



# The role of spectrum sharing in enabling innovation and growth

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**Ofcom's role in enabling wireless growth**

**The future of the upper 6GHz band**

**The roadmap for 6G**

**Update on the local spectrum awards and vertical networks**



# Ofcom has a duty to secure optimal use of the radio spectrum

*Making sure people and businesses have connectivity where and when they need it...*



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



**Our spectrum management approach is evolving to enable wireless services in the wider economy**

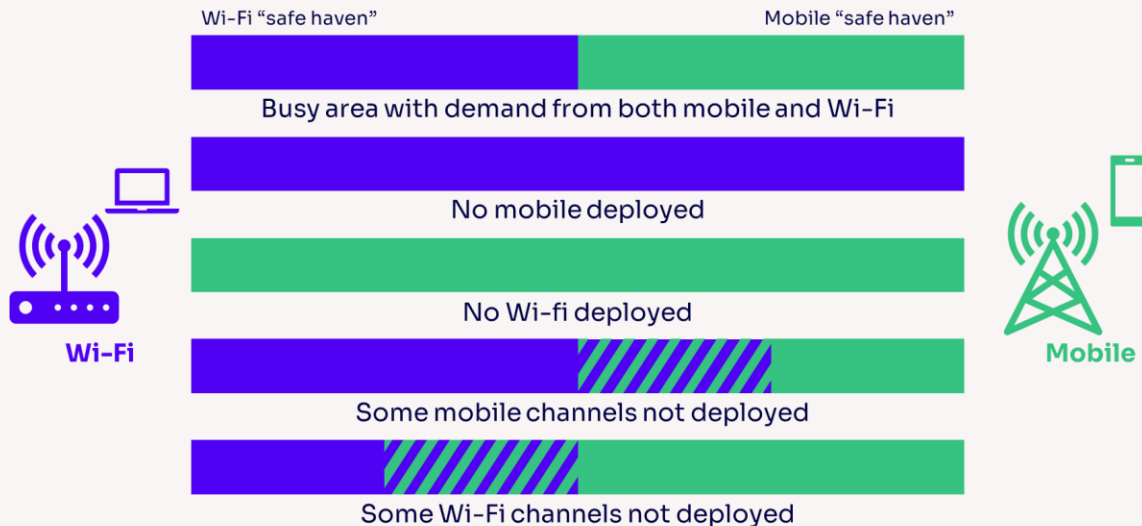
# Allowing greatest benefits from use of U6GHz for both Wi-Fi and mobile

We want a framework that allows **the majority of the benefits from mobile and from Wi-Fi / licence exempt** (when compared to either use exclusively), taking account of:

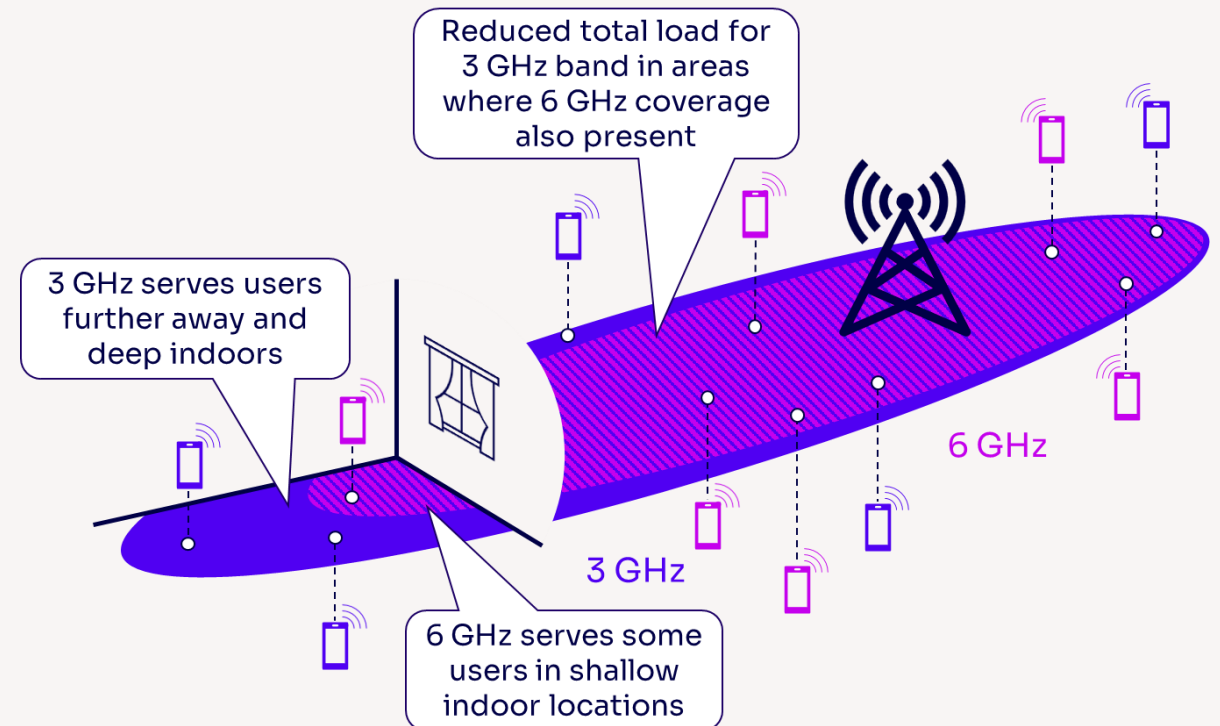
- indoor v outdoor
- high density v low density areas

