Industrial Internet of Things (IIoT) Research

EXECUTIVE SUMMARY

APRIL 2016
SAMPLE OF OVER 170 SENIOR EXECUTIVES

Methodology

n=173 executives from a survey conducted by IW Custom Research commissioned by Genpact

- **Job level**:
  - Senior executive: 40%
  - C-Suite: 28%
  - Functional manager: 16%
  - Individual contributor: 16%

- **Regions**:
  - North America: 83%
  - Rest of world: 17%

- **Size**:
  - Less than $1 billion: 73%
  - $1 billion to $4.9 billion: 16%
  - $5 billion or more: 11%

- **Industries**:
  - High tech (computers, networking, semiconductors, electronics): 24%
  - Industrial, heavy machinery and/or commercial equipment: 22%
  - Consulting: 17%
  - Transportation: 15%
  - Metals and mining, Oil and gas: 9%
  - Aerospace and defense: 8%
  - Power generation: 5%
  - Consumer packaged goods: 5%
  - Consumer durables: 3%
  - Chemicals: 2%
  - Medical equipment, pharma, biomedical devices: 2%

n=173 executives from a survey conducted by IW Custom Research commissioned by Genpact
Executive summary

INDUSTRIAL INTERNET OF THINGS (IIoT) AND BUSINESS TRANSFORMATION – WHAT’S THE STATUS?

Growth and agility top objectives sought

- 81% organizations believe **successful adoption of IIoT** is critical to **future success**; even more so for **high tech** and **large enterprises**
- **Leaders** seek primarily **growth** (90%) and **agility** (85%)

Gaps in aligning interventions to outcomes

- Only 25% have **clear IIoT strategy** and only 24% among those are **happy with its execution**; **high tech** companies slightly better
- Leaders’ biggest hurdles are **data security** (51%) and **privacy** (39%), while the rest struggle with **legacy systems** (36%), **inability to do fast experiments** and **insufficient skills of IT staff** (34%)

...leading to wide disparity of impact realized and expected

- More leaders see **high impact on growth** levers e.g. new products, enhanced customer experience (67%) compared to the rest
- Leaders estimate **average combined annual business impact** of **US$ 1.5 bn** compared to **US$ 0.27 bn** for the rest
- Leaders see impact from technology but also from specific process re-design and advanced organizational models. Other companies less so

# Respondents rating their organization’s IIoT usage more advanced than competitors

*Companies with revenues > US$ 1 bn
SUCCESSFUL ADOPTION OF IIoT KEY TO FUTURE SUCCESS
MORE AMONG HIGH TECH AND LARGE COMPANIES CONSIDER IIoT IMPORTANT

% of respondents that agree (5 or 4 on a scale of 1-5, agree=5) that successful adoption of the IIoT technology and related analytics capabilities being critical to the future success of their company

Overall 81.4%

Leaders¹
97%

Strivers²
76%

Companies with revenues > US$ 1 bn
96%

< US$ 1 bn
76%

Companies with HQs in North America
79%

outside North America
93%

High tech companies³
93%

Other manufacturing companies⁴
79%

1 Respondents rating their organization’s IIoT usage more advanced than competitors (n = 43)
2 Respondents not rating their organization’s IIoT usage more advanced than competitors (n = 129)
3High tech includes computers, networking, semiconductors and electronics (n = 40)
4Aerospace and defense, automotive, chemicals, consumer durables, consumer packaged goods, industrial, heavy machinery and/or commercial equipment, medical equipment, pharmaceuticals, and/or biomedical devices, metals and mining, oil and gas, power generation (n = 114)

n=172 executives from a survey conducted by IW Custom Research commissioned by Genpact
GROWTH SEEN BY MOST LEADERS AS HIGH PRIORITY
OTHERS ARE LESS CLEAR CUT IN THEIR ASSESSMENT OF PRIORITIES

% of overall respondents rating their organizations IIoT priorities as high (5, 4 on a scale of 1-5, high priority=5)

Overall Leaders\(^1\)
Strivers\(^2\)

- **Growth**: 77% (90%)
- **Agility**: 75% (85%)
- **Cost**: 72% (76%)
- **Compliance**: 40% (41%)

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\(^1\) Respondents rating their organization's IIoT usage more advanced than competitors (n = 41)

\(^2\) Respondents not rating their organization's IIoT usage more advanced than competitors (n = 83)

n=124 executives from a survey conducted by IW Custom Research commissioned by Genpact
MOST THINK THEIR COMPANY LACKS A CLEAR IIOT STRATEGY
LEADERS, HIGH TECH COMPANIES SLIGHTLY AHEAD IN STRATEGY FORMULATION

% of respondents who said their company has a clear IIoT strategy

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Leaders</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>Strivers</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Companies with revenues &gt; US$ 1 bn</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>&lt; US$ 1 bn</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Companies with HQs in North America</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>outside North America</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>High tech companies</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Other manufacturing companies</td>
<td>21%</td>
<td></td>
</tr>
</tbody>
</table>

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n=172 executives from a survey conducted by IW Custom Research commissioned by Genpact
ONLY FEW ARE VERY HAPPY WITH STRATEGY’S EXECUTION
HIGH TECH COMPANIES ARE AHEAD

% of respondents with an IIoT strategy rating its execution in their organization as excellent

- Overall: 24%
- Leaders: 33%
- Strivers: 11%
- Companies with revenues > US$ 1 bn: 33%
- < US$ 1 bn: 19%
- Companies with HQs in North America: 24%
- outside North America: 20%
- High tech companies: 40%
- Other manufacturing companies: 13%

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n=42 executives from a survey conducted by IW Custom Research commissioned by Genpact
DATA SECURITY, LEGACY SYSTEMS TOP CONCERNS
BUT HURDLES PERCEIVED BY LEADERS ARE OFTEN NOT SAME AS STRIVERS’

