

Overview of Digital Infrastructure & Connectivity

WCC Contracts



Airband contract - Delivered up to 20Mbps to 14 rural parishes in 2013 – contract monitoring concluded in 2020 and services remain in place.
 Superfast - Openreach contract 1 (closed), 2 and 3 (in process of closing)

Project Gigabit & Voucher Schemes



Local Body partnerships (WCC own) – Were fully allocated, Business Gigabit Connectivity vouchers & Rural Gigabit vouchers – Worcestershire amongst top areas for value of vouchers secured.
 New Voucher Scheme launched March 21
 W'shire in Phase 1B (amongst first 10 authorities) of DCMS Project Gigabit Universal Service Obligation (for those under 10Mbps)

Commercial Activity & Relationships



3.5 FTE

Mobile Coverage



Worcestershire Drive Trials 2017 and 2019 to understand coverage
 Mobile Network Operator conversations to encourage improvements
 Drive to improve 4G coverage - Shared Rural Network etc.

5G



Worcestershire 5G Testbed and Trials Phase 1 Ended Summer 2020
 West Mercia Rural 5G Testbed and Trial (March 2020 to March 22)
 Support 5G Commercial deployments
 Established nexGworx – wholly owned subsidiary of MHSP
 Exploring Other technologies and R&D projects

Digital connectivity remains increasingly important to Worcestershire residents and businesses. Without the investments in improving digital infrastructure in recent years the last 18 months would have undoubtedly been even harder for many more of them.

Increase in **superfast** – c. 69% (2013) to 97.5% (8/2021) and **Gigabit capable** – c. 3.8% (12/2019) to 39.81% (8/2021). Our projects have directly improved connectivity to over 75,000 premises and indirectly facilitated many more.

The Take-up of fibre based broadband by the premises we have enabled, is continually increasing, currently around 76%, demonstrating a continued demand for improved connectivity. (higher than national average)

Worcestershire’s unique 90% business target and the overall 90% coverage of superfast, were exceeded on schedule. National and local focus now shifted towards 85% Glgabit capable by end of 2025 target.

	UK	Worcestershire	Bromsgrove	Malvern	Redditch	Worcester	Wychavon	Wyre Forest
Superfast (> 24Mbps)	97.19	97.54	98.33	93.84	99.45	99.72	96.02	97.90
Ultrafast (> 100Mbps)	67.45	44.76	76.05	24.47	90.87	15.08	20.53	54.53
Full Fibre (FTTP)	25.08	14.95	53.57	17.21	3.36	3.51	11.40	2.93
Gigabit	42.39	39.81	76.05	17.21	90.87	3.51	11.58	54.53
< 2Mbps	0.46	0.30	0.14	1.06	0.04	0.00	0.41	0.24
< 10Mbps	1.27	1.05	0.52	3.28	0.13	0.01	1.71	0.79

Source: Broadband Coverage Information, Think Broadband, 04/08/2021 <http://labs.thinkbroadband.com>

While the original focus was on extending access to fibre based superfast infrastructure across Worcestershire, as the superfast projects progressed the emphasis shifted, following UK Government's "Outside in" ambition, to building gigabit (1000Mbps+) capable infrastructure networks.

Government's £5bn 'Project Gigabit', expects to provide Gigabit Connectivity to a "minimum" of **85% of UK premises** by the end of **2025**. Operators will deploy much of this commercially, but as with the Superfast deployment, gaps that are uncommercially viable areas will remain, requiring public sector finance support. To date the public sector funding is expected to be provided by Central Government, **with no commitment from Local authorities aside from resources to support and the return of Underspend and Gainshare to DCMS from the original Superfast contracts**

Worcestershire has been named in 'Lot 24 Phase 1b' of the new investment scheme - one of the first 10 areas within the UK spanning c.640,000 premises within defined intervention areas. DCMS lead on this, working with LAs and pre-procurement activities (OMR and PR) are underway:

- Procurement start date – May 2022
- Contract awards – Spring 2023
- Number of premises – 51,400

WCC is working with commercial operators to upgrade existing and deploy new infrastructure until 2026.

To date Worcestershire businesses/communities have secured c. £4.3m of previous national **Gigabit Vouchers** for Local Community Partnerships, putting Worcestershire amongst the top performing areas.

March 2021 saw the launch of the new **Rural Gigabit Voucher Schemes** (an additional UK investment of £210m) providing up to £1.5k for homes and £3.5k for businesses in hard-to-reach areas.

Current Operational Plan and next steps

- Finalise existing superfast contracts.
- Work with DCMS on selecting the preferred supplier and managing 'Project Gigabit' for Worcestershire, including any potential smaller lots.
- Continue drive of communities towards 'Gigabit Voucher Scheme' and 'Rural Gigabit Voucher Scheme'. By WCC helping to support these community projects gain funding this will reduce the final 'gigabit gap' seen in Worcestershire in 2026. Currently over £4.3m have been committed to projects, with many more in the pipeline from existing schemes as well as potential further investment through the Rural Gigabit Voucher Scheme.
- Continual push to strengthen requirements on developers to provide 'Full fibre' connectivity and awareness of the risk and impact of the ISDN, PSTN and eventual Copper switch-off
- Continue to engage with commercial operators of both broadband and mobile networks to encourage, support and facilitate their commercial deployments in the county reducing disruption to residents where possible through integrated planning.
- Continue applications into funding opportunities, including gainshare and underspend.

