Your response

Introduction

techUK is pleased to provide its views on Ofcom's proposals for enabling standard power Wi-Fi to use the Lower 6 GHz band including outdoors, and for licensed IMT and licence-exempt Wi-Fi users to access the Upper 6 GHz band. As an organisation, we recognise there has been differences of opinion and preferences regarding access to the Upper 6 GHz band for both IMT and Wi-Fi. Our intervention aims at reflecting the points raised by techUK's members with regards to Ofcom's proposals.

Wireless technologies are advancing, with 5G networks improving and preparations for 6G underway. Commercial 6G deployments, expected around 2030, will rely on timely access to a mix of low to high-band spectrum to deliver ultra-low latency, high reliability, and massive connectivity. Mobile and Wi-Fi innovations are key to meeting society's growing demand for high-capacity communications and supporting the UK's future digital economy.

Wi-Fi is evolving, with Wi-Fi 6E deployments and the upcoming launch of Wi-Fi 7 driving major gains in speed, efficiency, and capacity. Wi-Fi 8 will build on this by adding advanced spectrum management and deterministic performance, enabling new use cases across healthcare, education, industry, and public services. As the primary means of internet access for households and businesses, Wi-Fi's societal and economic value continues to grow.

To unlock the full potential of both mobile and Wi-Fi technologies, timely and effective access to suitable spectrum is critical.

In this light, Ofcom's consultation is both timely and essential. The decisions made now regarding spectrum access and management in the Upper 6 GHz band will have long-term implications for the UK's digital competitiveness, economic growth, and ability to deliver cutting-edge connectivity to citizens and businesses. A forward-looking regulatory approach—one that prioritises innovation, safeguards coexistence, and reflects the evolving needs of industry and society—will be vital to ensuring the UK remains a global leader in wireless technologies.

Notwithstanding the above it is also critically important that Ofcom ensure the protection of incumbent services, e.g. fixed links, in the band which are actively deployed and integral to the effective and efficient operation of CNI in the UK. Furthermore, the CNI community are concerned that the proposals to share the 6GHz fixed links band by Wi-Fi / IMT has not been fully considered or technically assessed from the perspective of likely impact to performance degradation of incumbent fixed link use. It is also important to ensure protection of vital Fixed-Satellite Service (FSS) use of the Upper 6 GHz band, and particularly the continued interference free operation of Mobile Satellite Service (MSS) feeder-link in the frequency range 6425–6575 MHz, as the use of such feeder-links is critically important in delivering MSS safety services in the 1.6/1.5 GHz band in the UK and globally.

We provide comments in response to Ofcom's consultation questions below.

Question	Your response
Question 1: What interest do you have in deploying outdoor or standard power Wi-Fi or other licence exempt RLANs in the Lower 6 GHz band? Please provide details of the types of expected deployments.	Confidential? – No From an enterprise standpoint, enabling standard power Wi-Fi is highly valuable for a wide range of use cases, including which can have elements of indoor and outdoor operations, for example, stadiums, university and hospital campuses, as well as industrial sites such as manufacturing, logistics, and retail logistic facilities. Canada and the United States are already realising the benefits of standard power license exempt operations. Standard power operations in the Lower 6 GHz can also be used to bridge the digital divide by providing broadband access in rural areas. Some techUK members support Ofcom's proposals, recognising that extending access proposal to enable standard power operations the Lower 6 GHz band will enhance network performance and reliability. These members highlight that standard power Wi-Fi in combination with AFC could operate across the full 6 GHz band and effectively protect incumbents also in the Upper 6 GHz band. Some other techUK members do not see enabling standard power in the Lower 6 GHz as a priority and note that high-demand environments, supporting both public and private sector connectivity needs, could impact the available capacity of low power Wi-Fi deployments in locations where standard power Wi-Fi is deployed.
Question 2: Are you interested in providing or developing AFC databases for use in the Lower 6 GHz band in the UK?	Confidential? – No techUK is not interested in providing or developing AFC databases.
Question 3: Do you have any views on the operational considerations of setting up and running AFC databases?	Confidential? – No Some techUK members argue that the UK should not try to devote resources to reduplicate existing efforts and where possible learn and adopt the best practices from the US and Canadian experiences setting up AFC databases and from its own experience of setting up a White Space Database management. Furthermore, Ofcom's proposal to let industry provide a database for the coordination of Wi-Fi devices will require considerable due diligence to ensure the provider offers a secure, robust and commercially independent engine which ensures adequate protection of the incumbent services. In addition,

