

MCA Housing & Infrastructure Board

4th March 2021

**South Yorkshire Digital Infrastructure Strategy
Emerging Strategic Proposals**

A reminder of the scope of the commission:

1. Provide an independent 'reality check' of the Market around full fibre and 5G provision in South Yorkshire and nationally.
2. Suggest any additional interventions or approaches that could yield additional benefit.
3. Enhance the existing digital connectivity work to prepare an up-to-date and holistic Digital Infrastructure Strategy for South Yorkshire;
4. Provide an initial assessment of public assets with the potential to support and contribute to the full fibre and 5G roll-out.
5. Provide guidance and advocacy to enable better access to Government and Government investment for digital infrastructure implementation.

South Yorkshire is fortunate to be building from positive foundations

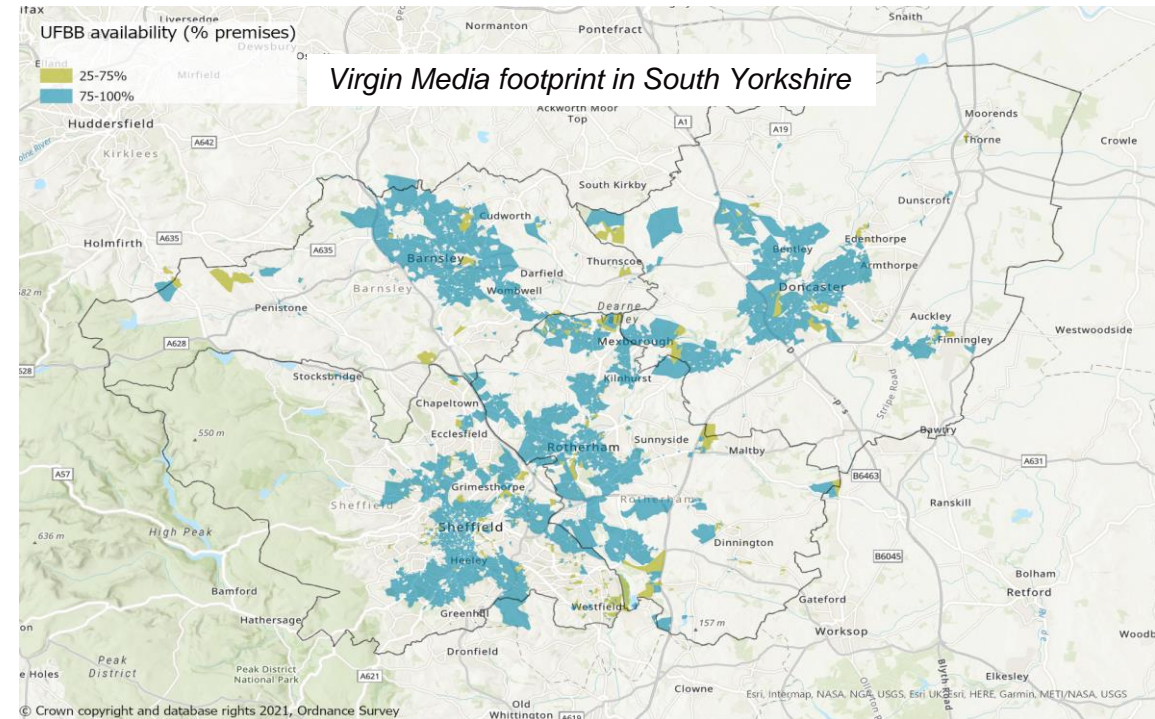
- SuperFast SouthYorkshire has delivered an excellent foundation of 96%+ availability of 30Mbps 'Fibre to the Cabinet' broadband.
- Fibre build by CityFibre is in progress and Openreach have committed to fibre upgrade more of its exchange areas by 2024. Virgin are upgrading their cable network to fibre speeds and operators new to the region are indicating a willingness to invest.
- DCMS have indicated that they will fund fibre investments in at least two areas of the Region as part of their 'Outside-In' rural fibre programme.
- Ofcom report near 99% availability of 4G and we already have all four operators supporting 5G in Sheffield and are on track for regional 5G coverage to be in line with other major conurbations.
- We have significant clusters of digital businesses in Sheffield and beyond and the success of Barnsley DMC points to the digital potential of the region. Innovation clusters such as AMID (AMRC, AWRC) are well positioned to exploit the enterprise features that are key to 5G.
- Proposals set out a framework for an inclusive digital agenda; this is a national challenge where South Yorkshire can lead.

