RootMetrics®
By IHS Markit

5G is leading us to a hyper-connected future

Now is the time to measure its progress

Always-on, seamless connectivity

Zero-lag video calls

Uninterrupted video

Substantial increases in bandwidth

Driverless cars

IoT growth & development of smart cities, smart homes, & smart industries

Immersive entertainment & virtual reality with zero delay

Zero-latency gaming

5G is serious business.

$6.3 billion: amount lawmakers in the UK committed for its Digital UK initiative, aimed at bringing super-fast connectivity across the entire UK by 2035.

$13.1 trillion: global economic output enabled by 5G in 2035, which is nearly equivalent to combined annual consumer spending in China, France, Germany, Japan, and the UK (**$13.4 trillion**).

$235 billion: annual amount the 5G value chain will invest to continually expand and strengthen 5G technology.

With billions at stake for the future of connectivity, the importance of accurate 5G performance and coverage testing has never been greater.

Partnering across the connectivity landscape

Bringing the future promises of 5G closer to reality today

Businesses, industries, and governments need the right network coverage and performance data, and they need it now.

Testing in action

Measuring 5G performance in West Midlands, England

West Midlands, the UK's first 5G testbed, was selected by the UK government for trials of several 5G use cases, including connected ambulances, driverless cars, and other smart technologies.

To provide an in-depth look at how 5G is progressing in the area, we tested 5G performance in Sandwell, a borough of West Midlands.

Who we worked with: West Midlands 5G (WM5G), a telecom and digitalization organization with two key goals: to accelerate the benefits of 5G, and test, prove, and scale new 5G projects and services.

Why and how we did it: We partnered with Gaist, a UK-based roadway technology data company, to measure 5G performance in Sandwell and help WM5G achieve its goals.

What we did: We tested 5G performance on every street in Sandwell.

The end result: An accurate and comprehensive science-plus-crowd picture of 5G performance in Sandwell that can't be achieved by crowd data alone.

Key stats and figures from testing in Sandwell

270 miles: how far we drove to test 5G performance in Sandwell.

21,000+: total number of data performance tests conducted.

33 square miles: area covered during testing.

April 6 to April 17: dates of testing.

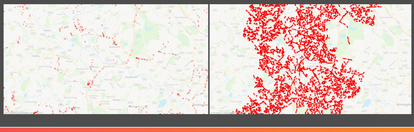
What we found

Results at a glance

Measuring 5G availability and speed with unprecedented test sample density

Our testing **reached a level of test sample density that no other testing firm has ever achieved**, providing key data points and insights for every road in Sandwell.

Test sample density before and after partnering with Gaist



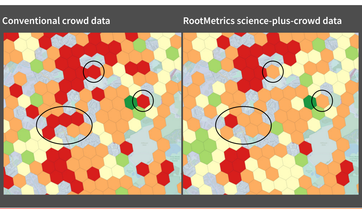
"The unique combination of comprehensive driving surveys of Gaist with the network performance collection tools of RootMetrics provides a level of coverage and capacity analysis for operators, consumers, and others that gives real insight into mobile connectivity in the area. We are looking forward to working with RootMetrics to provide additional data across the UK to answer precise coverage questions in the future." Steve Birdsall, CEO of Gaist

Our science-plus-crowd difference: unlocking insights others miss

Using our scientific test results as a foundation, we utilized advanced analytics and machine learning models to enhance our own crowd samples in Sandwell in order to:

- Create a science-plus-crowd data set that's more trustworthy than crowd sampling alone.
- Allow for apples-to-apples comparisons of performance that can't be achieved with conventional crowd solutions.

Conventional crowd data | **RootMetrics science-plus-crowd data**



Our crowd results in Sandwell, when informed and enriched by our scientific results, allow us to offer a science-plus-crowd picture of performance that's more reliable and actionable than results from crowd testing alone.

The bottom line: Businesses and organizations in Sandwell now have the information they need to help bring 5G and connectivity in general to all 328,000 residents of the borough and make better decisions for the implementation of:

- New cellular towers
- Smart parking meters
- Smart traffic cameras
- Smart traffic sensors
- Automated recycling/trash collection solutions
- Countless other smart technologies

Ready to learn more about our industry-best science-plus-crowd approach?

RootMetrics crowd data at a glance:

Aggregated data from **100M+ devices**

Collected from **600K+ active users per month** and growing

Science-plus-crowd:
Providing data and insights on a micro-level to help organizations save money, better allocate resources, and realize the goals of a hyper-connected world

Read our new report to learn more about our new science-plus-crowd solution.

Contact us to learn more about partnership opportunities and find out how our unique science-plus-crowd approach to testing network performance can help your organization.

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