



# Shared Access

**Post- consultation update for UK SPF**

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# Plan for this session

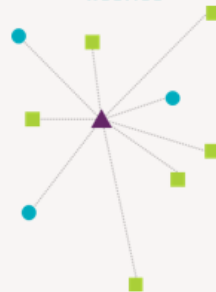
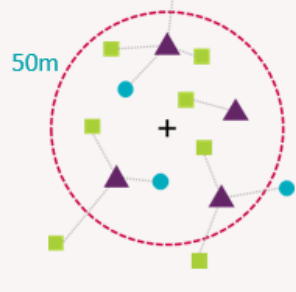
- 1) Current approach and consultation proposals
- 2) Update on consultation responses
- 3) Next steps (including issues Ofcom is now considering)
- 4) Questions?

# Summary of Shared Access and key proposals

## Shared Access In Brief:

- Provides route for localised spectrum access for a range of use cases, across 1800 MHz, 2390-2400 MHz, 3.8-4.2 GHz and mmWave;
- Different Low and Medium Power products (3.8-4.2 GHz example below)

Low power (24 dBm) area licence      Medium power (42 dBm) base station licence



### Legend

- + Registered location
- 50m radius from registered location
- Wall of building
- - - Perimeter of outdoor yard area
- ▲ Base station
- Fixed/installed terminal
- Mobile/nomadic terminal
- Base station/terminal connection

## Consultation Proposals:

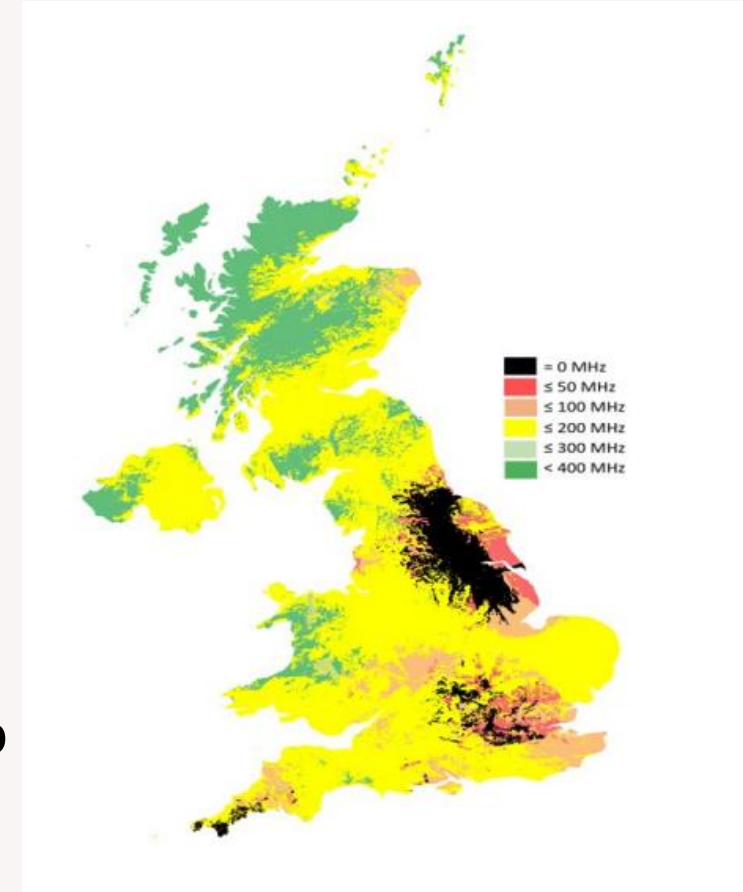
(with a focus on the popular 3.8-4.2 GHz band)

	1800 MHz band: (1781.7 to 1785 MHz paired with 1876.7 to 1880 MHz)	2300 MHz band: (2390 to 2400 MHz)	3800 to 4200 MHz band	24.25-27.76 GHZ & 40 GHz
Increased low power limit	—	—	✓* + 3 dB,	—
Local coordination agreement option	✓	✓	✓	✓
Accounting for additional antenna parameters	✓	✓	✓	✓
Updated Building Entry Loss	—	—	✓	14 dB proposed in recent statement
Coordinating on the assumption of synchronisation	Not relevant as the band is Frequency Division Duplex	Currently mandated for outdoor deployments	✓ Assumed for coordination	Assumed for coordination, as per existing proposals
Potential Pricing Measures	—	—	✓	—
Clarified Exceptions Criteria	✓	—	✓	—
Reduced requirement for terminal record keeping	Not Required	Not Required	✓* Not required for indoor Low Power	Not Required
Additional Ongoing Measures				
Online Licensing Process	✓	✓	✓	✓
Updated propagation model	✓	✓	✓	✓
Additional Information on Spectrum Availability	TBD – subject to demand	TBD – subject to demand	✓	TBD – subject to demand