CONTEXT

The Government has changed its 'full fibre' ambition to 85% 'Gigabit Capable' broadband by 2025

This is an important shift as the new definition is no longer dependent on fibre optic broadband so now includes Virgin-Media's cable TV network that is being upgraded to support Gigabit speeds nationally by 2024

Because of this change of definition it is expected that c60% of the Government's new 85% target will be delivered by Virgin Media alone



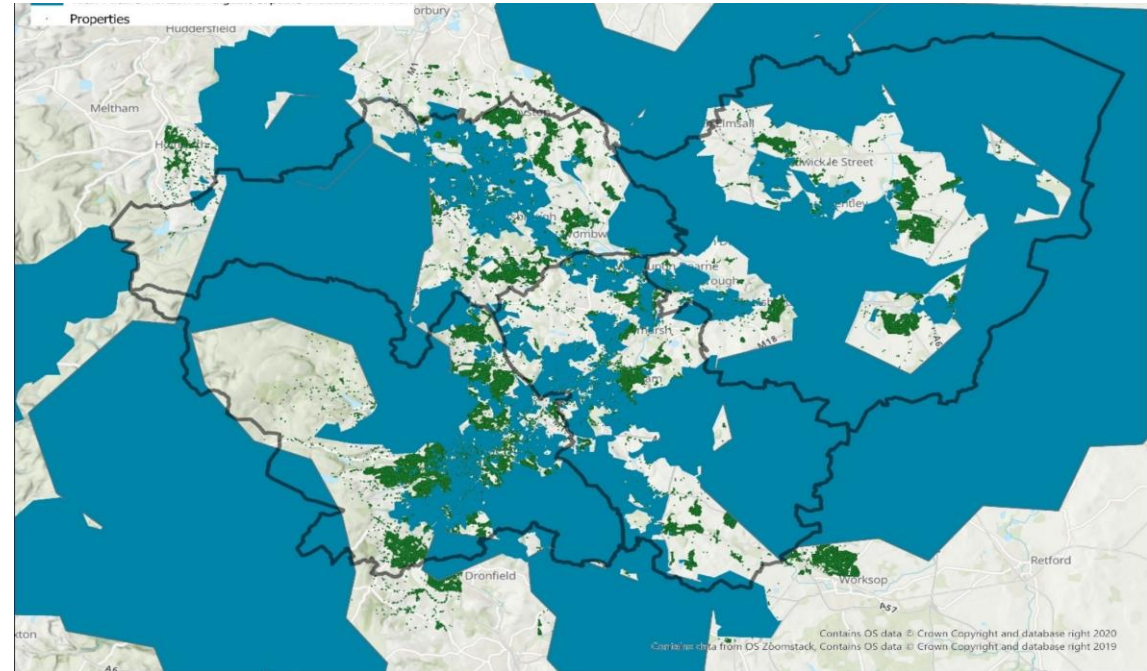
This change is really helpful to South Yorkshire as Virgin already have a significant footprint in the Region, so the starting point is a far better position than when it was all about fibre broadband

CONTEXT

Gigabit- Capable broadband coverage will hit at least 75% of premises by 2025

This 75% coverage is a combination of Virgin-Media cable TV network upgrade (now of central importance), committed Openreach fibre exchanges, Cityfibre town centre builds and the two DCMS 'outside-in' fibre procurements being considered for South Yorkshire.

