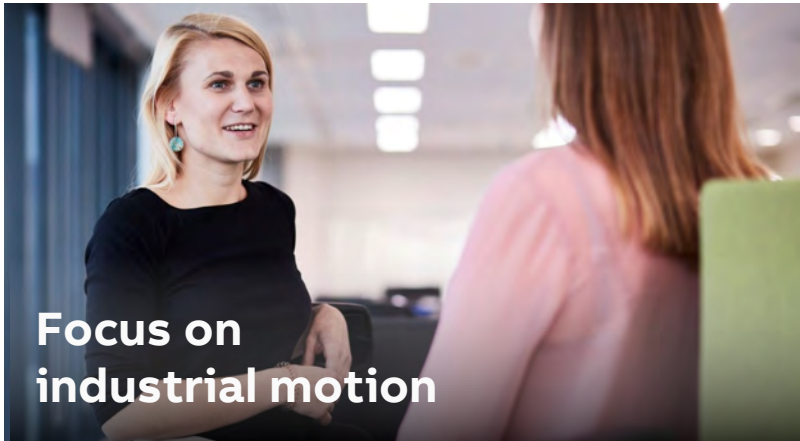


**The right offering
for our customers**



We are a partner for life:

- 45 million drives and motors in the field
- 6 ABB Ability™ Motion centers
- High service attachment rate



**Focus on
industrial motion**



Our offering:

- Is industry and application specific
- Provides the right performance

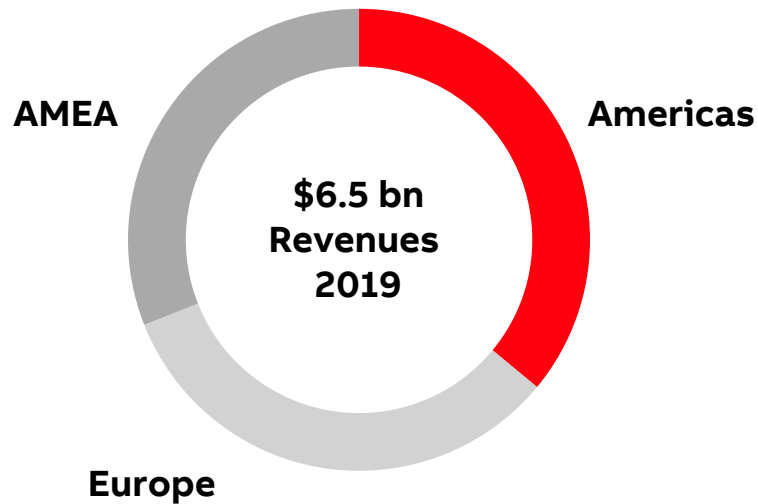


**Connected to
our installed base**

Global coverage, always close to our customers and partners

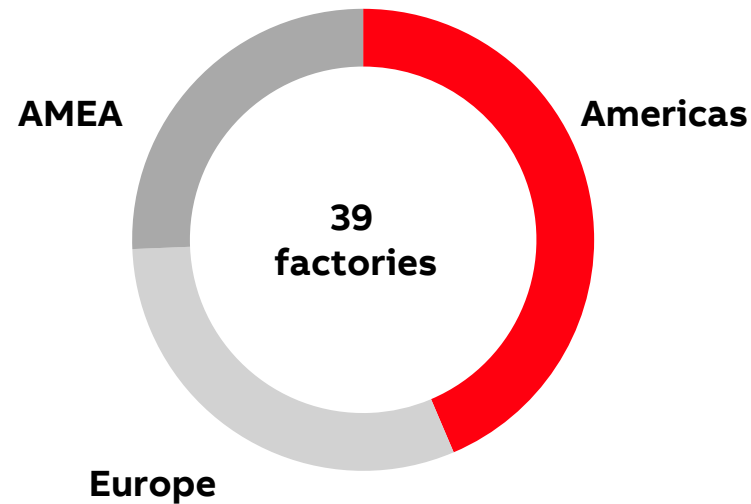
3

Balanced demand



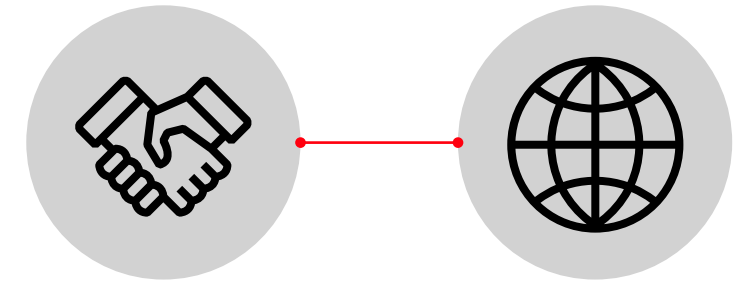
Business in **100+** countries

Balanced supply



Factories in **10** countries

Customer coverage everywhere



300+ authorized value providers

6,000+ channel partners

We set new standards in energy efficiency

Campbell's Australia cuts costs with ABB Synchronous Reluctance Motors

01. **Why?**
To save energy and help Campbell's reach their ambitious sustainability targets

