CEE’s 13th Annual Industry Partners Meeting

Welcome Members and Invited Industry Guests

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Executive Director
September 14, 2016
Nashville, TN
A gallery of disruptive technologies

Estimated potential economic impact of technologies across sized applications in 2025, $ trillion, annual

1. Mobile Internet
2. Automation of knowledge work
3. Internet of Things
4. Cloud
5. Advanced robotics
6. Autonomous and near-autonomous vehicles
7. Next-generation genomics
8. Energy storage
9. 3-D printing
10. Advanced materials
11. Advanced oil and gas exploration and recovery
12. Renewable energy

McKinsey: The $33 Trillion Technology Payoff
By Steve Lohr May 22, 2013, New York Times
Global IoT/IoE device forecasts

# of worldwide connected devices\(^2\) (in Billion)

<table>
<thead>
<tr>
<th>Source</th>
<th>Date</th>
<th>CAGR(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISCO</td>
<td>2013</td>
<td>23%</td>
</tr>
<tr>
<td>ERICSSON</td>
<td>2010</td>
<td>-</td>
</tr>
<tr>
<td>Gartner</td>
<td>2013</td>
<td>23%</td>
</tr>
<tr>
<td>IDC</td>
<td>2014</td>
<td>17%</td>
</tr>
<tr>
<td>Harbor Research</td>
<td>2014</td>
<td>29%</td>
</tr>
<tr>
<td>ABI Research</td>
<td>2014</td>
<td>21%</td>
</tr>
<tr>
<td>Global Insight</td>
<td>2014</td>
<td>14%</td>
</tr>
</tbody>
</table>

Note: Some forecasts only for specific years, in that case all other years in between are extrapolated based on the corresponding growth rate. Ericsson does not specify today’s number of connected devices – therefore: Average of all other studies assumed as starting point in 2014.

1. CAGR = Compound annual growth rate. 2. Connected devices includes all autonomous connected things (every forecaster has own definition) - does NOT include computers, mobile devices, tablets.

Sources: Cisco, Ericsson, ABI Research, Gartner, IHS, IDC, Harbor Research, IoT-Analytics.com
Global IoT/loE economic value forecasts

Annual economic value of the IoT market (in Trillion USD)

   - "IoT has the potential to create economic impact of $2.7-6.2 trillion annually by 2025."

2. GE (2012)
   - "Industrial Internet could add $10-15 trillion to global GDP in 20 years."

   - "$19 trillion in IoE value is at stake in the next decade."

   - "IoT will result in $1.9 trillion in global economic value-add in 2020."

5. Germany (GDP of the total economy)

Wording as initially published. 2. Cisco "value at stake" has been forecast as $19 trillion over total decade. Value has been spread over 10 years assuming the same annual growth rate as Cisco's IoT device forecast 2014-20. 3. GE's "potential GDP impact" was forecasted as $10-15 trillion in 20 years. Value for the previous years has been assumed using the average IoT device growth rate 2014-2020 of 21%. 4. McKinsey's "potential economic value-add" for the years 2014-2024 calculated taking the average IoT device growth rate 2014-2020 of 21%. 5. Gartner's numbers have been calculated using Gartner's annual IoT revenue growth 2014-2020 of 8%.

Sources: McKinsey, General Electric, Cisco, Gartner, IoT Analytics

Reference point: Total GDP of the USA in 2014.
2016 Internet of Things
Special Thanks

- AHRI
- A.O. Smith Corporation
- Carrier Corporation
- Cascade Energy
- Energy Conservation Partners, LLC
- GE Lighting
- Go Sustainable Energy
- LEDVANCE