Question	Your response
	we would seek that Ofcom, in creating the sharing scenario, will provide reassurance that any interference events will be swiftly resolved. With the ongoing demand for additional fixed links from the industry and the removal of other fixed links bands in recent years, Ofcom will require a clear policy and process for the continued licencing of additional fixed links within the 6 GHz band, which will ensure those links are adequately protected from any potential interference from Wi-Fi in operation in the surrounding area.
Question 4: Do you have any views on how we should manage the approval process for AFC databases and, in particular, whether we should rely on parts of the FCC process rather than requiring the whole process to be rerun in the UK?	Confidential? – No Some techUK members support the adoption of an approach that minimises administrative burden and accelerates deployment timelines. Drawing from the FCC's established procedures for AFC database authorisation would represent a pragmatic and cost-effective strategy for the UK, facilitating early market readiness for standard power Wi-Fi while maintaining regulatory rigour. While the UK may have some unique considerations that should be reflected in its AFC approval process, the US FCC and Canadian ISED approval processes should provide a strong starting point for the UK's approach if Ofcom goes ahead with its proposal. Stakeholders and policymakers have already subjected the FCC's and industry Canada's frameworks to rigorous technical and regulatory review. Moreover, US and Canadian AFC operations have been in place for a reasonable timescale without issue, demonstrating that approved AFC systems are adhering to strict interference protection and operational standards.
Question 5: Please provide any other comments on our proposals for extending access to standard power Wi-Fi and outdoor use, including the overall approach, any details on technical parameters and the running of the AFC databases in this band.	Confidential? – No techUK members that support introducing standard power Wi-Fi recommend that Ofcom authorize multiple AFC operators, rather than limiting the market to a single provider. A multi-operator model promotes innovation, enhances competition, and mitigates risks associated with reliance on a single point of service. To ensure rapid and efficient implementation of standard power Wi-Fi in Lower 6 GHz, it is critical that, if AFC databases are approved by Ofcom, these databases are

Question	Your response
	aligned with internationally recognised benchmarks such as those from the Wireless Innovation Forum and the Wi-Fi Alliance. Doing so will promote cross-market interoperability, accelerate commercial deployments, and enable the UK to benefit fully from the global Wi-Fi ecosystem. In addition to the above, Ofcom should ensure that the implementation of any sharing regime does not preclude the continued expansion of any one application within the band in favour of another. With the ongoing demand for more fixed links from the Energy Network Operators and the recent withdrawal of other fixed links bands, it is important that the 6 GHz band will remain available and viable for the ongoing deployment of additional fixed links when sharing the band with Wi-Fi. Ofcom will need to have a clear policy and process for the continued licencing of additional fixed links within the 6 GHz band that ensures the band does not become sterilised by the operational deployment of Wi-Fi.
Question 6: Do you have any comments on our proposal to use a "phased" approach, or on the alternative to wait for European harmonisation?	Confidential? – No techUK welcomes Ofcom's proactive stance in addressing the urgent need for greater spectrum access and supports a timely and evidence-based approach to spectrum policy. There is broad agreement on the importance of the Upper 6 GHz band to one or other technology, though perspectives differ on the best path forward. techUK encourages policymakers to adopt a balanced, future-oriented regulatory framework that considers technological readiness, market dynamics, and the UK's strategic interest in leading digital infrastructure and services. Some techUK members endorse Ofcom's proposal to open the full Upper 6 GHz band for low-power indoor (LPI) Wi-Fi from 2025. These stakeholders note that Wi-Fi equipment capable of using the entire 6 GHz band is already available today with a robust ecosystem and millions of devices shipped around the world, resulting in economies of scale, making this a practical and future-ready step aligned with global product availability. Other stakeholders note that allocating the Upper 6GHz band for indoor Wi-Fi services (particularly in the fre-

Question	Your response
	quency range 6425-6585 MHz) would pose less risk of interference and offer greater compatibility with vital services such as MSS feeder links, compared to the allocation of the band for IMT operations. Some techUK members instead believe that the Upper 6 GHz band should be reserved for IMT, expressing concerns that an initial authorisation of Wi-Fi could limit future IMT opportunities by introducing legacy use that may be difficult to manage. Advocates of this stance would prefer Ofcom avoid introducing Wi-Fi in the Upper 6 GHz band through any kind of "phased" approach(es). Those members consider that prioritising use of Upper 6 GHz for mobile, especially in urban areas will generate greatest value for the UK. Ofcom should ensure access to the Upper 6 GHz band with full power mobile operations are unhindered by sharing with licence-exempt Wi-Fi operations in the band. Ofcom should also ensure vital FSS use is adequately protected through adoption of power limits for IMT. Some techUK members emphasise the broader context: an allocation of the entire Upper 6 GHz band exclusively to one technology, be it Wi-Fi or IMT, appears increasingly unfeasible due to European-level work on spectrum sharing. In this regard, some techUK members suggest that shared access, if managed effectively, could deliver the greatest benefit for UK citizens and industry. Other members note that the EU work is inconclusive of feasibility of sharing and whether there are net benefits of mixing Wi-Fi and mobile in the same frequency bands in the same locations. Some techUK members argue that Ofcom's proposed phased approach for early authorisation of LPI Wi-Fi use in the Upper 6 GHz band would introduce a risk that the band would not be usable by IMT in the future. This would be due to co-channel interference to indoor and outdoor IMT from an indeterminate number of Wi-Fi equipment still transmitting in the band. For these members, higher power MFCN/IMT proponents, Ofcom should reject any opportunistic LPI use in the Upper 6 GHz band until it is demonstrated that such use does not materially impact MFCN/IMT operations, both indoors and outdoors.