02. **What?**
The new IE5 ultra-premium energy efficiency SynRM motor and drive package

03. **Benefits?**
14% reduction in energy costs, reduction (131 tons of CO₂)
Noise reduction, lower running temperature, smoother operation and reduced vibration



Domain leader in critical infrastructure projects

Reliable freshwater supply in vital pumping project in Shanxi Province, China

01. Why?

Reliable freshwater supply to 10 million people

02. What?

Medium voltage LCI¹, 19 synchronous motors, as well as the PLC system, transformers, switch cabinets, excitation, and filters

03. Benefits?

Reliable and constant waterflow while having the most energy efficient solution in place



Peace of mind for our customers: physical and digital services 24/7 globally

ERGO Hestia offers customers a solution to secure uptime and enables a new business model

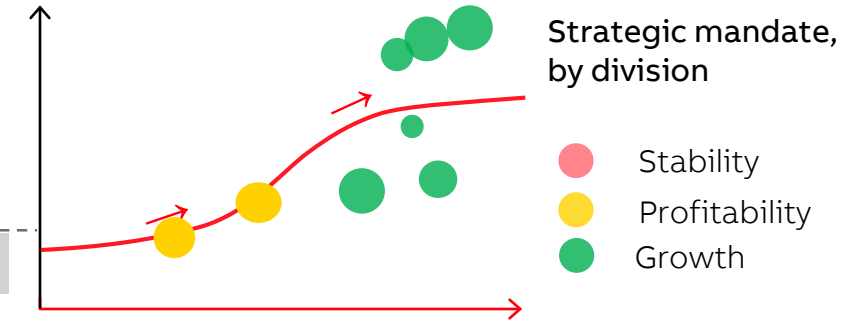
01. **Why?**
Peace of mind for our customers: improving safety, while limiting the loss potential

02. **What?**
ABB Ability™ Smart Sensors for monitoring motors where failures can cause serious asset damage and long-term downtime

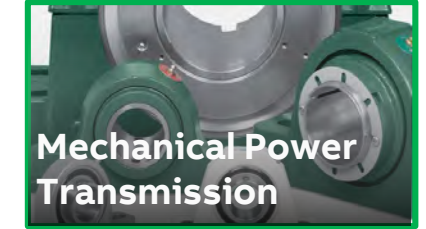
03. **Benefits?**
Safety, reliability and minimized loss of revenues



How each division in Motion will deliver



Split Motors and Generators into 3 Divisions with distinct strategic mandates and priorities



Key priorities

Grow in underserved markets

Standardization of product offering

Segment and application specific offerings

Segment and application specific offerings

Standardization and operational excellence

Division portfolio optimization

Modularization of product platforms

Expansion in adjacent markets

Sales efficiency via digitalization of processes

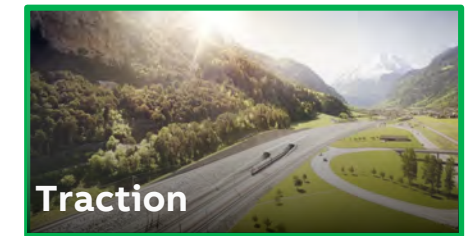
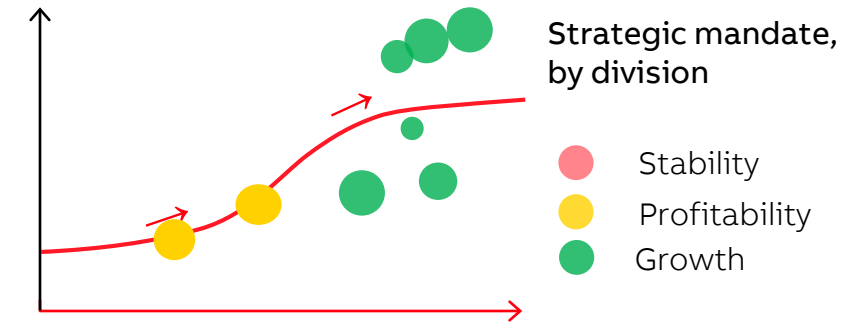
Fixed asset utilization and operational excellence

