FUTURE OF 5G

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18 THREE SECTORS SET TO WIN BIG FROM 5G

Deliver the extraordinary
Learn more on page 5
The rollout of 5G could play a central role in the UK’s recovery post-coronavirus, kickstarting growth in sectors that have faltered because of the pandemic.

**FUTURE OF 5G**

**ECONOMIC OUTLOOK**

\[2020-2025 \quad 2025-2030\]

**5G IN THE UK**

Cumulative benefits to UK output from adopting national wireless ambition to 5G

- £35bn
- £158bn

**ECONOMIC DRIVERS**

- Growth in productivity of all business sectors
- Growth in competitiveness of all business sectors
- Growth in productivity of all business sectors
- Growth in competitiveness of all business sectors

**ECONOMIC IMPACTS**

- Growth in productivity of all business sectors
- Growth in competitiveness of all business sectors
- Growth in productivity of all business sectors
- Growth in competitiveness of all business sectors

**ECONOMIC OUTLOOK**

The economic benefits of 5G are expected to be significant, with a cumulative economic impact of £35bn over the period 2020-2025 and £158bn over the period 2025-2030.

**FUTURE OF 5G**

The future of 5G is bright, with significant economic benefits expected to be realised in the coming years. The UK is well-placed to capitalise on these opportunities, with a strong foundation in technology and a commitment to investment in infrastructure.

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The rollout of 5G will be a key driver of economic growth and recovery across all sectors, with significant benefits expected to be realised in the coming years. The UK is well-placed to capitalise on these opportunities, with a strong foundation in technology and a commitment to investment in infrastructure.

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Kickstarting an economic recovery

Although the publication is printed through outsourcing and printing, it is designed and published in-house. The publication's design and layout are crafted with care and attention to detail. The design incorporates a variety of elements, including text, images, and graphics, to create a visually appealing and engaging reading experience. The layout is carefully balanced, ensuring a smooth flow of content from page to page. The publication's typography is chosen to enhance readability, with clear and legible text sizes. The use of colors adds visual interest, with a balanced mix of bold and muted tones. The publication also includes a variety of design elements such as headers, footers, and page numbers, ensuring a consistent and professional appearance. The design is both functional and aesthetically pleasing, providing a high-quality reading experience.
Stepping into a 5G future

5G promises a lot, but what will the future be like when the technology is being used in our everyday lives?

** healthcare is changing rapidly thanks to advances in mobile technology. For example, 5G-connected ambulances will interact with a remote hospital to ensure that patients are treated as quickly as possible. This means future entertainment will become interactive, says Mark Melling of RYOT Studio. This scenario is possible because real-time interaction of the physical and digital worlds is no longer a science fiction.

In around 15 years time though, rather than having to visit a hospital, a patient may be able to consult a doctor remotely via 5G mobile networks. They could be treated at home, with a mobile device acting as their doctor. This technology could also be used for telemedicine, allowing patients to consult with doctors based on the data they collect from their phones. For example, a patient with a chronic condition could use a 5G-connected mobile device to monitor their heart rate or blood pressure and send data to their doctor. This could help doctors to adjust a patient’s treatment plan in real-time.

In the context of the European 5G PPP, the European Commission, and the European Parliament, there are several key areas of everyday life that will be affected by 5G technology.

** Possibilities and opportunities**

To illustrate how 5G will change the world, here are some examples of how it is likely to impact the three key areas of everyday life...

** Healthcare**

Future Black Friday consumers are going to be able to schedule a visit to their local doctor or hospital from the comfort of their own home. Patients will be able to schedule appointments online and receive test results immediately. This will save time and reduce the need for patients to travel to a hospital.

** Retail**

Retailers will be able to provide virtual shopping experiences for customers. Customers will be able to try on clothes, inspect furniture, and see how products look in real-time. This will reduce the need for customers to go to physical stores, which will be a benefit for both customers and retailers.

** Entertainment**

Entertainment is another area that will be transformed by 5G. For example, live performances such as concerts and sports events can be streamed to fans around the world in real-time. This will allow fans to experience the events as if they were there.

5G will transform enterprise

It will have a profoundly impactful on the way enterprises operate, driving economic growth, but operators and governments must ensure 5G is rolled out fairly and effectively.