Question	Your response
	Some techUK members advocate for a pragmatic, demand-led approach to allocating the Upper 6 GHz band. They argue that in the face of decreasing mobile traffic growth rate, the Upper 6 GHz band, will be most efficiently used by opening it for Wi-Fi. From this perspective, allocating the Upper 6 GHz band for Wi-Fi is both efficient and forward-looking, especially given its importance for high-density and enterprise use cases, and opening the full 6 GHz band to LPI devices would allow UK citizens and enterprises to realize the benefits of the spectrum as soon as possible, rather than awaiting a longer European harmonisation process. Some techUK members supporting a phased approach allowing LPI licence-exempt operations in the Upper 6 GHz band contend that the vast majority of such devices can be modified, if necessary, via software updates to adjust to the final band-split allocation as determined by Ofcom in the future. Due to the limited number of licence-exempt devices that may not be updated and as they are already required to have a polite protocol, some techUK members believe they would present a very limited risk of harmful interference to any future IMT operations. Other members do not agree with this view arguing that Wi-Fi equipment can cause interference to IMT (despite the former's polite protocols), especially on the downlink, and that the clearance of licence-exempt Wi-Fi equipment from a band via software updates or otherwise remains an uncertain and risky proposition for users of both IMT and Wi-Fi.
Question 7: Do you have any comments on the above suggestion to manage any "legacy" Wi-Fi devices, or alternative suggestions?	Confidential? – No Some techUK members recognise the challenge of managing legacy Wi-Fi devices introduced in Phase-1, many of which may not support future sharing protocols. They believe natural device turnover will not be enough to prevent interference with future IMT deployments. They also raise concerns about Ofcom's assumption that future sharing mechanisms can reliably stop Wi-Fi transmissions in the Upper 6 GHz band, highlighting two issues: (a) the disruption to Wi-Fi users' experience once detect-and-vacate requirements are enforced, and (b)

Question	Your response
	uncertainty over whether such mechanisms will work effectively. These members argue that Low Power Indoor (LPI) licence-exempt use should not be allowed unless it is proven that it will not significantly impact IMT operations, both indoors and outdoors. Some techUK members believe these concerns are overstated and consider that Ofcom's proposal is a reasonable approach given that the impact of such legacy devices is expected to be very limited, if at all noticeable, to future IMT deployments given the likely deployment scenarios of both technologies as well as their inherent technical capabilities. Some techUK members point to the structured nature of enterprise Wi-Fi deployments where devices are centrally managed, their locations known, and operational parameters remotely configured. They further argue that the vast majority of consumer Wi-Fi gateways is supplied to users by network operators or internet service providers, that the locations of these devices can be reliably determined, and that these devices' can be remotely configured by the provider to operate only on certain channels. These members argue that the risk of interference to IMT from LPI Wi-Fi is limited and manageable. techUK members underline the importance of transparency and regulatory foresight: any future requirements for device reconfiguration or transmission restrictions must be carefully considered to avoid disruption to end-users and to protect the credibility of long-term Wi-Fi investment.
Question 8: Do you have a view on the amount of spectrum that should be prioritised for Wi-Fi under the prioritised spectrum split option? Please provide evidence for your view.	Confidential? – No Some techUK members believe that the availability of the Upper 6 GHz band without undue restrictions for mobile services is vital for mobile evolution, including the introduction of 6G in the UK and making it available to mobile is a key prerequisite to improve UK's competitiveness. Other techUK members prefer license-exempt use in favour of the introduction of Wi-Fi 6E / Wi-Fi 7 in the UK. Some other techUK members believe that a band-split is the most spectrally efficient way forward.

Question	Your response
	Some techUK members support Ofcom's proposal for a prioritised spectrum split, suggesting that at least a minimum of 160 MHz should be allocated to licence-exempt use, under the same regulatory conditions as the Lower 6 GHz band for efficient channel planning and wider access for meeting high-throughput and low-latency requirements in dense environments. This additional 160 MHz in combination with the 480 MHz available in the Lower 6 GHz would allow 2 x 320 MHz, 4 x 160 MHz, or 8 x 80 MHz Wi-Fi channels. This approach, in identifying a minimum of 160 MHz of spectrum for Wi-Fi in the Upper 6 GHz band starting from 6425 MHz, offers compatible operations with FSS Earth-to-space links (including the protection of MSS feeder links operation in the frequency band 6425-6575 MHz). It should be noted however that some techUK members consider this will not be sufficient to enable cost effective networks for some of higher density use cases in enterprise and industrial settings. This may result in some enterprise and industrial networks in the UK not being able to match the productivity gains in countries where the whole Upper 6 GHz band is available for Wi-Fi networks, as due to the increased build costs in the UK the cost-benefit analysis may reach a different conclusion. Some techUK members believe in the band-split scenario that, when necessary, some additional co-ordination between enterprise/industrial networks and MFCN/IMT users could be looked at possibly through a light licence regime that could provide details of high priority enterprise/industrial networks. techUK members also emphasise that Wi-Fi plays an increasingly central role in delivering broadband services, especially in enterprise, education, and public sector settings. Ensuring sufficient spectrum for licence-exempt use will be vital to enabling next-generation applications such as augmented and virtual reality, high-resolution streaming, and advanced cloud services, across both consumer and professional domains. But some members consider that in the short- to medium-term these use cases can be readily supported with existing spectrum available for Wi-Fi, and that any additional spectrum for Wi-Fi in the longer term could be provided from the

