Your response

Your response should include details of:

- a description of the relevant technology;
- a view of the potential impact of the technology on the sectors we regulate, preferably identifying the impact against the criteria listed in section 3.16 of the call for inputs;
- the current state of development of the technology, including any demonstrations of feasibility;
- any unresolved issues which need to be addressed for the technology to achieve full potential;
- references to key publications and the leading groups working on the technology; and whether you would be open to discussing the technology in more detail with Ofcom.

Your response

Description of Technology

Mastdata is a UK wide mobile telecoms web and app based resource tool for use by contractors and operators across the mobile telecommunications sector. It is also used by evolving smaller businesses, the Emergency Services, Government Bodies and the General Public.

Our site is designed to drive best practice by understanding what currently exists, and to assist new projected mobile network deployments to help improve coverage and network efficiency.

We provide independent multi-operator network analysis with scope to enable companies and organisations to collaborate. Our geographical analytics include not-spot identification, live coverage, network consolidation, site proximity and A>B line of sight (LoS).
We have developed an App that can be used to survey signal strength based on the users location, which compliments and enhances the existing infrastructure information.

We are independent and have a proven track record for providing the data and services for small businesses and emerging technologies to develop.

Potential Impact

- Improve efficiency in both planning and performance of potential and existing masts, and to determine the most direct and efficient solutions for new coverage and dish links
- Significantly reduce costs within the industry and for government through a central database of existing and potential transmission locations
- Enable new and small businesses to develop solutions and technologies through access to a secure and current UK mast register
- Ensuring minimum impact on network roll-out to local communities

Current State of Development

We have a wide range of services in place, and many more that we plan to add or improve.

Web Based Services we currently offer:

- Infrastructure location data for the UK including Mobile Phone Base Stations, Offered Sites and British Telecom (BT) Exchanges
- Search tools and maps for Base Station by Operator Site Reference, Town, Postcode or Lat/Lng to assist Desktop Surveys
- Search tools and maps for all UK Telecom related Local Planning Application records including site Planning Drawings, correspondence and outcome/determination where available
- A>B Line of sight between multiple existing masts and infrastructure for dish links
- Regional coverage analysis for local districts, towns or Council Boroughs based on actual phone signals, split by 2g/3g/4g/5g and operator (MCC/MNC)
- Potential coverage at variable heights from existing sites, offered sites with telecom friendly landlords, and proposed sites.
- Actual coverage from existing sites based on phone signal data collected using the mastdata App (MCC/MNC/LAC/CID)
- Potential and Actual Not-Spot identification across single or multiple operators
- Identifying suitable locations for remote GPS monitoring devices including Solar Farms, CCTV and other telemetry devices
- Additional information for individual masts including maps, operator, Site Ref and Name, AMSL/AGL and Line of Sight summary
- 5G Coverage calculations based on existing or/and proposed infrastructure
- Identifying suitable options and locations for wireless broadband solutions
- LAC/CID Location Finder for use by Police and the emergency services to locate missing persons
- [✂]

App Based Services we currently offer:

- Single or multiple operator Surveying with online maps to view results
- Access to all the existing services on our website
- Locating and driving directions to existing telecoms sites for Site Surveys, upgrade work and maintenance
- Potential coverage for moving home, office or outdoor events/activities
- Identifying a suitable alternative wireless solutions where fibre broadband is not available
- Signal survey tools for existing public transport infrastructure including rail, ferry and bus routes

Additional Bespoke and on request Services we provide:

- Existing Site Portfolios: We provide analysis of a client site portfolio for signal coverage, line of sight and infrastructure proximity
- Ferry Services: We are in discussion with overseas companies regarding their existing routes to the UK assist with the provision of onboard Wi-Fi for their passengers.
- Rail networks: We can identify potential not-spots on existing routes and provide potential coverage options and solutions.
- [✂]

Unresolved Issues

We have a number of new and ongoing initiatives that are currently in progress:

- Database accuracy and security: All our tools and services are in place, and our data covers the whole of the UK. We host our data and website on UK based servers. Unfortunately we have no direct input from the operators, and our data is currently updated using the following methods:
  - A rolling review of Local Planning Authorities (LPA's) for the latest telecommunication Planning Applications.
  - Sites added by, or amended by Registered Users.
  - Sites added by, or amended by non-registered users. These are all reviewed by mastdata before inclusion in our site.
  - Third Party mapping organisations.
  - Additional public domain data relating to telecoms masts and signal data from trusted sources.
  - Feedback and signal data collected from our App
- App Data collection: We launched our App in June 2020 and currently have over 2000 users. We are looking to partner with organisations within mobile field services to capture data on a more formal basis, eventually covering the whole of the UK. This will provide the definitive and most up to date coverage map of mobile signal strength.
- Linking masts to LAC/CID Data: We currently use our line of sight module to link the LAC and CID data to existing masts, although this can be inaccurate in urban locations with multiple masts.

References to Publications and Groups

[✂]

Joining Ofcom's Technology Team

We would welcome the opportunity to discuss our technology in more detail with Ofcom.