ICT & Digital: Coventry as a Gigabit City

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Business, Economy and Enterprise Scrutiny Board

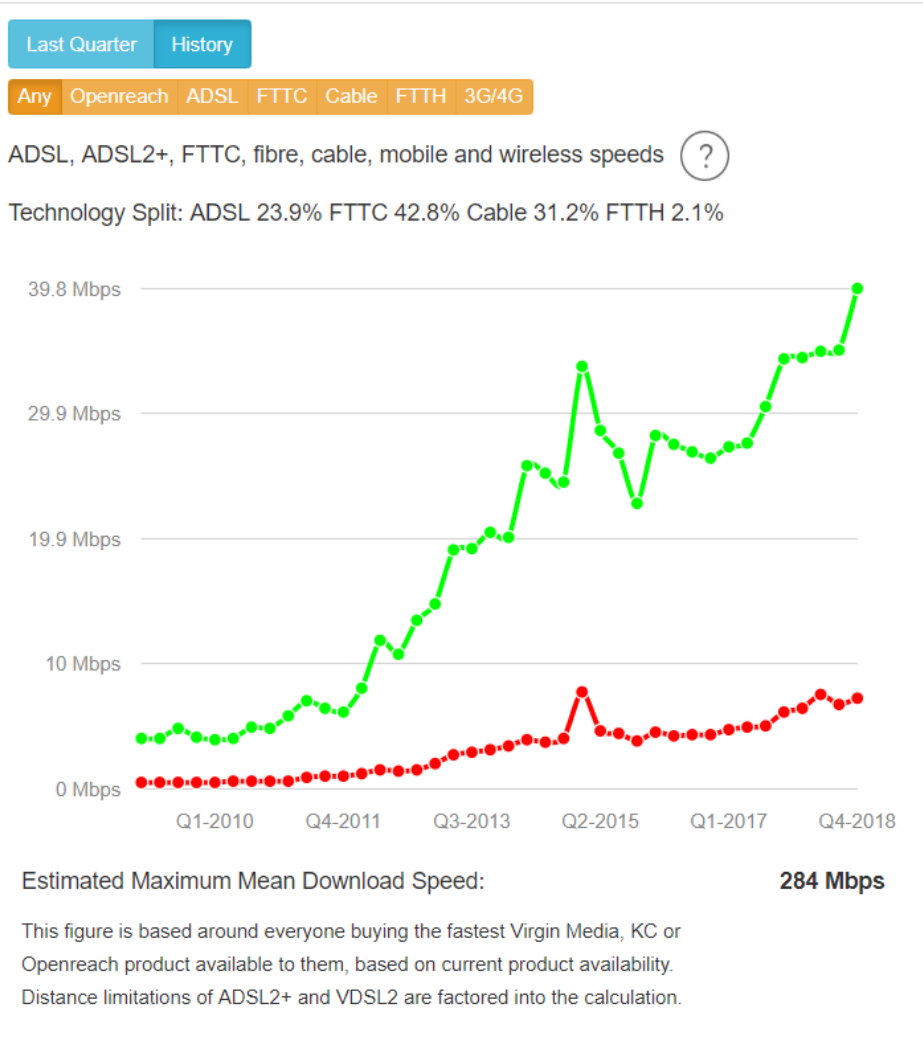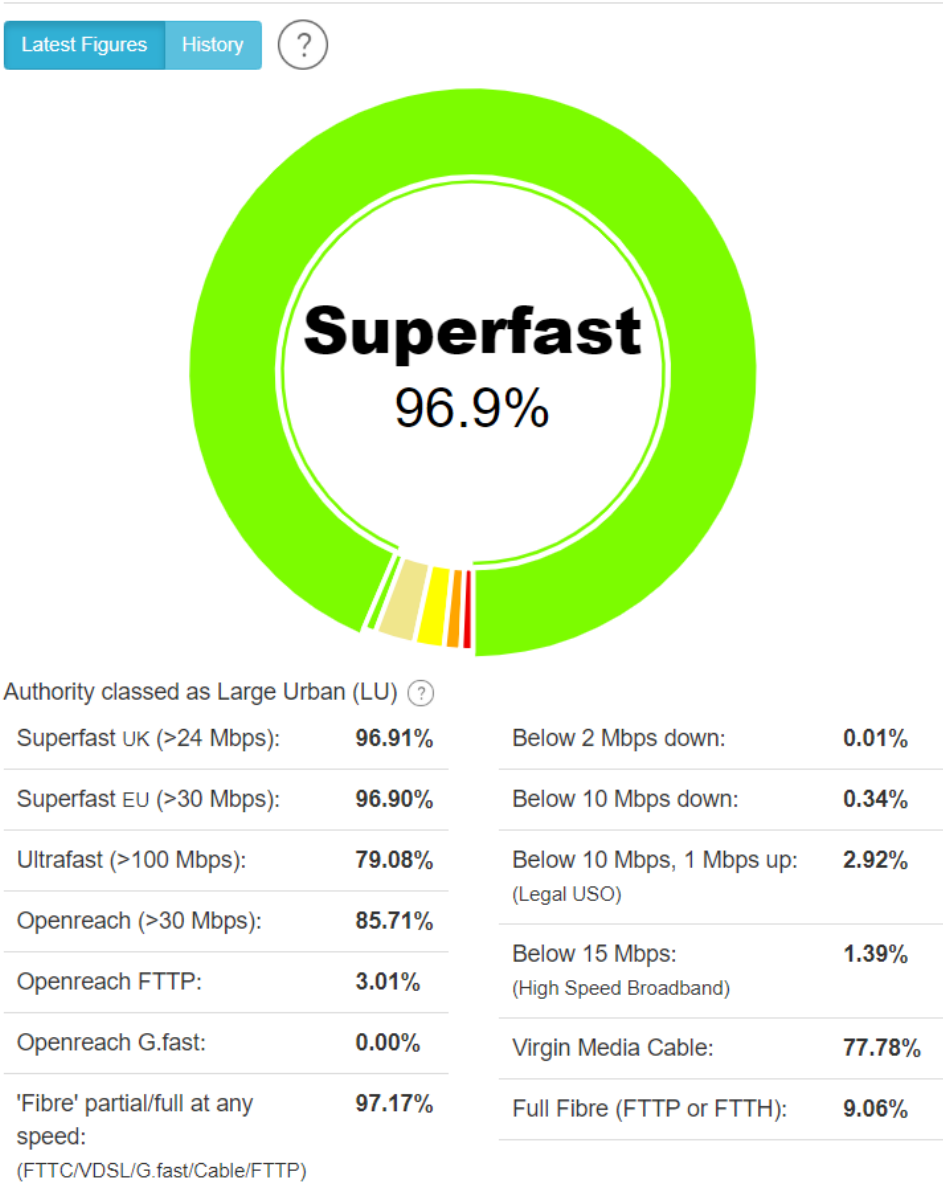20th March 2019