Question	Your response
	mmWave frequency range which is better suited for short-range communications. While some techUK members favour full allocation of the band for mobile use including the adjacent 7125–7250 MHz band and some support in addition to that spectrum from within the range 7125-8400 MHz (not limited to 7125-7250 MHz) which is the subject of WRC-27 Agenda Item 1.7, others maintain that Wi-Fi should be the primary beneficiary given its dominant share in data traffic and its immediate capability to make use of the entire band. The latter point out that many large enterprise Wi-Fi users such as universities, large hospitals, and large public venues that run hundreds of applications over Wi-Fi urgently need more Wi-Fi spectrum already today, that the Upper 6 GHz band will be essential for them to operate as intended, and that IMT will not be able to adequately address these use cases. The former note that 6G use cases as defined by ITU calls for enhanced ubiquitous coverage including maintaining the consistency of user experience between different locations including deep indoor coverage. These members note that GSMA advocates that sub-1 GHz spectrum is essential in being able to serve indoor users and that deployment of IMT in Upper 6 GHz using the existing base-station grid will fail to deliver consistent service to users when they are located deep indoors. Instead, these techUK members contend that the only cost effective and sustainable way to deliver 6G requirements for maintaining consistent service to indoor users is to prioritize access to IMT over Wi-Fi in the Upper 6 GHz band.
Question 9: Do you have any comments on our plan for a "phase 1" when Wi-Fi will be introduced?	Confidential? – No Some techUK members commend Ofcom's proposal to enable LPI Wi-Fi access to the Upper 6 GHz band beginning in 2025. They view this as a timely intervention that will provide a much-needed capacity boost in indoor environments, particularly given Wi-Fi's role in delivering over 90% of fixed internet traffic. Some techUK members have serious concerns regarding Ofcom's plans for Phase-1 and suggest there is a material risk of harmful interference to IMT in the Upper 6 GHz

Question	Your response
	band, the introduction of an uncertain interference environment for the introduction IMT, including the launch of 6G in the band, and its negative impact on incentives for investment in mobile network infrastructure. Some members consider that the fast-growing adoption of Wi-Fi 7 and the anticipated advent of Wi-Fi 8, in 2028 building on the 6 GHz band, makes early access all the more essential in the opinion of some members, while other members disagree. These technologies bring marked improvements in performance, responsiveness, and reliability, benefitting UK consumers, businesses, and public services alike. Nevertheless, some members consider that there should be no deployment of outdoor or standard power Wi-Fi devices until the CEPT SE45 working group have developed the required protection criteria and appropriate independent compatibility assessments have been completed. Some techUK members remain cautious, citing unresolved concerns about potential interference with IMT services and the implications for future mobile deployments, including the launch of 6G, and support a thorough, evidence-led evaluation of these concerns, with a focus on coexistence strategies that enable all technologies to thrive including incumbent users, e.g. fixed links.
Question 10: One variation on "phase 1" would be to only authorise Wi-Fi in client devices to "seed" the market. Would you have any views on this, or suggestions for other variations?	Confidential? – No techUK members broadly agree that limiting Phase-1 authorisation to customer devices alone would offer limited benefit. Without the concurrent activation of access points, such a measure would delay the realisation of end-user benefits and impede early commercial deployment. Some techUK members instead support a comprehensive approach that includes both client device and access point authorisation and encourage Ofcom to address technical uncertainties around interference management especially where the boundary between indoor and outdoor use is ambiguous (e.g. rail, automotive, and connected healthcare environments). These techUK members also encourage taking steps toward updating Phase-1 of Ofcom's proposal to make the

Question	Your response
	prioritisation of the minimum allocation of 160 MHz to Wi-Fi use permanent (i.e. before the final band-split is decided under Phase-2), these members also recommend that the UK also advocate for CEPT to initiate a revision to ECC Decision 20(01) "On the harmonised use of the frequency band 5945-6425 MHz for Wireless Access Systems including Radio Local Area Networks (WAS/RLAN)" with a view to extending the harmonised Lower 6 GHz band to 6585 MHz. This would further enhance the performance and deployment flexibility of Wi-Fi in the UK market. Other members do not agree with a band-split and consider that Wi-Fi does not need access to any additional spectrum in the short- to mid-term, and that any longer-term need for additional spectrum by Wi-Fi can be addressed in the mmWave range. Some techUK members consider that the proposed Phase-1 would introduce a substantial risk of interference to MFCN/IMT use in the future, including the approach of "seeding" the market by authorising client only devices. These members question the process for testing, ensuring minimum interference, and determining who would serve as the arbitrator in case of disputes. Since definitions of indoor and outdoor use are not universally agreed upon, testing is a more reliable metric. The ability to deploy Wi-Fi on trains is also dependent on this consultation, given the implementation challenges between indoor and outdoor environments. Alignment with Europe is particularly important for the automotive industry, as spectrum sharing between vehicle functions could benefit freight and rail industries. The implementation of connected hospital strategies must also be considered as part of this framework. Another key factor is the increasing demand driven by the growth of private networks. Policymaking must ensure compatibility with private networks and 5G SA, supporting demand while addressing potential competition within this spectrum. Resolving these challenges is central to the success of this policy which is why consideration of an Upper 6 GHz band-split is important. Some techUK members providing private 5G (P5G) networks take the position that the 3.8-4.2 GHz band available in the UK for private local mobile networks will be

