

Spectrum Group work programme

David Willis – Group Director Spectrum, Ofcom 14 February 2022 Ofcom has a duty to secure the optimal use of the radio

spectrum



Whilst considering the spectrum needs of a increasingly wide and varied number of wireless applications...



































Our spectrum management strategy focuses on enabling innovation and growth - the what

Spectrum Management Vision

July 2021



Continued improvements in the wireless communications used by everyone, wherever and whenever they use them.



Businesses, public sector and other organisations with specialised requirements to be able to access the right wireless communication or spectrum options for them.



Increased flexibility in spectrum use to support innovation, with appropriate assurances for continued use.



Sustained improvements in the efficiency of spectrum use.



Supporting wireless innovation

Licensing to fit local and national services

Promoting spectrum sharing

Respect







Our spectrum roadmap has identified three key themes for future work - the how

> These themes reflect market developments, changes in technology and broader international trends in spectrum use and management



We will review the impact of technology developments and network convergence to inform policies on future spectrum use across a range of users

Future options for 6GHz

Enabling verticals

Future spectrum for mobile (mmwave, future of 6G)

Space Strategy Implementation

Fixed links and fibre Review



Accelerating innovation sharing (including spectrum sandboxes)

We will **explore the use of spectrum 'sandboxes'** in specific geographic locations and specific bands, to enable industry to collaboratively experiment with new ways to enable greater spectrum sharing.

Spectrum Sandboxes

Shared Access Review

Adaptive Allocation Update



Better data for better spectrum management

We will look to obtain more real world data in a variety of ways and leverage this to support more efficient use of the spectrum, laying the foundation for greater spectrum sharing in the future

Interference Data API

Updated Propagation Modelling Tools

Better understanding of spectrum utilisation

International engagement and core spectrum management functions

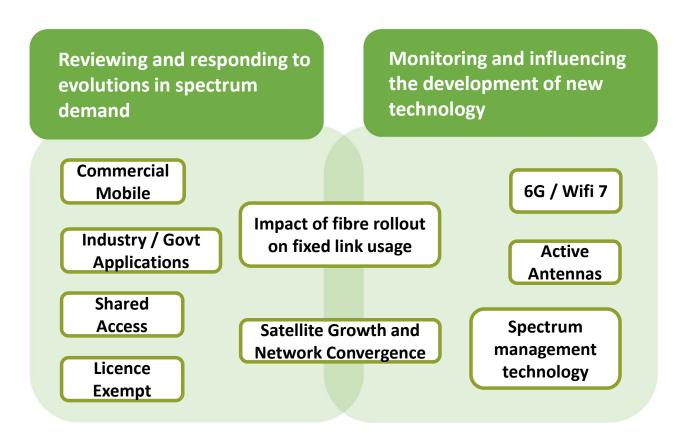
collaboration EMPOWERMENT

Respect

Excellence



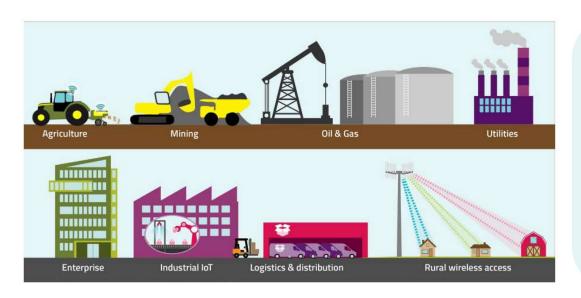
Our role in facilitating network evolution and convergence