Topics we will be covering:

- Current position & work in progress – Digital connectivity in Coventry
- What is a Smart City and what might this mean for Coventry
- Where are we with 5G and what might this mean for Coventry

Current position & work in progress – Digital connectivity in Coventry

Latest Figures | History | ?

Superfast 96.9%

Authority classed as Large Urban (LU) ?

Superfast UK (>24 Mbps):	**96.91%**	Below 2 Mbps down:	**0.01%**
Superfast EU (>30 Mbps):	**96.90%**	Below 10 Mbps down:	**0.34%**
Ultrafast (>100 Mbps):	**79.08%**	Below 10 Mbps, 1 Mbps up: (Legal USO)	**2.92%**
Openreach (>30 Mbps):	**85.71%**		
Openreach FTTP:	**3.01%**	Below 15 Mbps: (High Speed Broadband)	**1.39%**
Openreach G.fast:	**0.00%**	Virgin Media Cable:	**77.78%**
'Fibre' partial/full at any speed: (FTTC/VDSL/G.fast/Cable/FTTP)	**97.17%**	Full Fibre (FTTP or FTTH):	**9.06%**

Last Quarter | History

Any | Openreach | ADSL | FTTC | Cable | FTTH | 3G/4G

ADSL, ADSL2+, FTTC, fibre, cable, mobile and wireless speeds ?

Technology Split: ADSL 23.9% FTTC 42.8% Cable 31.2% FTTH 2.1%

Estimated Maximum Mean Download Speed: **284 Mbps**

This figure is based around everyone buying the fastest Virgin Media, KC or Openreach product available to them, based on current product availability. Distance limitations of ADSL2+ and VDSL2 are factored into the calculation.