Question	Your response
	sufficient for supporting those use cases that would benefit from P5G in a meaningful way and that the Upper 6 GHz band will be used more efficiently if opened for Wi-Fi use.
Question 11: Do you have any comments on our plan for a "phase 2" when mobile will be introduced?	Confidential? – No Some techUK members are of the view that the Upper 6 GHz band is well-suited to support high capacity 6G deployments, particularly in dense urban areas. They advocate for the use of, in all of the Upper 6 GHz spectrum, licensing conditions aligned with the conditions for assigning the 3.5 GHz band. This approach would allow the re-use of base station sites to ensure viable investment for indoor and outdoor services. Without additional mid-band spectrum, mobile operators will not be able to offer 5G/6G performance and services in a cost-effective manner citywide. Over the long term this will impact the ability for industry and society to realise the full socio-economic benefits of mobile networks. The Upper 6 GHz band could be useful as a capacity resource for the future development of public mobile networks utilising the same base station grid as for 3.5 GHz spectrum. A spectrum pipeline provides investment certainty, the amount, and the type of spectrum impacts the network's capabilities. Mid-band spectrum offers the unique combination of capacity and coverage necessary to make it particularly suitable for urban and suburban areas and to satisfy expectations for availability of 5G and 6G. These members note that the Upper 6 GHz will be the primary band for the launch of 6G in the UK where the use of advanced antenna systems would compensate for any differences in propagation characteristics compared to the 3.5 GHz band. Some techUK members note that low-power indoor Wi-Fi has a strong record of coexistence with incumbent services and is well-positioned to meet connectivity demands in enterprise and residential settings. These members stress that Wi-Fi with its established large 6 GHz ecosystem can deliver substantial socio-economic value, especially when complemented by fibre infrastructure, whereas industry views on scope and characteristics of 6G are still divergent. These members are of

Question	Your response
	the view that the Upper 6 GHz band will not be the primary band for the launch of 6G in the UK, due to its limited characteristics in terms of propagation and providing ubiquitous connectivity to all customers. Instead, 6G could be introduced by reusing existing 5G bands and network infrastructure. Some techUK members note that mobile operators currently have access to roughly the same amount of spectrum as Wi-Fi users, though Wi-Fi users must share the spectrum with other incumbents and other licence-exempt technologies while commercial mobile operators hold exclusive rights in most of their bands. These members note that commercial mobile operators have stated that cell-grid densification is not an economically feasible approach to deliver more capacity using existing spectrum allocations and any Upper 6 GHz deployments will be co-sited with existing base stations. They agree with Ofcom's analysis that mobile deployments in the Upper 6 GHz band would likely be concentrated in urban areas, where the current Inter-Site Distance is smallest and more suited to 6 GHz operation, and used on a substantial subset of existing macro sites with the highest demand. It should be noted that, in comparison, the overwhelming majority of wireless traffic today travels over Wi-Fi. Due to its cost effectiveness and ubiquity, the vast majority of enterprise and industrial wireless connectivity demands are served by Wi-Fi today. Hence, some members consider that making additional spectrum available for Wi-Fi operations will allow UK enterprises to realize the full value of the latest Wi-Fi standards and compete more effectively with countries that have the full 6 GHz band available. These techUK members contend that allocating the Upper 6 GHz band for IMT would likely increase costs for UK enterprises and industries, making them less competitive globally. On the other hand, some members consider that the volume of traffic does not have a direct relationship with requirement for additional available spectrum, as the latter depends on the required data rates, the number of simultaneous users, and the distance between the users and the access points.

