Digital solutions and Industrial Energy Efficiency. Writing the digital future takes ability. ABB Ability™.
Going digital – Quo vadis German Industry? - by BDI

Example – ABB Smart Sensor

Source: ABB (2017)
Digital Technologies - Revolution or Evolution?

Increasing uptime, reliability and efficiency over the life cycle

In 2007, ABB became a pioneer in the field of remote services for robotics. Additional equipment allows to significantly reduce the time for troubleshooting
Digital technologies are driving new innovation in industrial markets

Media is focused on B2C but the “killer app” is in B2B
### ABB is in the “eye of the storm” for massive value migration

A $4 – 11 trillion digital opportunity by 2025

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**Disruptive technologies will have substantial impact by 2025** *(economic impact of 12 most significant technologies, $ trillions, annual)*

<table>
<thead>
<tr>
<th>Technology</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet of Things</td>
<td>3.9 – 11.1</td>
<td></td>
</tr>
<tr>
<td>Mobile internet</td>
<td>3.7 – 10.8</td>
<td></td>
</tr>
<tr>
<td>Automation of knowledge work</td>
<td>5.2 – 6.7</td>
<td></td>
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<tr>
<td>Cloud technology</td>
<td>1.7 – 6.2</td>
<td></td>
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<tr>
<td>Advanced robotics</td>
<td>1.7 – 4.5</td>
<td></td>
</tr>
<tr>
<td>Autonomous and near-autonomous vehicles</td>
<td>0.2 – 1.9</td>
<td></td>
</tr>
<tr>
<td>Next-generations genomics</td>
<td>0.7 – 1.6</td>
<td></td>
</tr>
<tr>
<td>Energy storage</td>
<td>0.1 – 0.6</td>
<td></td>
</tr>
<tr>
<td>3D printing</td>
<td>0.2 – 0.6</td>
<td></td>
</tr>
<tr>
<td>Advanced materials</td>
<td>0.2 – 0.5</td>
<td></td>
</tr>
<tr>
<td>Advanced Oil &amp; Gas exploration and recovery</td>
<td>0.1 – 0.5</td>
<td></td>
</tr>
<tr>
<td>Renewable energy</td>
<td>0.2 – 0.3</td>
<td></td>
</tr>
</tbody>
</table>

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1 Based on top-down estimate of potential net economic benefit, including consumer surplus

Sources: McKinsey Global Institute
Industrial markets primed to adopt digital technologies

Computing + connectivity + cloud + analytics set to unlock value

Digital S-Curve

Level of digitalization

- Agriculture
- Buildings
- Marine
- Rail & Road Logistics
- Oil & Gas
- Chemicals
- Utilities
- Healthcare
- Mining & Metals
- Food & Beverage
- Automotive / Discrete
- Retail
- Finance & Insurance
- Media
- ICT

Note: relative size of industry for advanced economies
Source: ABB analysis
What does it take to win in digital?

Mastering the control room

From physical to digital differentiation
ABB in Digital

Uniquely qualified

Information
$400 bn installed base
125 year history
Context

Technology
Electrical
Material
Mechanical
Digital

ABB EXPERTISE

Know-how
Industry
Geography
Automation
Process
ABB Ability™ solutions & platform

What
Delivers customer benefit (uptime, speed, yield…)

How
Provides ABB with efficiency and scale

Utilities solutions
Industry solutions
Transport & Infrastructure solutions

Platform
(common technologies for device, edge, and cloud)
Innovation takes ability. ABB Ability™
Over one hundred solutions available now

180+ ABB Ability™ solutions

Utilities
Industry
Transportation & Infrastructure
Unlocking the ABB potential in digital

ABB Ability™: industry-leading digital solutions built on a common set of standard technologies

- Open access, intelligent cloud
- New end-to-end digital solutions
- Systems to master process control
- Closing the loop with connected devices
Leveraging the ABB Ability™ platform

On-premise, in the cloud, and in an ecosystem
How ABB Ability™ solutions deliver value
Digitally connected products and services providing expertise
Industry

Improved productivity (<200%), reduced energy (<30%), & longer product life (<30%)
ABB Ability™ solutions’ customers

Utilities

Industry

Transportation & Infrastructure
“ABB on ABB”: 3x improvement in output

ABB’s Heidelberg factory automation case study

Adaptive
Self-learning
Smaller batch sizes
More flexible production

**ABB Ability™:**
Manufacturing Execution System (MES)
Robots

Link: https://youtu.be/fMIFjbUwPek
Writing the digital future takes ability. 
ABB Ability™.