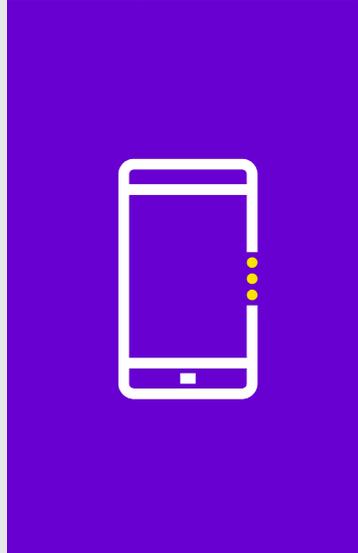


Supercharging business with 5G



5G is here now

5G, the next generation of mobile connectivity is here and rolling out across the UK. It is already available in major towns and cities with all operators planning to add many more areas to receive the service this year.

Since the 1980s, each time the leap to the next generation of mobile networks has been made the applications and devices that followed have transformed industries and boosted revenues.

Classic examples of these would include the explosive use of messaging on BlackBerry devices, the advent of video messaging and calling with the transition to 3G that then accelerated with 4G along with newer applications such as WhatsApp and Periscope live streaming.

What to expect from 5G

At the same time, each iteration of mobile has brought disruption in processes and new competitors to the market. Put another way, this is to say the progress in mobile has enabled huge opportunities for many businesses but posed challenges to others.

The opportunities are not always immediate to all sectors but if you look at the advances 5G will bring (compared to 4G) you could identify the top three as being:

1. Faster data throughput – expect to get between 10x and 20x faster speeds than 4G.
2. Greater device density – a million devices can connect to 5G per square kilometre, 10x the equivalent density for 4G.
3. Low latency – a figure of 1-2 milliseconds is as close to real-time communications as you can get compared to the 4G latency of 20-30 milliseconds.

Whilst the headlines shout about the ability of users to download the latest films in high-definition video format in a matter of seconds, it is how these advantages apply for business that will drive much of the take up of 5G.

Faster data throughput and real-time communications will improve UCaaS and allow SMEs to leverage their advantages of being nimble and responsive.

Lower operating costs

For cost conscious SMEs these speed and latency improvements raise the potential to drive down operating costs by reducing the size and cost of office space and improve business functions with increased agility and responsiveness via a remote workforce.



Unified Communications as a Service

Reduced latency and faster data throughput with 5G will result in improved UCaaS performance and integration from mobile devices. This will include an enhanced experience of the applications, identified as being most important to small and medium organisations in TechTarget's recent survey;

- 1. Integrated communications** – voice is not the only mode of communication in the workplace and being able to seamlessly integrate voice, video, email and messaging provides a business productivity and cost advantage.
- 2. Reducing costs by integrating applications** – the more widespread overlapping applications used across the company where effort is duplicated, the more wasteful it is overall for the business.
- 3. Employee engagement** – a more strategic benefit of UCaaS, has everything to do with providing workers with the right tools in the right place to be productive. Not only does UC provide value by driving better productivity, it makes workflows, processes and communications easier.

The advantages of near real-time communications can literally be seen and heard in the improvements made in applications such as voice and video conferencing. This will enable both clearer communications and more effective collaboration.

Powered by 5G connectivity these applications can be delivered not only faster but to a wider base of mobile employees with near instant access to the information their customers are increasingly demanding in a highly competitive world. If you then add to this the ability to install plug and play 5G routers delivering high speed internet to locations without fixed access, a fast start solution is readily available for business to be almost instantly up and running.

