Capgemini

Intelligent Industry. Powered by data

THE FOUNDATIONS FOR DATA-DRIVEN TRANSFORMATIONS

5G and Edge will be a major lever for business transformation in many, if not all, industries. It opens up seamless connectivity that will drastically change the way products and services are designed and developed and the way technology is consumed across various industry sectors.

To put this into context, let's rewind the clock to the early 2000s. The internet was being widely used on desktop computers, but connectivity was very slow. Websites and browsers were basic. Then along came iPhones and Android devices, promising internet access from anywhere. However, the introduction of the smartphone did not transform the way people used the internet overnight. It gradually enabled people to access all applications through technological innovation, consequently, shifting use from desktop applications to mobile.

It was the gradual growth of the app ecosystem and the simultaneous increase in smartphone processing power and connection speed that really made the smartphone a game changer. Once developers and designers understood what they could really do with technology, it exploded into what we have today – a technology that we rely on for most aspects of our daily lives – from consuming offline music, to attending a live meeting anywhere in the world.

5G and Edge is that significant. The processing power is there, and we are currently building the components and the infrastructure – what's next is for the creative, mathematical, and business minds to turn their attention to unleashing its potential.

USE CASES ARE WAITING

The differentiation with 5G and Edge is that the convergence of technology and connectivity comes right out of the box. Massive connectivity and throughputs with lower latencies, plus huge processing power, are the baseline.

What makes 5G and Edge exponentially potent is that they can be applied to an almost infinite range of devices – from the smallest sensor, to an entire vehicle, ship, building, or city.

5G has sparked enormous interest among a wide range of businesses. In fact, up to 65% are keen to implement the technology within two years of availability.[1]

Perhaps this is because of the enormous range of potential applications, such as autonomous guided vehicles (AGVs), robots, and drones, unenclosed fenceless robots, or cobots that collaborate with workers, and massive internet of things (IoT) deployments for real-time monitoring and remote control of operations.

65%

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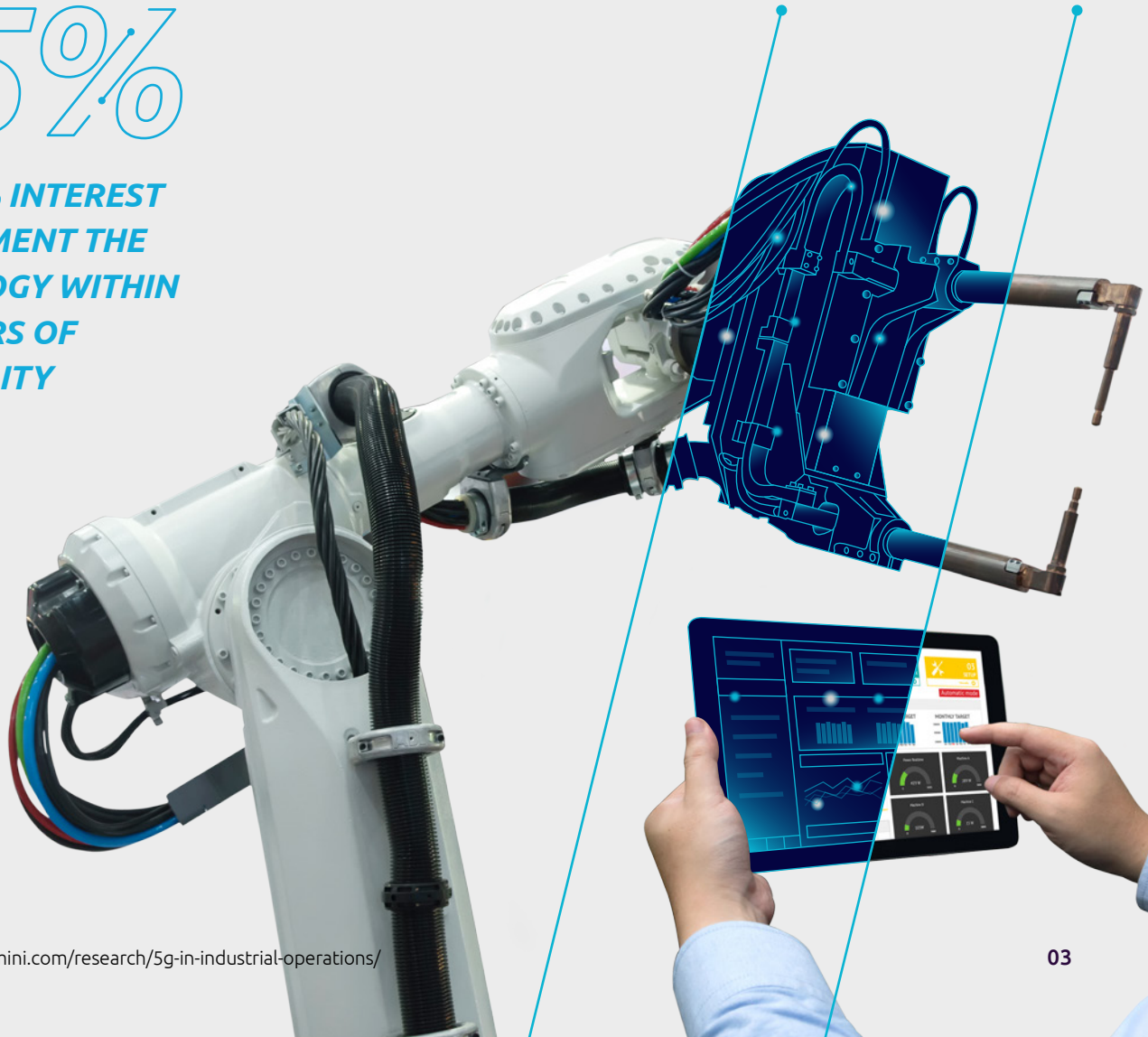


