

Consultation response

AmCham EU's comments on ECC Deliverable 'Draft ECC Decision (20)01'



AmCham EU speaks for American companies committed to Europe on trade, investment and competitiveness issues. It aims to ensure a growth-orientated business and investment climate in Europe. AmCham EU facilitates the resolution of transatlantic issues that impact business and plays a role in creating better understanding of EU and U.S. positions on business matters. Aggregate U.S. investment in Europe totalled more than €3 trillion in 2019, directly supports more than 4.8 million jobs in Europe, and generates billions of euros annually in income, trade and research and development.

General comments

Introduction

AmCham EU welcomes the opportunity to provide its positions on the draft CEPT report 75 and draft ECC Decision (20)01, responding to the European Commission's 'Mandate to CEPT to study feasibility and identify harmonised technical conditions for Wireless Access Systems including Radio Local Area Networks in the 5925-6425 MHz band for the provision of wireless broadband services'.

Since the release of the Commission's mandate, the critical role of Wi-Fi has become only more apparent. During the global COVID-19 health crisis, Wi-Fi has enabled families, enterprises, hospitals and schools, to keep connected with each other and to as much as possible continue everyday life. The trend towards wireless is only going to continue and be further accelerated from what was already predicted prior to COVID-19. AmCham EU therefore believes that every citizen and every company across Europe should be able to reap the benefits of the higher quality and higher speed wireless broadband that the new spectrum in the lower 6GHz would bring. Releasing the lower 6GHz band will also contribute to the digitalisation of Europe. With Wi-Fi 6E, Wi-Fi will be able to support many of the so-called 5G use cases and still providing a cost-effective indoor wireless access technology and capacity offload for mobile networks.

Unfortunately, this is not what the draft Report B and draft ECC Decision (20)01 would deliver if adopted without further critical amendments. Instead, the draft texts are proposing to introduce a two-speed Europe, with countries moving at different paces of implementation, potentially postponing the release of the spectrum indefinitely and with a carte blanche for countries to introduce regulatory requirements such as geolocation databases above and beyond those agreed at a European level. Other proposals include excessive power emission limits and excessive guard bands to protect communications-based train control (CBTC) that would significantly reduce the overall amount of new spectrum to be made available to WAS/RLAN.

This is contrary to the mission statement of the Commission's mandate for a harmonised, spectrally efficient approach and runs in direct opposition to Europe's political ambitions to make Europe ready for the digital age, bring gigabit broadband and a seamless European digital single market to Europe's citizens and businesses.

AmCham EU urges CEPT and European governments to show the political leadership to make the necessary changes to the draft Report 75 and draft ECC Decision (20)01 to open up the lower 6GHz band on fully harmonised conditions, supported by the vast majority of spectrum regulators involved in the drafting process.

These requirements translate into:

For Low Power Indoor (LPI):

- Precluding operation in 5925-5945MHz to protect CBTC;
- Allowing only indoor operation;
- Limiting the maximum power density; and
- Requesting unwanted emissions of -15dBm/MHz below 5935MHz.

Very Low Power (VLP):

- Precluding operation in 5925-5945MHz to protect CBTC;
- Limiting the maximum equivalent isotropically radiated power (EIRP); and
- Requesting unwanted emissions of -30dBm/MHz below 5935MHz.

Making these changes will also ensure that Europe can be part of the global leadership and that users will be able to reap the benefits of a global ecosystem, helping to reduce cost and increase innovation. Other regulators around the world, notably the Federal Communications Commission (FCC) in the US and the Office of Communications (Ofcom) in the UK, have already moved ahead with opening the 6GHz (all or part) and several others in the Americas, Asia Pacific and Middle East regions are looking to or are in the process of doing the same.

Shared use of spectrum represents an efficient use of a scarce public good and should be managed on the basis of both incumbent users and broader socioeconomic interests

AmCham EU fully understands and supports that extending the use of the band to new users requires rules to enable the co-existence and to prevent harmful interference with incumbent users, in this case Fixed Satellite Service, Fixed Service and harmonised CBTC. Such rules should however be fully harmonised, be based on sound technical evidence and be proportionate to the risk compared to the overwhelming social and economic benefits that the spectrum would bring for improved wireless broadband.

Proportionate and spectrally efficient protections for CBTC

AmCham EU believes that the technical studies and evidence overwhelmingly demonstrate that the lower 6GHz band can be made available to WAS/RLAN without causing harmful interferences to CBTC systems that are well-designed and based on harmonised standards. CBTC also seemingly co-exists at the lower end of the band at 5915MHz with both Road-ITS and Short-Range Devices (SRDs) that are technologies similar to WAS/RLAN technologies. No evidence has been provided why CBTC should be that much more sensitive at the upper end of the band that warrants guard bands many times that of the standard 5-10MHz. The fact that WAS/RLAN would only be permitted to operate above 5945MHz provides that guard band.

AmCham EU strongly recommends that CEPT rejects proposals to introduce a 90MHz guard band for VLP to operate only above 6025MHz (VLP category A)

The draft report and decision also contains out-of-band (OOB) emission limits for both LPI and VLP devices to protect CBTC. For both categories of devices there are two different levels of OOB emissions being considered. For LPI, the limits under consideration are -15 or -36 dBm/MHz. For Wi-Fi, this translates into losing a 160MHz which is one out of the three such channels set to be made available. It is the equivalent of promising citizens a new three-lane motorway but only making two lanes available. For VLP, the proposals are -30 or -49 dBm/MHz, which is a reduction by a factor of about 100.

