Annual Plan Team SITE Ofcom Riverside House 2A Southwark Bridge Road London SE1 9HA

9 February 2018

Dear Ofcom,

Microsoft is one of the world's leading technology businesses and has been in the UK for over thirty years. We are committed to empowering every person and organisation on the planet to do more, and core to the pursuit of this mission is our investment in cloud computing in the UK. That is why last year Microsoft invested in three UK data centres - in London, Cardiff and Durham – and why our European R&D facility employs over 120 of the world's leading computer scientists in Cambridge. For individuals and businesses to benefit from digital revolution requires ubiquitous and always on connectivity. We therefore welcome the opportunity to comment on your proposed Annual Plan for 2018/19.

Whilst Microsoft remains neutral in terms of what technology is best to deliver high speed connectivity, we believe that competitive markets in which a range of options are available deliver the best outcomes for all. We therefore welcome your continued commitment to using regulatory tools and other methods to ensure the UK continues to enjoy a competitive communications market.

However, we would like to see the Annual Plan contain an explicit reference to TV White Spaces as part of your work to deliver improved connectivity. In the 2013 TVWS Consultation, Ofcom proposed a general review of the effectiveness of the TVWS framework and suggested doing this within the first 18 months of the regulations. Ofcom's Implementing TV White Spaces Statement' published on 12 February 2015 stated that '[Ofcom] continues to believe that a general review to at the effectiveness of the TVWS framework in the round is likely to have some merit,' whilst the actual Wireless Telegraphy (White Space Devices) (Exemption) Regulations came into force in December 2015. We therefore believe that the timing is right for a review given the backdrop of the adoption of updated TV White Space standards by the European Technical Standards Institute and continued commercial interest in the possibilities of TV White Space.

Given how important connectivity is to Microsoft, in the last year we have further committed to using TV White Space to deliver broadband service – both in rural communities and in the developing world. In the US we are working with partners to roll out broadband using TV white spaces in 12 states in the first year, and to connect 2 million rural Americans by 2022. This Rural Airband Initiative builds on the learnings from our work with partners. Microsoft will continue to support strong partnerships and research to develop rural and urban TV White Space enabled broadband projects in the UK and international regions such as Africa and Latin America. The success of UK projects is in part dependent on some minor technical amendments to the existing regulations, and we are encouraged that Ofcom is looking at this.

Deployment of TV White Space technology requires a favourable regulatory framework, and as the UK has this, it could become a world leader in development and deployment of TV White Space broadband services. Ofcom's proposed Annual Plan for 2018/19 commits the regulator to reviewing mobile and broadband coverage. In this light we believe it is important that Ofcom take a broad view to encompass

multiple technology solutions – including TV White Spaces – to deliver improved broadband and extended broadband coverage.

The Dynamic Spectrum Alliance will hold its Annual Summit in the UK in May 2018, and this could be suitable vehicle for Ofcom and the UK government to show their continued commitment to seeing a broad range of technology solutions deployed to close the broadband availability gap and demonstrate UK global leadership.

We would welcome the opportunity to bring Ofcom up to speed on the rollout of broadband over TV White Space in rural communities to date, and to demonstrate our continued commitment to supporting TVWS, and dynamic spectrum sharing in general, as an important tool for addressing connectivity challenges. Microsoft remains hopeful that Ofcom will include a project in the final version of its 2018/19 Annual Plan which would review and update its TVWS rules, and will of course be very happy to contribute to such activities.

Yours sincerely,

David Frank

UK Government Affairs Manager

Microsoft UK