Question	Your response
Question 12: Do you have a view on the amount of spectrum that should be prioritised for mobile under the prioritised spectrum split option? Please provide evidence for your view.	Confidential? – No Some techUK members suggest that the full Upper 6GHz spectrum band should be made available for mobile and Ofcom should consider supporting further IMT identification within the band 7125-8400 MHz (beyond 7125-7250 MHz) under Agenda Item 1.7 of WRC-27 for the 6G expansion. Some techUK members contend that the full Upper 6 GHz band should be allocated for Wi-Fi use, including standard power and inclusive benefits of outdoor operations. Some techUK members have expressed concerns regarding the introduction of IMT in the 6425-6575 MHz band since, in their view, without adequate measures to limit the deployment densities of IMT base-stations and the incorporation of appropriate EIRP limits, there is a material risk of harmful interference to FSS (Earth-to-space) links operating in this band. Some techUK members are supportive of Ofcom's proposals allowing the development of this Upper 6 GHz sharing mechanism now, which may promote innovation in the short to medium-term. These members highlight that prioritising Wi-Fi could prevent premature exclusion of licence-exempt services, while enabling a responsive approach to emerging spectrum needs. Nonetheless, several techUK members have raised reservations about the proposals for hybrid sharing and the proposals have a range of views and reasons for this, including: - Deploying IMT in the Upper 6 GHz band would require clearing the band of incumbents. In the case of fixed service that would not be possible before 2030 (it is unclear how the UK would reduce the impact of higher power EIRP IMT base stations than those studied during WRC-23 and their increased interference to fixed satellite services - FSS). However, it has also been noted that the higher EIRP levels are achieved via IMT base stations with advanced antenna arrays with narrower beamwidths which can result in reduced interference.

Question	Your response
	- Some techUK members believe sharing of frequencies in the same locations between high power outdoor IMT and low power indoor Wi-Fi is impossible without some sort of co-ordination. - Mid-band frequencies have been essential in the initial roll-out of 5G with the 3.5 GHz band being deployed as the launchpad for 5G networks worldwide and some members contend that traffic MFCN/IMT growth trends indicate that additional mid-band spectrum will be required beyond 2025 for the deployment of 6G. - There is a dispute on whether there is a greater need for more IMT spectrum or more Wi-Fi spectrum. - Some techUK members contend that once fixed wireless access traffic is removed from growth projections, the growth in MFCN/IMT-based traffic is forecast to slow down and become equivalent to the growth in fixed traffic. Some techUK members support a pragmatic sharing model that allows both IMT and Wi-Fi to coexist. Members also stress that spectrum policy should recognise that Wi-Fi and IMT are increasingly complementary and not substitutes. In summary, some techUK members believe that Ofcom should prioritise the Upper 6 GHz band for licensed national mobile networks, some techUK members believe it should be prioritised for licence-exempt use, and some other techUK members believe an Upper 6 GHz band-split is preferable.
Question 13: Do you have any evidence or views about the geographical extent of mobile networks' likely deployment in Upper 6 GHz?	Confidential? – No According to Mobile Network Operators (MNOs) and manufacturers, IMT deployments in the Upper 6 GHz band would follow the existing 3.5 GHz grid, by using higher EIRP levels through the use of advanced antenna systems. Some techUK members expect MNOs intend to use the (83dBm/100MHz) in combination with a larger number of antenna elements being deployed by the IMT vendors, so that the Upper 6 GHz band can achieve similar results and can be deployed in the same grid as the 3.5 GHz band, as either a supplementary capacity band or as a new band for 6G.

Question	Your response
	Because of the different propagation characteristics between 3.5 GHz and 6 GHz bands some techUK members believe any mobile deployment in Upper 6 GHz, achieving coincident coverage requires a quadrupling of the number of antenna elements operating at 6 GHz, and they note that this technology is available today. This technology would allow enhanced capacity and would be deployed where there may be capacity bottlenecks. Some techUK members consider that MFCN/IMT deployment strategies in the Upper 6 GHz will be specific to regional and national circumstances. These will largely depend on the regulatory conditions decided at regional/national level, e.g., allowed max base station EIRP and available channel bandwidths.
Question 14: Do you have any comments on our proposed phased approach to authorisation of both Wi-Fi and mobile in the Upper 6 GHz band?	Confidential? – No Some techUK members support Ofcom's phased strategy for authorising both Wi-Fi and mobile use in the Upper 6 GHz band. They believe this approach allows for near-term benefits from Wi-Fi while preserving long-term flexibility for mobile. Phase-1 could deliver connectivity gains in 2025 through LPI Wi-Fi, while Phase-2 would enable mobile usage informed by European harmonisation efforts. Some techUK members believe that authorising LPI Wi-Fi prematurely could limit the band's future potential for IMT. While some techUK members agree that harmonisation across Europe will be essential for ensuring investment certainty and achieving economies of scale. There are different views regarding the scope and the extent of harmonisation. Some techUK members believe delaying any action on the Upper 6 GHz band while awaiting European decision-making will leave this vital resource unavailable for an uncertain amount of time at the expense of UK consumers and enterprises. To this end, it is essential that if Ofcom proceeds with any form of early authorisation in this band ahead of Europe, Ofcom can ensure that it is possible for such authorisation to be readily and promptly reversed should there be any misalignment with a harmonised solution. Some techUK members are of the view that the Ofcom proposal of a phased approach is a reasonable approach

