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:

- business risks associated with the volatile global economic environment and political conditions
- costs associated with compliance activities
- 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.

Although ABB believes that its expectations reflected in any such forward-looking statement are based upon reasonable assumptions, it can give no assurance that those expectations will be achieved.

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.

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 and annual reports” on our website at www.abb.com/investorrelations
The Robotics & Discrete Automation (RA) team
Global, diverse, and deep domain experience
# Robotics & Discrete Automation in ABB’s portfolio

<table>
<thead>
<tr>
<th></th>
<th>Robotics &amp; Discrete Automation</th>
<th>Electrification</th>
<th>Industrial Automation</th>
<th>Motion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 Revenues</td>
<td>Global #2: $3.3 bn</td>
<td>Global #2: $12.7 bn</td>
<td>Global #2: $6.3 bn</td>
<td>Global #1: $6.5 bn</td>
</tr>
<tr>
<td>2019 Op. EBITA %</td>
<td>11.9%</td>
<td>13.3%</td>
<td>11.7%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Employees</td>
<td>~10 k</td>
<td>~53 k</td>
<td>~22 k</td>
<td>~20 k</td>
</tr>
</tbody>
</table>
What we will show you today

1. **Attractive market**
   - Attractive and sustainable automation growth
   - Mega-trends providing new opportunities

2. **How we win**
   - Strongly positioned to benefit from market dynamics
   - Driving innovation in existing and new customer segments, new solutions

3. **Driving profitability**
   - Operating margins within 13-17% corridor over the medium term
   - Focused investment in R&D and sales
ABB Robotics & Discrete Automation

Understanding ABB RA
Attractive market
How we win
Driving profitability
Q&A
A strong portfolio for customer needs …

Robotics and machine automation

Broad scope across robotics and machine automation
...as a base for value creating solutions

End-to-end product portfolio

Software for advanced engineering and simulation

Domain expertise

Automation solutions for flexible manufacturing and smart machines

Auto OEMs  Auto Tier 1  Electronics  General industry  Consumer goods  Logistics  Machine automation

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Creating concrete customer value

End-to-end product portfolio

Software for advanced engineering and simulation

Domain expertise

Concrete customer value

Increased productivity
0.5 seconds to fill a beer bottle

Highest flexibility
Batch size 1

Improved output quality
100% parts inspection

Maximum simplicity
Software development 3x faster
Flexible manufacturing and smart machines for our customers and partners
Our business model
Delivering value at multiple levels

- Robotics
  - MODULAR CELLS
  - ROBOTS & SOFTWARE PLATFORM
  - SYSTEMS

- Machine Automation
  - INTEGRATED SOLUTIONS
  - FACT. AUTO.®
  - AUTOMATION PRODUCTS

SERVICE & ABB ABILITY™
## Addressing specific customer segment needs

<table>
<thead>
<tr>
<th>Segment</th>
<th>Revenue ($ mn, 2019)</th>
<th>Number of Solution Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto OEMs</td>
<td>~950</td>
<td>21</td>
</tr>
<tr>
<td>Auto Tier 1</td>
<td>~400</td>
<td>6</td>
</tr>
<tr>
<td>Electronics</td>
<td>~150</td>
<td>4</td>
</tr>
<tr>
<td>General Industry</td>
<td>~750</td>
<td>5</td>
</tr>
<tr>
<td>Consumer Segments &amp; Service Robotics</td>
<td>~250</td>
<td>4</td>
</tr>
<tr>
<td>Machine Automation</td>
<td>~850</td>
<td>Local engineering</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>~2,750</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Based on management estimate, excl. RA consolidation.
Proven profitable growth

Strong growth at attractive margins

Highlights

- Global #2
  - #2 in robotics, #1 in China
- Installed >400,000 robots
- 4,000 active OEM customers
- ~9,000 digitally connected robots
- ~60,000 users of SW engineering tools

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Management estimate incl. B&R for full period
Recent performance and robust mid-term outlook

Resilient performance in a challenging environment

- **2017** Peak in robot unit sales
- **2018** Shift in mix towards more value-add
- **2019** Downturn incl. impact on spare parts business

Path to margin corridor

- **11.9%** Op. EBITA 2019
- Cost measures
- Mix & value pricing
- Quality & execution
- Volume
- Growth investment
- **Mid-term**

