Consultation response form

Consultation title	Ofcom's proposed Plan of Work
Full name	[✂]
Contact phone number	[✂]
Representing (delete as appropriate)	Organisation
Organisation name	Dynamic Spectrum Alliance
Email address	[✂]

Your response

Question	Your response
Question 1: Do you have any comments on Ofcom's proposed Plan of Work 2024/25?	Confidential? – N

The Dynamic Spectrum Alliance (DSA)[1] respectfully submits these comments in response to Ofcom's proposed Plan of Work 2024/25.

The DSA commends Ofcom for its ongoing efforts to ensure that there is sufficient spectrum available to enable the communications industry to meet anticipated growth and innovation in consumer mobile and wireless services as well as for the specialised needs of industrial users. We also applaud Ofcom for its decisions leading to more efficient spectrum usage, including its decisions on innovative spectrum sharing and coexistence approaches.

The DSA believes that providing additional spectrum access options through use of new spectrum management tools, such as dynamic shared access systems, will benefit competition, create conditions for innovation, and spur more rapid deployments of wireless networks and services. We recommend that telecommunications regulators worldwide include licenced, licence-exempt, and lightly licenced options when allocating spectrum to wireless broadband services to avoid artificial

[1] The DSA is a global, cross-industry, not for profit organization advocating for laws, regulations, and economic best practices that will lead to more efficient utilization of spectrum, fostering innovation and affordable connectivity for all. Our membership spans multinationals, small-and medium-sized enterprises, as well as academic, research and other organizations from around the world all working to create innovative solutions that will benefit consumers and businesses alike by making spectrum abundant through dynamic spectrum sharing. A full list of DSA members is available on the DSA's website at www.dynamicspectrumalliance.org/members.

scarcity, which could, in turn, increase the cost of broadband access. Both licenced and licence-exempt spectrum bands will play important and complementary roles in the delivery of advanced wireless services.

The DSA notes that Ofcom intends to "further develop our work to explore innovative sharing and coexistence approaches to spectrum authorisation across different bands (for example in the Hybrid Sharing in the Upper 6GHz band), exploiting spectrum sandbox partnerships with industry and academia as appropriate."

The DSA appreciates Ofcom's efforts to study the upper 6 GHz band and how it can be leveraged to meet digital connectivity targets for both consumer and enterprise networks through a Hybrid Sharing approach.

We also hope, however, that Ofcom will not overlook the 6 GHz band's near-term prospects and ability to contribute to the U.K.'s immediate digital connectivity targets.

There exists today the ability to use the upper 6 GHz band for licence-exempt low-power indoor (LPI) operations, very low power (VLP) indoor / outdoor operations, and standard power (SP) operations, the latter under control of an Automated Frequency Coordination (AFC) system. Enabling licence-exempt use across the entire 6 GHz band will allow for near-term use of the latest generation of Wi-Fi and 5G NR-U standards to employ multiple high bandwidth 160 MHz and 320 MHz channels that support the channel diversity needed in dense deployments that exist both indoors and outdoors. With carefully crafted technical and operational conditions, these licence-exempt operations can share the band with incumbent operations that include the fixed satellite service (FSS) and fixed service (FS).

Longer term use of the upper 6 GHz band by wide-area IMT networks designed for outdoor and mobile operation may be possible, but it is still many years away and will necessitate the development of coexistence mechanisms to share the 6425-7125 MHz band among 3GPP (and other) IMT technologies, IEEE-based Wi-Fi, and incumbent users. There is considerable work that needs to be done to fill in the details of the proposed high-level concept of sharing between licence-exempt and licenced IMT services.

For example, it will be important that this work considers the different stages of ecosystem development for Wi-Fi and IMT in the 6 GHz band. The DSA urges Ofcom to accelerate the work so that the United Kingdom can benefit from the full range of Wi-Fi 6E and Wi-Fi 7 device classes and connectivity without delay and without restrictions on the use cases licence-exempt technology can support.

The DSA is optimistic that suitable coexistence mechanisms could be developed in the future to share the 6425-7125 MHz band between 3GPP (and other) IMT technologies and IEEE-based Wi-Fi. Our members have the technical and operational experience with automated spectrum sharing capabilities that can be leveraged for the band. That being said, market demand and a growing ecosystem both exist today for licence-exempt use across the entire 6 GHz band. And, this ecosystem for the latest generation of Wi-Fi and 5G NR-U standards employs multiple high bandwidth 160 MHz and 320 MHz channels that support the channel diversity needed in dense deployments that exist both indoors and outdoors.

A confidence building measure for Wi-Fi ecosystem participants would be for Ofcom to open the upper 6 GHz band to LPI and VLP devices immediately, while the necessary technical analysis and work starts on examining potential hybrid sharing schemes. While LPI devices could be affected by IMT devices operating outdoors, the reverse is not true. Thus, the regulatory risk for Ofcom to authorize LPI and VLP devices to operate today in the upper 6 GHz band is extremely low.