Digitalization of all customer and partner touchpoints

Digitally enabled services

Division led collaboration across R&D, SCM and back office functions

How each division in Motion will deliver



Key priorities

Granular growth initiatives in focus segments

Grow in infrastructure segments via portfolio expansion

Grow XaaS¹ business models throughout MO

Partner for growth together with our key customers

Segment specific portfolio expansion

Platform simplification and asset efficiency

Process digitalization for traditional services

Expand battery energy storage and electric vehicle business

Connected drives and digital customer experience

Co-creation with customers

24/7 fast response service network

Digital offerings enablement

Division led collaboration across R&D, SCM and back office functions



Capital
Markets
Day
2020

Let's write the future
of motion.
Together.

NOVEMBER 19, 2020

ABB Drive Products Division



ABB AC drives enable low-carbon society and sustainable future

Savings of

- Energy
- Operational costs
- Downtime
- Maintenance
- Raw materials



[Click here to learn more](#)



[Informative video](#)



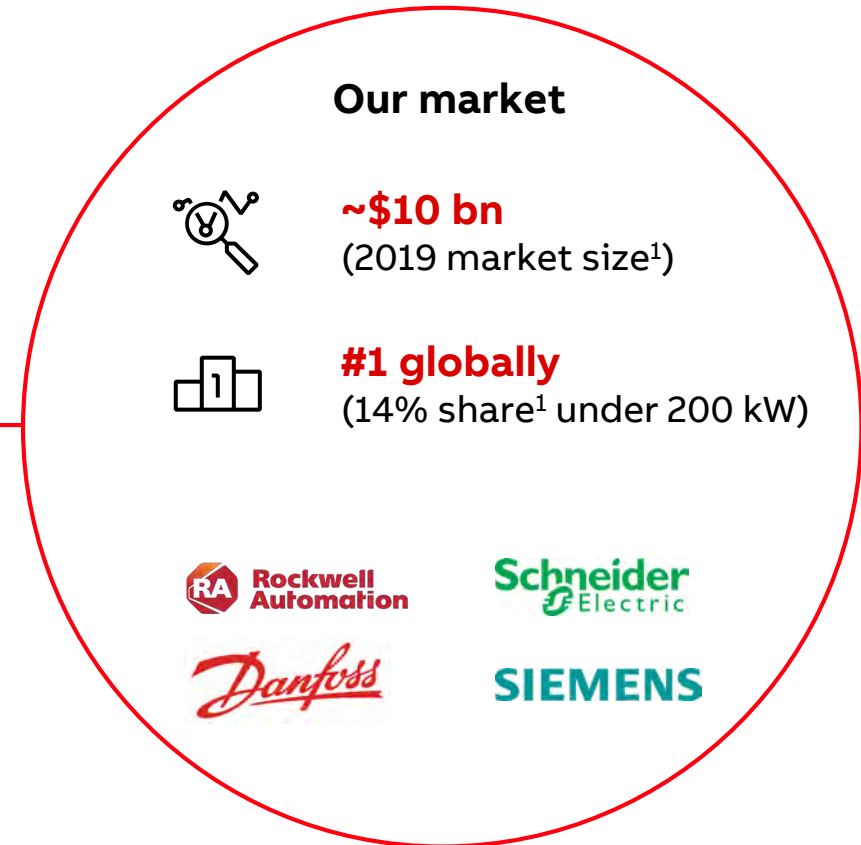
**Installed base of ABB low-voltage AC drives saved >100 TWh
of energy in 2019**

