Enabling wireless innovation beyond 5G

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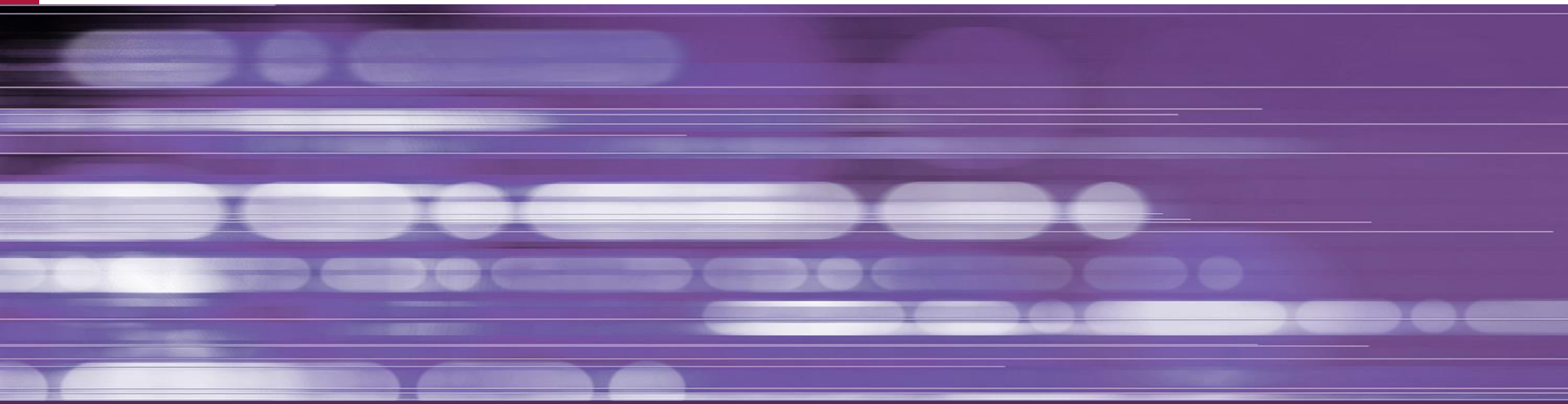
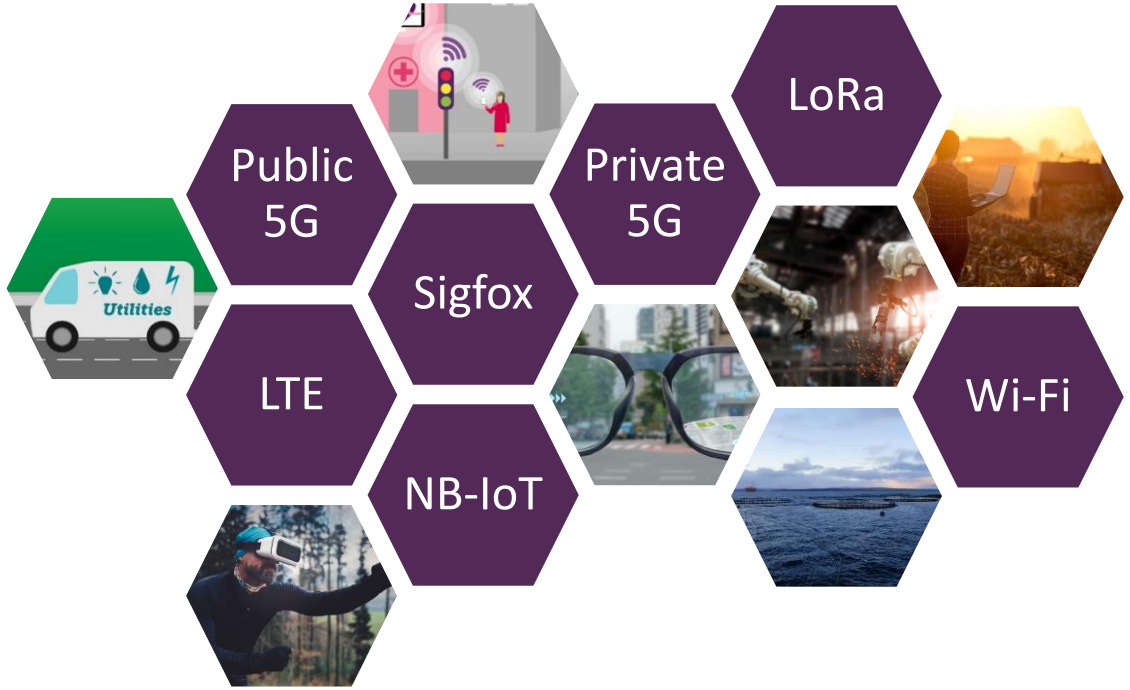
16 September 2021



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

… different users will want to make use of different technologies…



What role will 6G play?