5G will be deployed in industries such as healthcare, transportation, and manufacturing. In healthcare, 5G will enable the creation of virtual reality in hospitals, allowing doctors and patients to experience the operations of the hospital in a virtual environment.

In transportation, 5G will enable self-driving cars to communicate with each other, reducing the risk of accidents. In manufacturing, 5G will enable the creation of virtual environments, allowing employees to work in a virtual space.

5G's influence will be so large that it is imperative for governments to prevent a digital divide from emerging in the access that people have to 5G-enabled technology.

5G will be a powerful transformative technology, but rather than provide an opportunity for a new era of innovation, it could create a digital divide among those who have access to it and those who do not.

For more information please visit

[link to full article]
5G promises a lot, but what will the future be like when the technology is being used in our everyday lives?

### New 5G features are expected to become the catalyst for the creation of an innovation ecosystem

5G will transform enterprise

It will have a deeply profound impact on the way enterprises operate, drive economic growth, but operators and governments must ensure 5G is rolled out fairly and effectively.

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### Possibilities and opportunities

To illustrate how 5G will change the world, here are some examples of how it is like in the same three key areas of everyday life...

#### Health

5G’s influence will be so large that it is imperative for governments to prevent a digital divide from emerging in the access that people have to powerful technology

A 5G future will generally be like when the technology is being used in our everyday lives.

- **Healthcare**: Increased patient care and faster diagnosis with remote monitoring, allowing doctors to make more informed decisions about treatments.
- **Retail**: Enhanced shopping experiences through augmented reality and virtual reality, allowing customers to virtually try on products before purchasing.
- **Transportation**: Improved traffic flow and reduced congestion with connected vehicles, enabling autonomous driving and real-time traffic updates.

5G is not only about faster data speeds and better latency. While those elements will always be a key part, they represent only a portion of what 5G will achieve.

To optimise their business processes at a global level, businesses will have access to manufacturing and even mining even when elements are too small to be seen.

The technology is also vital to deliver sustainability goals globally, with consumption on networks is rising by up to 45% per year actually. This is set to increase exponential as telecommunication applications, during business hours, including by a 10% per increase in gaining more and more spectrum and energy per day to transform the reality.

As 5G is more efficient, the way spectrum is used will change, offering a decreased amount of data consumption. More energy-efficient solutions are likely to come,

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**For more information please visit [datacenters.io](http://datacenters.io)**
**FUTURE OF 5G**

Vivek Wadhwa, author of *The Promise of 5G: How the Next Generation of Wireless Technology Will Change the World*, highlights the potential of 5G technology and its impact on various sectors. However, despite its promise, Wadhwa notes that the technology faces many challenges, including the need for more infrastructure and the potential for it to be used for both good and bad purposes.

One of the challenges of 5G is the need to build more infrastructure. According to Wadhwa, the US has only 1% of the world’s 5G infrastructure, and it will take time to build out the necessary networks.

Another challenge is the ethical implications of 5G. Wadhwa notes that 5G could be used for both good and bad purposes, such as improving healthcare or enabling surveillance.

Despite these challenges, Wadhwa remains optimistic about the potential of 5G. He believes that the technology will have a significant impact on various sectors, including healthcare, transportation, and manufacturing.

**Key Takeaways**

- 5G faces many challenges, including the need for more infrastructure and the potential for it to be used for both good and bad purposes.
- The ethical implications of 5G need to be carefully considered.
- Despite these challenges, 5G has the potential to transform various sectors, including healthcare, transportation, and manufacturing.
The UK has a once-in-a-lifetime opportunity to speed up 5G adoption and create an open platform for the next generation of innovative companies.

With a world-class 5G infrastructure, the UK could become a global leader in smart manufacturing, cutting-edge healthcare and connected cities.

**Partnership and collaboration will be pivotal to make significant progress and drive implementation.**

**Mass rollout faces new hurdles.**

A multitude of challenges, some old and some new, are coming to the fore in the wake of the mass adoption and adoption of 5G.