AmCham EU strongly recommends that CEPT adopts OOB emission limits of -15 dBm/MHz for LPI and -30 dBm/MHz for VLP

These levels would be consistent with those imposed on the devices sharing the ITS band with CBTC and SRDs. These two values are also suggested by ECC Report 290 (assuming LPI has extra building penetration loss because it is indoors).

Proportionate and harmonised protections for fixed microwave links and CBTC

The Country Determination Capability (CDC) and geolocation database have been proposed by one administration as supposedly necessary means to protect fixed microwave links and CBTC from harmful interference. Both requirements are technically complex and costly requirements that are wholly unnecessary to protect fixed microwave links (and CBTC, see above). If there were a risk of harmful interference for fixed links, other countries can be presumed to have expressed similar concerns. However, countries such as Germany

have been strong supporters of opening up the band for Wi-Fi despite having many times the number of fixed links in the band.¹

Considering the purpose of CDC precisely is to be able to introduce country- specific requirements, ie, a national geolocation database, this requirement would also severely undermine the EU single market and prevent the free movement of goods. At best, this means a higher cost for citizens and businesses across Europe because it is more costly to design and manufacture to different national requirements, hence why we have the single market in the first place. At worst, and in addition to the higher costs, it will mean significant delays, potentially indefinitely, to bring better, faster wireless broadband speeds to citizens and businesses in those countries that decide to implement additional national conditions such as a national database. This in particular considering the fact that no such database solution exists.

AmCham EU strongly recommends that CEPT withdraw the CDC requirement

The incumbent users will be sufficiently protected by harmonised rules with a single category for each category.

LPI single category without geolocation capabilities:

- Precluding operation in 5925-5945MHz;
- Indoor only;
- Limiting the maximum power density; and
- Requesting unwanted emissions of -15dBm/MHz below 5935MHz.

VLP single category:

- Precluding operation in 5925-5945MHz;
- Limiting the maximum EIRP; and
- Requesting unwanted emissions of -30dBm/MHz below 5935MHz.

¹ Based on statements made during the CEPT process, Germany has about 20,000 6GHz fixed links, while France will have 2,600 once links are migrated into the band from 1.3–1.4 GHz.

Proposals related to the ECC Deliverables – ‘Draft ECC Decision (20)01’

Comment number	Section number Clause	Paragraph Figure Table	Type of comment (General, Technical or Editorial)	Comment	Proposed change
AEU /1	Explanatory Memorandum - 2	4	General	Harmonised technical conditions are sufficient to protect fixed links and harmonised CBTC systems.	Add: “Where there are concerns regarding the protection of national implementations of CBTC, additional regulatory measures to enable the use of VLP devices may be considered.”
AEU /2	Explanatory Memorandum - 2	5/6/7	General	Harmonisation requires to use a single technical configuration throughout Europe. CDC is preventing harmonisation and would trigger significant loss of user benefits.	Remove: “Therefore, the implementation of a Country Determination Capability (CDC) in order to determine whether the LPI use is either allowed or not allowed in European countries is required in any LPI device. LPI - The first phase allows the use of LPI devices in the frequency bands 5945-6425 MHz, except in the concerned countries. Assistance can be provided to those administrations via the establishment of an ECC Report at a later stage to develop the appropriate national solutions to address the national concerns regarding the FS protection in a possible second phase. VLP - VLP devices can operate in the frequency band 6025-6425 MHz throughout CEPT to take into account Communication Based Train Control (CBTC) operations. VLP devices that support CDC can operate in the entire frequency band 5945-6425 MHz in countries where it is allowed. Both approaches are based on the conclusions contained in CEPT Report 73 and further elaborated on in draft CEPT Report 75 [8].”
AEU /3	Considering h		General	Harmonised technical conditions are sufficient to protect fixed links and harmonised CBTC systems.	Remove: “h) that some administrations may impose additional national measures within their jurisdiction, for example geolocation capabilities, where plans and regulatory measures for LPI devices with this additional functionality, would come at a later stage. These administrations may consequently not allow the use of LPI devices for an interim period;”

Comment number	Section number Clause	Paragraph Figure Table	Type of comment (General, Technical or Editorial)	Comment	Proposed change
AEU /4	A1.1	Table 1	Technical	Studies submitted to SE45 demonstrated that there is no risk of harmful interference from LPI to CBTC.	Remove: “[” “] [-36 dBm/MHz]”
AEU /5	A1.1	Table 1	General	Harmonisation requires to use a single technical configuration throughout Europe. CDC is preventing harmonisation and would trigger significant loss of user benefits. National issues – especially given the very low number of countries considered – should be handled at national level, not through ECC Decisions.	Remove “Country Determination Capability” row:
AEU /6	A1.2	Table 2	General	Harmonisation requires to use a single technical configuration throughout Europe. CDC is preventing harmonisation and would trigger significant loss of user benefits. National issues – especially given the very low number of countries considered – should be handled at national level, not through ECC Decisions.	Remove: “Table 2 and” “VLP are categorised into two types, A and B, where different frequency ranges and OOBE emissions are detailed for both.” Table 2
AEU /7	A1.2	Table 3 (renumbered Table 2)	Technical	In-band e.i.r.p. density is not modifying the sharing condition with incumbent services.	Remove: “[” “] [1 dBm/MHz]”
AEU /8	A1.2	Table 3 (renumbered Table 2)	General	Harmonisation requires to use a single technical configuration throughout Europe. CDC is preventing harmonisation and would trigger significant loss of user benefits. National issues – especially given the very low number of countries considered – should be handled at national level, not through ECC Decisions.	Remove “Country Determination Capability” row: