

ESF News

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Intelligent Transport Systems (ITS)

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EU C-ITS Delegated Act — Le roi est mort, vive le roi

As expected, but nevertheless finally very unexpected, the C-ITS Delegated Act (DA) proposed by the European Commission was not approved by the European Parliament.

The political maneuvers behind this are obvious. The rejection of the DA is not because of a “poor technology” selected in the DA, and it is not to get a chance to wait for a “better technology”, and it is not at all because of “neutrality of technology”, as such neutrality never can be applied to broadcast services (broadcast transmission of e.g. CAM, DENM, SPaT, SAM, ...). It is simply about Patents and Money of some “powerful” stakeholders, and about some legal uncertainties with respect of liability applying C-ITS technologies for road-safety services.

Well, it is not up to the technical experts to go into more details of the “political battle”, but the technical experts have to explain the technical facts — which was already done in very detail, and which will continue in the future, as simply “a battle was lost, but the war is not finished”.

What is the reaction on the market? The projects continue business on the basis of the DA technology. Volkswagen produced the Golf 8 with built-in ITS station unit (ITS-SU) compliant with the DA. Even Non-European countries are eager to implement DA technologies for their traffic management services.

The Wi-Fi-based communication technology well known as “ITS-G5”, “ITS-M5”, and “US-DSRC” currently is the only validated technology for localized communications (ad-hoc communications) between a vehicle ITS-SU and its neighboring ITS-SUs.

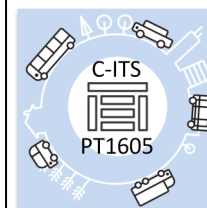
Hybrid communications is supported by the DA, as the complementing mode to localized communications, i.e. networked communications, definitively is considered and supported by standards using any kind of cellular phone technology and Internet technology. Respective use-cases were developed, starting with the CVIS project of the EC and followed e.g. by the GeoNet project. ISO 21217, already in its first edition, explicitly enabled the multiplicity of communication technologies, and the German CONVERGE project finally introduced the term “hybrid communications”.

Hybrid communications, in no way, is simultaneous usage of ITS-G5 and cellular V2X (e.g. LTE-V2X), operated in the same frequency band at 5,9 GHz.

LTE-V2X is an interesting approach to mis-use cellular network technology for “localized” communications, but several facts simply are “show-stoppers”. The available underlying 3GPP specifications are not mature enough to ensure reliable and efficient communications in an interoperable way. Tunneling of signed GeoNetworking messages over a

cellular IP-based link is just a “waste of channel capacity”. The issue of roaming is not at all solved. The free market access is jeopardized, as this cellular approach would convert C-ITS into a feature of the cellular nets, rather than using cellular nets as a communications technology for C-ITS.

None of the cellular-based technologies so far is tested and validated for C-ITS. Co-existence with the CEN DSRC road tolling facilities in the European Union (EETS) and the CEN DSRC remote interrogation of the European Digital Tachograph is very doubtful and must be proven prior to deployment of cellular technologies in the nearby frequency bands.



Standard development continues to complement the set of C-ITS technologies. ESF GmbH contributes to the Project Team PT1605

funded by the European Commission. A first newsletter of PT1605 is available. See the PT-web at <https://www.itsstandards.eu/cits/shc>

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