**TOP CYBERSECURITY CONCERNS OF 5G**

- Authorisation and key agreement vulnerabilities with 5G AKA
- IoT: extension of security policy
- Faster than 4G, and flash the green
- Work and the associated technologies of the fifth-generation mobile network
- The opportunity to take advantage of the fifth-generation mobile network to drive digital transformation
- The financial and ecological cost to support 5G
- Of evangelism and communication

**Future of 5G**

- The challenge of how to finance the UK's 5G roll out
- The debate on whether blockchain might provide solutions to the current problems
- The opportunity to create a world-class 5G infrastructure
- The opportunity to enable smart cities
- The opportunity to drive digital transformation
- The opportunity to enable the financial and ecological cost to support 5G
- The opportunity to enable the creation of a world-class 5G infrastructure
- The opportunity to enable the creation of an open platform for the next generation of innovative companies

**The UK was one of the first countries in the world to launch 5G. In fact, every major telco has launched a 5G service, as the first step towards a revolution in how we live and work. This technology could also drive the UK's economic recovery from the coronavirus pandemic and set it up for success in a post-COVID world. But it's also true that 4G has barely been rolled out in the UK, and we now have the opportunity to rock the boat again.**

Threats are still on the rise in 5G, but so are the opportunities. The benefits of 5G are significant, and the potential for it to change the world is enormous.

But the unfortunate headlines and poor reception of 5G in the UK have overshadowed the potential for 5G to drive the UK's economic recovery from the coronavirus pandemic and set it up for success in a post-COVID world. But it's also true that 4G has barely been rolled out in the UK, and we now have the opportunity to rock the boat again.

The challenge of how to finance the UK's 5G roll out is similarly ambivalent about the prospects for 5G, with the financial and ecological cost to support 5G being colossal, says Thomas Spencer, the CEO of AT&T Cybersecurity.

There won't be a ‘big bang’ of 5G deployment in the UK, there will be a slow roll out, with the remaining 24 per cent of participants at AT&T Cybersecurity. "The challenge is how to finance the UK's 5G roll out. It's a sizeable ‘if’, given there is a lack of financial and ecological cost to support 5G."
Huawei mean for the competitive landscape and terms of device availability. I still remember that “China” is not a term used in the same way as the term “United States” when it comes to 5G. Huawei’s hold over this country’s telecommunications infrastructure is now going to be a key issue in the future of the United States and Japan, but for Europe and Asia, the situation is different: if 5G might once have been expected to be the preserve of the United States, it is now going to be an international market comprising many new companies, each focusing on different aspects of 5G, ranging from hardware to software and everything in between.

But clearly it’s not just the scale of the opportunity that’s changing, but also the way in which it’s being delivered. The rise of 5G as a service means that companies will no longer be forced to go through the painstaking process of building their own networks. Instead, they can simply select each best-in-class element to deploy an openRAN 5G network. With software suppliers pulling everything together, this means that the costs of developing a 5G network will likely be reduced to a fraction of what they once were. The benefits of 5G are not just for consumers. The coronavirus pandemic has demonstrated the importance of being able to work remotely, and 5G will make this possible. The key entertainment experience that we have always looked forward to is going to be the leading edge of the 5G world. We are just beginning to see the first phase of this technology in the UK and across Europe. Over the last few months, we have worked with Ericsson and Coventry University to deploy the UK’s first 5G network. This has been a great step forward, and we are now looking forward to seeing how we can use this technology to create a more connected and efficient world.

Kevin Chao, UK managing director of global smart device brand OPPO, discusses the impact of 5G on the consumer experience.

What is 5G and why is it important?

5G is the next generation of wireless technology, enabling a faster, more reliable, and more secure connection for mobile devices. It will allow for faster downloads, reduced latency, and improved network capacity, which will enable new use cases such as virtual reality, self-driving cars, and remote surgery. 5G also brings the added benefits of mass connectivity, enabling new industries such as healthcare and transportation.

What about the cost?

The cost of 5G is a major concern for consumers. In the transitions from 3G to 4G and now to 5G, the cost of connectivity has been reduced by a factor of 1000. This means that connectivity in 5G is much cheaper than in previous generations. However, the cost of building a 5G network is still significant, and it will take time for the costs to be amortized across many users. But the benefits of 5G are clear: faster downloads, reduced latency, and improved network capacity.

What role will 5G transform?

In what ways will 5G transform our homes and offices?

Currently, when it comes to home appliances, consumers have to rely on Wi-Fi for their use. But with 5G, consumers will be able to connect their home appliances to the network, enabling them to control their devices remotely. This will make it easier to manage your home and save on energy costs. We are already seeing this trend with other technologies such as the Internet of Things (IoT) and the smart home.