Challenges:

- Future Connectivity Team resourcing to continue the high level of success and inward investment opportunities. (Funding TBC)
- Limited capacity to engage and actively support commercial deployments
- Conflicting priorities of building large scale gigabit networks, whilst minimising disruption to residents and visitors to Worcestershire through close working arrangements with Highways.
- Securing funding to support wider connectivity projects e.g. Feasibility studies to explore 'Digital Twin', 'Neutral Host' and 'Smart Community'; further mobile assessment works, further bids and top up funds
- Areas without Superfast, challenges in BDUK Gigabit strategy, Mobile 'not-spots'

Summary:

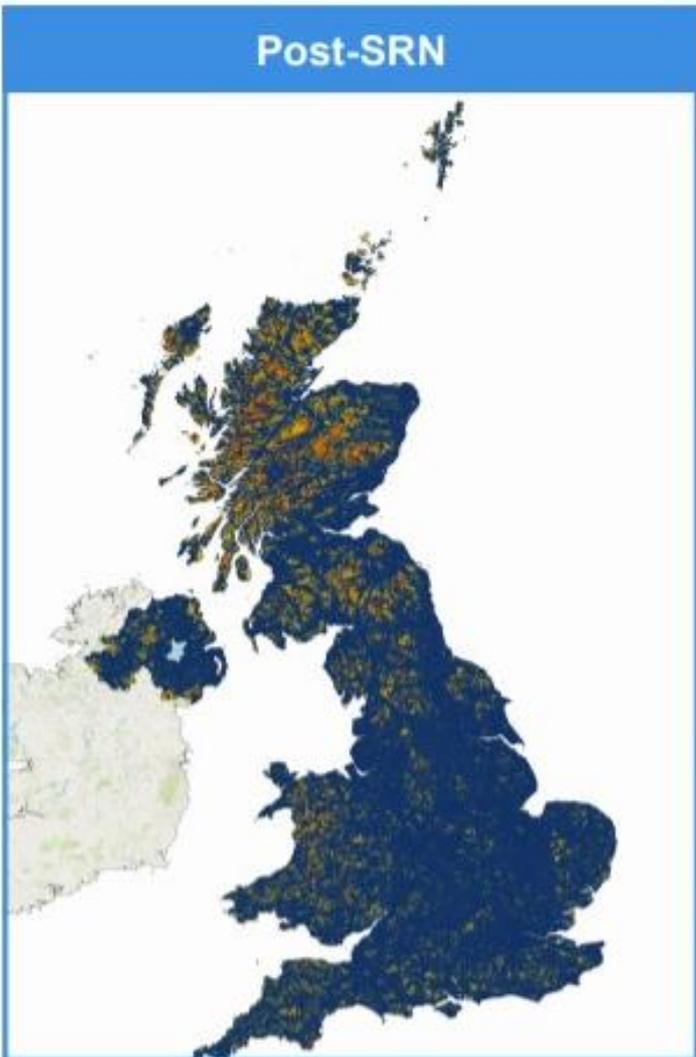
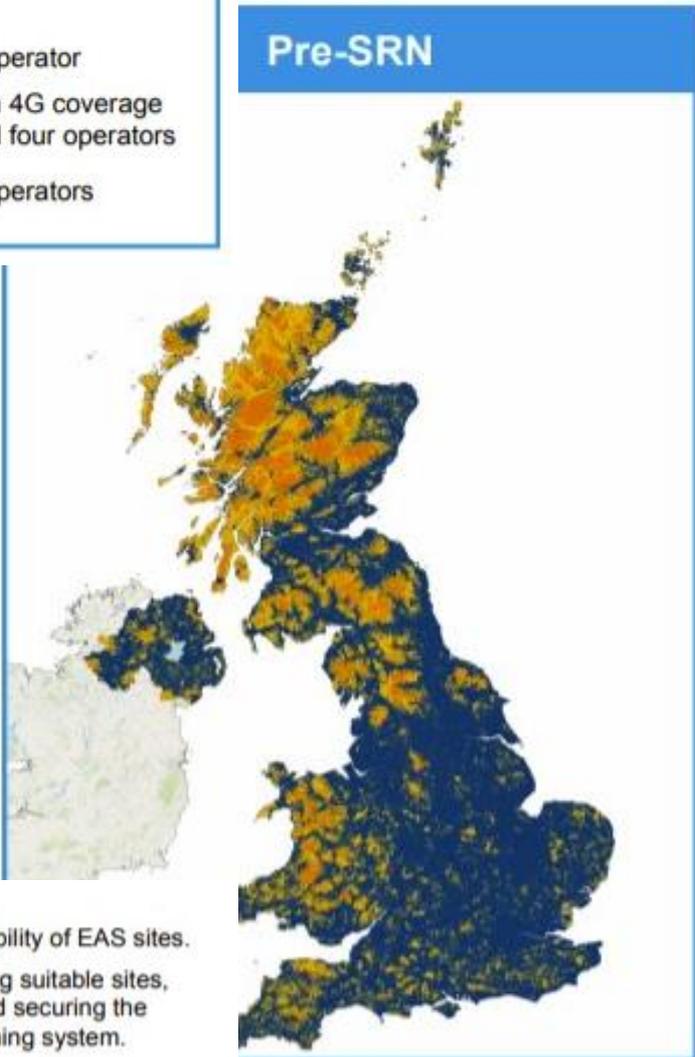
- 3 of the 4 MNOs have a 5G presence in Worcestershire, not widespread and mainly urban areas. All four have announced plans and will be expanding in next year
- Deployments remain scattered and follow national pattern of 'town bagging'
- Worcestershire's planning rejection of mast sites in line with other areas – With WM5G we have ran information sessions for planners across the county to support decision making
- As with 4G initial deployments will be urban areas – rural areas not expected to feature for some time (previous G's have taken 7-10 years to reach maturity and gaps remain)
- Shared Rural Network – commitment from MNOs to tackle 4G 'not spots' (next slide)

