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
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%

Leaders 1
97%

Strivers 2
76%

Companies with revenues > US$ 1 bn
96%

Companies with revenues < US$ 1 bn
76%

Companies with HQs in North America
79%

outside North America
93%

High tech companies 3
93%

Other manufacturing companies 4
79%

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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)
3 High tech includes computers, networking, semiconductors and electronics (n = 40)
4 Aerospace 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

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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)

<table>
<thead>
<tr>
<th>Priorities</th>
<th>Overall Leaders</th>
<th>Strivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth</td>
<td>77%</td>
<td>90%</td>
</tr>
<tr>
<td>Agility</td>
<td>75%</td>
<td>85%</td>
</tr>
<tr>
<td>Cost</td>
<td>72%</td>
<td>76%</td>
</tr>
<tr>
<td>Compliance</td>
<td>41%</td>
<td>39%</td>
</tr>
</tbody>
</table>

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

- Overall: 25%
- Leaders: 56%
- Strivers: 14%
- Companies with revenues > US$ 1 bn: 33%
- < US$ 1 bn: 21%
- Companies with HQs in North America: 26%
- outside North America: 18%
- High tech companies: 38%
- Other manufacturing companies: 21%

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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**

<table>
<thead>
<tr>
<th>Category</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>24%</td>
</tr>
<tr>
<td>Leaders</td>
<td>33%</td>
</tr>
<tr>
<td>Strivers</td>
<td>11%</td>
</tr>
<tr>
<td>Companies with revenues &gt; US$ 1 bn</td>
<td>33%</td>
</tr>
<tr>
<td>&lt; US$ 1 bn</td>
<td>19%</td>
</tr>
<tr>
<td>Companies with HQs in North America outside North America</td>
<td>24%</td>
</tr>
<tr>
<td>High tech companies</td>
<td>40%</td>
</tr>
<tr>
<td>Other manufacturing companies</td>
<td>13%</td>
</tr>
</tbody>
</table>

1. Respondents rating their organization’s IIoT usage more advanced than competitors
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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)

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Strivers(^2)</th>
<th>Overall</th>
<th>Leaders(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data security concerns</td>
<td>31%</td>
<td>51%</td>
<td>36%</td>
</tr>
<tr>
<td>Legacy systems</td>
<td>29%</td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>Insufficient skills of IT staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data quality issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data privacy and confidentiality concerns</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inability to do fast experiments</td>
<td>29%</td>
<td></td>
<td>34%</td>
</tr>
<tr>
<td>Poor collaboration/functional silos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insufficient budget</td>
<td>17%</td>
<td></td>
<td>32%</td>
</tr>
<tr>
<td>Insufficient data analysis and insight</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lack of standards for interoperability and interconnectivity</td>
<td>15%</td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>Unclear business case for IIoT</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Governance and change management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low appetite for risk</td>
<td>12%</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>Insufficient skills for ongoing operations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) 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\(^2\)

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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)

- Cost savings
- Growth
- Regulatory compliance
- Business agility (ability to adapt to market changes faster)

Operational improvement
- New products and services
- Enhanced customer experience
- New revenue streams and business models
  - Business agility
- Supply chain optimization

Creating a new market, or growing the existing one
- Better asset utilization
- More market share
- Better pricing
- Regulatory compliance

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**Overall**

**Leaders**

**Strivers**

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Operating model initiatives and potential impact

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>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>Average annual $ impact (US$ million)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over $1 billion</td>
<td>243</td>
<td>173</td>
</tr>
<tr>
<td>$501 million-$1 billion</td>
<td>526</td>
<td>446</td>
</tr>
<tr>
<td>$251-$500 million</td>
<td>13%</td>
<td>24%</td>
</tr>
<tr>
<td>$101-$250 million</td>
<td>16%</td>
<td>32%</td>
</tr>
<tr>
<td>$51-$100 million</td>
<td>41%</td>
<td>11%</td>
</tr>
<tr>
<td>$11-$50 million</td>
<td>30%</td>
<td>11%</td>
</tr>
<tr>
<td>Less than $11 million</td>
<td>46%</td>
<td>27%</td>
</tr>
<tr>
<td>None</td>
<td>19%</td>
<td>27%</td>
</tr>
<tr>
<td>Overall</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td>Leaders&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strivers&lt;sup&gt;2&lt;/sup&gt;</td>
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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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Genpact Research Institute

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About Industrial Internet Consortium

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