How affordable and accessible will 5G be for consumers?

The key message of 5G is that it will be affordable and accessible for everyone. This means that the costs of building a 5G network will be shared across many users, which will reduce the cost of the service for each individual consumer. The availability of 5G will also make it easier for consumers to connect to the network, even in remote areas. This will enable remote work and remote learning, making it easier for people to work from home and attend school online.

How can we ensure 5G will succeed?

To ensure 5G succeeds, it is important to have a strong partnership with consumers. This means that we need to work closely with them to understand their needs and interests. We also need to ensure that 5G is accessible to everyone, regardless of their location or socioeconomic status. This will require a coordinated effort from governments, businesses, and other stakeholders.

What impact will 5G have on our daily lives?

5G will have a profound impact on our daily lives. It will enable new industries such as virtual reality, self-driving cars, and remote surgery, and it will also make it easier for consumers to connect to the network, even in remote areas. This will enable remote work and remote learning, making it easier for people to work from home and attend school online.

For more information, please visit oppo.com
Kevin Cho, UK managing director of global smart device brand OPPO, discusses the huge impact 5G-powered devices will have on the lives of consumers around the world.

**What is the future of 5G and what will OPPO play?**

The availability of 5G will make it easier for smart devices to connect to everything around you. In short, we’re going to make our customers connected all the time, everywhere.

**What is the role of OPPO’s role in future?**

As a company, we’re all about being a leader in the 5G space and we’re on the forefront of the entire 5G movement. We were the first company to activate 5G smoothly through a smartphone. We will be one of the first companies to go beyond $1 billion revenue next year and we’re going to be the leader in 5G. But clearly it’s not just the scale, but what the scale is going to bring in terms of innovation.

**How affordable and accessible will 5G be for consumers?**

We’re going to introduce the market to a whole new kind of premium smartphone, but we are committed to delivering products that meet the needs of all consumers at all price points. We know that we need to be more inclusive in the categories we see and we need to be more accessible to all consumers all the time.

**What is the biggest lesson from 5G?**

The biggest lesson from 5G is that you need to be open about how you’re going to manage your 5G deployment. We’re thrilled to see that our customers are already using 5G to its full potential.

**How will you continue to transform the consumer experience?**

With our latest innovations, we will continue to transform the consumer experience. We will continue to bring premium products to market and ensure that our customers are always connected.

**What is the impact of 5G on your business?**

The impact of 5G on our business is enormous. It will allow us to bring our customers to the forefront of technology and enable them to experience the most advanced technologies.

**What is the impact of 5G on your customers?**

The impact of 5G on our customers is profound. It will allow us to provide them with the most advanced technologies and enable them to experience the most advanced technologies.

**What is the impact of 5G on your employees?**

The impact of 5G on our employees is significant. It will allow us to bring them to the forefront of technology and enable them to experience the most advanced technologies.

**What is the impact of 5G on your partners?**

The impact of 5G on our partners is substantial. It will allow us to bring them to the forefront of technology and enable them to experience the most advanced technologies.

**What is the impact of 5G on your supply chain?**

The impact of 5G on our supply chain is immense. It will allow us to bring our customers to the forefront of technology and enable them to experience the most advanced technologies.

**What is the impact of 5G on your competitors?**

The impact of 5G on our competitors is far-reaching. It will allow us to bring them to the forefront of technology and enable them to experience the most advanced technologies.

**What is the impact of 5G on your competitors’ impact on your business?**

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Nearly 400 operators worldwide are currently actively investing in 5G networks, as commercial launches pick up and mobile subscriptions begin to rise. But which countries and regions are leading the way, and which are set to see network speeds surge?

A 5G WORLD

MOBILE CONNECTIONS BY REGION

Share of total mobile connections by network type in 2025

5G COMMERCIAL LAUNCHES

Global operator investments in 5G, including soft launches, as of August 2020

5G TO BOOST BROADBAND AND MOBILE SPEEDS

Comparing fixed broadband and mobile speeds in 2018 and 2023 (Mbps)

GLOBAL 5G DEPLOYMENT BY STATUS

Operators’ status, irrespective of whether commercial services are launched. Out of the 397 operators that were investing in 5G mobile or 5G FWA/home broadband networks as of August 2020

Download speeds in 5G countries

*Based on average CPE speeds in the top 20 leading countries that have committed to launch 5G. These are average speeds, so download speeds of other networks may vary greatly due to the level of mobile subscriptions on 5G contracts in each region
Nearly 400 operators worldwide are currently actively investing in 5G networks, as commercial launches pick up and mobile subscriptions begin to rise. But which countries and regions are leading the way, and which are set to see network speeds surge?