% of respondents rating the challenge as problematic (5, 4 on a 1-5 scale, very problematic=5)

- Data security concerns: Strivers 31%, Leaders 29%, Overall 36%
- Legacy systems: Strivers 31%, Leaders 29%, Overall 40%
- Insufficient skills of IT staff: Strivers 30%, Leaders 29%, Overall 34%
- Data quality issues: Strivers 31%, Leaders 29%, Overall 36%
- Data privacy and confidentiality concerns: Strivers 31%, Leaders 29%, Overall 39%
- Inability to do fast experiments: Strivers 31%, Leaders 29%, Overall 34%
- Poor collaboration/functional silos: Strivers 31%, Leaders 29%, Overall 34%
- Insufficient budget: Strivers 17%, Leaders 12%, Overall 32%
- Insufficient data analysis and insight: Strivers 31%, Leaders 29%, Overall 34%
- Lack of standards for interoperability and interconnectivity: Strivers 31%, Leaders 29%, Overall 34%
- Unclear business case for IIoT: Strivers 12%, Leaders 9%, Overall 25%
- Governance and change management: Strivers 25%, Leaders 17%, Overall 30%
- Low appetite for risk: Strivers 25%, Leaders 17%, Overall 30%
- Insufficient skills for ongoing operations: Strivers 25%, Leaders 17%, Overall 30%

1 Respondents rating their organization’s use of IIoT technology to be more advanced than competitors
2 Respondents who did not rate their organization’s use of IIoT technology to be more advanced than competitors

n=173 executives (Leaders = 43, Strivers = 130) from a survey conducted by IW Custom Research commissioned by Genpact
IIoT STATED TO INCREASE RISK OF CYBERATTACKS
STRIVERS RELATIVELY LESS AWARE AND PROACTIVE

58% of leaders\(^1\) believe IIoT is increasing the risk of cyberattacks, strivers\(^2\) less so at 46%

More than half think their companies do not have a response plan to prevent losses from the threat

45% expect at least one cyberattack in next 12 months

50% of the leaders\(^1\) think interconnectivity helps proactively manage risk of cyberattacks, but only 33% of the strivers\(^2\)

\(^1\)Respondents rating their organization’s use of IIoT technology to be more advanced than competitors
\(^2\)Respondents who did not rate their organization’s use of IIoT technology to be more advanced than competitors

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## HIGH IMPACT OF IIoT ON OPERATIONAL IMPROVEMENT

**SHARP DIVERGENCE BETWEEN LEADERS AND STRIVERS ON GROWTH LEVERS**

% of respondents rating the current impact of IIoT technology and related analytics on their business as **high** (5,4 on a 1-5 scale, high impact=5)

<table>
<thead>
<tr>
<th>Cost savings</th>
<th>Growth</th>
<th>Regulatory compliance</th>
<th>Business agility (ability to adapt to market changes faster)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational improvement</td>
<td>New products and services</td>
<td>Enhanced customer experience</td>
<td>New revenue streams and business models</td>
</tr>
<tr>
<td>Business agility</td>
<td>Supply chain optimization</td>
<td>Creating a new market, or growing the existing one</td>
<td>Better asset utilization</td>
</tr>
<tr>
<td>More market share</td>
<td>Better pricing</td>
<td>Regulatory compliance</td>
<td></td>
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</tbody>
</table>

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2 Respondents who did not rate their organization’s use of IIoT technology to be more advanced than competitors

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WIDE DISPARITY IN IMPACT EXPECTED FROM INITIATIVES
HIGHER POTENTIAL IMPACT FROM REIMAGINING AND INDUSTRIALIZING PROCESSES

% of respondents expecting a certain annual $ impact from the following initiatives

<table>
<thead>
<tr>
<th>Average annual $ impact (US$ million)</th>
<th>Use of digital technologies for IIoT</th>
<th>IIoT-specific process redesign</th>
<th>Advanced organizational models to leverage IIoT</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>19%</td>
<td>23%</td>
<td>41%</td>
</tr>
<tr>
<td>Less than $11 million</td>
<td>41%</td>
<td>40%</td>
<td>41%</td>
</tr>
<tr>
<td>$11-$50 million</td>
<td>30%</td>
<td>27%</td>
<td>32%</td>
</tr>
<tr>
<td>$51-$100 million</td>
<td>46%</td>
<td>44%</td>
<td>27%</td>
</tr>
<tr>
<td>$101-$250 million</td>
<td>16%</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>$251-$500 million</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over $1 billion</td>
<td>13%</td>
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</tbody>
</table>

Overall: Leaders¹ Strivers²

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Annual $ impact is the impact of operating model initiatives in US$ per annum including reduction of cost, capital required, improvement of cash and revenue growth

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About Genpact

Genpact (NYSE: G) stands for “generating business impact.” We are a global leader in digitally-powered business process management and services. We architect the Lean Digital℠ enterprise through our patented Smart Enterprise Processes (SEP℠) framework that reimagines our clients’ operating model end-to-end, including the middle and back offices. This creates Intelligent Operations℠ that we help design, transform, and run. The impact on our clients is a high return on transformation investments through growth, efficiency, and business agility. For two decades, first as a General Electric division and later as an independent company, we have been passionately serving our clients. Today, we generate impact for a few hundred strategic clients, including approximately one-fifth of the Fortune Global 500, and have grown to over 70,000 people in 25 countries, with key offices in New York City. The resulting business process and industry domain expertise and experience running complex operations are a unique heritage and focus that help us drive the best choices across technology, analytics, and organizational design.

For additional information, visit www.genpact.com.
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