Digital Connectivity Mapping
Tuesday 25 November
Chair, Helen Morgan MP
Portcullis House, Parliament

Session Focus
The session explored the challenges and opportunities in improving digital connectivity across the UK, with a particular focus on the accuracy of mobile coverage data, the limitations of current mapping methodologies, the role of local authorities, and the policy levers available to drive investment and accountability in digital infrastructure.

Mobile Coverage Mapping: Methodology and Real-World Experience
- **Coverage Mapping Improvements:** Ofcom has improved its coverage mapping to a 50x50 metre grid, using both operator-provided predictions and crowdsourced performance data from millions of handsets.
- **Accuracy Concerns:** While mapping is generally accurate at a broad level, errors may exist at specific locations, especially in rural, coastal, and urban areas with capacity issues. Zooming in does not materially improve accuracy due to inherent modelling limitations.
- **Limitations:** Signal strength predictions do not fully account for topography, building materials, or real-world obstacles. Each operator uses different models. Congestion and interference, especially in urban and edge-of-cell rural areas, further complicate real-world experience.

Street-Level Data and Local Authority Initiatives
- **Street-Level Data Collection:** Some local authorities use portable data collection devices in council vehicles to gather granular, street-level mobile signal data across all networks.
- **Benefits:** Street-level data may allow councils to hold operators accountable, plan infrastructure, and inform residents about actual coverage. However, only about 40% of the UK is currently covered by such initiatives, and data is a snapshot in time.

Accountability and Competition
- **Operator Data and Accountability:** Reliance on operator-provided data for national mapping and contract awards (e.g., Shared Rural Network) raises concerns. There is a need for more independent, transparent data to drive competition and investment.
- **Consumer Choice:** Granular performance data could help consumers choose the best network for their needs, but current public data is insufficient for effective accountability or consumer decision-making. Consumers do not live, work and enjoy life in one location.

Investment, Profitability, and Policy Levers
- **Investment Trends:** Mobile network operators' investment has not kept pace with rising demand for reliability and capacity. Profitability challenges and high costs (especially for rural deployment) limit incentives to invest in harder-to-reach areas.
- **Policy Levers:** Competition (e.g., network mergers, spectrum obligations) and regulatory interventions can drive improvements, but there are limits to what can be achieved without addressing underlying cost and planning barriers.

Planning System Barriers
- **Planning Challenges:** Local planning permission remains a major barrier to deploying new infrastructure. Outcomes vary widely across local authorities.
- **Community Engagement:** Vocal local opposition can block economically viable projects, while lack of digital champions or dedicated staff in councils means some areas are left behind in funding and rollout.

Digital Champions and Local Authority Capacity

- **Role of Digital Champions:** Councils with digital champions or dedicated digital infrastructure teams are more successful in attracting investment and government funding. However, many councils lack such capacity, leading to geographic inequality in digital infrastructure.
- **Resource Disparity:** Well-resourced councils dominate the conversation and receive more support, while others fall behind.

5G Rollout and Future Use Cases

- **5G vs. 4G:** The main benefit of 5G is increased reliability and capacity, not necessarily higher speeds for everyday use. Most current needs can be met with 4G, but 5G will support future low-latency applications (e.g., autonomous vehicles, remote surgery).
- **Rollout Challenges:** 5G deployment is ongoing, but lack of local infrastructure (masts) remains the primary barrier, not the technology itself.

Data Sharing and Transparency

- **Data Access Issues:** Local authorities and third parties often lack access to comprehensive operator data, limiting their ability to plan and hold providers accountable. Commercial and legal constraints restrict data sharing.
- **Independent Surveys:** The need for independent, neutral data collection remains critical for transparency and effective policy-making.