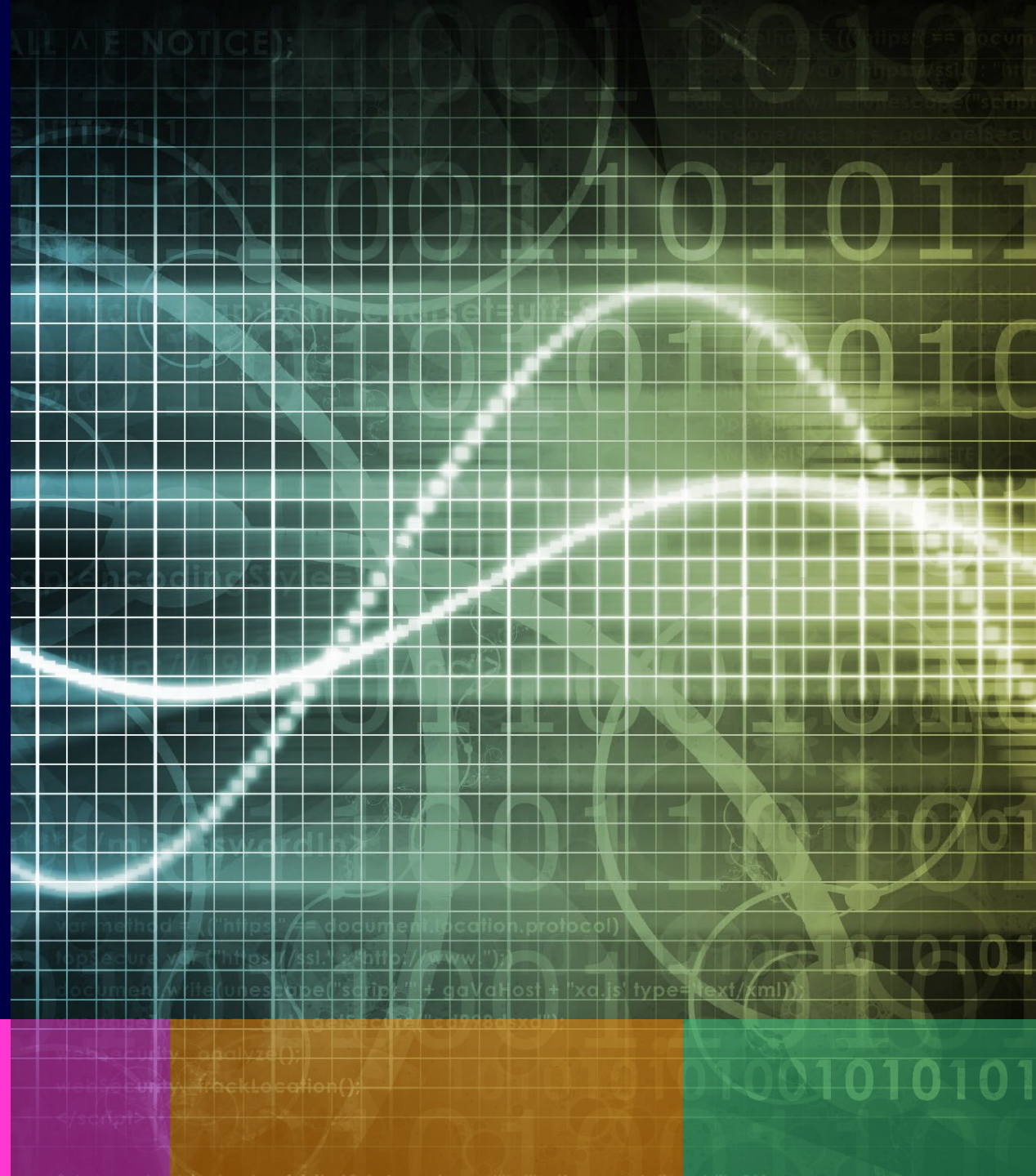




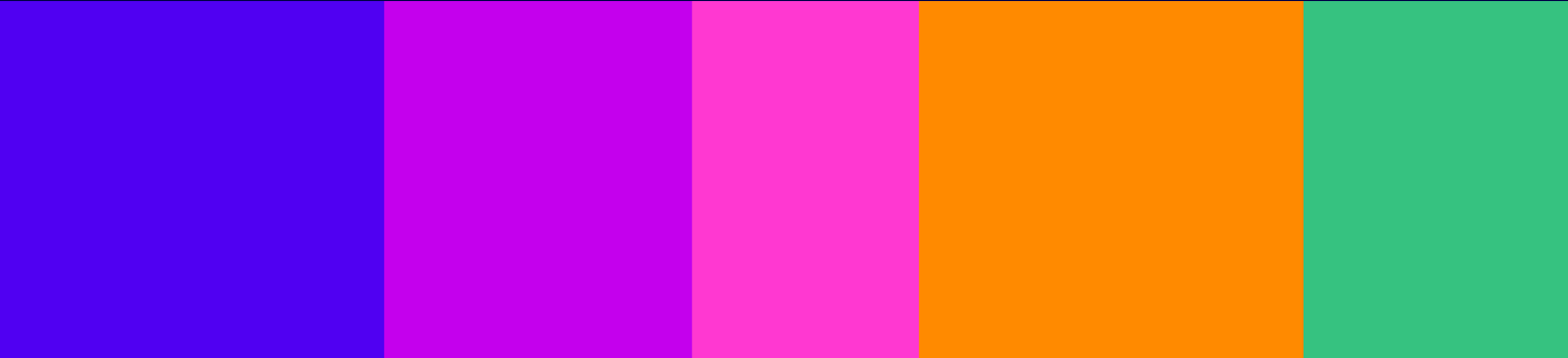
Making shared use of Upper 6GHz a reality

Monday 16 June 2025



Consultation responses

Samuel Ruiz, Senior Associate, Spectrum Policy



Our consultation proposals for Upper 6 GHz

- **A phased approach:**
 - Authorise Wi-Fi across the whole Upper 6 GHz band now, but committing to mobile use in the band in the future as well
 - Details on mobile and precise sharing mechanisms to follow, as European harmonisation work matures (expect 2027 onwards)
- **A shared approach:**
 - Prioritised spectrum split: mobile and Wi-Fi priority portions of the band, with opportunistic use
 - Indoor/outdoor split: Indoor use for Wi-Fi, outdoor use for mobile

Views on sharing

- Both sides wanting **most/all of the band** for their use
- Both sides **doubting** the evidence of demand from the other side
- Use cases and demand highlighted by both sides:
 - **Wi-Fi**: sports stadia/event spaces; XR; enterprise use; campus networks; densest residential scenarios; highlighting shared nature of all current Wi-Fi spectrum
 - **Mobile**: sports stadia/event spaces; XR; crowded locations and congested sites; highlighting need for more mid-band spectrum for capacity and future 6G deployment
- Concern from mobile that relying on **future XTS solutions** is too uncertain
- Some Wi-Fi stakeholders suggesting **polite protocols and EDT** will be sufficient
- Suggestion that **AFC** could be extended across all of U6 to facilitate sharing
- Interest in **VLP** use of the whole U6 band as well from Wi-Fi supporters