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1. Our business today

Our business at a glance

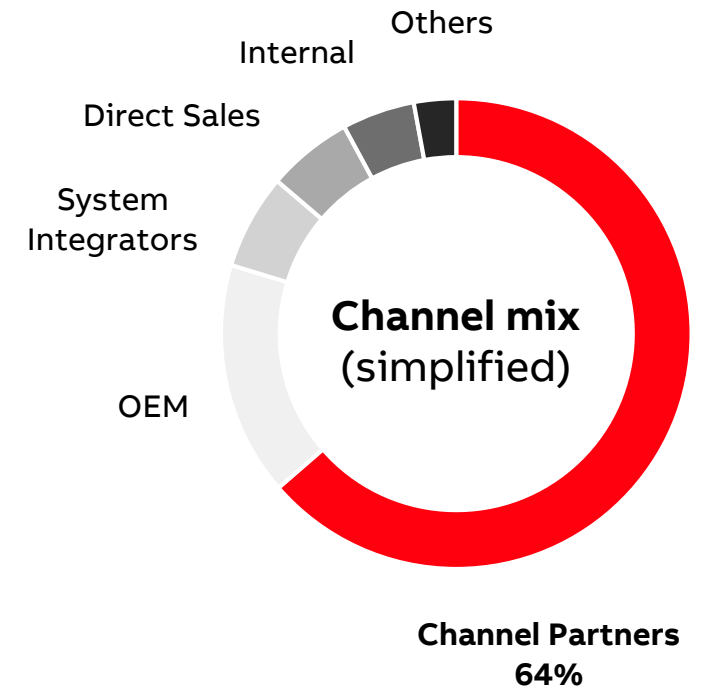
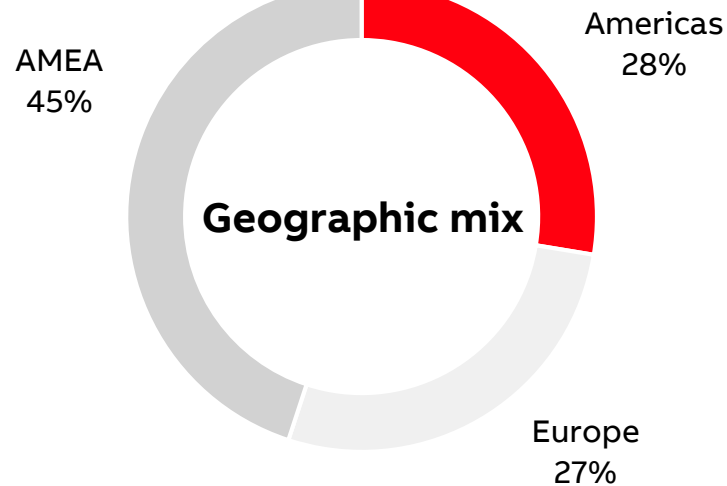
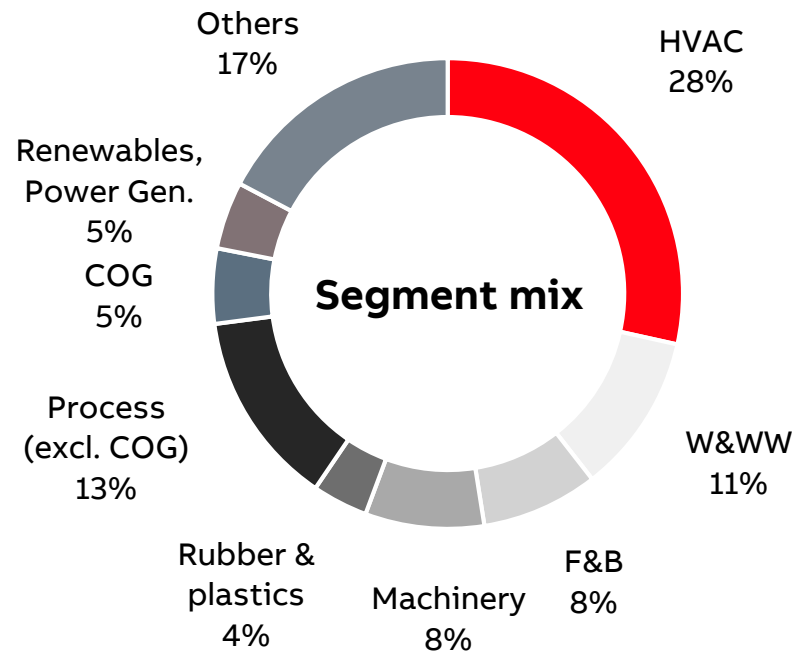
The global market leader



Our strategic mandate: profitable growth

A well diversified global leader

Value-adding channel partner network is a key competitive advantage



Management estimates, based on FY19 revenues

Process: metals, mining, minerals, cement, Pulp & Paper; COG: Chemicals, Oil & Gas; Renewables, Power Gen.: wind, solar, hydro, conventional power generation;

Others: e.g. pharma, rail, EV charging

Comprehensive portfolio and global R&D

Leverage benefits of scale and meet requirements of different markets and segments

Comprehensive product portfolio



Industrial



General Purpose



Segment-specific
(HVAC, Water)



Machinery & Micro



Enabled by digital offering:
customer value beyond products

Global hardware platforms
with **differentiated firmware**
by region and segment

60%

of R&D personnel focused on
software development

7

countries in global R&D network

Technology leadership and domain expertise delivering superior value

Giant Almaza mall manages HVAC with state-of-the-art ABB drives



[Click here to learn more](#)

Why?