Below are two examples of elements that could potentially form part of approaches to hybrid sharing:

## Dynamic spectrum split



## Indoor / outdoor split



# Beyond 5G: Sharing native solutions are needed to maximise spectrum supply



## Candidates for 6G sharing?

...All with challenges for wide area clearance...

Region 1	Region 2	Region 3
4 400-4 800 MHz		4 400-4 800 MHz
7 125-7 250 MHz 7 750-8 400 MHz	7 125-8 400 MHz	7 125-8 400 MHz
14.8-15.35 GHz	14.8-15.35 GHz	14.8-15.35 GHz

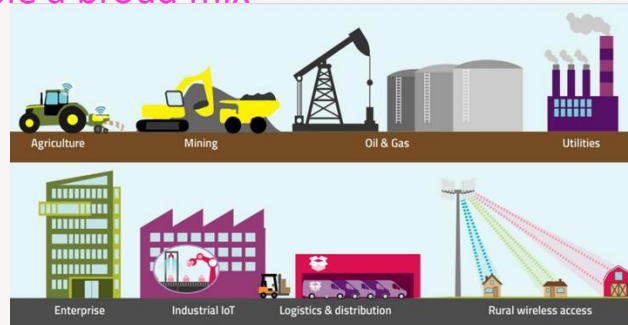
- Flexible power solutions to accommodate variations in demand & deployments
- Real world coexistence solutions driving tighter packing of users
- “Sharing by design” built into future equipment standards
- Standardised and harmonised solutions to drive ecosystem economies of scale

# Enabling shared access to spectrum

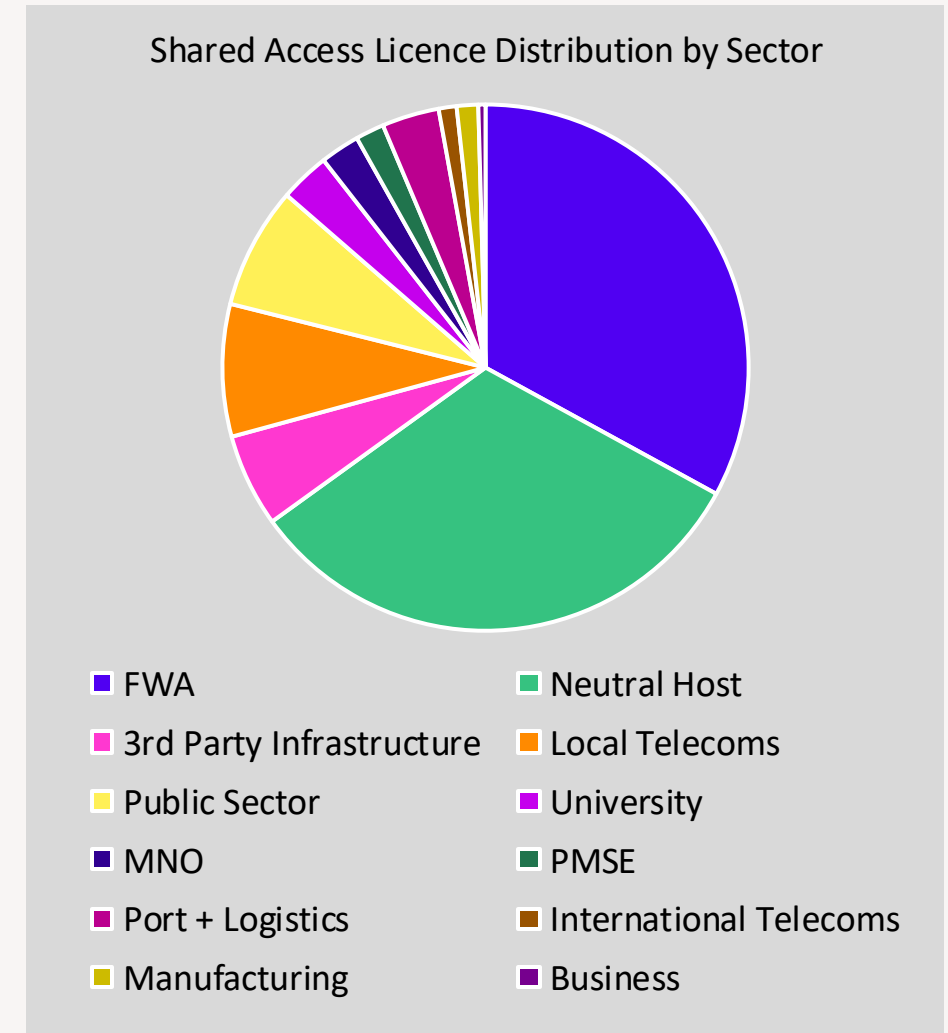
## Use cases driving demand in our review (2023-24)