Of mobile subscribers, North Americans are expected to be on 5G by 2025, followed by South Koreans 50 per cent and the Netherlands 43 per cent.

April 2019
Ericsson and Swisscom launched the first large-scale commercial 5G network in Europe to support commercially available 5G smartphones – followed by EE in the UK in May.

48% of mobile subscribers in North America are expected to be on 5G by 2025, followed by South Korea (43 per cent) and the Netherlands (41 per cent). Support is commercially available in smartphones—released in 2019 in the US and Europe.

Operators with launched 5G networks (excluding soft launches) Operators that are deploying/launched 5G Operators that are investing in 5G

Operators that are deploying/launched 5G

Operators that are investing in 5G
From Huawei to hysteria: the politicisation of 5G

From vandalised base stations to banning Huawei equipment for the threat it poses to national security, why has it been such a politically charged year for 5G?

Sam Hademic

**As The New York Times commented on April 26, it is an "an ominous politico-economic" because the technology could be revolutionary, providing a competitive edge for countries within the global economy, as a faster wireless network speed and latency (time delay) translates into enhanced performance of connected devices.**

Two years earlier, on his departure from King’s College London, where he specialises in 5G networks, academics were even more certain that any Western nation that failed to embrace the technology could be revolutionary, providing a competitive edge for countries within the global economy, as a faster wireless network speed and latency (time delay) translates into enhanced performance of connected devices.

**"We believe the decision to ban Huawei equipment was less about 5G and more about the wider geopolitical and trade worries between China and the West, China has tied into the enormous economic activities of 5G," says Mansell.**

But that doesn’t explain the political dimension, says Mansell, professor of new media and politics at King’s College London, who specialises in 5G networks, and who has stated that any existing kit from China’s telecom is expected this fall. The government has tried to quash 5G conspiracy theories, but it’s the least of the transformation happening in cyberspace, "says a recent report titled "happiness as a human right and development of 5G to target improvements using cell data. By giving them the tools to target improvements using cell data, they can better understand their coverage, and by providing them with the ability to actually help improve their service, they’re paying for," Senior explains. "To help people understand what they’re paying for, we need to understand where they’re paying for it. For the many remote areas of the country, we can use 5G to help them get more coverage and develop our own 5G standards," he adds.

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From Huawei to hysteria: the politicisation of 5G

From vandalised base stations to banning Huawei equipment for the threat it poses to national security, why has it been such a politically charged year for 5G?

Sam Hawkins

The 5G airwaves are not yet set in stone, but that hasn’t stopped the technology being seen as a prime example of the political distortion of the democratic process. For businesses and governments across the world, the 5G network has become a symbol of success and power, with the promise of transforming every aspect of life from healthcare to transportation.

The climate of innovation and investment is such that concerns about the potential implications of such a rapid deployment are often brushed aside. But what is often overlooked is that while the 5G network promises great leaps forward in connectivity, it also poses a threat to national security.

China has a government-centric approach to 5G that allows it to push the technology ahead of others. This is evident in the way it has acted on Huawei, a company that has been at the centre of political debates around the world.

According to a recent report by the South China Morning Post, China’s 5G network is projected to have over 1 billion users by 2025, outpacing the rest of the world. This is due to the government’s investment in the technology, which has allowed it to establish a dominant position in the market.

This dominance has raised concerns about the potential for China to use its 5G network for espionage or other malicious activities. In response, governments around the world have taken action to limit the use of Huawei equipment.

Paul Senior, chief executive of Dense Air, explains how the company is using big data to inform the placement of small cells for 5G networks.

Dense Air, a multinational operator – has sought to optimise big data around network densification through the introduction of 5G technologies, with a focus on delivering a better user experience and ensuring that the network is as seamless as possible.

This approach has allowed Dense Air to develop a solution that is both cost-effective and scalable, allowing it to provide coverage in areas where other operators might not be able to.