Current position & work in progress – Digital connectivity in Coventry

City Fibre: Fibre to the Home Programme
- Work has already started on the deployment
- Programme due to be complete Quarter 3 2021
- Initially exclusive to Vodafone who will be offering their "Gigafast Broadband"

OpenReach: Fibre First Programme
- Work has already started on the deployment
- Programme due to be complete March 2021

What does having a Gigabit Internet connection mean?

- Speed
- Faster downloads *("Download a 100GB game in the time to make a cup of tea")*
- Faster uploads *("Upload 32GB* of files in just 5 minutes")*
- Stays fast at peak times

* 32GB would be approximately 1800 photos + 80 minutes of video + 2000 songs + 8GB of office files/documents

Current position & work in progress – Digital connectivity in Coventry

- The network is now live (look for the _CovFreeWiFi network) around the city centre including outside the Station with a coverage area from the Herbert gallery past the Council House through Broadgate, the central library to Corporation St and from the Transport Museum to the Station.
- Future plans include the extending the coverage into Market Way and the Burges areas
- Discussions have also taken place with Coventry University on extending the coverage into their campus
- The public launch is set provisionally for the 19th March.
- Plans for the expanded use of the Citi-Wise app will be reviewed on the 13th March and will include how we align with the City of Culture and the promotion of events.

A SMARTER APPROACH TO CITY LIVING

Adam Simmonds, Cloud and Identity Architect from Coventry City Council, explores the diverse approaches of smart cities across a variety of international cities, reminding us that becoming a smart city is a journey, not a status.

What is a Smart City and what might this mean for Coventry

- A 'buzzword' for the journey to delivering sustainable quality of life using technology and data
- Every city has a different population demographic, its therefore hard to compare 'smart cities'. What might work for one population group might not work for the others.
- Coventry is the ideal size for a **'living lab'** to be a platform for innovation by local partners.
- Two Key Themes
  - E-Government – Online, Interactive ways of engaging with the council/public (i.e. gamification, channel shift etc.)
  - Digital Place – Open Data, Connectivity, *Digital Twinning,*

What is a Smart City and what might this mean for Coventry

Four Key Foundations

Connectivity

- *Public Wifi*
- *LoRaWAN*
- *5G*
- *Fibre to Premises*
- *Internet of Things (IoT)*

Open Data

- Traffic Patterns
- Footfall Monitoring
- Air Pollution
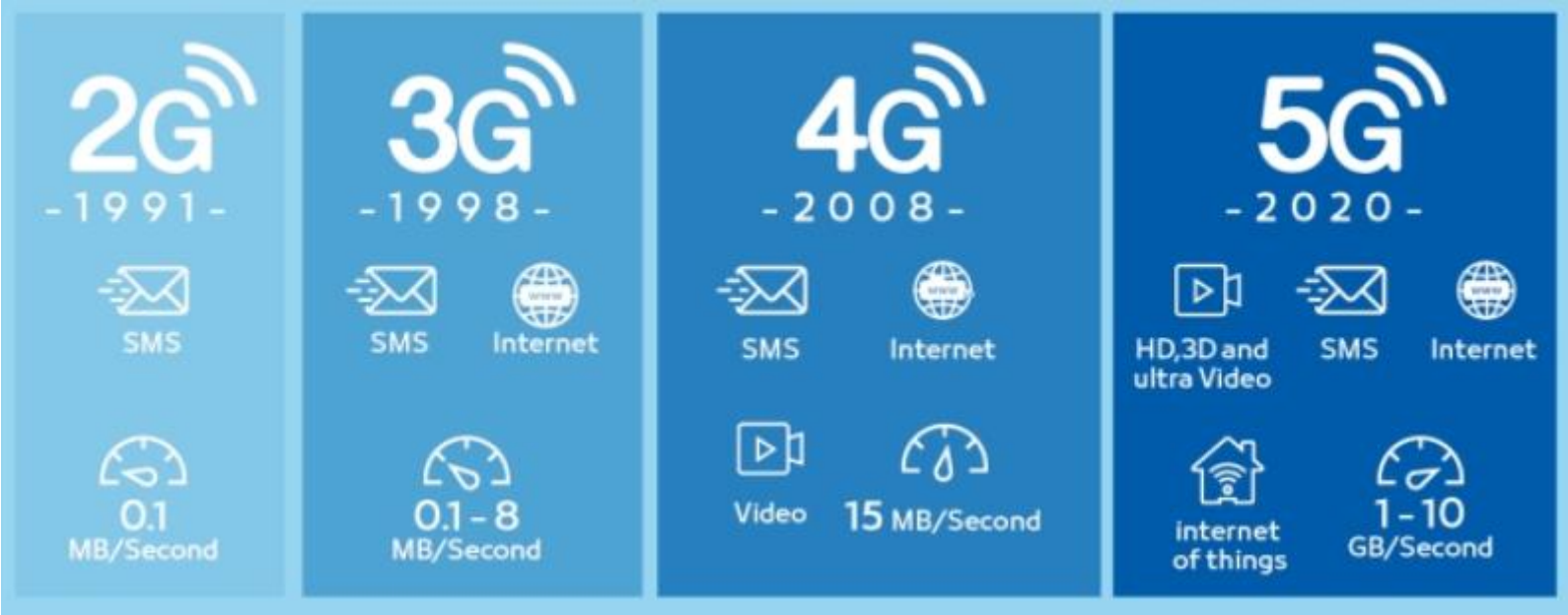- Weather
- Population Demographics