**February 26, 2020**

**February 27, 2020**

1 Management estimate incl. B&R for Q1 2017 and Q2 2017
Balanced business leads to resilient performance

**Reasons**

**Strength in high growth markets – #1 in China and India**

**Diverse end-market exposure**
- ~60% revenue outside automotive

**Value-add to differentiate**
- Products 55%, systems 30%, services 15%

**Technology leadership**
- Machine Automation: more new customers in 2019 than ever

**Flexible value chain**

---

**Top line**

2019 Q3 last 12 months revenue change in $ year-over-year

<table>
<thead>
<tr>
<th>ABB RA</th>
<th>Peer 1</th>
<th>Peer 2</th>
<th>Peer 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td>16%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Profitability**

<table>
<thead>
<tr>
<th>ABB RA</th>
<th>Peer 1</th>
<th>Peer 2</th>
<th>Peer 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>13%</td>
<td>10%</td>
<td>27%</td>
<td>3%</td>
</tr>
<tr>
<td>10%</td>
<td>4%</td>
<td>16%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Well positioned in a challenging environment

Note: ABB in US dollar as published, competitors as published, converted to US dollars based on quarterly exchange rates, profitability as reported.

ABB Group
ABB Robotics & Discrete Automation

Understanding ABB RA

Attractive market

How we win

Driving profitability

Q&A
Key mega-trends creating demand for robotics and automation

- **Individualized consumer**
  - 1/4 Americans have bought personalized products 📈

- **Labor shortage**
  - A quarter of China’s population will be 60+ by 2030 📈

- **Digitalization**
  - Connected factory data / day = 160 million books 📚

- **Uncertainty**
  - 40% of US companies in China consider / have relocated outside China 📈

---

Value propositions

- **Productivity**
- **Flexibility**
- **Quality**
- **Simplicity**

---

1. Made to order: An analysis of US consumer perception towards personalization
2. State Council on Aging
3. Intel
4. AmCham Shanghai and AmCham China joint survey
Significant growth potential

Customer segment perspective

- Start
  - EV
  - EL^1
  - Logistics
  - Healthcare
- Growth
  - Mach. auto.\(^4\)
  - GI^3
  - CPG^2
- Scale
  - Auto OEMs
  - Auto Tier 1
  - Segment revenue

Regional perspective (robot density\(^5\))

- Singapore: 831
- Korea: 774
- Germany: 338
- China: 140
- Malaysia: 52
- Thailand: 51
- Turkey: 30
- Indonesia: 5
- India: 4

Average robot density: average number of installed industrial robots per 10,000 employees in the manufacturing industry 2018

^1Electronics
^2Consumer packaged goods
^3General industry
^4Machine automation
^5Average robot density: average number of installed industrial robots per 10,000 employees in the manufacturing industry 2018
Attractive mid to long-term market growth at ~2x GDP

Global addressable market\(^1\) in $ bn

<table>
<thead>
<tr>
<th>Segment</th>
<th>2019</th>
<th>2025</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto OEMs</td>
<td>75</td>
<td>110</td>
<td>~6%</td>
</tr>
<tr>
<td>Auto Tier 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Industry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSSR(^2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machine Automation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Business exposure % of revenues

Market growth drivers

- Flexible manufacturing (digital factory >10% p.a.)
- Electric vehicle production (>10% p.a.)
- Increasing automation
- Flexible manufacturing (digital factory >10% p.a.)
- New products, technologies (e.g. 5G)
- Automation of more complex tasks
- Increasing automation, incl. for SMEs (>10% p.a.)
- Ease-of-use
- More packaged goods, e-commerce
- Logistics (>25% p.a.) & service (>25% p.a.) robotization
- Increasing automation, mid-segment
- New technologies, e.g. vision, track, machine-centric robotics (>15% p.a.)
ABB Robotics & Discrete Automation

Understanding ABB RA

Attractive market

How we win

Driving profitability

Q&A
Strongly positioned to benefit from market trends

- Broadest portfolio amongst peers
- Innovation strength
- A true global player
- Applied domain expertise
Broad and strong portfolio for our customers

<table>
<thead>
<tr>
<th>Robot products</th>
<th>Robot cells</th>
<th>Engineered solutions</th>
<th>Service</th>
<th>Mach. cent. robotics(^1)</th>
<th>PLC/IPC(^2)</th>
<th>Servo motion</th>
<th>Track system</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABB</td>
<td>KUKA</td>
<td>FANUC</td>
<td>YASKAWA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: major offering shown
\(^1\)Mach. cent. robotics: machine-centric robotics
\(^2\)IPC: Industrial PC
Innovation strength
Portfolio and segment milestones