# Response Overview

- Consultation closed early February, with a total of 26 responses
- Respondents covered a wide range of Shared Access users:
  - Earth stations
  - Neutral Hosts
  - Mobile Network Operators
  - Equipment vendors
  - PMSE users
  - Fixed Wireless Access
  - Local Government and single site users
- Majority of respondents supportive of overarching objectives to allow more users in the spectrum & enable more innovation
- There were a range of comments on the detail of the proposals, with the most consistent concerns relating to potential price-based mechanisms to improve spectrum access

Current view of contiguous spectrum availability in 3.8-4.2 MHz





# Measures to improve coordination between users

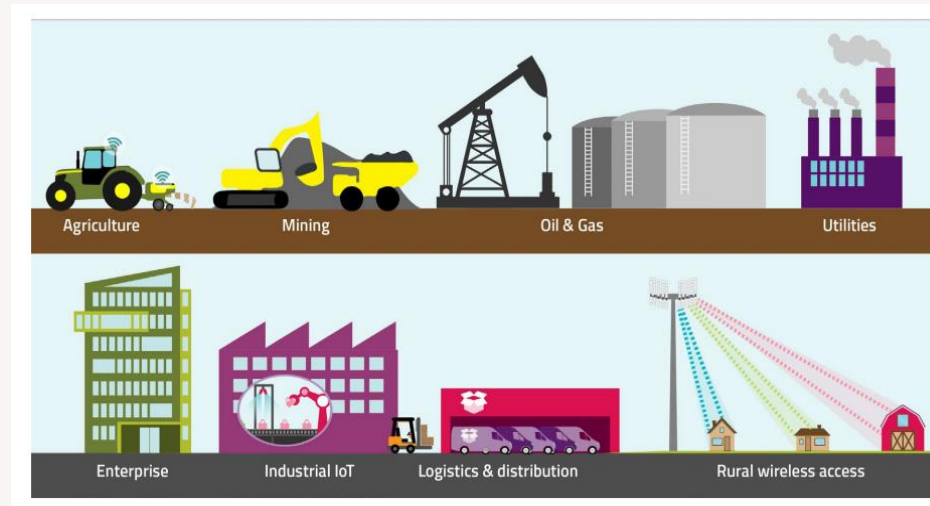
New Proposal	Stakeholder Feedback
<b>User-led coordination</b> <i>(Allowing users to agree to override coordination failures locally, provided application meets overall Shared Access rules)</i>	<ul style="list-style-type: none"><li>• Widespread support for principles</li><li>• Interest in practical guidance on process</li><li>• Some interest in enabling this for 'non-standard' licence conditions + whether it will be suitable for all users</li></ul>
<b>Updated Building Entry Loss</b> <i>(increase BEL from 12 dB to 14 dB for 3.8-4.2 GHz)</i>	<ul style="list-style-type: none"><li>• Strong levels of support</li><li>• Some feedback that Ofcom could go further</li></ul>
<b>Additional Antenna Detail</b> <i>(include additional tilt and directionality information in coordination, where available)</i>	<ul style="list-style-type: none"><li>• Broadly welcomed by a majority of users</li><li>• Mixed views on requesting specific antenna details, or a 'best fit' approach</li><li>• Some interest in making this a mandatory requirement</li></ul>
<b>Base station to terminal coordination (assumed)</b> <i>(bringing 3.8-4.2 GHz approach in line with other Shared Access bands, whilst retaining user flexibility. Options for -88 dBm or -91 dBm protection threshold)</i>	<ul style="list-style-type: none"><li>• Significant support for changes, and aspiration to pack users more tightly</li><li>• Some concern from incumbents that they might be exposed to more risk</li><li>• Respondents who engaged with the threshold options tended to favour option A) -88 dBm</li></ul>