Question	Your response
	that is justified by technical evidence and provides a pragmatic way forward to enable UK customers to benefit from enhanced connectivity as early as possible while preserving the option of introducing other connectivity solutions at a later stage. Other members disagree and believe Ofcom should wait for European harmonisation decisions and development of standards that may be needed to facilitate any shared use.
Question 15: Do you have any comments on our proposal to not include very low power portable devices in the Upper 6 GHz band at this stage, but to keep this under review?	Confidential? – No Some techUK members who have reservations with regards to the Phase-1 proposals for the authorisation of LPI Wi-Fi equipment also consider that the introduction of (Very Low Power) VLPs devices in their own network would further increase the risk of mutual interference with IMT in the Upper 6 GHz band, and add to the uncertainties for the future of this band for IMT, including the launch of 6G and the negative impact on incentives to invest in MFCN/IMT infrastructure. Some techUK members have some reservations on Ofcom's proposal not to allow VLP under Phase-1 since they believe that the VLP use cases for the provision of client-to-client connectivity both indoors and outdoors is important. That said, these members would not support a delay to accessing the Upper 6 GHz band for LPI due to unresolved VLP issues and they would support Ofcom reviewing the VLP requirement later as appropriate.
Question 16: Do you have any comments on our proposal to authorise the use of low-power indoor Wi-Fi access points and client devices to use 6425–7125 MHz?	Confidential? – No See previous responses Questions 6, 7, 9, 10, 12 and 13 regarding LPI Wi-Fi in the Upper 6 GHz band.
Question 17: Do you have any comments on the proposed technical conditions?	Confidential? – No CNI operational integrity is dependent on high availability fixed links deployed in the band. We encourage Ofcom to ensure that the new services are not introduced to the band until suitable compatibility studies have been completed. We note that Ofcom reference that the work of CEPT WG SE45 is still ongoing and therefore no decisions should be made on the introduction of new outdoor Wi-Fi services until the potential impact is

Question	Your response
	fully understood and appropriate co-existence arrangements established.
Question 18: Do you have any comments on the proposed VNS draft?	Confidential? – No No comment.
Question 19: Do you have any suggestions for an appropriate mechanism for enhanced sensing, or comments on the proposed solution above?	Confidential? – No Some techUK members note that Ofcom has a strong preference for a solution "to adapt mobile base stations to transmit signals that can be readily understood by Wi-Fi devices". These members consider that such a solution contradicts the principle of technology neutrality. They also point to studies at CEPT which have indicated that this solution results in a substantial probability of false negatives and cannot be relied upon for the avoidance of harmful interference. Furthermore, they note that any future software-based solutions must consider hardware limitations and compliance standards. Some techUK members believe that this would further limit the areas that Wi-Fi would be able to operate indoor but would enhance the viability of MFCN/IMT using the band by increasing the Wi-Fi exclusion zones around the MFCN/IMT base stations by a significant amount over the normal LBT threshold. It is also noteworthy that Ofcom considers that for the implementation of such a solution "where changes to Wi-Fi access points are necessary in the future, our current expectation is that this is likely only to need a software update." Some techUK members consider that this is not strictly correct, and does not account for the fact that, while the introduction of new sharing messages/instructions in the future may well be achievable through software updates, the actions which Wi-Fi equipment would be required to undertake in response to the received instructions would need to be standardised and equipment tested for compliance prior to the placement on the market. Some techUK members have indicated that the reconfigurations of their APs are achievable in their view via a software cloud-based solution. These techUK members

Question	Your response
	are of the opinion that Ofcom should not limit its investigation of sharing mechanisms to sensing. They suggest that solutions such as Automated Frequency Coordination (AFC) could be used with either technology, Wi-Fi and IMT, or operator-managed Wi-Fi (see response to Question 7). Some members recommend Ofcom also evaluate alternative mechanisms (other than RF sensing) that could ensure Wi-Fi APs vacate channels used by IMT, for instance by using location databases in combination with remote management of APs.
Question 20: Do you agree with our proposal to restrict Wi-Fi from transmitting in the 6650-6675.2 MHz band to protect the radio astronomy service? Please provide any technical evidence to support your view.	Confidential? – No Some techUK members believe that alternative solutions could be to hard code in any geographic exclusion zones required for any sharing between Wi-Fi and RAS stations in the UK to be protected.
Question 21: Do you agree with our assessment of Wi-Fi coexistence with existing users of the band? If not, please provide details.	Confidential? – No Some techUK members agree with Ofcom's assessment and point out that conditions for coexistence between Wi-Fi and incumbent users in both the lower and the Upper 6 GHz band have been extensively studied in other regions of the world, with the result that in countries in all three ITU regions have made the full 6 GHz band available for shared use by Wi-Fi and incumbents. International compatibility should prioritize alignment with Europe or any other similar sized market. As Ofcom should endeavour to work within CEPT and with our regional neighbours to ensure some sort of regulatory consistency across the region, a harmonized spectrum approach with Europe or any other similar sized market is important for economies of scale. UK CNI operational integrity (Energy Networks) is dependent on high availability fixed links actively deployed in the band. These links have a legitimate right to be afforded appropriate protection from the new services and Ofcom has a duty of care to ensure that incumbent rights are upheld. Existing FSS and MSS networks rely on the Upper 6 GHz band (6.425-7.125 GHz) to provide essential coverage