Challenges and responses:

- It isn't all 'coverage' other issues impact end user experiences such as congestion on motorways, user settings/handset, localised events can impact – Awareness raising needed
- There is still an element of NIMBYism around new mast sites.
- 5G still focussed on Macro' mast delivery – in urban areas we expect 'small cell' sites to become popular – consideration if WCC assets could support this. – Further work required
- As with broadband we have included 'cellular' considerations in our recent Development Plan documents
- Important to consider 'Digital Infrastructure' when designing major projects. Work underway
- Exploring Worcestershire's appetite to carry on current path or 'go-fully-digital' – Digital Twins – active role in infrastructure/network ownership
- Opportunities of other funding 'Infrastructure Access' funding – options to consider bidding

Shared Rural Network Forecast Improvements

- Key**
- Total not-spots, areas with no 4G coverage from any operator
 - Partial not-spots, areas with 4G coverage from at least one, but not all four operators
 - 4G coverage from all four operators



Notes
Forecast improvements subject to availability of EAS sites.
Coverage improvements subject to finding suitable sites, obtaining power supply and backhaul and securing the necessary permissions through the planning system.

nexGworx Limited has been incorporated but is not yet trading in it's own right

Trading under MHSP and has Signed Orders for £868,000, with Orders Pending for £142,000

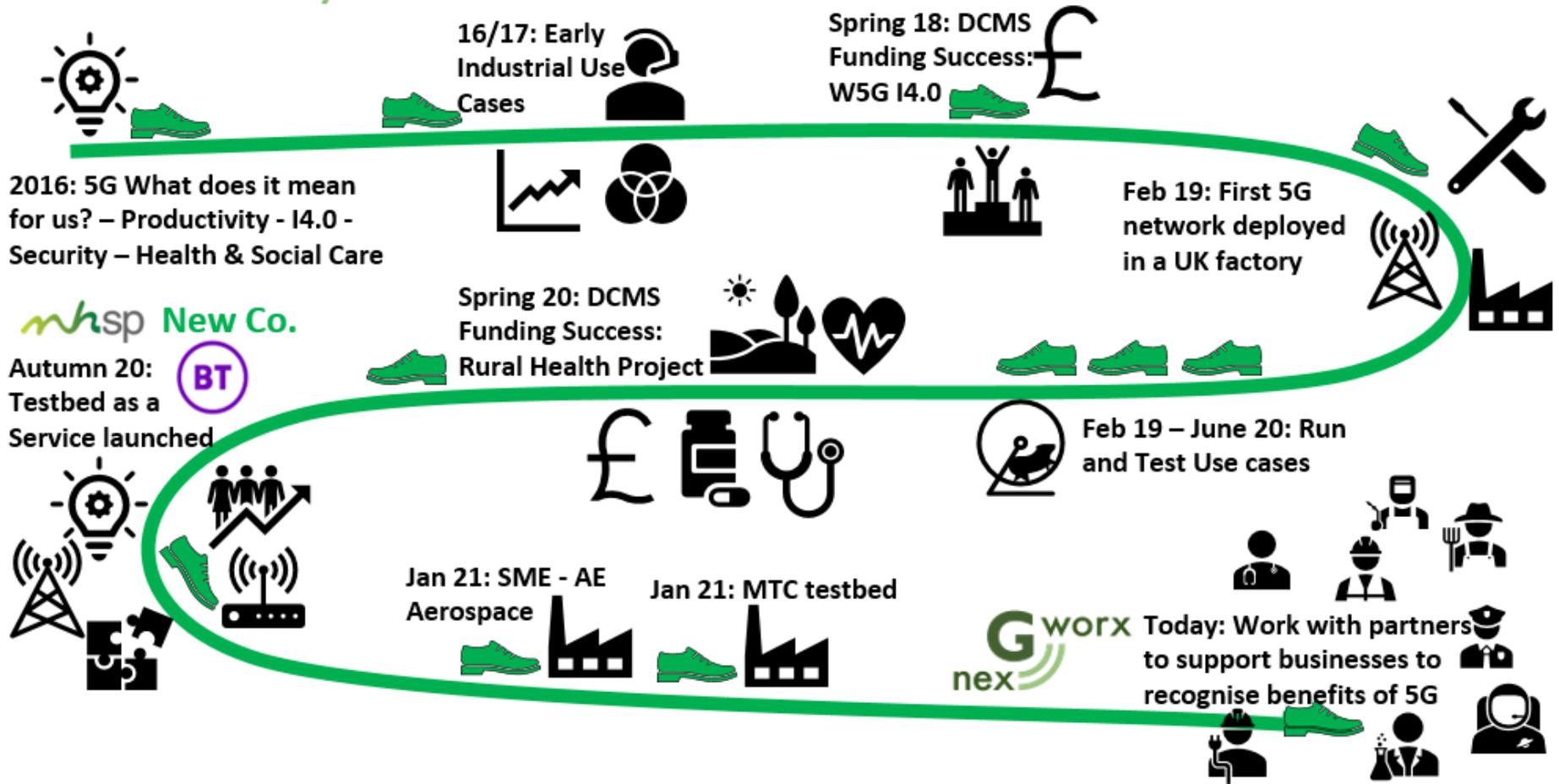
Current customers include: Worcestershire County Council, Manufacturing Technology Centre (MTC) and AE Aerospace

Key Opportunities: Growth at MTC and their wider membership, 'Made Smarter' three outline packages have been developed and driving TaaS.

Priority Actions: Full launch of nexGworx (appoint directors), delivery on commitments, Set up 5G Laboratory, recruitment plan – **SECURE ADDITIONAL BUSINESS**

The financial performance of current contracts is on track. The bottom of the cashflow curve is expected in the next quarter, new overhead expenditure commitments will be carefully considered.

Our 5G Journey



WCC secured DCMS funding to lead a consortium in a 2 year project investigating new models for 5G delivery in rural areas and the benefits that 5G connectivity can bring to rural Health and Social Care delivery. The project is due to complete at the end of March 22.

Project has experienced difficulties with technology partner withdrawing early. Network expected to be live in December 2021

The key locations for this project are Malvern and Tenbury. Two use cases are being trialled the Connected Worker (Head mounted tablet to support virtual GP rounds / Community Nurses in Care homes), and the VRSS led 'Remote Physio' utilising augmented reality and video feeds. Currently in final stages of onboarding clinicians, Care Homes and GPs as well as on going R&D with the trial SMEs.

Focus now on delivery and ensuring experience of health partners is a positive one

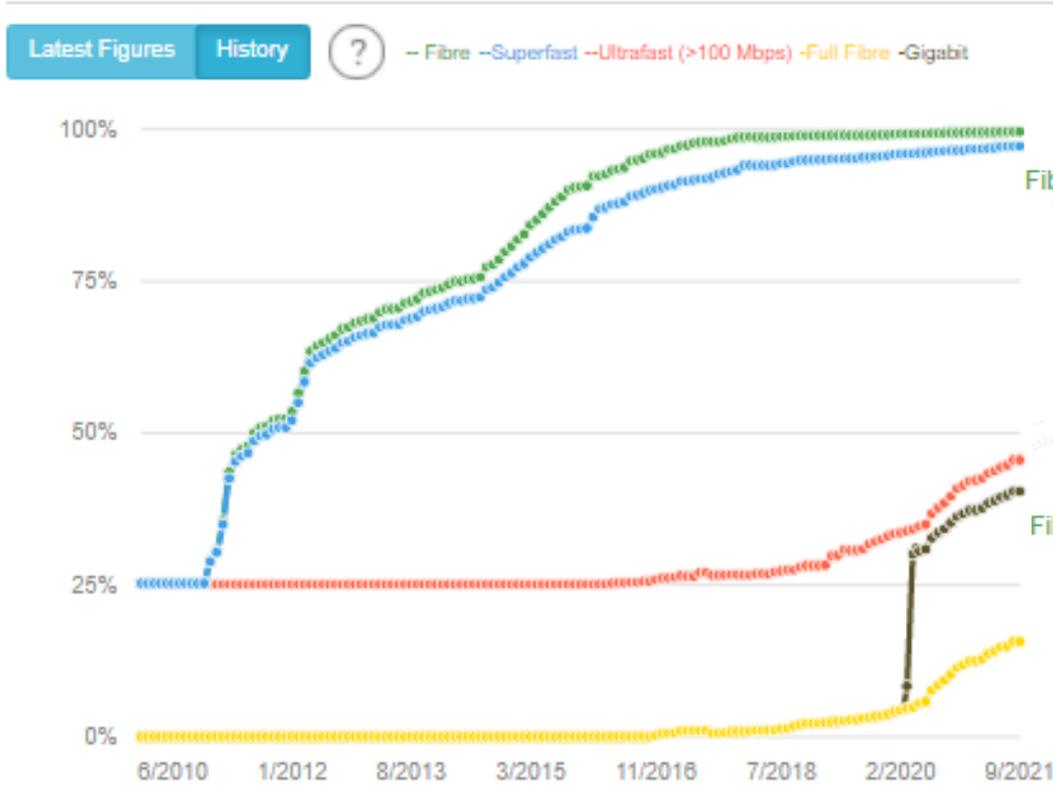
BT engaged to look as sustainability plans post March 31st

- Broadband – Good progress – Marked achievements – Still work to be done – Support & Challenge BDUKs Project Gigabit
- Mobile – No direct route to invest to improve coverage – Ability to influence and indirect options could exist e.g. neutral host – Awareness campaign on getting best of what exists
- 5G – Continue growth of nexGworx – Look for sustainability route for West Mercia Rural – Ensure local businesses aware of opportunities – Take our own medicine?