Phase 1: the start
- Automotive

Phase 2: expansion
- Gen. Ind., Consumer, Electronics
- Engineering tools

Phase 3: B&R acquisition
- Machine Automation
- PLC, Servo motion

Phase 4: new growth areas
- Healthcare, Retail, Logistics
- Collaborative robots
- Machine-centric robotics

1970
IRB6
Articulated
Delta
Engineerig tools
2020+
Innovating in new areas
Building on new technologies

Collaborative robotics

Software: AI and connected services

covariant

Mobile robots
A global player – close to customers locally

Across the value chain

1,600 Service
1,900 Sales
1,000 R&D employees
1,800 Solution & application engineers
4 Incubators

1

SC1

Spain

Robotics factory US

Robotics factory & R&D center
Sweden

Robotics SC1

Brazil

Mach. Auto. campus
Austria

Robotics factory & R&D center
China

Remote monitoring
India

Friedberg

R&D centers (6)

SC1 (40)

RA presence

Solution Center, additionally some SCs share the same location
## Applied domain expertise

<table>
<thead>
<tr>
<th>Solution Centers</th>
<th>Robotics</th>
<th>Mach. Auto.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Auto OEMs</strong></td>
<td>~ 950</td>
<td>~ 850</td>
</tr>
<tr>
<td>- Body-in-White</td>
<td>~ 400</td>
<td></td>
</tr>
<tr>
<td>- Powertrain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Paint</td>
<td>~150</td>
<td></td>
</tr>
<tr>
<td>- FTA(^2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Press automation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Automotive products</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Auto Tier 1</strong></td>
<td>~750</td>
<td></td>
</tr>
<tr>
<td>- Welding and Cutting</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Electronics</strong></td>
<td>~250</td>
<td></td>
</tr>
<tr>
<td>- Assembly and Testing</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Industry</strong></td>
<td>~ 750</td>
<td></td>
</tr>
<tr>
<td>- Handling and Machining</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- General industry paint</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Consumer Segments &amp; Service Robotics</strong></td>
<td>~ 250</td>
<td></td>
</tr>
<tr>
<td>- Sorting, Picking, Packing and Palletizing</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Machine Automation</strong></td>
<td>~ 850</td>
<td></td>
</tr>
<tr>
<td>- Integrated automation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Machine-centric robotics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Track technology</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Based on management estimate, excl. RA consolidation
2. Final Trim and Assembly

Note: Machine Automation shows selected solutions & competences, no Solution Center structure
Three growth drivers

Our customer value propositions

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Flexibility</th>
<th>Quality</th>
<th>Simplicity</th>
</tr>
</thead>
</table>

Three growth drivers

1. Accelerating in existing segments
2. Driving new automation solutions
3. Leveraging existing expertise in new segments
Accelerating in existing segments

Example: electric vehicle manufacturing

Example: flexible, scalable manufacturing solutions
Driving new automation solutions

Example: flexible track technology

Example: machine-centric robotics
Leveraging existing expertise in new segments

Example: robotized warehouse automation

Example: robotics in healthcare
# Customer segment strategic priorities

<table>
<thead>
<tr>
<th>Strategic priorities</th>
<th>Auto OEMs</th>
<th>Auto Tier 1</th>
<th>Electronics</th>
<th>General Industry</th>
<th>Consumer Segments &amp; Service Robotics</th>
<th>Machine Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accelerating in existing segments</strong></td>
<td>★ ★ ★</td>
<td>★ ★</td>
<td>★ ★</td>
<td>★</td>
<td>★</td>
<td>★ ★ ★ ★</td>
</tr>
<tr>
<td><strong>New automation solutions</strong></td>
<td>★ ★ ★</td>
<td>★</td>
<td>★ ★ ★</td>
<td>★ ★ ★</td>
<td>★</td>
<td>★ ★ ★</td>
</tr>
<tr>
<td><strong>New segments</strong></td>
<td>★</td>
<td>★</td>
<td>★ ★</td>
<td>★ ★ ★</td>
<td>★</td>
<td>★</td>
</tr>
<tr>
<td>Account penetration</td>
<td>Account penetration</td>
<td>Account penetration</td>
<td>Account penetration</td>
<td>Channel expansion</td>
<td>Logistics expansion</td>
<td>Growth in Americas, Asia (New technologies (vision, track, MCR))</td>
</tr>
<tr>
<td>Solutions for EV</td>
<td>Tier-specific solutions</td>
<td>New products and solutions</td>
<td>Cobots, ease-of-use</td>
<td>Healthcare entry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible, digital factory automation solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

