

Accelerating the

Industrial Revolution

State of 5G and edge in industrial operations

These are early days for industrial 5G adoption

Most industrial organizations that intend to adopt 5G are at the planning and ideation stages



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

Source: Capgemini Research Institute, 5G and edge in industrial operations survey, February–March 2021, N=1,000 industrial organizations that have adopted or are planning to adopt 5G.



Within two years

40% of industrial organizations plan to implement 5G at scale at a single site

More than a third of industrial organizations prefer to deploy private 5G networks

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



Source: Capgemini Research Institute, 5G and edge in industrial operations survey, February–March 2021, N=1,000 industrial organizations that have adopted or are planning to adopt 5G.

Industrial organizations view edge computing as key to realizing the full potential of 5G

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Source: Capgemini Research Institute, 5G and edge in industrial operations survey, February–March 2021, N=1,000 industrial organizations that have adopted or are planning to adopt 5G.



Top 2 drivers behind adopting 5G-based edge computing services

 Increased performance and reliability Increased data security and privacy

Early implementations are turning 5G hype into on-the-ground reality

5G features have matched or exceeded expectations for the majority of early adopters



Share of early adopters for whom network slicing and Quality of Service (QoS) control met or exceeded expectations

Share of early adopters for whom 5G-based edge computing services met or exceeded expectations

Share of early adopters for whom ultra-reliability and low latency met or exceeded expectations

Source: Capgemini Research Institute, 5G and edge in industrial operations survey, February–March 2021, N=89 for network slicing with Quality of Service (QoS) control, N=76 for edge computing, N=105 for ultra-reliability and low latency.

5G is already delivering business benefits for industrial organizations



realized higher operational efficiency with 5G

realized higher workforce productivity with 5G

have realized increased flexibility with 5G

Source: Capgemini Research Institute, 5G and edge in industrial operations survey, February–March 2021, N=302 industrial organizations that have run pilots/trials or full-scale implementations of 5G.

Industrial organizations are optimistic that 5G will drive revenues going forward

Has your organization introduced/or is it planning to introduce new products/services enabled by 5G?



Source: Capgemini Research Institute, 5G and edge in industrial operations survey, February–March 2021, N=1,000 industrial organizations that have adopted or are planning to adopt 5G.

What is holding back more widespread implementation of 5G?

Top challenges holding back 5G implementation

Integrating 5G networks with existing networks and IT systems	76%
Lack of access to the 5G and edge application ecosystems	72%
Managing cybersecurity	70%
Managing a multi-vendor environment	69%

Source: Capgemini Research Institute, 5G and edge in industrial operations survey, February–March 2021, N=1,000 industrial organizations that have adopted or are planning to adopt 5G.

Industrial organizations are conscious of the environmental impact of 5G adoption

51% of industrial organizations say they are concerned about the potential negative environmental impact of 5G



Share of organizations that say their choice of a 5G operator/vendor/supplier will be impacted by their sustainability credentials

How can industrial organizations accelerate 5G adoption?



Sources: Capgemini Research Institute analysis.

How can telcos aid their industrial clients' 5G journey?



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