Access Partnership

Where next for spectrum sharing?

Much progress

- Over a decade of sharing leadership starting with TVWS
- Sharing in 3.8-4.2GHz is occurring and automated solutions coupled to less risk averse rules are in train
- Approach is being copied by many others globally
- But comes at a time when TVWS sharing is turned off due to lack of database provision

Why share – more than just enabling more access

- Allow new users into existing bands
  - TVWS, 3.8-4.2GHz, CBRS
- Resolve uncertainty in contested new bands
  - Potentially upper 6GHz
  - Potentially 26GHz
- Allow new business models
  - Neutral host
  - DTH and HAPS

Lessons learnt – what went wrong with TVWS?

- The proposed services (IoT, FWA) needed low-cost devices which can only be delivered with large economies of scale
- TVWS was slow to be approved and only in a few countries making the investment needed risky.
- 3.8-4.2 was struggling but devices now available in part because a global band.
- CBRS had devices already available

Upper 6GHz – a very different form of sharing

- Although there are incumbents, they provide only limited constraint on usage
- Significant uncertainty between cellular and Wi-Fi
- Sharing between them allows for the uncertainty to be resolved over time
  - Which may then result in a dedicated band

Where next?

- Develop a standardised database interface so costs can be spread across all regulators and barriers to implementation are reduced (which helps with economies of scale).
- Harmonise shared spectrum regionally or globally to deliver economies of scale.
- Sponsor R&D into better sharing – feedback loops, ultra-localisation data, crowd-sourced input, etc. Ideally shared projects with multiple regulators.
- Link to an issue. Eradicate in-building and urban not-spots by facilitating sharing in MNO spectrum from a neutral host? HAPs for rural areas? D2H sharing?