Ensuring reliable and efficient air comfort at giant Almaza City Center mall (size of 18 football fields)

What?

200 ACH580 ultra-low harmonics¹ drives in a unique state-of-the-art combination in one single device:

- Complete HVAC² functionality
- Effective harmonics mitigation

Sold and implemented by channel partner

Benefits?

- Easier, faster integration and commissioning
- Energy savings
- 97 percent less harmonics¹
- Saving space, installation and maintenance work

1. Ultra-low harmonics is an advanced technology which reduces electrical disturbance and reactive power

2. HVAC: Heating, Ventilation, and Air Conditioning



Source:
[City Centre Almaza](#)
Cairo, Egypt

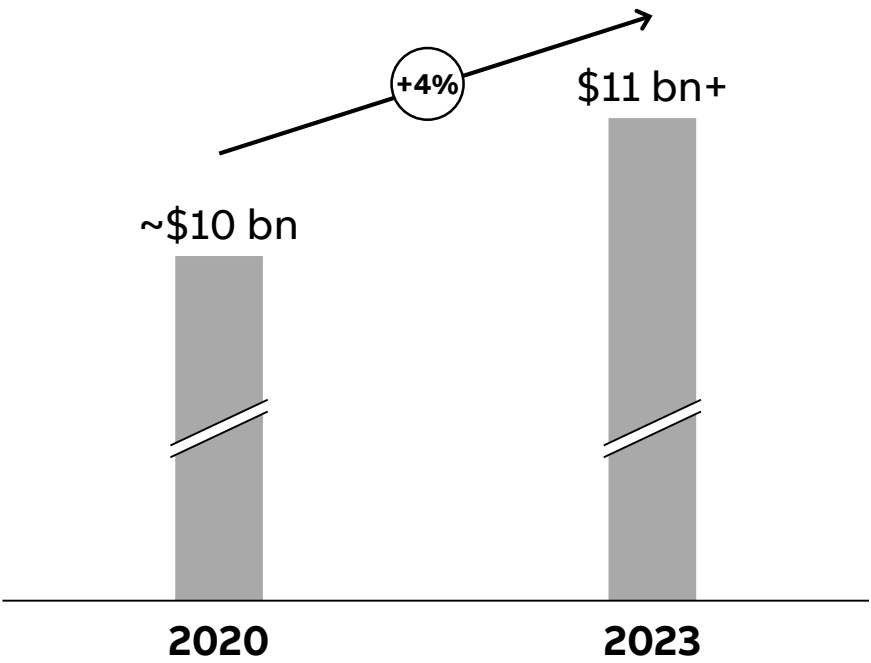
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2. Our business in the future

Strengthen leadership position and increase market share beyond 15%

Attractive \$10bn growth market with plenty of granular growth opportunities

Market size
(in \$ bn)



Market share¹

14% **15%+**

Market position
(selected segments)

	HVAC / Buildings ~\$1.5 bn	#2
	Water & wastewater ~\$1 bn	#1
	Food & beverage ~\$1 bn	#3
	Machinery OEMs ~\$1.5 bn	#7
	Process industries ~\$3 bn	#1

How we will drive profitability

Build on market leadership...



Scale benefits
of #1 position



Strong investment
in R&D



Value leader with a
comprehensive offering

Slide 24

... and continue to differentiate by creating value



94% reduction of electric
disturbance in wastewater plant



[Click here to learn more](#)



<2 years of payback, 200 hrs
downtime p.a. saved in sawmill



[Click here to learn more](#)

Customer value beyond products

Digital strategy with two key dimensions: connected products and digital customer experience

Connected products – plug & play low-cost connectivity



1st in market with built-in cellular cloud connection¹

Enabling new service revenue streams and smart support

Digital customer experience



Connected products with digitalized customer interaction

In summary...