Innovation & partnerships

- Private Sector
- Universities
- Start-ups
- Schools & Libraries
- Incubation Funds/Projects

Digital Skills (Residents)

- Keil Digital Skills Week
- Social Inclusion
- Digital Inclusion

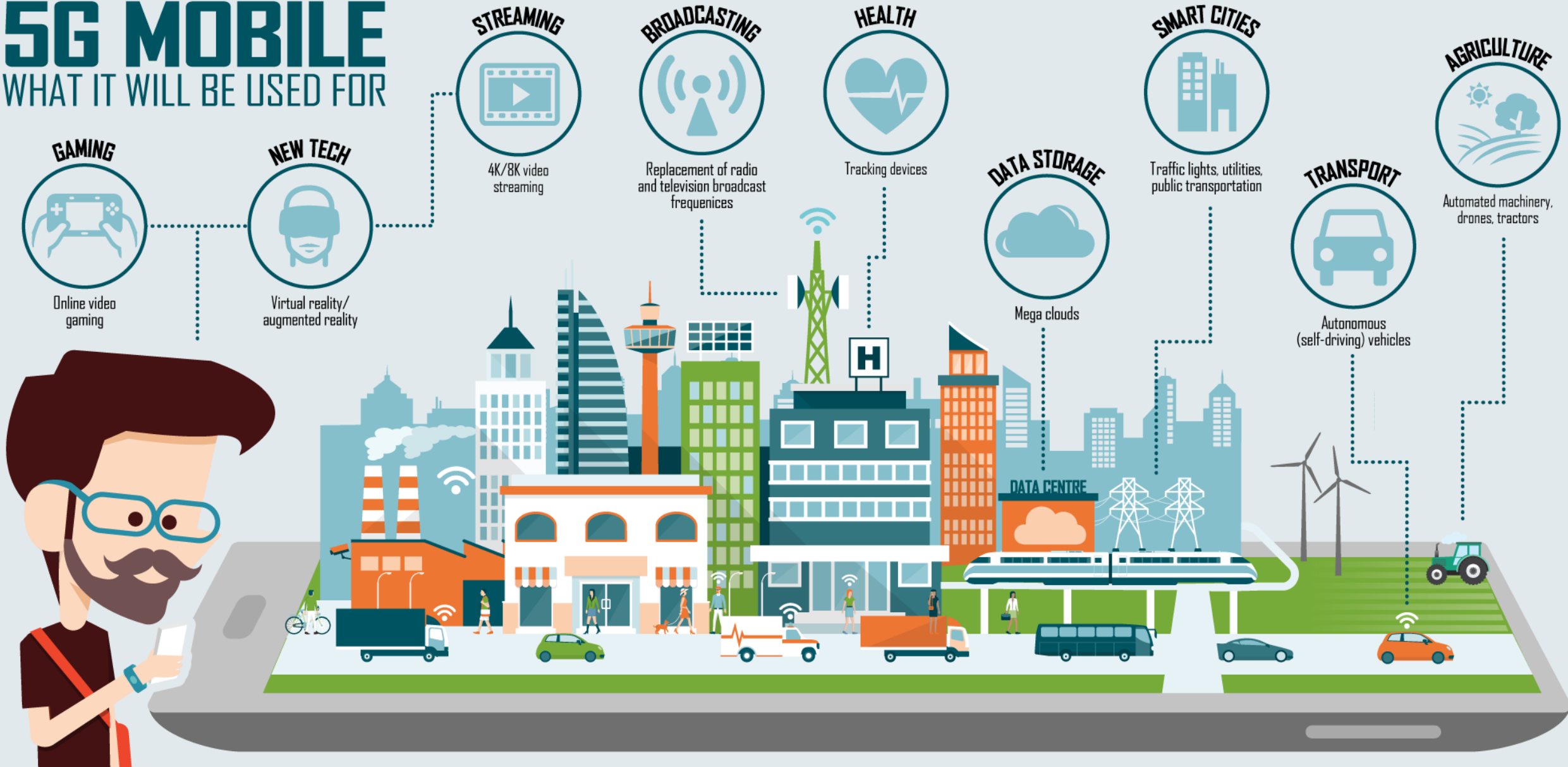# Where are we with 5G and what might this mean for Coventry