# Enabling additional use cases & improving user experience

New Proposal	Stakeholder Feedback
<b>Low Power Increase</b> <i>(+ 3 dB for 3.8-4.2 GHz)</i>	<ul style="list-style-type: none"><li>• Significant support from majority of users</li><li>• A number of respondents suggested further increases to align with CBRS limits, or beyond</li></ul>
<b>Loosening Terminal Registration</b> <i>(removing requirement for Low Power indoors for 3.8-4.2 GHz)</i>	<ul style="list-style-type: none"><li>• Broad support from majority of respondents</li><li>• Small proportion of respondents wanted Ofcom to go further and lift requirement outdoors</li><li>• Some concerns from incumbents that, combined with revised power and coordination rules, this could increase proliferation of users in an area</li></ul>
<b>Clarifying exceptions</b> <i>(applying a premises sterilisation test to requests for higher antenna's and Medium Power)</i>	<ul style="list-style-type: none"><li>• Broadly positive feedback on steps to clarify process &amp; provide transparency</li><li>• Some questions on detail of additional 'plenty of spectrum' assessment</li><li>• A small number of respondents suggested Ofcom should consider applications for higher power, especially in rural areas</li></ul>

# Areas of more limited feedback....

- Emerging use cases & requirements
- Openness to price sensitivity
- Supplements to overall coordination approach



100 MHz

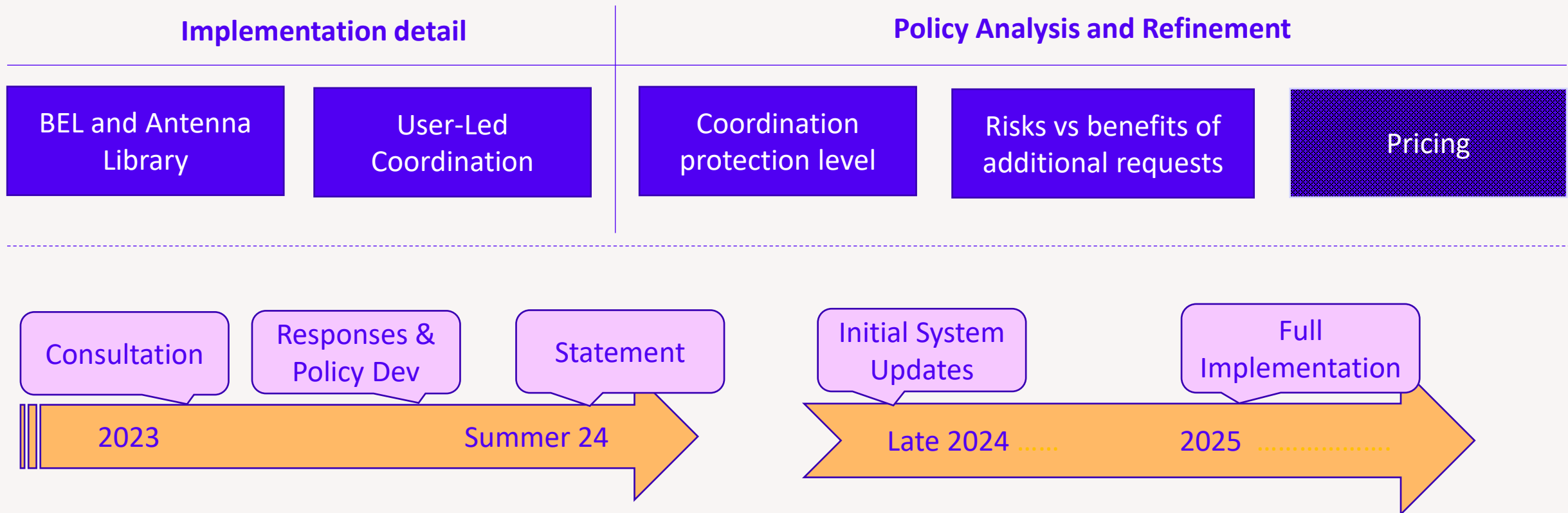
50 MHz



....although significant number of respondents suggested a pricing mechanism to account for closely clustered licences could be helpful

# Refining our proposals and next steps

- Ofcom has now published non-confidential consultation responses, to help inform stakeholder understanding and debate.
- We are carefully considering these responses, and will consider how we should refine proposals in light of feedback + factoring this into detailed implementation decisions





# Thank you and questions

[www.ofcom.org.uk](http://www.ofcom.org.uk)