Coverage in Worcestershire

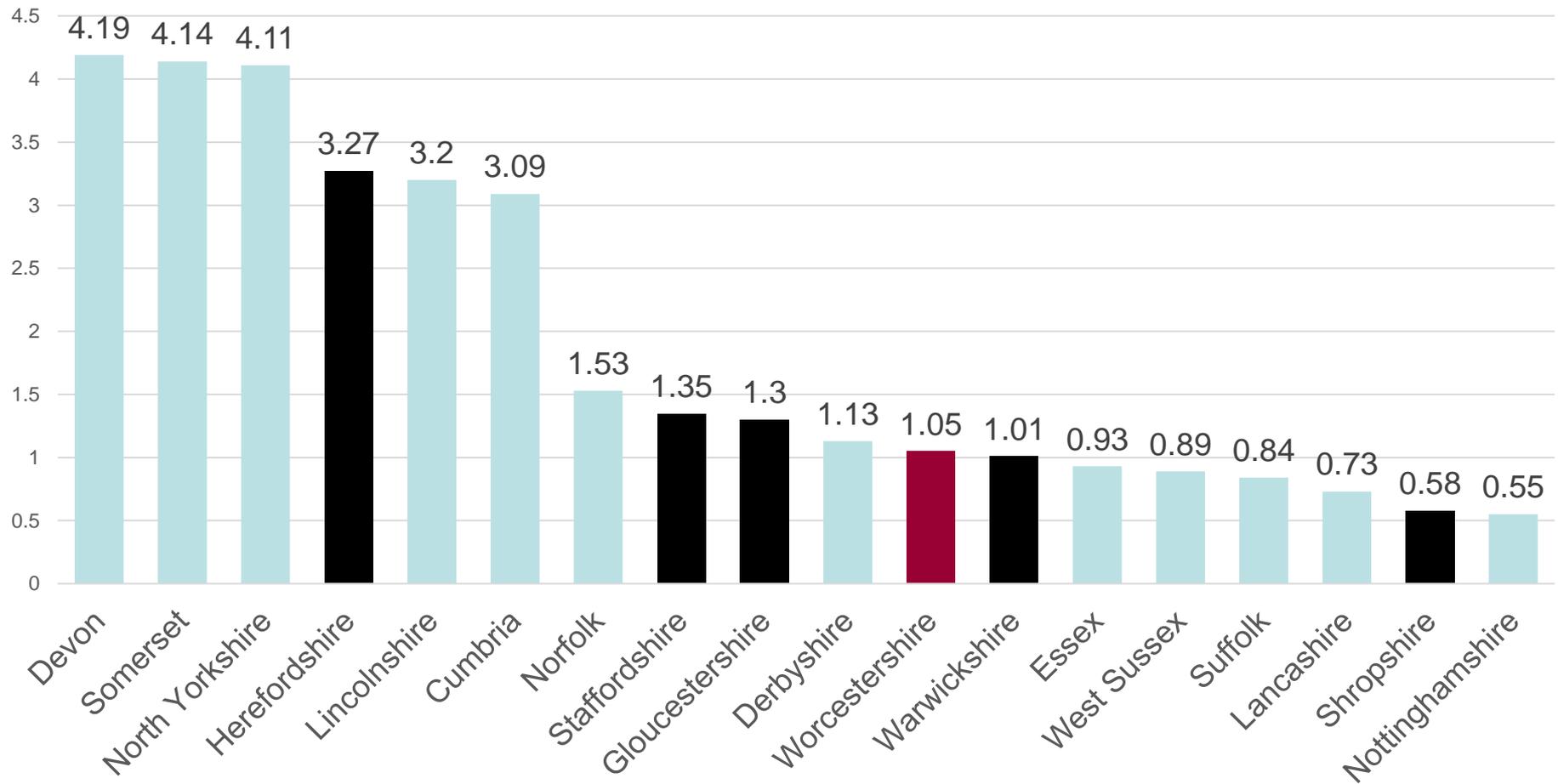
Stats on right taken from Think Broadband – Graph represents Worcestershire. The Tables compare to UK average at start of programme and today