The company believes that its ability to use big data and machine learning is a key factor in its success, allowing it to make informed decisions about the placement of small cells.

The big and the small of mobile networks

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The big and the small of mobile networks

Paul Senior, chief executive of Dense Air, explains how the company is using big data to inform the placement of small cells for 5G networks.

Dense Air, a multinational operator – has sought to optimise big data around network densification through the introduction of 5G technologies, with a focus on delivering a better user experience and ensuring that the network is as seamless as possible.

This approach has allowed Dense Air to develop a solution that is both cost-effective and scalable, allowing it to provide coverage in areas where other operators might not be able to.

The company believes that its ability to use big data and machine learning is a key factor in its success, allowing it to make informed decisions about the placement of small cells.
Unlocking healthcare’s future potential

Telemedicine has proven its worth over the past few decades, but 5G will enable it to truly transform healthcare as we know it.

**Why 5G private mobile networks and cybersecurity must go hand in hand**

When Industry 4.0 was first coined in Germany a decade or so ago, technologists envisaged an industrial landscape where intelligent machines would talk to each other, drive efficiency and productivity enabled by 5G.

But perhaps it is the solution’s integration with 5G that makes the private network so compelling. If 5G is designed to ensure seamless connectivity, then it is logical to extend its reach to healthcare and fit the private mobile network into the equation.

### Industrial applications

**Industrial-grade private 5G networks**

The private mobile network’s promise of dynamic and lasting growth could be stymied, and with it the growth of their 5G private networks, if they don’t have the framework in place, they know that the promise of 5G will remain unfulfilled.

**5G cybersecurity platform**

With the advent of 5G and an increased need to manage cybersecurity, it is essential to have the right tools in place.

**Why 5G private mobile networks and cybersecurity must go hand in hand**

With your own mobile network, logically you’d think security becomes less of an issue. After all, if your network is private, isn’t it intrinsically secure? However, if you’re depending on a private mobile network to provide a critical business function, you still need to question the security of the data being transmitted over the network.

### The need for a cybersecurity platform

The need for a 5G cybersecurity platform has never been more apparent. With an increasing number of connected devices, the potential for a cyber-attack is growing.

But it’s more than just about the data. The potential for a cyber-attack is growing.

### The need for a cybersecurity platform

The need for a 5G cybersecurity platform has never been more apparent. With an increasing number of connected devices, the potential for a cyber-attack is growing. As such, the need for a cybersecurity platform is crucial.

**Industry 4.0 and cybersecurity**

Industry 4.0 is a term that refers to the integration of the physical and digital worlds. In this context, cybersecurity is crucial. With the increasing number of connected devices, the potential for a cyber-attack is growing.

As such, the need for a cybersecurity platform is crucial. The platform must be able to detect and respond to potential threats, as well as prevent them from occurring in the first place.

### Conclusion

In conclusion, the integration of 5G and cybersecurity is critical for the success of Industry 4.0 and beyond. With the right tools in place, businesses can optimize their operations while ensuring data security.

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- [Fortinet’s blog](https://www.fortinet.com/blog)
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Unlocking healthcare’s future potential

Telemedicine has proven its worth over the past few years, but 5G will enable it to truly transform healthcare as we know it.

The NHS had no choice but to rapidly scale up remote consultations at the start of the pandemic. From April to June alone, they handled over 200 million video consultations, an increase of 20% year on year. The demand was beyond any understanding of what was possible.

The world of remote consultations has now become the norm. The ability to talk to a doctor, nurse or specialist without leaving the house has been a saving grace for millions. But crucially, remote consultations allow GPs to extend the scope of their work, whether it’s just an extension of a GP’s phone call, or whether it’s more comprehensive and in-depth.

For instance, Jon Axworthy, University Hospitals Birmingham and streaming.

If you are a doctor, nurse or any other medical professional, would you like to be featured on a future issue of RACONTEUR?

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Ushering in a new era of home working

The critical importance of overcoming technological challenges is now more acute than ever, with numerous industries and end users considering how to harness new technologies, with the arrival of coronavirus.

The potential to keep factories operational. They also enable remote teams to be more efficient and productive at work, ensuring social distancing can be maintained.

But it’s no secret that the UK is one of the major players in this revolution. The government and its partners are working hard to ensure that everyone benefits from the lessons learnt by their predecessors.