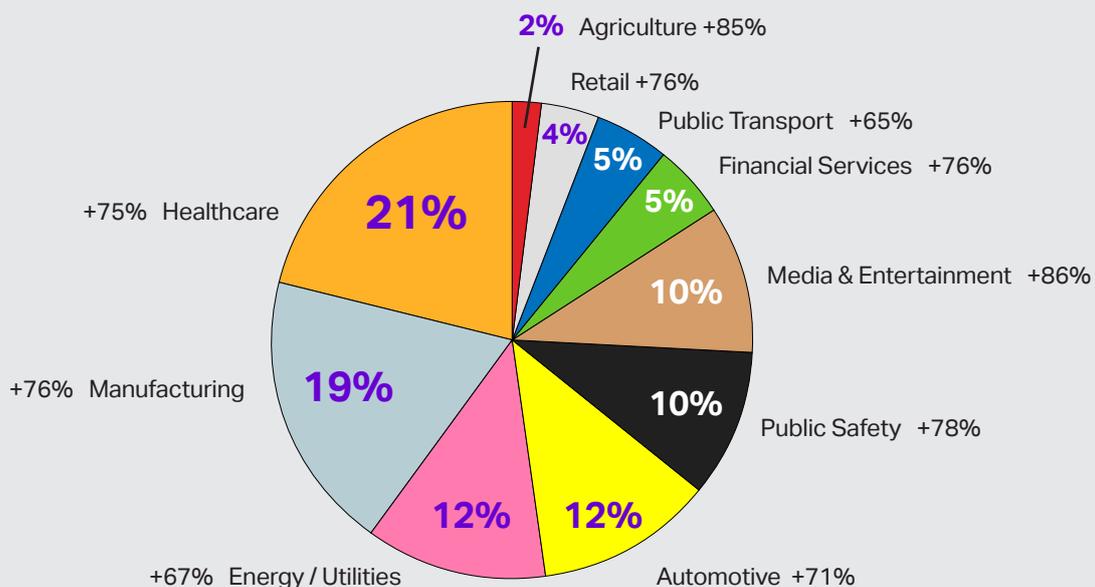
Of course this 5G fast start mode of service for users, where it is anticipated that fixed access will eventually replace it when available, could mean the user can choose to stay with the 5G option for its mobility.

Business data

Faster data throughput enables a far greater volume of data to be sent and received in a shorter amount of time. Business data sets will therefore have the opportunity to become huge and the resultant need for analytics applications will grow exponentially.

Big Data and Analytics applications, once the preserve of large enterprises, are now being routinely deployed by SMEs who are finding they have at least as much to gain from accruing their data.

How will 5G boost business verticals?



Global view of verticals through to 2030. Source: Ericsson, 5G For Business; A 2030 Market Compass

Organisations will want to seek out the value in their data through, say, having a better understanding of what their customers need. As a consequence, business can develop new products and services that users want, improve customer service levels and ultimately gain competitive advantages.

The big uptick in density that 5G provides will enable fast and robust connectivity for the growing number of devices that businesses are using – including those we consider to be part of the Internet of Things (IoT). The data gathered and analysed here will in turn deliver the greater productivity gains that are so sought after by business and in the UK economy as a whole.