Of the c650K premises South Yorkshire, c160K do not have a committed path to Gigabit coverage but we suspect omission from 'Outside-In' means there is commercial intent for at least part of this remainder

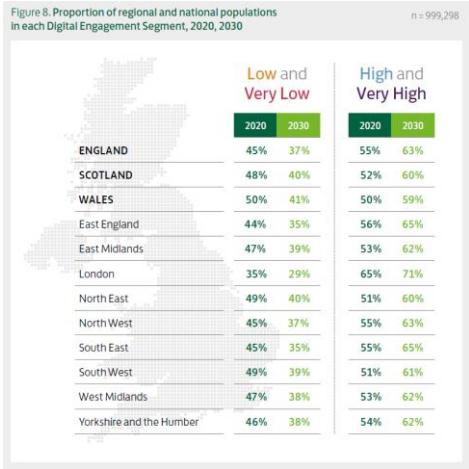
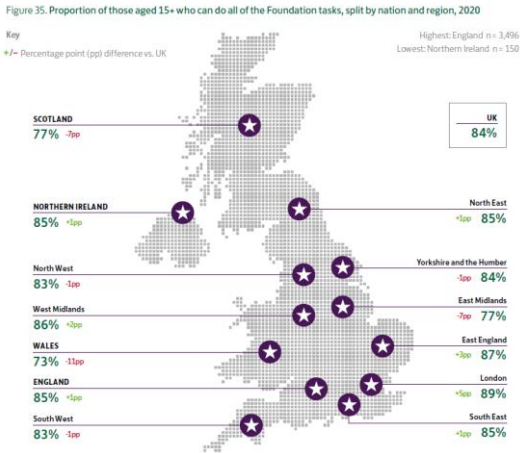


The task will be to work with all Gigabit-capable providers to maximise the commercial footprint and at the same time identify those properties at greatest risk and develop a targeted response such as use of the DCMS voucher scheme.

CONTEXT

Whilst digital poverty statistics for South Yorkshire are not readily available, national data would indicate there is an opportunity to make a real difference

Whilst digital skills are in line with national averages, the paucity of local data makes it difficult to pick out specific issues



But at a national level there are significant challenges that are relevant to South Yorkshire

Over 20% of lower income households with children cannot access the internet with anything other than a mobile phone

	All DE Households with children	Number of DE children affected estimate (lower)	Number of DE children affected estimate (upper)
No access to the internet at home	6%	110,000	390,000
Smartphone only access to the internet	9%	219,000	571,000
No home access to laptop or desktop or tablet or smartphone	4%	52,000	281,000
No home access to laptop or desktop or tablet	21%	649,000	1,182,000

(source: Ofcom Technology Tracker 2020)

Poorer households with low digital skills spend over £500 more a year on utility bills than those with higher levels of digital engagement

Digital Segment	Annual Salary	Average spend* per month
Very High	£0	£162
	<£20,000	£143
High	£20,000+	£221
	£0	£174
Low	<£20,000	£168
	£20,000+	£239
Very Low	£0	£198
	<£20,000	£207
	£20,000+	£276
	£0	£207
	<£20,000	£203
	£20,000+	£268

Average monthly spend on utility bills split by digital engagement segment and annual salary

(source: Lloyds Bank UK Consumer Digital Index 2020)

53% of those offline may struggle to afford broadband
40% of benefit claimants have Very Low digital engagement
52% of those offline are between 60 and 70 years old
25% Percentage by which people with an impairment are less likely to have the skills to access devices and get online by themselves

