### 5G Industrial Revolution

#### 5G and edge in industrial operations

**Survey: Capgemini Research Institute, 5G and edge in industrial operations survey, February–March 2021, N=1,000 industrial organizations.**

### Current Status of 5G Implementations

**What is the current status of 5G implementations in your organization?**

<table>
<thead>
<tr>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, we are not planning</td>
<td>21%</td>
</tr>
<tr>
<td>No, but we are considering</td>
<td>40%</td>
</tr>
<tr>
<td>Yes, in 3–5 years</td>
<td>44%</td>
</tr>
<tr>
<td>Yes, within a year</td>
<td>9%</td>
</tr>
<tr>
<td>Yes, we are using 5G</td>
<td>9%</td>
</tr>
<tr>
<td>No – we do not plan to adopt</td>
<td>9%</td>
</tr>
</tbody>
</table>

### 5G Implementation Models

**Which of the following is your organization's preferred model for 5G implementation?**

- Public 5G networks using an operator's spectrum, N=72%
- Private networks using own spectrum, N=30%
- Hybrid networks (mix of private and public networks), N=4%
- Dedicated slice from an operator, N=0%

### Early Implementations

**Share of early adopters for whom 5G features have matched or exceeded expectations for the majority of 5G use cases.**

- Increased data security and privacy, N=28%
- Increased operational efficiency with 5G, N=26%
- Higher workforce productivity with 5G, N=31%
- Enhanced product and service innovation, N=26%
- Increased cost savings and efficiencies, N=21%
- Increased access to new markets, N=13%
- Increased revenue, N=9%
- Reduced time to market, N=3%

### 5G Features

**Quality of Service (QoS) control, N=76 for edge computing, N=105 for ultra-reliability and low latency.**

### 5G Adoption Drivers

**Top 3 drivers behind adopting 5G: key insight coming out of early implementers.**

1. Increased data security and privacy (28%)
2. Operational efficiency with 5G (26%)
3. Workforce productivity with 5G (31%)

### 5G Adoption Challenges

**What are the major challenges to implementing 5G in the industrial sector?**

- Lack of access to the 5G and edge application ecosystems, N=30%
- Cybersecurity, N=26%
- Quality of service, N=17%
- Public network reliability, N=13%
- Cost, N=11%
- Lack of clarity on business case, N=9%

### 5G Rollout Timeframes

**What is the timeframe for implementing 5G?**

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, but we are considering</td>
<td>21%</td>
</tr>
<tr>
<td>No, but we are considering</td>
<td>21%</td>
</tr>
<tr>
<td>Yes, in 3–5 years</td>
<td>44%</td>
</tr>
<tr>
<td>Yes, within a year</td>
<td>9%</td>
</tr>
<tr>
<td>Yes, we are using 5G</td>
<td>9%</td>
</tr>
<tr>
<td>No – we do not plan to adopt</td>
<td>9%</td>
</tr>
</tbody>
</table>

### 5G and Industrial Innovation

**What is the impact of 5G on your innovation journey?**

- Increased productivity and efficiency, N=70%
- New services (e.g., connected cars), N=44%
- Increased access to new markets, N=31%
- Enhanced product and service innovation, N=26%
- Increased revenue, N=21%
- Increased cost savings and efficiencies, N=17%
- Reduced time to market, N=13%

### 5G and Sustainability

**How can telcos aid their industrial clients’ 5G journey?**

1. Demonstrate the impact of 5G in the on-the-ground reality.
2. Start with a clear understanding of your clients’ business needs and deployment models that will accommodate the unique industrial innovation.
3. Evaluate the trade-offs involved and design from the earliest stages.
4. Ensure that security is built in by establishing the right use cases.
5. Start gradually and test results before progressing with 5G.

### Conclusion

**51% of industrial organizations say they are at the planning and ideation stages of our 5G initiatives yet.**

- We have not initiated initiatives yet.
- We are at the planning stage.
- We have implemented 5G pilots and initiatives at full scale at a single site.

### Resources

- Download Report
- Subscribe to the latest research from the Capgemini Research Institute by visiting https://www.capgemini.com/capgemini-research-institute-subscription/