The principal one is mobility. The UK’s transport system has always been a go-to for innovation and change, and recent advances in technologies such as 5G have enabled new possibilities for remote working.

The government has been keen to ensure that 5G is rolled out as quickly and efficiently as possible. This has led to the creation of the UK 5G Supplier Directory, a list of companies and organisations that are involved in UK-related 5G projects.

The directory includes a wide range of companies, from small startups to large multinational corporations. It is designed to help businesses and organisations find the right partners to help them realise their 5G ambitions.

The UK 5G Supplier Directory is updated regularly, so businesses and organisations can be confident that they are working with the latest and most innovative companies in the sector.

In conclusion, the UK 5G Supplier Directory is an important resource for businesses and organisations looking to harness the power of 5G. It provides a comprehensive overview of the companies and organisations involved in UK-related 5G projects, helping to ensure that everyone benefits from the lessons learnt by their predecessors.
Ushering in a new era of home working

The critical importance of overcoming technological challenges issues with the rollout of fifth generation cellular tech should not be underestimated as businesses look to 5G for new opportunities and ways of working.

Mary Lou Costa

As businesses move to remote working, the importance of superfast broadband becomes increasingly evident. Indeed, a global survey by McKinsey & Company revealed that 70 per cent of medium and large enterprises are actively seeking to upgrade to faster internet speeds. A recent report by Accenture highlights the challenge of legacy telecoms infrastructure, which is unable to support the increased demand for data-intensive applications and services.

The demand for 5G is driven by the need to connect large numbers of devices, including IoT (Internet of Things) sensors, cameras, and autonomous vehicles. The technology offers lower latency, higher capacity, and faster speeds, enabling new use cases such as remote surgery, autonomous driving, and enhanced mobile networks.

5G is also expected to drive significant economic growth, with estimates suggesting that by 2030, 5G could contribute up to $12.3 trillion to the global economy. This growth is driven by the increased number of connected devices and the potential for new business models and applications.

However, the rollout of 5G has faced challenges, including regulatory hurdles, infrastructure costs, and the need for spectrum allocation. The UK government has been working to address these challenges, with the announcement of the UK5G programme to accelerate the deployment of 5G.

UK5G is a partnership between the Department for Digital, Culture, Media and Sport, and organisations from across the public and private sectors. Its aim is to establish a world-class 5G ecosystem that will drive innovation and growth in the UK.

Robert Devon

“These 5G innovation Projects are all focused on delivering a better way of life for businesses and citizens.”

Robert Devon

UK5G is a key partner in the UK government’s focus to maximise the benefits of 5G in the UK and is supported by the Department for Digital, Culture, Media and Sport.
Three sectors set to win big with 5G

It has the potential to impact almost every sector, but 5G is particularly important to industries where data is a critical resource.

IoT’s potential

Kickstarting

But 5G is particularly important to industries where it has the potential to impact almost every sector, as Ed Jefferson explains.

There are obvious applications in the consumer IoT device sector.

There are also implications for the manufacturing industry. Manufacturing is another sector that will be revolutionised by 5G. At the current rate of product expansion and new applications emerging every day, there are no limits to what can be done with these technologies in terms of efficiency gains.

For factories, the California-based company, of 4G in 2016, has detected an intruder or a fire. An IoT network can be as taken for granted as they are today. As an example, a 5G network installed IoT devices will be found to report the presence of security devices like cameras and sensors monitoring the entire environment. Being able to gather real-time data on traffic lights, increasingly smarter cameras monitoring parking, braking or changing lanes. The lower latency of 5G connections means that an internet of Things can become more cost effective.

The potential improvements to security that 5G will also be applied to manufacturing. At a relatively low cost, machines can be connected to a network and in real-time they can be managed remotely. This allows the business to integrate inputs from a multitude of information and data sources, and the information can be processed and insights derived.

There are also implications for the automotive industry. Smarter vehicles are becoming more common, as manufacturers move into the 5G era, it’s hard to imagine they will not be a key part of the story of autonomous driving. Put simply, 5G networks will amplify the potential benefits of fully self-driving autonomous driving.

There is one thing that might bring this technology from becoming a part of driving, it’s autonomous. Communication through 5G will allow cars to communicate with other cars, devices, and people. For example, a 5G network will be able to support more than two million connected devices per square mile.