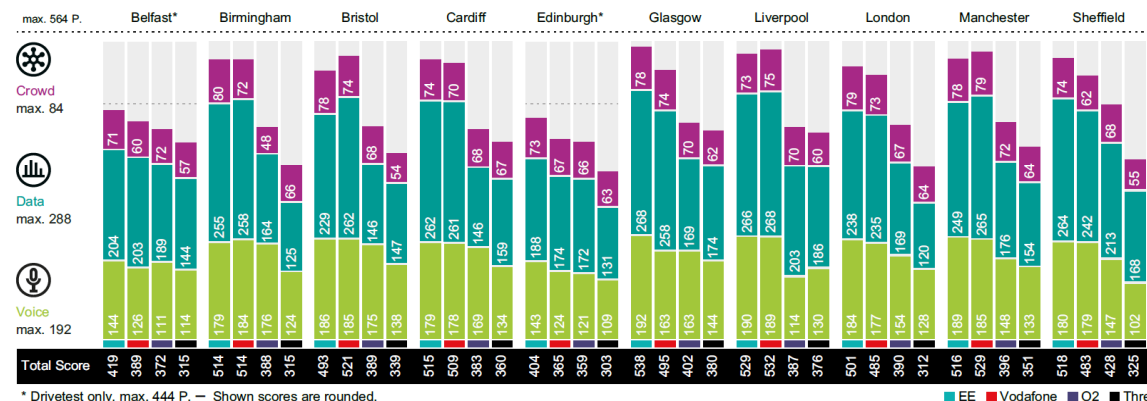
CONTEXT

The mobile operator commercial rollout model that has given the region 99% 4G coverage* is now driving 5G coverage. The public sector has an enabling role to play

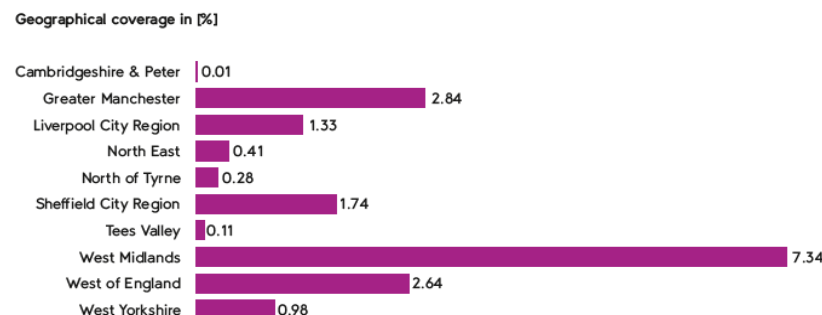
5G is a capacity and performance play and will not be rolled out everywhere; it will depend on 4G for coverage. The 99% 4G coverage is however based on mobile operator models and is not an accurate reflection of user experience, particularly in rural areas.

*Ofcom data

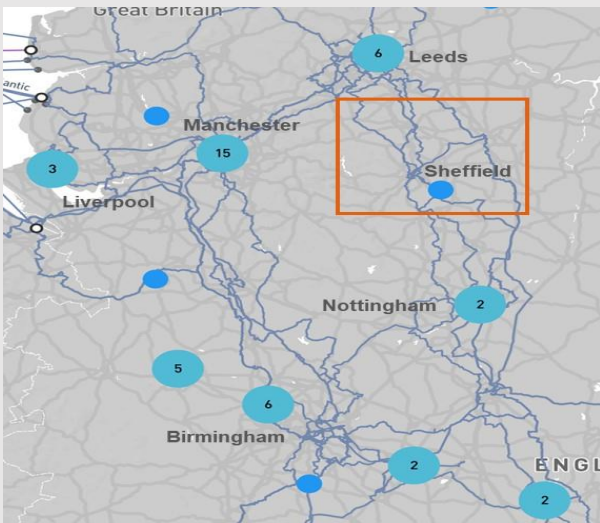
Commercial rollout of 3G and 4G technology has served Sheffield well, with performance on a par with other major UK urban centres
(Source: Umlaut 2019 Mobile Network test in the UK)



The same commercial operator deployment model also appears to be working well for 5G within the Sheffield City Region
(Source: Ofcom 5G Coverage in the UK 2020)



The region is lacking in data centre capacity which will become increasingly important for all businesses



- Data centres are an increasingly important part of the digital ecosystem.
- Whilst fibre connectivity can offer high speed global connectivity, proximity to the physical sites where data is processed and stored can be significant.
- Consensus is that over 25 miles (and the data centres of Leeds are 35 miles away) you start to get a noticeable effect.
- Industry analyst Gartner predicts that by 2025, 80% of businesses will shut down their in-house data centres.