Worcestershire Superfast and Fibre Coverage

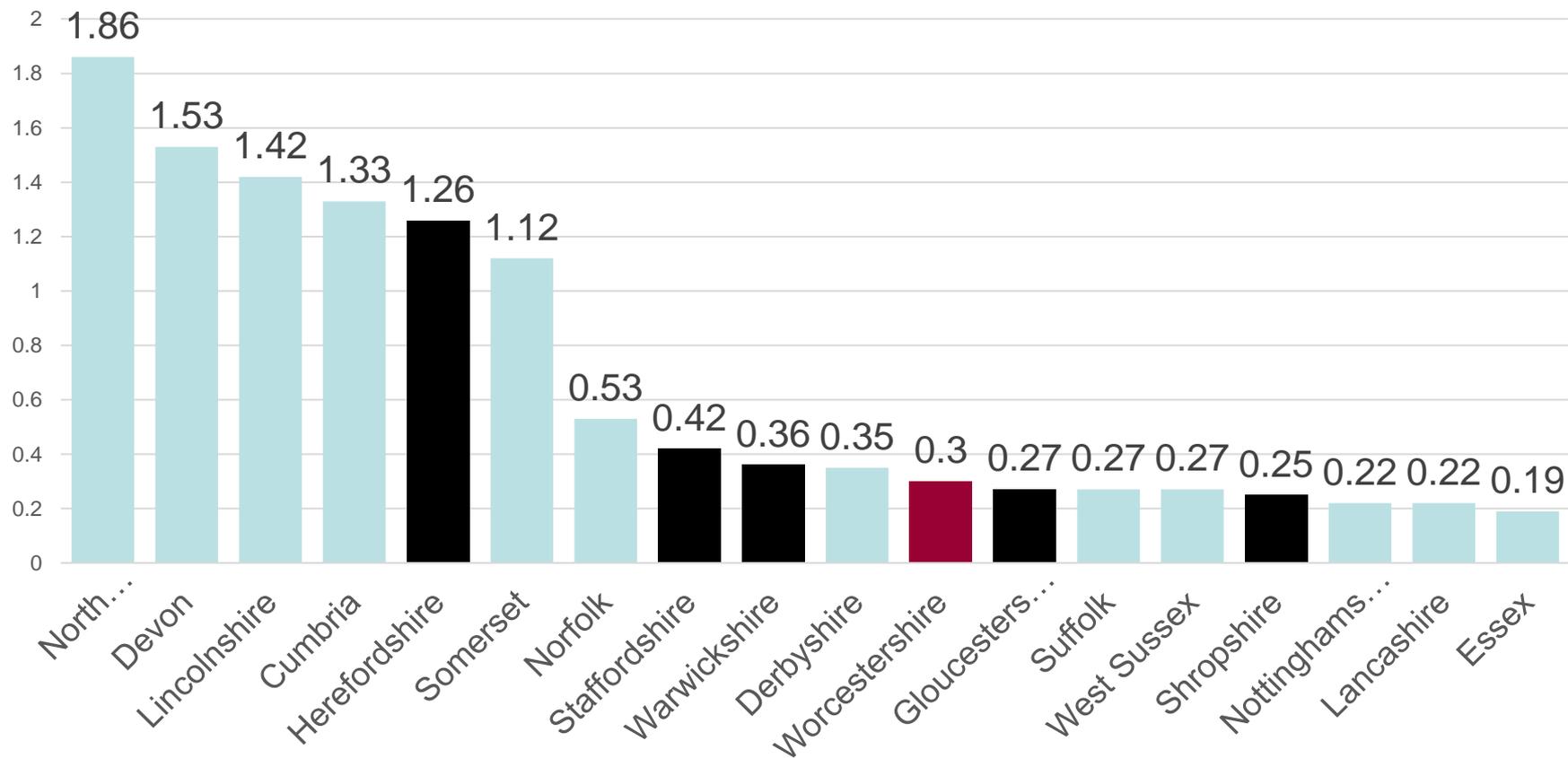


	UK	Worcs
1/2010	Superfast (>30 Mbps): 49.3% Fibre (VDSL2 + FTTH + Cable): 49.3% Ultrafast (>100 Mbps): 49.1% Full Fibre (FTTP/FTTH): 0.7% Gigabit: 0.7%	Superfast (>30 Mbps): 25.3% Fibre (VDSL2 + FTTH + Cable): 25.3% Ultrafast (>100 Mbps): 25.1% Full Fibre (FTTP/FTTH): 0% Gigabit: 0%
9/2021	Superfast (>30 Mbps): 96.9% Fibre (VDSL2 + FTTH + Cable): 98.9% Ultrafast (>100 Mbps): 67.8% Full Fibre (FTTP/FTTH): 25.8% Gigabit: 46.6%	Superfast (>30 Mbps): 97.2% Fibre (VDSL2 + FTTH + Cable): 99.6% Ultrafast (>100 Mbps): 45.6% Full Fibre (FTTP/FTTH): 15.7% Gigabit: 40.5%