5G will also make it easier to avoid sensor error and increase the complexity of tasks handled or autonomous systems.

Smarter vehicles in smarter cities

The ability to offer a converged product and service mix in the form of 5G-connected vehicles will be a significant advantage for automakers.

The capacity to tap into large amounts of data in a way that will be of value to manufacturers of autonomous vehicles.

When using machine vision to detect drivers in congested areas, the factory can cut costs and improve the accuracy of its analysis, and this can be particularly important in the case of security operations is immense, enabling companies to design and build more secure systems.

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5G will provide endless benefits to society, enhancing the way people can connect and engage online. But it will also amplify the cyber threats they face, necessitating a new approach to security.

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Smarter vehicles in smarter cities

A historic past last year predicted that by 2020 more than half of manufactured vehicles will be in connected vehicles, and 5G is going to be a key part of it. More of these vehicles today are able to gather data online and communicate to translate the consumer into an smart consumer.

There are obvious applications in the consumer IoT device sector. Functionally speaking, smart decision making into its infrastructure will mean more to know the consumer than it is and that the consumer is now able to share data. Indeed, 5G technology offers the potential that for better or for worse, will be a game changer for the automotive industry.

In parallel with all these great benefits, however, a new wave of cybersecurity challenges and threats will arise. The dwarfs of connected devices, valiant cybersecurity experts, while more bandwidth and more powerful devices will only make it easier to attack vectors for cybercriminals.

“Smart cities” and connected vehicles are not separate entities, and the ability to备注 them together will transform mass societal solutions of data where as much latency is reduced and the ability to connect to a range of devices without any detectable delay, but with substantial bandwidth functionality with a distance of the cost.

RaccoNet.net/Future of 5G

Smart & Connected Vehicles

5G will both make it easier to avoid error and increase the complexity of tasks handed over to autonomous systems entirely

There is one thing that might bring this technology forward from being an integral part of driving, those of us who are consumers can be communicated with, multi-access, enabling or changing the ability to gather real-time location with one another in this data stream to get certain parts of the data to be identified by the application that may be observed and make the complexity of data that can be handed over to autonomous systems entirely.

5G technology will have the ability to support more than two million connected sensors per square mile, and 5G will make it easier to avoid error and increase the complexity of tasks handed over to autonomous systems entirely.

Kickstarting IoT’s potential

An area with a lot to gain from 5G is the internet of things (IoT) and wearables of smart home devices that can be used to help monitor the health of the elderly or those with disabilities. Indeed, IoT technology can also tap into 5G infrastructure for real-time monitoring of individuals who may need assistance. IoT can also make use of 5G’s network density and latency to improve the experience of the user.

Whether it’s by increasing the ability and speed of automated systems to make decisions or by running human-computer interactions more efficiently, IoT devices can be used to make smart, life-changing decisions at the right time.

Three sectors set to win big with 5G

It has the potential to impact almost every sector, but 5G is particularly important to industries where data is a critical resource.

A 5G network could support more than two million connected sensors per square mile

5G will provide endless benefits to society, enhancing the way people can control and connect online. But it will also amplify the cyberthreats they face, necessitating a new approach to security.

Commercial feature

Protecting digital lives in the age of 5G

The myriad of new applications of 5G will make it tough to manage security and privacy control

Avast recently launched Avast Smart Life for 5G providing families with a whole new level of security. The ability to offer a converged protection of online safety, privacy and online safety presents new opportunities for people making sense of a more connected world. Avast’s technology taps into the data streams to detect over 6 billion threats including novel connected device access and context as a viable alternative defining consumer behavior.

As a result of this, Avast created Avast Smart Life for 5G, a one-click solution for online protection. It will safeguard the signatures and the data patterns that those activities they can use or access. The way in which these signatures and data patterns are used will identify the attack vectors for cybercriminals.

For instance, 5G networks will greatly increase the number of threat vectors facing devices and consumers. Family security, privacy and online safety present significant opportunities for people making sense of a more connected world. Avast actually provides a whole new level of security. These applications of 5G security can include securing your device, your workplace, or your home.

Over the last few years, the Cellular Industry Association has been working on 5G and the future of the automotive industry. But developments in the automotive industry could be a surprise in the near future.

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5G is the *journey*. Shouldn’t you own the *destination* too?

The complete cloud platform for service providers

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