Our digital infrastructure Vision

“ A Gigabit digital infrastructure that accelerates new social and economic possibilities for all the people and businesses of South Yorkshire ”

Our Digital Infrastructure Strategy will:-

1. Ensure South Yorkshire's superfast broadband and 4G success is repeated for Gigabit broadband and 5G
2. Support the social and economic priorities set out in the Strategic Economic Plan
3. Form an inclusive platform that enables better outcomes for all sections of society
4. Be supported by the Governance and data-driven approach needed to maximise the digital potential of South Yorkshire
5. Position South Yorkshire as a leading centre of applied digital innovation

1.

Ensure South Yorkshire's superfast broadband and 4G success is repeated for Gigabit broadband and 5G

- We will encourage all the commercial operators to deliver their planned network upgrades and new build in the SY region.
- We will work with DCMS to maximise the investment of 'Outside-In' rural broadband programme spend in South Yorkshire.
- **4G:** We will ensure that our rural communities have good mobile coverage (99% means 99%)
- **5G:** We will make the region's businesses, leaders in the adoption of 5G to drive sustainable advantage and competitiveness
- We will open up our public sector assets and make it easy for operators to build their networks with our consistent 'Barrier Busting' policies

2.

Support the social and economic priorities set out in the SEP

- As a foundation layer we will ensure we have ubiquitous Gigabit Broadband and 4G across South Yorkshire and 5G where it is needed.
- We will close the datacentre gap, reinforcing the success of the Region as a place to do digital business and ‘future proofing’ the region as more businesses become depended on cloud infrastructure.
- We will seek to leverage 5G’s unique enterprise capabilities (low delay, reliability, security, support for scale sensing networks) to the advantage of South Yorkshire’s significant manufacturing sector.
- We will engage with South Yorkshire’s major private sector organisations to leverage their digital know-how and seek mutually beneficial public-private sector outcomes.
- We will augment the growing narrative around the region’s digital sector, supporting start-ups, innovation and creating ‘lighthouse’ innovation projects.

3.

Form an inclusive platform that enables better outcomes for all sections of society

- We will address the data gap to better understand the specific digital poverty challenges in South Yorkshire.
- We will drive social value upside from our digital activities and as a bi-product of our support for operators building their new networks.
- We will explore new models for social connectivity, exploring new service delivery options (digital health and government services) and seeking to quantify the better outcomes that digital connectivity can deliver.
- We will make digital health and welfare a focus of our innovation work and link back to other regional initiatives.
- We will consider how our site assets can better serve our communities to either anchor operator builds into less commercially attractive areas or to provide digital centres in their own right, offering connectivity and help.

4.

Governance and data-driven approach to maximise the digital potential of South Yorkshire

- Building on the success of SFSY, we will create the necessary governance structure to ensure that our digital agenda is effectively coordinated and delivered.
- We will create a centre of digital excellence for the region, allowing it to respond in a co-ordinated way to Government initiatives and to engage consistently with operators and other private sector stakeholders.
- We will make use of wider public and private sector specific digital and technology skills to advise and add depth and challenge to our digital programme.
- We will make it easy for operators to build their networks with consistent 'Barrier Busting' policies adopted across the region, drawing on best practice from Local Authorities both within and outwith South Yorkshire.

5.

Position South Yorkshire as a centre of applied digital innovation

- We will seek to integrate our digital agenda into the innovation clusters already emerging in the region, amplifying their activities and creating 'lighthouse' projects reflective of our growing digital capability.
- We will seek to secure Government innovation funding awards by pre-preparing bids related to the SEP and our digital strategy.
- We will instigate a regional Internet of Things network to support public and private sector 'sensing' network ambitions and as a platform for innovation in our growing digital sector.
- Our innovation will have a purpose beyond being 'clever'; it must align to our SEP and have a clear social and economic value.

Questions and Discussion