AmCham EU
SPEAKING FOR AMERICAN BUSINESS IN EUROPE

Consultation response

AmCham EU's comments on ECC Deliverable 'Draft CEPT report 75'

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American Chamber of Commerce to the European Union
Speaking for American business in Europe

Avenue des Arts/Kunstlaan 53, 1000 Brussels, Belgium • **T** +32 2 513 68 92
info@amchameu.eu • amchameu.eu • European Transparency Register: 5265780509-97

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 overwhelming 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 CEPT report 75'

Comment number	Section number Clause	Paragraph Figure Table	Type of comment (General, Technical or Editorial)	Comment	Proposed change
AEU/1	0	2	General	The harmonised framework should a) be harmonised and b) spectrum efficient. Another mechanism should be used for national considerations.	Replace with: "In the course of the technical considerations, it was determined that WAS/RLAN transmissions will need to be constrained to above 5945 MHz to take into account some national CBTC operations below 5935 MHz."
AEU/2	0	3	General	No need for two stages. Database proposal is unnecessary and disproportionate.	Delete paragraph
AEU /3	0	5	General	No need for two stages. Database proposal is unnecessary and disproportionate.	Remove: "when established with the described two-stage implementation for LPI devices"
AEU/4	0	5, bullet 1	General	No need for two stages. Database proposal is unnecessary and disproportionate.	Remove: "Both the two-stage process and t" and replace with "T"
AEU /5	0	5, bullet 2	General	No need for two VLP categories. National legacy systems should not impact harmonised framework.	Remove: ", under two categories of VLP devices" Remove: "Both categories and t" and replace with "T"
AEU /6	0	6	General	No need for two stages. Database proposal is unnecessary and disproportionate.	Remove paragraph.

Comment number	Section number Clause	Paragraph Figure Table	Type of comment (General, Technical or Editorial)	Comment	Proposed change
AEU /7	3.1	1	General	The agreement to restrict WAS/RLAN operation above 5945 should be mentioned first.	Include:" CEPT administrations agreed that coexistence of WAS/RLAN with Urban Rail ITS would require WAS/RLAN to operate above 5945 MHz, i.e. in the band 5945-6425 MHz."
AEU /7	3.1	New paragraph 2 and 3	General	The section should start with majority view, then only explain diverging views.	Include:" There were various views expressed with regards to the technical regulatory framework applicable. Most administrations support a maximum mean e.i.r.p. density for out-of-band emissions below 5935 MHz of -15 dBm/MHz for LPI devices and -30 dBm/MHz for VLP devices, noting that Urban Rail ITS should be robust against adjacent WAS/RLAN emissions in 5945–6425 MHz (see considering z) of ECC Decision (08)01 amended by the ECC in March 2020 [8]). These technical conditions were proposed based on the limits applied to WAS/RLAN under the non-specific SRD regulation up to 25mW in 5725–5875 MHz that are in conformance with ETSI EN 300 440 [9] in 5725 5875 MHz."
AEU /8	3.1	4	General	ECC Report 302 is self explanatory, no need to replicate it here.	Remove:" For LPI use: maximum mean e.i.r.p. of 23 dBm; OoB WAS/RLAN emission limit below 5935 MHz of -29 dBm/5 MHz. For VLP use: maximum mean e.i.r.p. of 14 dBm; maximum mean in-band e.i.r.p. density of 7.5 dBm/20 MHz in the band 5945-5965 MHz; OoB WAS/RLAN emission limit below 5935 MHz of -42 dBm/5 MHz."
AEU /9	3.1	5	General	Clarify the view of administrations is about ECC Report 302.	Include: "in ECC Report 302" after "administration that"

Comment number	Section number Clause	Paragraph Figure Table	Type of comment (General, Technical or Editorial)	Comment	Proposed change
AEU /10	3.1	6	General	Clarify the recommendation for the harmonised framework	Include: "It is proposed that harmonised VLP devices may operate in the band 5945-6425 MHz."
AEU /11	3.1	7 and 8	General	CDC is contradictory to Digital Single Market objectives. Proposed Category A is not respecting the spectrum efficiency objectives of the RSPP.	Remove paragraphs.
AEU /12	3.2	New paragraph 3	General	The text should start with the majority view, not the view of 1 administration.	Include: "Most administrations consider that restriction to indoor operation and maximum e.i.r.p. of 23 dBm adequately protect FS."
AEU /13	3.2	Old paragraph 3	General	The database proposal is contradictory to Digital Single Market objectives.	Remove: "consider it is necessary" and replace with "proposed"
AEU /14	3.2	Old paragraph 4	General	The harmonised framework should reflect the view of the vast majority of administration. Deviation from the harmonised framework should be discussed by country requesting such deviation at European level. National measures should not be part of harmonised framework	Remove paragraph
AEU /15	4.1.1 and 4.1.2	all	General	The harmonised framework should be harmonised and spectrum efficient. Deviation on national basis should not be included in the harmonised framework.	Remove 4.1.1 and 4.1.2

Comment number	Section number Clause	Paragraph Figure Table	Type of comment (General, Technical or Editorial)	Comment	Proposed change
AEU /16	5	All paragrpahs	General	Section 0 “Executive Summary” and Section 5 “Conclusions” should be the same so whatever edits are done need to be reflected in the other to ensure they are same.	Section 0 and Section 5 need to be the same.
AEU /17	Annex 1	A1.2 Table 1	General	-15dBm/MHz provides protection of CBTC well in excess of protection granted by other incumbent services in adjacent bands (e.g. Road ITS)	Remove: “] [-36 dBm/MHz]”
AEU /18	A1.2	Table 1	General	CDC is contradictory to Digital Single Market objectives.	Remove CDC row
AEU /19	A1.3	1	General	CDC is contradictory to Digital Single Market objectives. Proposed Category A is not respecting the spectrum efficiency objectives of the RSPP.	Remove: “Table 2” Remove: “VLP are categorised into two types, A and B, where different frequency ranges and OoB emissions are detailed for both.”
AEU /20	A1.3	Table 2	General	Proposed Category A is not respecting the spectrum efficiency objectives of the RSPP.	Remove Table 2
AEU /21	A1.3	Table 3	Editorial	Renumbering	Renumber Table 3 as Table 2

Comment number	Section number Clause	Paragraph Figure Table	Type of comment (General, Technical or Editorial)	Comment	Proposed change
AEU /22	A1.3	New Table 2	General	Coexistence is not impacted by eirp density	Remove “] [1 dBm/MHz]”
AEU /23	A1.3	New Table 2	General	CDC is contradictory to Digital Single Market objectives.	Remove CDC row