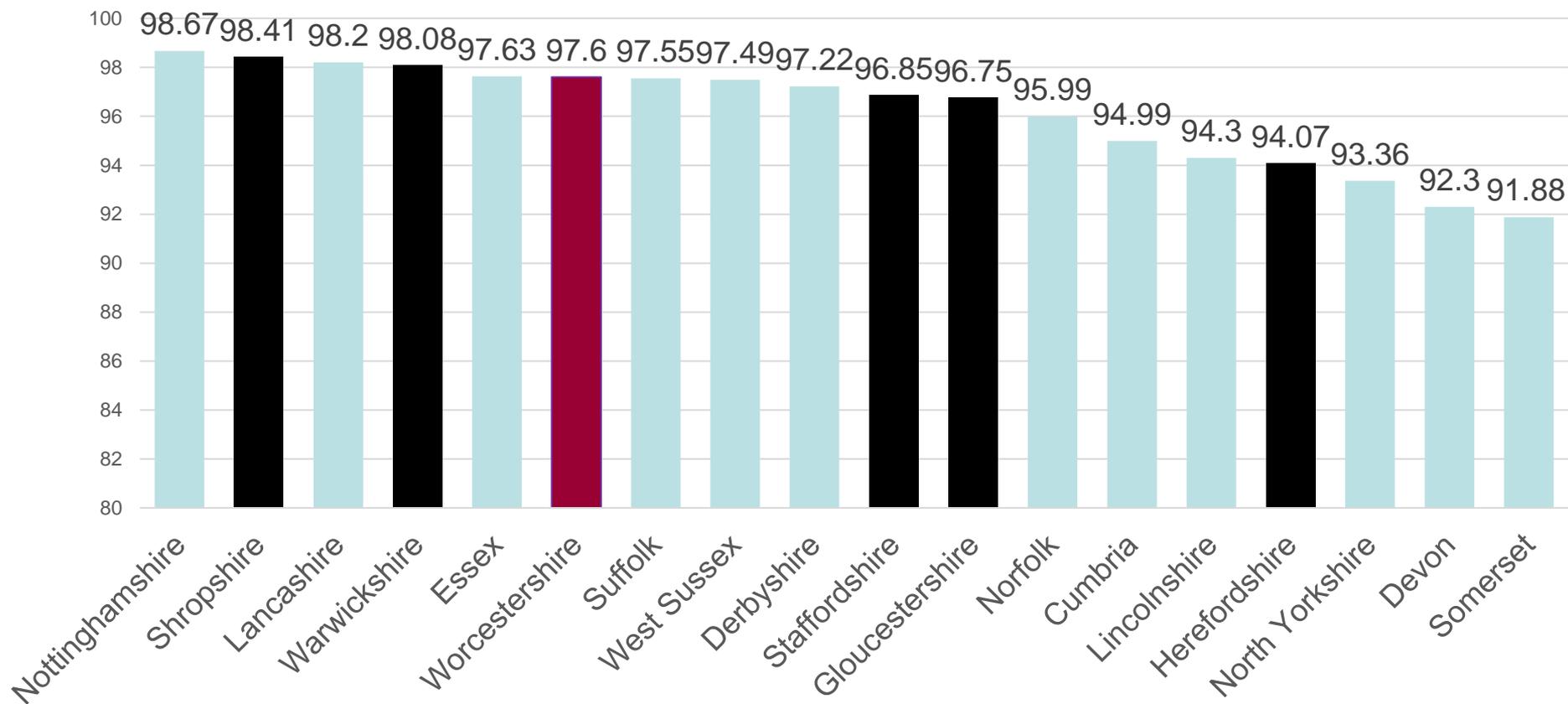
Counties ranked by percentage of premises - < 10Mbps



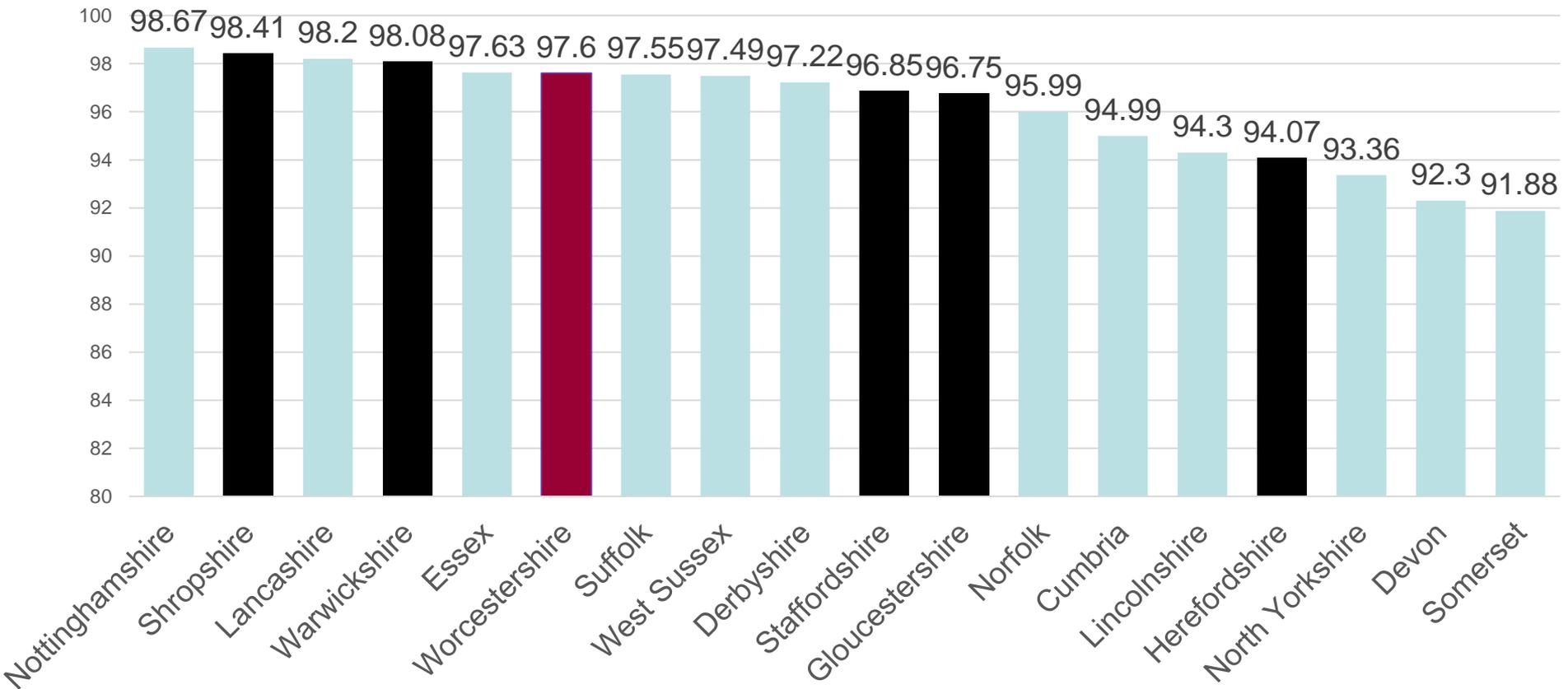
Counties ranked by percentage of premises - < 2Mbps



