Writing the digital future takes ability. ABB Ability™.
ABB Innovation & Technology Day
Guido Jouret, CDO
Important Notices

Presentations given during the ABB Innovation & Technology Day 2017 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” 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 Ltd 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.

The presentations and the related discussion may also contain or refer to non-GAAP measures of performance. Definitions of these measures and reconciliations between these measures and their US GAAP counterparts can be found in the “Financial information” documents under “Quarterly results and annual reports” on our website at http://new.abb.com/investorrelations/
Capital Markets Day 2016 to today

Accelerating momentum on digital

<table>
<thead>
<tr>
<th>Date</th>
<th>Event/Announcement</th>
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<tbody>
<tr>
<td>Oct 2016</td>
<td>Capital Markets Day</td>
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<td>Nov 2016</td>
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<td>Dec 2016</td>
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<td>Jan 2017</td>
<td>ACW Houston, Morgan Stanley</td>
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<td>Feb 2017</td>
<td>500,000 articles on ABB digital</td>
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<tr>
<td>Mar 2017</td>
<td>21 Lighthouse projects</td>
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<tr>
<td>Apr 2017</td>
<td>31 Lighthouse Accelerators</td>
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<td>May 2017</td>
<td>approved</td>
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<td>Jun 2017</td>
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<td>Jul 2017</td>
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<td>Aug 2017</td>
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- **Digital acceleration**
  - Edge available

- **Digital platform**
  - 40 solutions on Microsoft Azure

- **Digital partnerships**
  - 60 solutions on Microsoft Azure
ABB Ability™ solutions & platform

180+ ABB Ability™ solutions

ABB Ability™

Utilities solutions

Industry solutions

Transportation & Infrastructure solutions

What
Delivers customer value (safety, uptime, speed, yield...)

How
Provides ABB with efficiency and scale

Platform
(common technologies for device, edge, and cloud)

Microsoft

IBM
Digital operations for utilities
Reduced installation time (-40%), maintenance costs (-50%) and outage time (-50%)
Digital operations for transport & infrastructure

Proactive detection of faults (90%), reduced maintenance costs (-20%) and energy costs (-5%)
Digital operations for industry

Improved productivity (+200%), reduced energy (-30%), and longer product life (+30%)

Digital simulation for robot deployment
Connected robots
Manufacturing execution systems
Distributed control systems

Energy assessment
Cybersecurity assessment
Power quality monitoring & demand-response
Remote monitoring & optimization
Industrial markets primed to adopt digital technologies
Computing + connectivity + cloud + analytics set to unlock value

Digital S-Curve

Level of digitalization

Agriculture
Food & Beverage
Mining & Metals
Buildings
Healthcare
Utilities
Chemicals
Oil & Gas
Rail & Road Logistics
Marine

Retail

Energy

Automotive / Discrete

Finance & Insurance

Retail

Other industries

Media

ICT

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Note: relative size of industry for advanced economies
Source: ABB analysis

ABB end-market

Other industries
Digital operations customer examples

- The world's most productive zinc mine
- Top 10 global food & beverage customer
- Finnish refining company

Digital S-Curve

Note: relative size of industry for advanced economies
Source: ABB analysis
Mining: world-class productivity in low-yield mine
Smart ventilation for energy savings and remote monitoring to improve uptime

- **5% uptime improvement** of mine hoists and gearless mill drives
- **30 – 50% energy savings** in mine ventilation
Food & beverage: integrated, digitally enhanced operations
Robot palletizer and Manufacturing Execution System (MES) to boost safety & productivity

100% increase in production
800 bags/hr produced vs 400/hr

ROI in 2.3 years
Automation investment payback
Refinery: complete end-to-end analytics

IT-OT integration to improve end-to-end productivity across the plant

Plant-wide end-to-end visibility
Integrating 15 3rd party DCS systems

Industry-leading product quality & efficiency
81 applications automate every stage of production
Customer feedback on ABB digital strategy
Message resonating well, opening the door for strategic enterprise-wide engagements

"ABB Ability™ combines domain expertise and digital thought leadership building on existing partnerships"

"The open architecture of ABB Ability™ is key to build future applications"