Source: http://saudigazette.com.sa/article/535659/SAUDI-ARABIA/Al-Khobar-becomes-first-city-in-MENA-to-get-5G-network

- 5G will be the fastest network ever seen, with potential speeds reaching 10Gb/s.
- 5G networks will also have much lower latency, meaning there won't be any delay between asking your device to do something and it happening.
- Reliability is also set to improve with the introduction of 5G, since there will be a greater number of connection points in a smaller area allowing for an increased capacity.
- All these characteristics makes 5G the perfect platform for time-sensitive connections like healthcare and autonomous vehicles – cases where the network has to be totally trusted not to fail.

Source:https://www.vodafone.com/business/news-and-insights/blog/gigabit-thinking/5g-mobile-networks-are-helping-us-build-a-better-future-today

Where are we with 5G and what might this mean for Coventry

5G MOBILE
WHAT IT WILL BE USED FOR

GAMING
Online video gaming

NEW TECH
Virtual reality/ augmented reality

STREAMING
4K/8K video streaming

BROADCASTING
Replacement of radio and television broadcast frequenices

HEALTH
Tracking devices

DATA STORAGE
Mega clouds

SMART CITIES
Traffic lights, utilities, public transportation

TRANSPORT
Autonomous (self-driving) vehicles

AGRICULTURE
Automated machinery, drones, tractors

H

DATA CENTRE

Where are we with 5G and what might this mean for Coventry

Department for Digital, Culture Media & Sport

5G Urban Connected Communities

- Project is led by WMCA.
- Business case – submitted to DCMS December 2018.
- DCMS requested further detailed use cases before the funding is released - we are contributing to this process.
- There will be three hubs across the West Midlands:
  - Birmingham – citizen wellbeing
  - Black Country - industry and construction
  - Coventry – smart mobility
- With the wider mobility use case - ideas coming through from other interested parties.

Where are we with 5G and what might this mean for Coventry

Department for
Digital, Culture
Media & Sport

5G Urban Connected Communities

- ICT and Digital will align with the Coventry Digital Strategy and link in with other digital projects such as IOT, Wi-Fi and the full fibre programme.
- Will have influence on the 5G applications deployed in the city as part of the project structure.
- The UCC deployment will complement plans to install 5G capability as part of the Midlands Future Mobility (Connected Autonomous Vehicles) project.
- This will cover a route from the University of Warwick around the ring road and through to the A45.

Where are we with 5G and what might this mean for Coventry

Image source: https://jbhnews.com

Health concerns

- Some concerns regarding exposure to 5G frequencies.
- Public Health England (PHE) publishes comprehensive reviews of the scientific evidence relevant to radio wave exposures.
- The most recent PHE-backed conclusion was that "although a substantial amount of research has been conducted in this area, there is no convincing evidence that radio wave exposures below guideline levels cause health effects in either adults or children."

Thank you

Any questions?