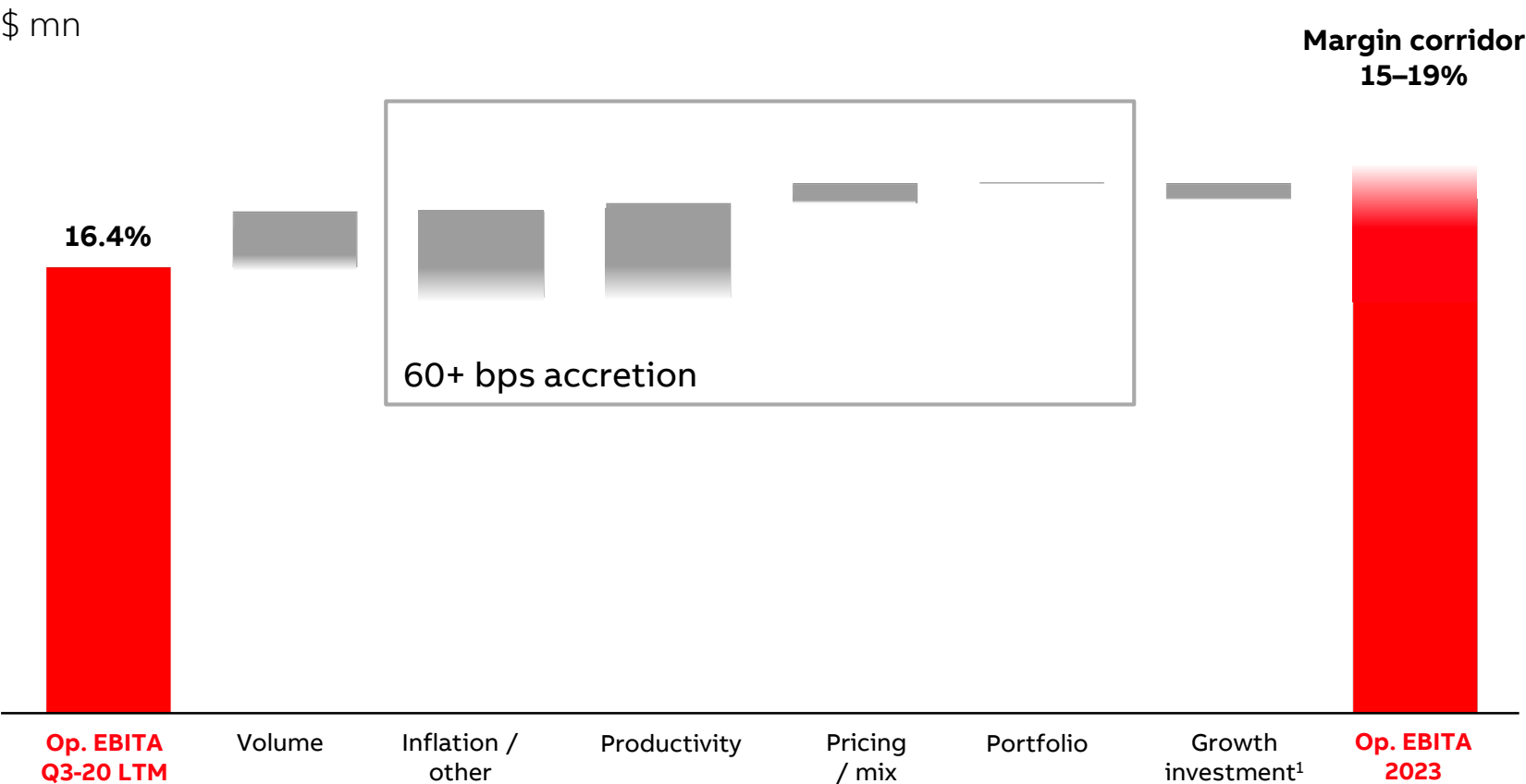
**We keep the world turning
while saving energy every day**

A market-leading ABB Division,
fully empowered and
accountable for our performance



Motion Operational EBITA bridge

Aim for upper end of margin corridor as from 2023



Profitability levers

- Growth above market via granular industry segment approach
- Industry leading volumes and unmatched scale in R&D, G&A and our service network
- Continuous pricing actions
- Portfolio management for growth and performance
- Digital services and new business models

Motion drives sustainable shareholder value creation

Strong and resilient business

From 2018 to 2019

- Grew revenue by 4% (comparable yoy)
- Improved profitability by 70 bps (16.6% Op. EBITA margin 2019)

Attractive market – awareness for sustainability will fuel even more opportunities

Continue to grow faster than the market

Committed to support ABB in enabling a low-carbon society

Systematic portfolio management

Portfolio bolt-ons to enhance growth and performance

Value beyond product and digital services

Aim for upper end of Op. EBITA margin corridor as from 2023

ABB