In 2019, we opened access to a set of bands, with different characteristics, in order to enable a broad mix of potential users....

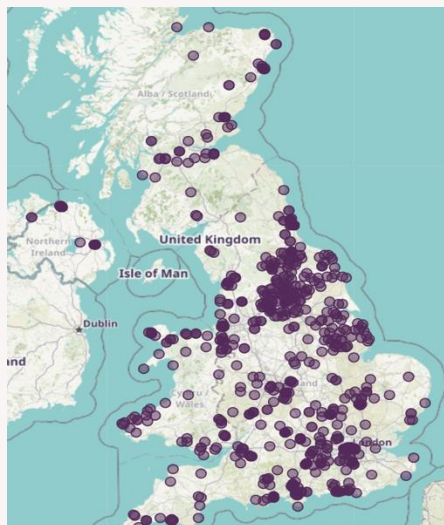
	1800 MHz	2.3 GHz	3.8-4.2 GHz	26 GHz	Total
Low Power	227	29	176	1	433
Medium Power	122	-	320	-	442
Total Live Licences	349	29	496	1	875



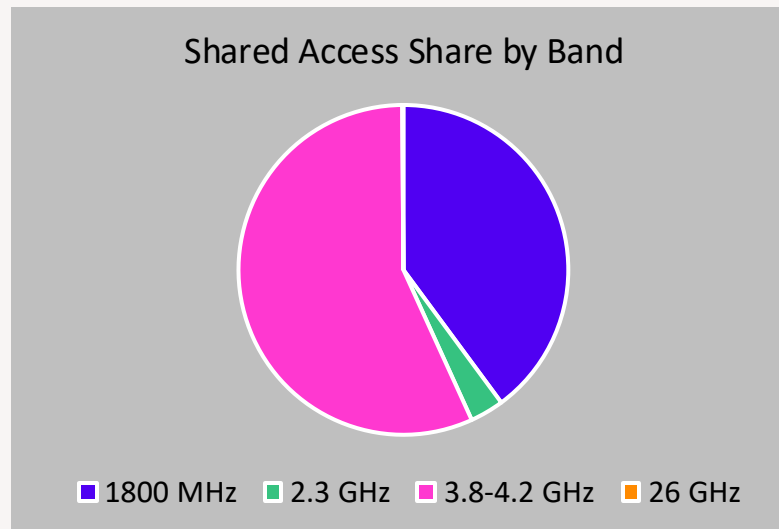
...While we have a mix, actual use is dominated by FWA + a small number of neutral/private network players....



Take up has emerged across the UK...



... focussed on 2 popular bands...



# Our 2023/24 review focused on improving spectrum supply and relaxing restrictions to increase opportunities for users

## Key Objectives

1

Supporting innovation and growth

2

Improving user experience based on 4 years of learnings

3

Ensuring that we are making efficient use of this valuable spectrum

## Consultation Proposals and Decisions

**Increasing spectrum supply** in the most popular 3.8-4.2GHz band (by more flexible sharing rules)

**Liberalising our rules** to enable new use cases (low power increase and removal of terminal registration)

Consulting on **wider access to medium power** in urban areas

## Innovation and Growth Outcomes

- More spectrum available to share
- More new users and innovation
- Quicker turnaround process

- Support for new neutral host models
- More power and capacity, reducing user deployment costs

- Enabling more economical deployments and streamlining access to medium power for users