47%

of early 4G adopters achieved significant cost savings

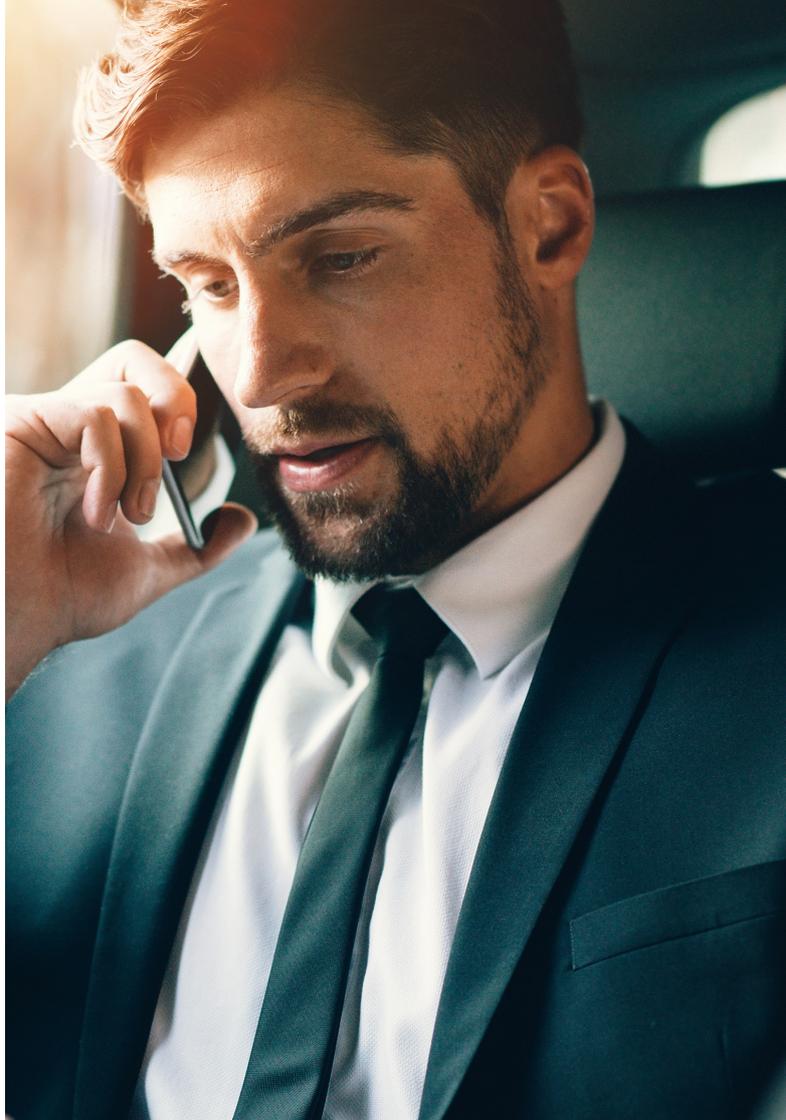
Business gamechanger

Looking back at the benefits gained by early adopters of 4G, the progressive roll out of 5G across the UK is certain to be a gamechanger for many businesses. Although awareness of 5G is high, UK businesses are not preparing for its imminent availability – in fact only 9% are allocating significant resources in developing a 5G strategy to take advantage of the expected business benefits.

In fact in 2012 Management Consultancy Arthur D Little's Benefits of 4G revealed nearly half (47%) of all early adopters of 4G achieved significant cost savings and 39% reported increased sales. Furthermore, 86% said they got 'more work done on the move whilst 76% said that it had helped their organisations 'innovate and jump the competition'.

Growth expectations

Business growth expectations from those that are planning for 5G however are wide and include; enhanced opportunities for international trade, expanded geographical reach and to facilitate more communications with customers. Significantly, a third expect to increase business efficiency and reduce business costs – factors that could be considered business pre-requisites.



Mission critical

As 5G becomes increasingly mission critical there will be winners and losers in this technology transformation. History shows us that not only will 5G disrupt many market sectors but also that it will bring new market entrants with new applications and new ways of getting business done.

History has also shown that a move to 5G will act as a major trigger point for innovation and increased business agility and provide direct cost reductions: reducing travel costs, saving office space by increasing teleworking, or by saving telecoms equipment or fixed line installation costs.

5G will enable much more. We see 5G as a transformative technology that could supercharge the UK economy by up to £15.7bn per year by 2025.

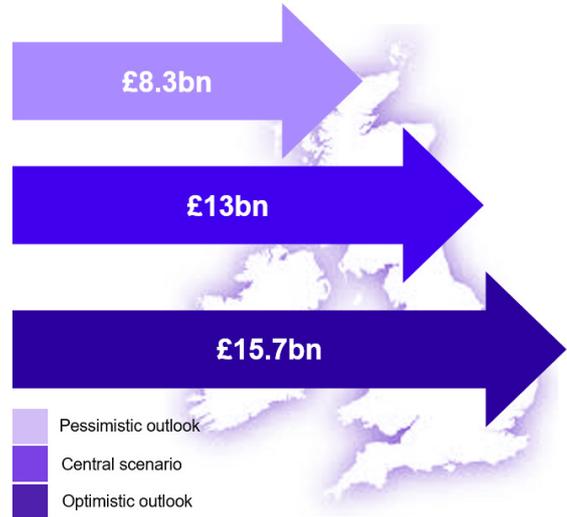
First movers with the right technology leadership are likely to grow faster and more sustainably than the competition. It's a fact that proactive organisations attract more customers and gain market share in today's environment.

The time has therefore arrived for your business to better understand the opportunities of 5G and how it could impact your business by having implementation plans in place for 5G before your competitors.

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£15.7bn

per year by 2025



Source: Barclay's 5G; a transformative technology