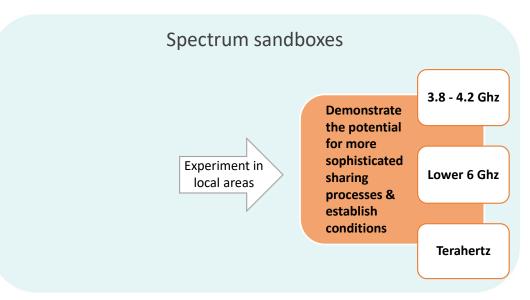


collaboration EMPOWERMENT Respect agility Excellence

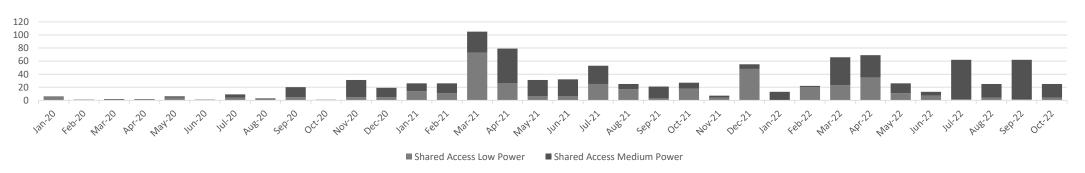


Shared access – supporting wireless growth and innovation





Shared Access Licences issued by month





Better data will allow better spectrum management

Data sources



Interferencelogging API



Industry



OFCOM monitoring stations

Spectrum band utilisation

- Licensed and license exempt demand.
- Metrics for utilisation beyond on/off.

Technical radio equipment performance data

• To identify the cause of interference in a context.

Real world systems parameters and performance metrics

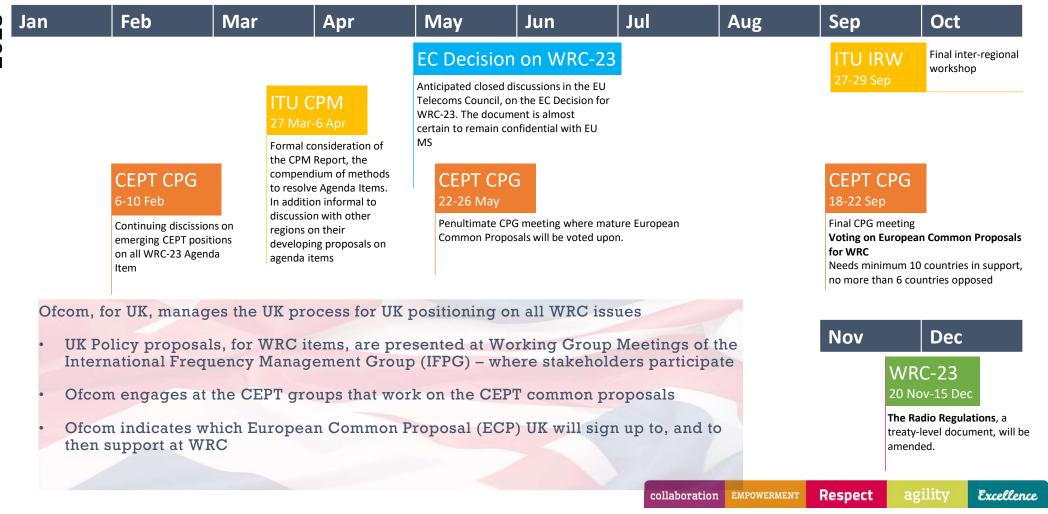
• To improve propagation and coexistence modelling.

Real world performance of active antenna systems (AAS)

• To improve modelling and coexistence analysis.

Our work is international by nature

Timeline for WRC process with respect to Europe



And it's also about managing the spectrum for users

Planning and Licensing



- Over 300k licences
- 7,000 new applications
- 80,000 total customer contacts
- Licensing process upgrade to better meet users' needs
- Support to events

Assurance



- Received 2707 reports of spectrum interference
- Proactively investigated 1634 spectrum users
- Vehicles 300k+ miles across the UK

Compliance



- Pirate broadcasts reduced
 37% in last 4 years
- 40 major investigations per year
- 3487 jammers removed from Amazon and eBay
- 209 products investigated

In conclusion

Our **strategy**, **roadmap** and the proposals in the **2023 Plan of work** outline the work we have identified as instrumental in ensuring the efficient use of the spectrum in light of technology market and international changes.

Through this, we will continue to enable innovation and growth for a wide and growing range of spectrum users.

Thank you