



Brussels, 29 November 2021

ENSURING WI-FI CONNECTIVITY IN AN INNOVATIVE AND TRULY CONNECTED EUROPEAN GIGABIT SOCIETY

Dear Members of the European Commission,
Dear Members of the European Parliament,
Dear Ambassadors,

We, the signatories, representing a wide range of sectors (satellite, SMEs, start-ups, manufacturers, chipset vendors and content application services, video games sector) convinced of the power of Wi-Fi and satellite technology in supporting Europe's digital transition, welcome the publication by the European Commission of its draft EU [Digital Decade Policy Programme](#) - which operationalises the [2030 Digital Compass](#).

Given its enabling function, we strongly support the priority given by the draft Policy Programme to achieving gigabit connectivity for EU citizens and businesses. Representing a diverse variety of users and providers of connectivity, we truly believe in an approach to connectivity that is technology neutral and promotes several advanced gigabit technologies, such as next generations Wi-Fi and satellite in addition to fibre and 5G.

Wi-Fi is omnipresent in our lives and currently provides the most effective means of ensuring wireless connectivity inside our homes and offices, but also at public hotspots such as hotels, cafes and restaurants, airports, libraries, schools, or hospitals. In areas where terrestrial infrastructure is lacking, Wi-Fi is often backhauled by satellite. Wi-Fi is also heavily used by industries to provide connectivity for IoT devices in, for example, smart factories. Satellite is also enabling direct broadband connectivity in multiple EU states and saw a significant increase in new installations during the Pandemic.

The digital transformation of the whole European society (including SMEs, start-ups and other industries) therefore must include Wi-Fi-connectivity and satellite alongside other technology solutions. As the wireless extension of fibre networks, Wi-Fi will also be essential to ensure effective achievements of the gigabit connectivity targets for 2030. Innovation will also rely on Wi-Fi as technologies of the future, such as advanced Augmented Reality (AR) and Virtual Reality (VR), will not be able to work solely on 5G and fibre, but also rely on complementary enhanced Wi-Fi connectivity. For example, AR glasses will connect to a 5G handset via a Wi-Fi link.

In addition, rural connectivity is a persistent challenge in Europe and globally. Experience has demonstrated that no technology on its own can solve the rural connectivity gap. Tackling it will rather require a combination of solutions, involving private and public efforts and a mix of technologies, including 5G, fibre, satellite, fixed wireless technologies and Wi-Fi.

Europe should ensure that enough spectrum is made available to enable the new generations of Wi-Fi gigabit technologies, Wi-Fi 6E and Wi-Fi 7, to thrive in Europe alongside 5G and fibre. We strongly believe European citizens and businesses should be given the ability to choose the gigabit technologies best suited to their specific needs.

It is critical that Europe starts working now in making available the required spectrum for the 2030 Gigabit society, which should include ensuring the upper 6 GHz (6425-7125 MHz) band is devoted to Wi-Fi alongside the incumbent services in the band, such as satellite and fixed services. Failure to do so will leave Europe trailing behind other prominent economies, such as the US, Canada, Brazil, and South Korea, which have already released the full 6 GHz (5925-7125 MHz) band for Wi-Fi use. Most importantly, it will mean European citizens, SMEs, start-ups and other industries will not benefit from the same high-quality advanced products and services as their equals in other regions of the world.

We call on the Commission, Council, and European Parliament to:

- Fully reflect in the EU [Digital Decade Policy Programme and related policy guidance and implementing decisions](#), the role played by Wi-Fi and satellite in achieving EU 2030 connectivity targets and in unleashing the full potential of digital and green technologies, alongside 5G and fibre.
- Ensure additional spectrum for new generations of Wi-Fi (Wi-Fi 6E and Wi-Fi 7), by opening the full 6 GHz (5945-7125 MHz) band for licence-exempt use.

A digitally connected Gigabit Europe cannot be achieved without a strong contribution from Wi-Fi, alongside 5G and fibre.

Please see the Annex for more examples of enhanced Wi-Fi applications.

Signatures:

Allied for Startups
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About the signatories:

[Allied for Startups](#) is a worldwide network of over 45 advocacy organizations in 4 continents focused on improving the policy environment for startups. The network works to create a consensus on policies that can positively impact startups and grow digital entrepreneurship and the digital economy at large. Its mission is to ensure that the voices of startups are heard in government.

[AVM](#) is one of Europe's leading manufacturers of products for broadband connections and the digital home. Since starting out in Berlin in 1986, AVM has focused on developing innovative products in-house.

The [Dynamic Spectrum Alliance](#) (DSA) is the leading global spectrum organization promoting and showcasing the value of spectrum sharing, and specifically the benefits of Wi-Fi connectivity in the 27 European Union countries.

[EMEA Satellite Operators Association](#) (ESOA) represents 22 satellite operators and provides thought-leadership for the sector. As the world's only CEO-driven satellite association, ESOA leads the sector's response to global challenges and opportunities. It offers a unified voice for the world's largest operators, important regional operators and other companies that engage in satellite-related activities.