[1] https://www.capgemini.com/research/5g-in-industrial-operations/

In supply chain, the use cases include self-triggering orders based on inventory levels, virtual testing of parts from suppliers, and remote monitoring of shipment conditions, such as temperature and humidity during transit.

But this is only the tip of the iceberg. We have seen a rapid change in the way devices are being manufactured, with more intelligent capabilities that are more immersive and more interactive in nature. This stretches the possibilities of 5G and Edge wide open. The emerging application developer ecosystem can start building new innovations in gaming, retail, industrial and many other sectors.

Unlike the single-solution connectivity stacks that many organizations have adopted in a piecemeal way, 5G provides a single, futureproof connectivity solution that can host a multitude of different use cases. It's scalable. It can be upgraded rapidly. And being software driven it is highly agile with zero-touch orchestration.

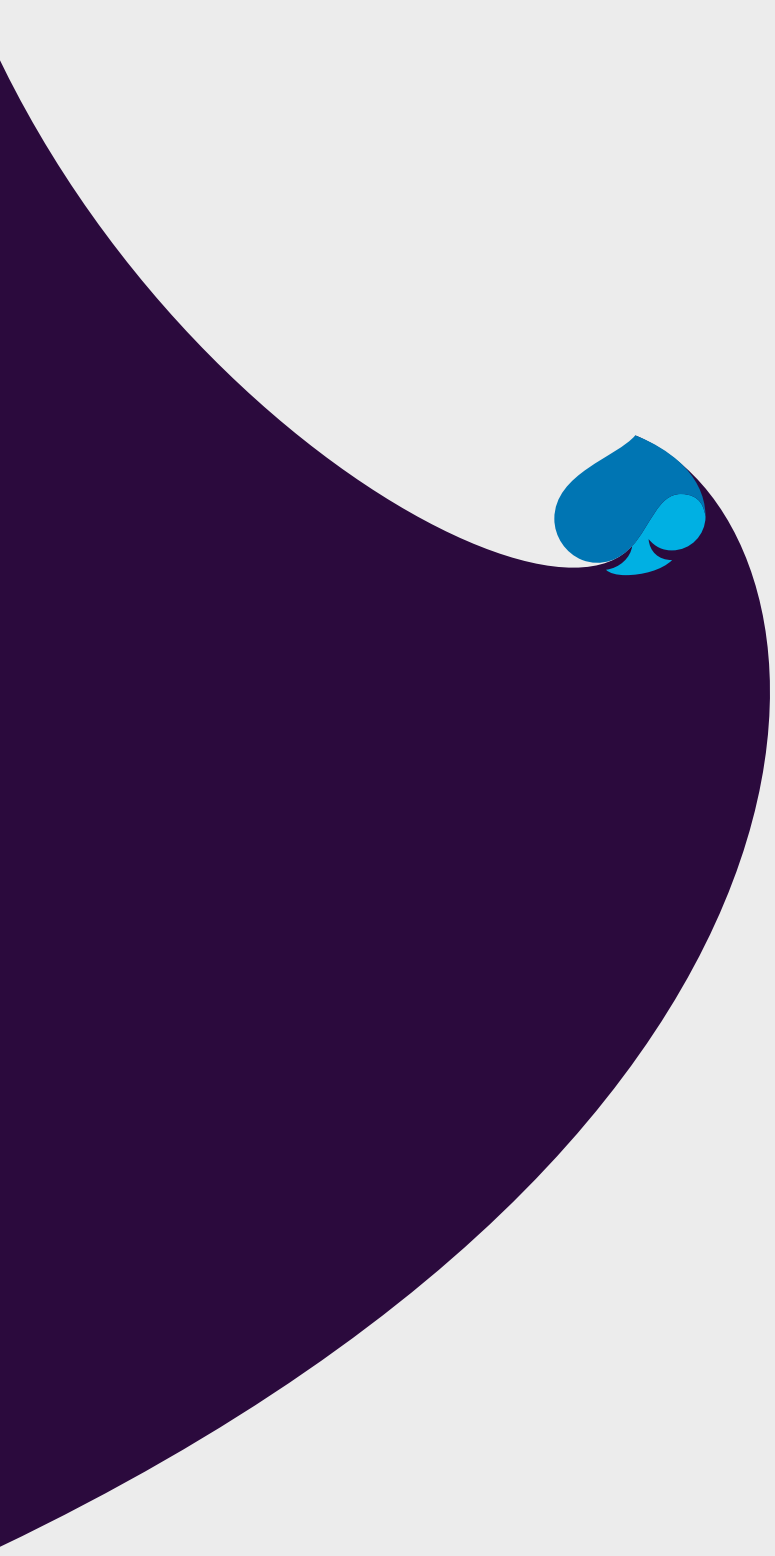
"WHAT MAKES 5G AND EDGE EXPONENTIALLY POTENT ARE THAT THEY CAN BE APPLIED TO AN ALMOST INFINITE RANGE OF DEVICES"

EXPERIENCE AND INSIGHT FOR THE FUTURE

The stage is set for 5G and Edge. According to Capgemini research, a majority of business leaders see 5G as essential to their digital transformations because of factors including guaranteed quality of service, enhanced security, low latency and massive machine-type communications.[2]

The future of industry is intelligent. We have technology consulting and deep engineering expertise, which means we know the technology and how to apply it. We help clients engineer 5G telecom equipment, design and build trains and planes. We help life sciences companies launch new products and patient-centric. We help manufacturing clients pursue operational excellence. We have the engineering and IT capabilities to implement 5G and Edge at scale, to take advantage of Intelligent Industry.

[2] https://www.capgemini.com/wp-content/uploads/2019/06/5G_Infographic.pdf



About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided everyday by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of 270,000 team members in nearly 50 countries. With its strong 50 year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fuelled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering and platforms. The Group reported in 2020 global revenues of €16 billion.

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