Phased approach

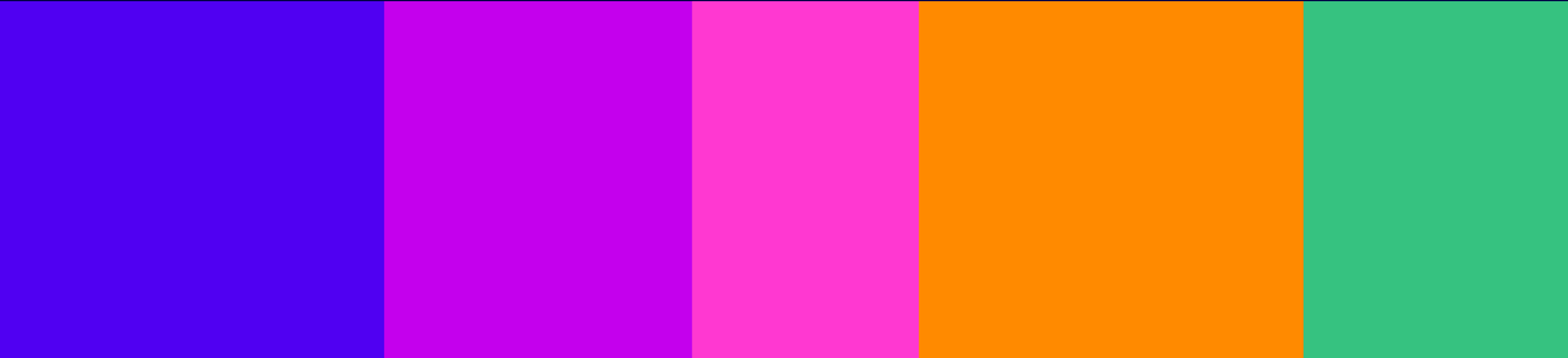
- Support for Ofcom acting **promptly** from Wi-Fi proponents
- Suggestions for us to wait until European **harmonisation** is complete from mobile supporters
- Concern that allowing Wi-Fi into the band now means that **older/legacy devices** will be impossible to remove when mobile accesses the band
- Wi-Fi supporters contend that ISPs and others can manage issues through **centralised management of APs**
- Wi-Fi supporters highlight that Wi-Fi kit can be **made available ASAP** to deliver benefits to consumers
- Others flag that Ofcom should be able to **change course** down the line if European harmonisation concludes something different

Incumbent users

- Broad agreement with our **coexistence analysis** for incumbent users and mobile/Wi-Fi
- Some acceptance that **fixed links** will struggle to share with mobile in the same locations
- Concern from **CNI users** that fixed links may be running out of lower frequency spectrum to relocate into, and around the cost of doing so
- Requests for more information on **details of impact** of future mobile use on fixed links
- References to **FSS/IMT coexistence** studies by satellite industry, and whether the WRC-23 Resolution 220 work still holds true
- Concerns from meteorological community about impact on sea surface temperature measurements from **EESS sensors**

Outstanding Issues & Next Steps

Steve Leach, Principal Spectrum Technology Analyst



Outstanding Issues – main themes to resolve (CEPT and UK)

To **enable mobile** in the band:

- **Defining the band split**
 - Multiple 80 MHz blocks for Wi-Fi - mobile technology allows more flexibility in block sizes
 - Less clear on what 6G use cases need 200 MHz blocks for mobile (other than maximising single channel capacity)
 - UK supports minimum of 160 MHz for Wi-Fi (potentially more if non-prioritised access for Wi-Fi in the remainder is not possible) – Hope this is where the RSPG opinion will come out so we can align.
- **Cross Technology Signalling (XTS)** mechanism needs selecting and fully defining
 - Current options: **1)** 802.11bc frame based; **2)** On Off keying concept; **3)** SSB detection based
 - Final choice will need to trade off implementation complexity/cost against performance / interference risks
 - Or more trials using EDT (perhaps with different backoff times) to understand the risks in practice?

To **enable Wi-Fi** in the band:

- Better understanding of the Legacy devices risk if no additional mechanisms in place
 - Responses raised concerns about **1)** residual risk and **2)** creating Wi-Fi as an incumbent to be protected

Timescales

UK timelines for next steps (subject to us deciding to proceed)

- **AFC in Lower 6 GHz:** Statement and consultation on further details in Autumn 2025
- **Enabling Wi-Fi and Mobile in Upper 6 GHz:**
 - Statement on our overall approach and Phase 1 Decision – Autumn 2025
 - Consultation on Phase 1 Wi-Fi regulations – Autumn 2025

CEPT timelines