[EuroXR Association](#) is an umbrella organization gathering not only individuals, but also national chapters and associations, large companies, small-to-medium enterprises (SMEs), as well as research institutions, universities, and laboratories. All of them with a keen interest in Extended Reality (XR), the term that covers Virtual Reality, Augmented Reality, and Mixed Reality (VR/AR/MR).

The [Interactive Software Federation of Europe](#) (ISFE) represents the interests of the video game sector towards the EU and international institutions. ISFE ensures the voice of a responsible video game ecosystem is heard and understood, that its creative and economic potential is supported and celebrated, and that players around the world continue to enjoy great video game playing experiences.

[LANCOM Systems](#) is the leading European manufacturer of secure, reliable and future-proof networking (WAN, LAN, WLAN) and firewall solutions for the public and private sectors.

Annex:

The potential of enhanced Wi-Fi (Wi-Fi 6E* and Wi-Fi 7*) for :

* Wi-Fi 6E is the sixth generation of the Wi-Fi standard, designed to operate in the full 6 GHz band. It is already available in the market - More than 338 million Wi-Fi 6E devices will enter the market in 2021, expected to grow to more than 3.5 billion in 2022.¹

* Wi-Fi 7 is the next and seventh generation of the Wi-Fi standard. It is also referred to as Wi-Fi Extremely High Throughput as result of its projected ability to support up to 30Gbps throughput, roughly three times faster than Wi-Fi 6E.

<p>DIGITAL TRANSFORMATION OF SMES</p> 	<ul style="list-style-type: none"> • The digital transformation of the whole society (including SMEs and start-ups) relies on the availability of pervasive very high-capacity connectivity, including Wi-Fi. • Thanks to their low cost and easy deployment, Wi-Fi 6E and Wi-Fi 7 will support the widespread adoption of new digital applications and services.
<p>INNOVATION AND EUROPEAN START-UPS</p> 	<ul style="list-style-type: none"> • As the primary wireless interface to the Internet, Wi-Fi is the platform of Internet innovation. The technology of the future requires enhanced Wi-Fi connectivity. • Thanks to their advanced features, (very high bandwidth and very low latency), Wi-Fi 6E and Wi-Fi 7 will unlock a future generation of data intensive and low latency immersive applications such as AR/VR, holographic or haptic systems.
<p>AUGMENTED REALITY (AR), VIRTUAL REALITY (VR), EXTENDED REALITY (XR)</p> 	<ul style="list-style-type: none"> • Wi-Fi 6E/7 will unlock a range of new applications, such as AR and VR. • Additional spectrum in the full 6 GHz band is critical for AR/VR as this technology will rely on the larger channels the full 6GHz provides. • XR will play a key role in Europe's green transition (Ecorys report). As for other companies, XR companies can benefit from the improved efficiency and reduced carbon footprint of new Wi-Fi technologies.

¹ <https://www.wi-fi.org/beacon/the-beacon/wi-fi-6-shipments-to-surpass-52-billion-by-2025>.

<p>HELPING EUROPE'S GREEN TRANSITION</p> 	<ul style="list-style-type: none"> • A combination of fibre and Wi-Fi 6E (and Wi-Fi 7 is the greenest solution for indoor connectivity). • The enhanced Wi-Fi generations will also enable reduction of CO2 emissions in other sectors (e.g. remote working and learning, and telemedicine can drastically reduce traffic and greenhouse gas emissions).
<p>SUPPORTING EUROPE'S FARMERS</p> 	<ul style="list-style-type: none"> • Broadband connectivity powered by satellite and enabled locally via Wi-Fi enables farmers to transmit crop management data from mobile devices in real time, without having to travel to far-away areas to access the Internet.
<p>RURAL CONNECTIVITY GAP</p> 	<ul style="list-style-type: none"> • As demonstrated by the WiFi4EU programme, Wi-Fi has the power to reduce the digital divide. • While relevant in urban areas, the role of Wi-Fi in public spaces is especially critical in rural areas, given the more limited coverage of broadband networks. With Wi-Fi, the connectivity needs of several users can be served with one single fibre broadband connection. • The presence of Wi-Fi at the edge of fixed broadband networks also makes the broadband offer much more compelling, driving demand for gigabit broadband.
<p>INTERNET OF THINGS (IOT) – SMART HOMES AND FACTORIES</p> 	<ul style="list-style-type: none"> • Advanced technologies such as IoT and robotics rely on Wi-Fi. Additional Wi-Fi spectrum will lead to broader acceptance of IoT-enabled applications and services and will accelerate and expand the deployment of IoT devices. • Most home IoT devices rely on Wi-Fi as the most cost-effective and least complex connectivity solution. Wi-Fi 6E and Wi-Fi 7 will enable new use cases for smart homes and support high-density deployments. • Wi-Fi is heavily used by industries to provide connectivity for IoT devices in e.g. smart factories.