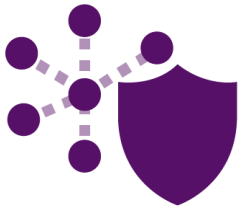
Attributes of 6G relevant to citizens and businesses

Support emerging use cases that cannot be supported by existing technologies

Connecting intelligently

Extreme coverage

Higher security and resilience



6G

Lower cost

Sustainability

Improved performance where/when needed

Trustworthiness

Ofcom's spectrum strategy

- On 19 July 2021 we published our spectrum strategy for the 2020s.
- Our spectrum management vision to enable growth and innovation, centred around four key objectives.

Our spectrum management vision

Supporting the UK's wireless future: Our spectrum management strategy for the 2020s

- Existing activities will continue to be important to achieving our vision
- In considering the challenges of the future, we have identified **three themes for particular focus**

Supporting wireless innovation

- Expanding our work to understand, assist and inform organisations who may benefit from wireless technologies in the future
- Making more spectrum available for innovation before long-term use is certain
- Supporting innovation in new wireless technologies

Licensing to fit local and national services

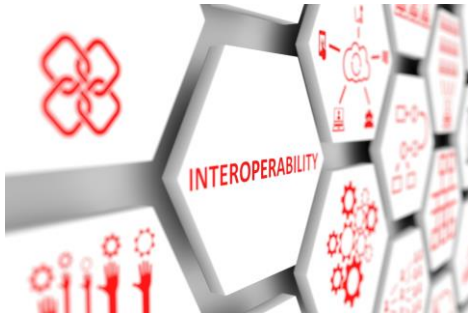
Considering further options for **localised spectrum access**

Promoting spectrum sharing

Encouraging spectrum users to be 'good neighbours'

Technology implications for spectrum

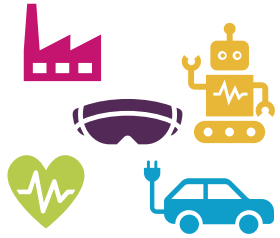
Interoperable support for multiple technologies



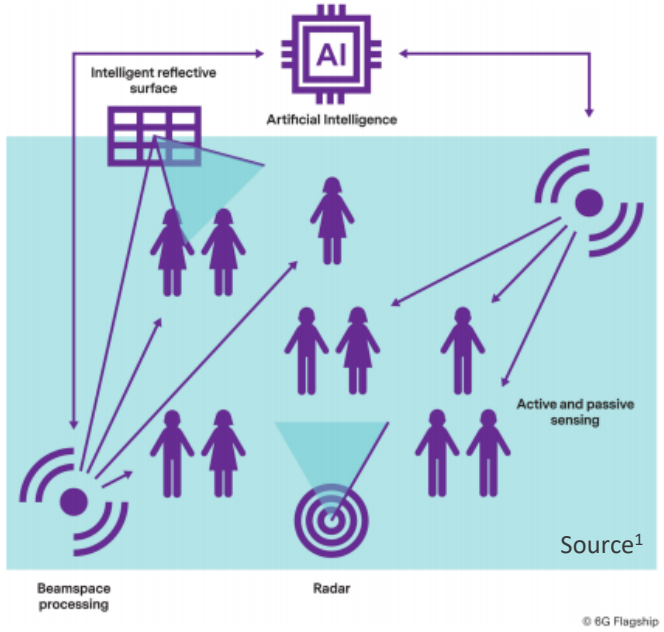
Wide range of applications: Mix of low, mid and (very) high bands

Source[2]

Real-time operation: Network-wide synchronisation



Sensing and localization technologies: Wider bandwidths and shorter wavelengths for temporal and spatial resolution.



Source[1]