Question	Your response
	across Europe and beyond. MSS systems, such as Inmarsat, support critical maritime and aviation communications, including the Global Maritime Distress and Safety System (GMDSS). Aviation also depends on MSS for operational safety, passenger communications, and air traffic management improvements under the Iris programme, which aligns with Europe's Green Deal objectives. Additionally, the band supports satellite-based navigation augmentation services like EGNOS, which aids aircraft precision landings. It is also crucial for spacecraft telecommand and control, ensuring safe station-keeping and compliance with international regulations—which is especially critical given rising concerns over space debris. Another segment (6.725-7.025 GHz) is governed by Appendix 30B of the ITU Radio Regulations, ensuring equitable access to the geostationary-satellite orbit, particularly for developing countries. Furthermore, this band is used for satellite downlinks and passive sensors that collect essential climate and weather data, contributing to forecasting and monitoring through initiatives like the European Copernicus programme. Given its extensive use for vital satellite-based services, some members consider that introducing MFCN/IMT in the Upper 6 GHz Band could pose serious risks of interference, potentially impacting global communications, navigation, aviation safety, and climate monitoring. Some techUK members consider that sharing between MFCN/IMT and existing users was extensively discussed towards WRC-23 which agreed on a specific expected EIRP mask requirement to ensure the protection of satellite receivers. Some techUK members believe that in light of increased transmit powers in the order of 10dB, and with varying deployment assumptions, the effectiveness of the expected EIRP requirement to ensure the protection of satellite receivers may need to be reevaluated. Nevertheless, Ofcom's assessment of the impact on existing users of the band relies on the work of CEPT WG SE54 which is not yet complete and therefore cannot be relied upon to ensure protection of existing services. The work to date is based on low power and very low power indoor devices which is not representative of the impact of a standard power outdoor Wi-Fi device.

Question	Your response
Question 22: Do you have any evidence about the costs to operators of moving fixed links in and around "high density" areas (such as urban centres) to other bands?	Confidential? – No Some techUK members encourages similar sized market model to consider international cost analyses, such as the 2023 Czech Republic report, when assessing the feasibility and financial implications of relocating fixed links from the Upper 6 GHz band in urban areas. [1]
Question 23: Do you have any comments on our initial assessment of our likely approach to coexistence between future mobile use and current users in the Upper 6 GHz band?	Confidential? – No Some techUK members believe that Ofcom should endeavour to work with our neighbours to ensure some sort of equivalence across the region. A harmonized spectrum approach with Europe or any other similar sized market is highly desirable for economies of scale. However, where there are any incumbents in the Upper 6 GHz band that may need to be removed, the difficulty of clearing these incumbents should not be underestimated. While Ofcom may have done some of this work, making assumptions on the validity of previous studies done with old parameters should be reassessed. As noted in response to question 22, the operational integrity of UK CNI is dependent on incumbent high availability fixed links which need to be protected from the new services by right. Some techUK members believe that in light of assumptions for increased transmit powers in the order of 10 dB, and with varying deployment of IMT in assumptions, the band including effectiveness of the expected EIRP levels requirement to ensure the protection of satellite receivers may need to be re-evaluated. Other members note that there is no such need for a re-evaluation, as the expected EIRP levels are already part of the international Radio Regulations and would be complied with as default. Some techUK members who support MFCN/IMT use of the Upper 6 GHz band argue that licensed use benefits society and is key to enable some 5G advanced use cases and applications or for the introduction of 6G. Nonetheless, if Upper 6 GHz is to be made available for

[1] The report can be downloaded here: https://ctu.gov.cz/studie-ke-spektru. English executive summary on pages 9-10.

Question	Your response
	MFCN/IMT it will be only to address capacity requirements in densely populated areas comprising of towns and cities. Some techUK members consider that Ofcom's initial assessment of the likely approach to coexistence between future mobile use and current users in the Upper 6 GHz band is broadly along the right lines. These techUK members consider that the protection of RAS in the Upper 6 GHz band should account for site-specific propagation effects and antenna characteristics in order to avoid unduly restrictive technical conditions for the introduction of MFCN/IMT or Wi-Fi networks in the band. In addition, the experience of the United States and Canada shows that standard power Wi-Fi use under the control of an Automated Frequency Coordination (AFC) system can coexist outdoors, at higher power levels, with incumbent operations in Lower 6 GHz band.
Question 24: Do you have any other comments on our policy proposals or any of the issues raised in this document?	Confidential? – No One element that needs further thought is how to address licence-exempt very low power (VLP) portable equipment that can be indoors as well as outdoors. Additionally, Ofcom has not addressed the issue of interference between MFCN/IMT devices indoors and Wi-Fi indoors, which is a scenario that can commonly arise. The growth and investment narrative are a unifying factor for techUK members, yet it is notably absent from the consultation. techUK members highlight the need to align spectrum policy with investment incentives. There is consensus on the value of a forward-looking strategy that recognises the complementary roles of Wi-Fi and IMT. Policymakers are urged to consider wider socio-economic impacts, including implications for vertical industries, device ecosystems, and global competitiveness. More detail on user-market regarding devices and vertical applications that contribute to this perspective should be incorporated to reflect the broader economic and technological implications of spectrum policy decisions.