©ABB February 27, 2020 | Slide 31 1MCR: Machine-centric robotics
Global eco-system accelerating innovation
ABB Robotics & Discrete Automation

Understanding ABB RA

Attractive market

How we win

Driving profitability

Q&A
Path to margin corridor

Mid-term outlook

Actions to improve

1. **Cost measures**
   Execute cost measure plans without compromising mid-term competitiveness

2. **Mix & value pricing**
   Achieve balanced mix and improve value-based pricing

3. **Quality & execution**
   Project execution improvement, driving quality and customer experience culture

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost measures</td>
<td>16.0%</td>
<td>14.6%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Mix &amp; value pricing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality &amp; execution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth investment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Op. EBITA mid-term</td>
<td></td>
<td></td>
<td>17%</td>
</tr>
</tbody>
</table>

\(^1\)Management estimate incl. B&R for full 2017 period
ABB Operating System (ABB-OS)

Speed
- Empowerment: faster decision-making
- Shared service centers report to business

Simplification
- Streamlined reporting and management structures
- Reduction of legal entities

Accountability
- Dedicated KPI’s for performance and value creation
- Directly owned costs vs. allocated costs
Measuring continuous performance improvement

KPIs

1. Cost measures
   - Productivity – revenue/head
   - Design-to-delivery cost/robot
   - Footprint consolidation
   - ABB-OS savings

2. Mix & value pricing
   - Number of robots/year
   - Service revenue %
   - Gross margin

3. Quality & execution
   - Speed of resolution
   - Project execution
   - Customer sentiment (NPS\textsuperscript{1})
Driving above-market growth

**Mid-term revenue development**

- FY 2019: $3.3 bn
- Above-market growth
- Mid-term

**Sources of enhanced growth**

- Extend full portfolio to existing customers
- Accelerating expansion in new markets and segments
- Differentiated and scalable customer solutions
- Digital services on ABB Ability™
- Investing in sales and execution
Focused investment in R&D and sales

R&D investment ($ mn)$

<table>
<thead>
<tr>
<th>Year</th>
<th>Expansion of portfolio</th>
<th>Collaborative robotics and ease-of-use offering</th>
<th>Machine-centric robotics</th>
<th>Digital factory automation</th>
<th>Artificial Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>159</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>175</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>165</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SG&A ($ mn)$

<table>
<thead>
<tr>
<th>Year</th>
<th>Expansion into new segments</th>
<th>Investments in application domain expertise</th>
<th>Channel and account management development</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>351</td>
<td>397</td>
<td>399</td>
</tr>
<tr>
<td>2018</td>
<td>102</td>
<td>397</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>79</td>
<td>399</td>
<td></td>
</tr>
</tbody>
</table>

~5% p.a. of revenues

~13-14% p.a. of revenues

1Non-order related R&D investment, excluding restructuring
2Sales and G&A expenses, excluding restructuring and bad debt
3Management estimate incl. B&R for full 2017 period
Managing growth investment

CAPEX investment ($ mn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>58</td>
</tr>
<tr>
<td>2018</td>
<td>74</td>
</tr>
<tr>
<td>2019</td>
<td>57</td>
</tr>
</tbody>
</table>

~1.5-2% p.a. of revenues

Major CAPEX investments

- **Factory Shanghai**: $50 mn (2020-2022)
- **MA campus**: €100 mn (2018-2020)
- **Texas Medical Center**

Investments in productivity

Note: Management estimate incl. B&R for full 2017 period. Note: 2018 and 2019 CAPEX include some early investments in Factory Shanghai, Machine Automation campus, and Texas Medical Center.
CFO priorities

Operational improvements
- Continued cost measures without compromising growth
- Value based pricing, quality and project execution

Profitable growth
- Above-market growth supported by new customer-oriented organization
- Driving balanced mix (products and services)

Focused investment
- R&D, digital, CAPEX investment to support long-term growth
- Improving cash and net working capital efficiency

Operational EBITA margin corridor of 13%–17% mid-term
In summary

1. **Attractive market**
   - Attractive and sustainable automation growth
   - Mega-trends providing new opportunities

2. **How we win**
   - Strongly positioned to benefit from market dynamics
   - Driving innovation in existing and new customer segments, new solutions

3. **Driving profitability**
   - Operating margins within 13-17% corridor over the medium term
   - Focused investment in R&D and sales