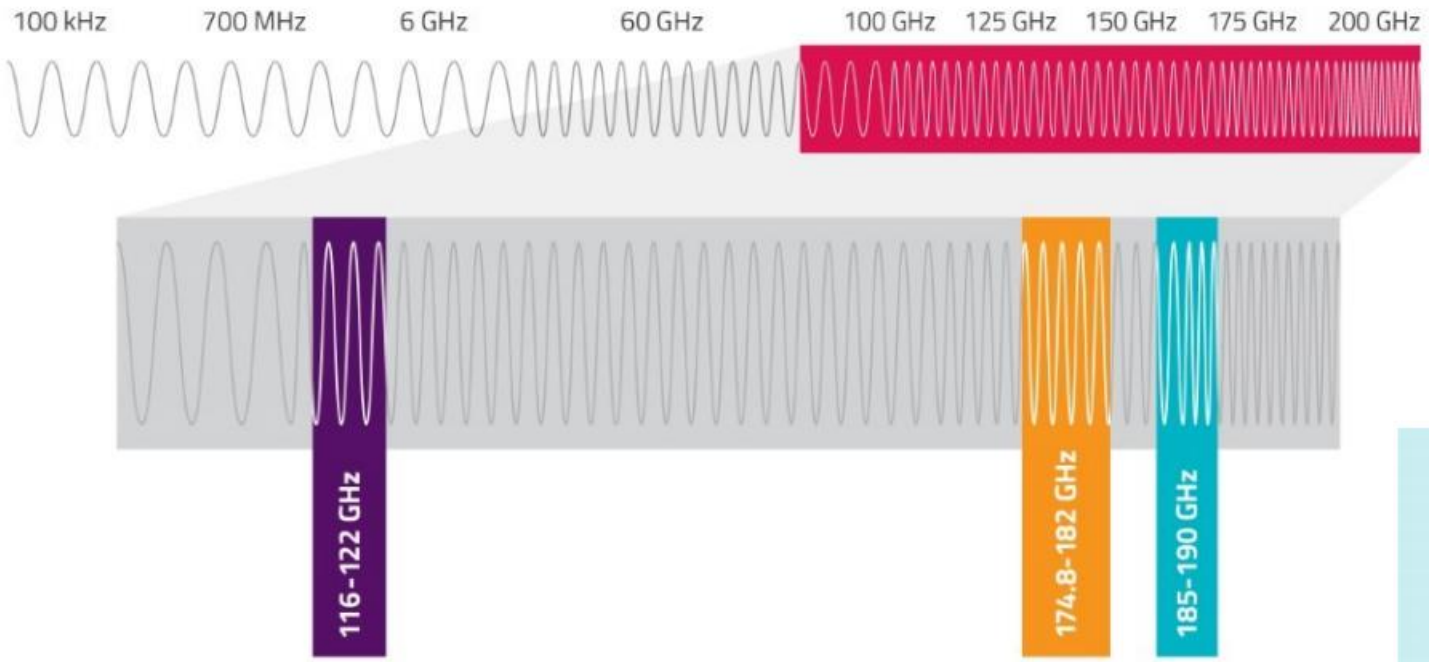
Mid — High

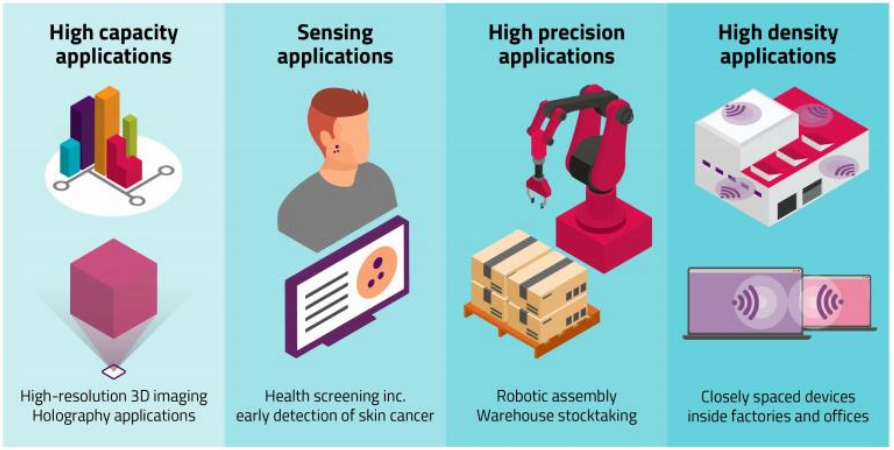
Spectrum Impact

[1] https://arxiv.org/pdf/2006.01779.pdf
[2] https://www.baseapp.com/iot/iot-applications-for-smart-cities/

...we're already providing access to spectrum above 100GHz...

Spectrum Access: Extremely High Frequency Licences





Our spectrum work to enable wireless innovation

Theme	Overview
Mobile spectrum demand	Understanding future mobile spectrum demand
Terahertz spectrum	Enabling access to this spectrum, introducing future-looking access rules that account for the characteristics of this spectrum
Space/satellite	Updating our licensing processes to facilitate new non-geostationary satellite systems and developing an updated space strategy
Spectrum Roadmap	Outlining our plans for the future
Enabling digital transformation	Engaging with different industry sectors to understand, assist and inform, and make sure they can access the spectrum they need for the future
International engagement	Continue to drive discussions on the future of spectrum management to ensure we meet UK objectives