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| Working Group FM | Doc. FM(17)067 Annex 36 |

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| To  ETSI TC ERM, Chairman Mr Holger Butscheidt  Email: [holger.butscheidt@bnetza.de](mailto:holger.butscheidt@bnetza.de) |  |
| Cc  ETSI TC RT, Chairman Mr Robert Sarfati  Email: rsarfati@systra.com  ETSI TC ITS, Chairman Mr Niels Peter Skov Andersen  Email: npa@anemonetechnology.com  Mr Jean-Baptiste Pihet, Co-Chair ETSI JTFIR  Mrs Lin Lan, Co-Chair ETSI JTFIR  Email: [Jean-Baptiste.pihet@ratp.fr](mailto:Jean-Baptiste.pihet@ratp.fr)  Email: [lan.lin@hitachi-eu.com](mailto:lan.lin@hitachi-eu.com)  Mr Dirk Schattschneider, Chairman UIC Frequency Management Group  Email: [dirk.schattschneider@deutschebahn.com](mailto:dirk.schattschneider@deutschebahn.com) | |
| Date | Enclosures |
| 7 February 2017 |  |
| Our reference | Your reference |
|  |  |
| Subject |  |

Request to further investigate common Urban Rail and ITS spectrum sharing solutions

Dear Holger,

During its 87th meeting in Luxembourg, WG FM endorsed the proposals provided by SRD/MG based on ETSI TR 103 442 v1.2.1 for Urban Rail Systems.

WG FM and ECC previously agreed the proposal from the SRD/MG to start a revision of ECC Decision (08)01. The revision of the ECC Decision takes place under two important conditions:

* the focus is on the inclusion of Urban Rail Systems in the range 5875-5925 MHz (i.e. no new requirements to be imposed on ITS applications as provided under the current regulation in 5875-5905 MHz);
* it is within the framework of the existing compatibility studies related to ITS (i.e. no additional spectrum compatibility studies needed).

The aim is to define a common framework to share the 5875-5925 MHz band between ITS and Urban Rail, with Urban Rail being under the umbrella of the ITS regulatory framework.

The technical solution for the frequency sharing of ITS / Urban Rail Systems should be described in ETSI standards but not in the ECC Decision. Fragmentation of the spectrum use in 5875-5925 MHz for ITS / Urban Rail should be avoided and no use be excluded from parts of the spectrum. The ECC Decision should be as technology-neutral as possible and should not impose the use of one technology. This does however not preclude the definitions describing the minimum requirements for common spectrum access.

WGFM notes that existing national implementations for Urban Rail systems may need to be recognised. In addition, that CBTC areas are quite limited compared to ITS. Security, safety, and radio link availability aspects should be clear for the Urban Rail application. Furthermore, a transition period could be needed before new technical solutions facilitating sharing would be available.

Background information on requirements for Urban Rail systems, sharing as well as recognition of existing implementations are intended to be covered in an ECC Report which accompanies the revision making of the ECC Decision.

Major items to be included in the ECC Report are:

* Summarise important spectrum and operational requirements for Urban Rail,

Sharing aspects ITS/Urban Rail (and towards other applications in the spectrum, e.g. Urban Rail CBTC needs to be detected by other current or potential future (e.g. RLANs) applications in the same way as ITS),

* What should be defined in standards, what needs to be included in the regulations (ECC and EC Decisions, while the EC Decision should not exclude Urban Rail Systems),
* Recognise existing implementations in the band 5915-5935 MHz,
* Outline the concept for future regulation and possible need for a transition period, if needed,
* The ECC Decision should be technology-neutral (technology-agnostic) as much as possible,
* Definitions used by the regulatory framework (ITS, Urban Rail, e.g. CBTC) have to be clear.

ETSI TR 103 442 v1.2.1 is considered as an interim report, and It is acknowledged by WG FM that complementary studies are needed to find effective technical solutions for sharing spectrum.Therefore, WG FM requests ETSI to continue the work which was developed by the ETSI JTFIR in order to:

* provide a detailed and agreed technical standard allowing practical implementation of both Urban Rail and ITS applications in the 5875-5925 MHz band;
* specify (a) technical solution(s) for the minimum requirements for common spectrum access;
* remain as far as possible technology neutral, but define a minimum set of common rules to ensure coexistence, also with respect of the safety level of the applications;
* take into account the need for CBTC which needs to be made compatible with ITS channels (10 MHz wide);
* Fragmentation of the spectrum shall be avoided (i.e. shared use to be achieved);
* be consistent for sharing the band with an extension of RLAN if necessary, both CBTC and ITS being protected.

The goal is to have a return from ETSI for comments as soon as possible and a draft ETSI standard/specification available for submission to WG FM in 2017. The revision of ECC Decision (08)01 will be conducted in parallel.

WG FM prefers that all contributions from ETSI on this matter will be provided by TC ERM to future WG FM meetings (with SRD/MG in copy).

Best regards,

Thomas Weilacher

WG FM Chairman

E-mail: [thomas.weilacher@bnetza.de](mailto:thomas.weilacher@bnetza.de)