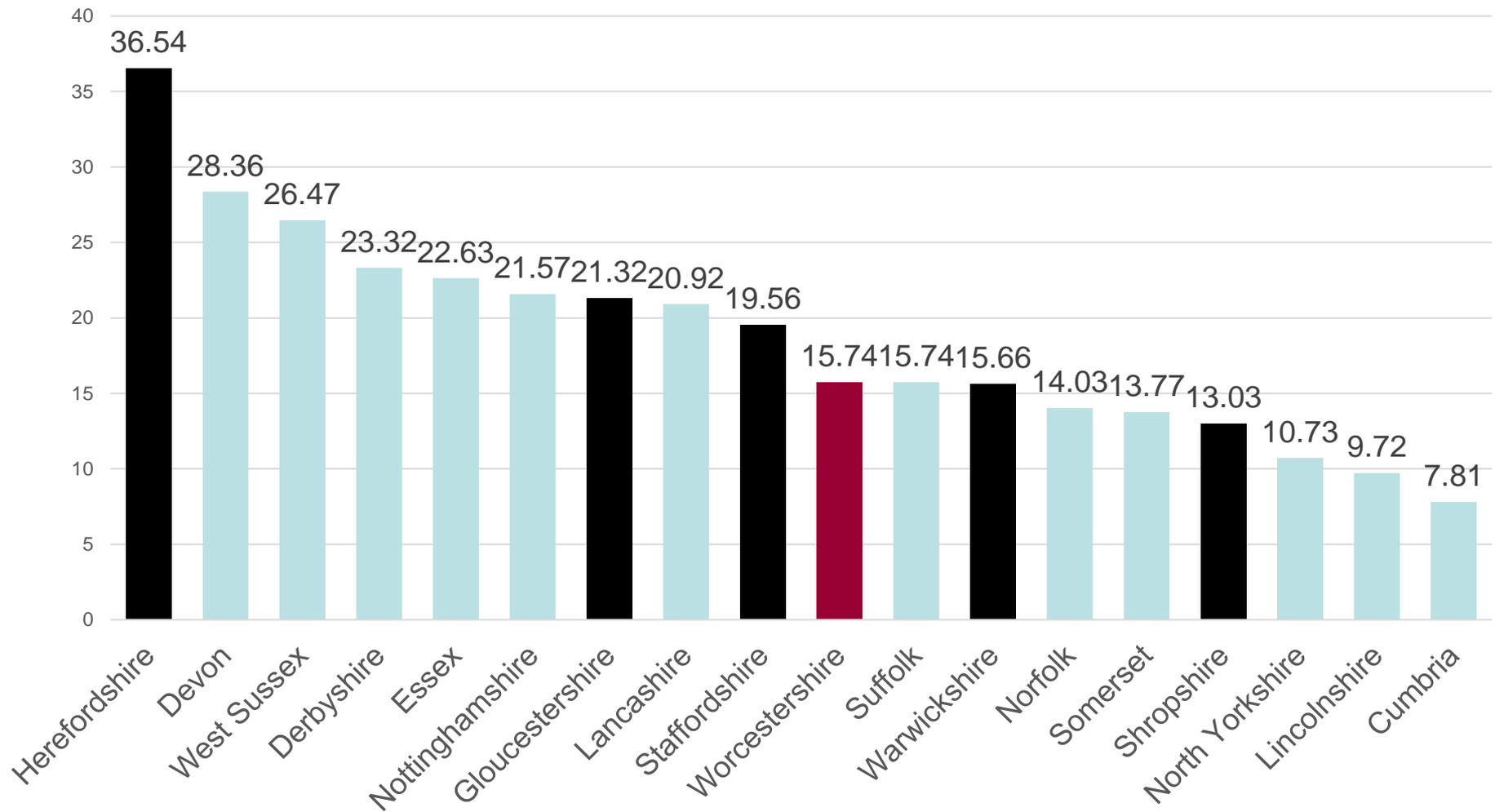
Counties ranked by percentage of premises - Superfast (> 24Mbps)



Counties ranked by percentage of premises - Superfast (> 24Mbps)



Counties ranked by percentage of premises - Full Fibre (FTTP)



Counties ranked by percentage of premises - Gigabit

