How 5G will help councils

Mobile UK

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Why should we care about 5G?

5G will benefit our economy and society.

It will be better at doing the things that 4G does already, but significantly it will offer faster and more reliable mobile internet.

It will also do things that 4G cannot. It has the potential to change the ways in which we learn, how we communicate and how we do our jobs through the simultaneous and seamless connection of our digital devices.

But because it is often described using technical jargon, many people are unaware of how 5G will enhance their life.

This pamphlet explains the benefits of 5G using examples and language that anyone can understand.

It is one of six pamphlets that look at the impact of 5G.
The topics included in these pamphlets are:

- How 5G will help healthcare
- How 5G will increase rural opportunities
- How 5G will support the emergency services
- How 5G will help councils
- How 5G will improve the home and the workplace
- How 5G will help the environment

Taken together councils are expected to realise **£2.8 billion** of annual efficiency savings from 5G.

The city of San Diego will save an estimated **$1.9 million** every year by installing 5G street lights.

How will 5G help councils?

While 4G already plays a major role to help councils deliver for residents, 5G digital connectivity is expected to provide added capabilities in two key ways:

- **Higher quality services.** 5G technology will offer new tools to provide good care for vulnerable residents, more data to effectively manage transport networks and better information to address environmental concerns.
- **More efficient services.** Higher quality services can be delivered at lower cost with 5G technology. These lower costs mean council savings, which can be reinvested into other services.

5G networks are being gradually rolled out across the UK. As and when you have access to 5G connectivity will depend on where you live, your network provider and whether you have 5G-enabled devices.

If you have further questions about 5G, some of the most common questions have been answered on the final page

Uses of 5G by councils

A better social care system.

5G trials in Liverpool focused on developing the use of the technology in social care settings. Sensors were designed to detect accidents and concerning behaviour patterns of vulnerable people on their own at home. A push-of-the-button device was created so that isolated residents could instantly talk to somebody when they are feeling lonely.[1] Innovations like those being tested in Liverpool - that help residents needing social care services to live in their own home for longer - can only be reliably rolled-out with 5G digital connectivity.

A state of the art public transport network.

Digital connectivity has already enhanced the travel experience. For example, timely and accurate arrival and departure times help people plan their journeys. 5G will further boost the benefits of digital transport systems. People waiting for a bus will be able to alert a driver to their presence. Tram capacity can be monitored in real-time. Road management issues will be resolved more quickly.[2] 5G will ultimately enable faster and less stressful journeys.

[1] Liverpool 5G testbed, July 2019, How can 5G support the transformation of health and social care services? https://www.sensorcity.co.uk/wp-content/uploads/2019/08/how_can_5G_support_transformation_health_social_care_services_WEBSITE_FINAL.pdf

[2] O2, March 2018, The value of 5G for cities and communities, ,https://news.o2.co.uk/press-release/upgrade-uk-cities-now-miss-productivity-savings-6-billion-year-5g-o2/

An end to frustrating searches for a parking space.

5G sensors will provide up-to-the-second information on the location of available parking spaces. Motorists will no longer have to spend time and energy hoping to come across a suitable place to leave their car. This technology has knock-on benefits for all local residents - easier access to parking will mean less congestion, fewer CO2 emissions and cleaner air for all. Vodafone has been trialling 5G parking solutions in the West Midlands.[3]

Better and cheaper lighting for our towns and cities.

In partnership with Telefonica, the Spanish city of Malaga has converted its street lights to be 5G-connected. This allows for lighting to be adjusted according to conditions and for faulty street lights to be immediately identified. Malaga has cut its annual energy bill to the tune of millions as a result of the change.[2] Glasgow in the UK is trialling a similar style of smart street lighting, which also includes sensors to detect noise and disturbances that may relate to citizen safety concerns.[4]

[3] Vodafone, July 2020, Parking troubles? Here's how 5G could help you find a space, https://newscentre.vodafone.co.uk/news/how-5g-could-help-you-find-a-parking-space/

[4] Future City Glasgow Website, https://futurecity.glasgow.gov.uk/intelligent-street-lighting/

The statistics

5G will reduce council costs.

Taken together councils are expected to realise £2.8 billion of annual efficiency savings from 5G. These savings arise from benefits including reduced social care costs for the elderly and from smarter street lighting.[6]

5G has the potential to ease the effects of social isolation via enhanced connectivity.

In the past 15 years the number of 55 to 64-year-olds living alone has increased by 50%.[7]

Many cities are saving money from 5G-enabled street lights.

In addition to Malaga, the city of San Diego will save an estimated $1.9 million every year by installing these street lights.[8]

[6] O2, March 2018, The value of 5G for cities and communities, https://news.o2.co.uk/press-release/upgrade-uk-cities-now-miss-productivity-savings-6-billion-year-5g-o2/

[7] Liverpool 5G testbed, July 2019, How can 5G support the transformation of health and social care services? https://www.sensorcity.co.uk/wp-content/uploads/2019/08/how_can_5G_support_transformation_health_social_care_services_WEBSITE_FINAL.pdf

[8] Accenture, Smart City Solutions, https://www.accenture.com/t20170222t202102__w__/us-en/_acnmedia/pdf-43/accenture-5g-municipalities-become-smart-cities.pdf

Frequently Asked Questions

1. How do I get access to 5G?

Firstly, you need a 5G signal in your area (just as you need a 4G signal to get 4G now). Secondly, you need a device that can receive 5G signal - some 5G-enabled smartphones are available now, with more coming onto the market.

2. Does 5G pose a danger to your health?

5G uses radio waves - as does 4G, 3G etc. - which have been found safe in numerous studies when used within guidelines. Public health organisations around the world support this conclusion.

3. Does 5G mean more masts and antennae?

Some new infrastructure will be needed to connect more remote communities to the 5G network. But existing masts will be adapted for 5G wherever possible. If new sites are needed, relevant planning rules will apply to them being built.

4. Is 5G bad for wildlife?

No. Despite many false claims, wildlife has not been found to be negatively affected by 5G.

5. Will 5G offer an alternative to broadband?

4G and 5G can both provide mobile home broadband connections. However, while 5G will offer potentially near gigabit capable speeds in the future, currently UK 5G mobile networks don't provide the same capacity or offer speeds as fast as 'full fibre' for home broadband.

Source: Mobile UK - www.mobileuk.org

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