



*Association Européenne des Concessionnaires
d'Autoroutes et d'Ouvrages à Péage*

**ASECAP POSITION
REGARDING LTE-V2X
IN THE 5GHZ BAND**



Cooperative intelligent transport systems (C-ITS) are currently deployed by road operators, in particular under the umbrella of the C-ROADS platform, while major vehicle manufacturers announced mass deployment by 2019. C-ITS is based on vehicle-to-vehicle and vehicle-to-infrastructure communication and the only mature short range C-ITS technology is IEEE 802.11p / ITS-G5, operating in the 5.9 GHz frequency band.

Another short range technology (that the mobile cellular industry is in the process to create) is based on a standard named LTE-V (or LTE-V2X) which is part of the 5G standardization, also aiming at an operation in the ITS band at 5.9 GHz. This standard has led to two opposing positions on the technologies for ITS at 5.9GHz, one favouring the existing IEEE 802.11p / ITS-G5 technology, and the other in favour of LTE-V as part of a roadmap towards a “5G for everything”.

ASECAP is positive regarding new communication technologies to be introduced in the road sector, but it underlines:

- The creation/introduction of LTE-V should not hamper the current dynamic use of incumbent C-ITS technology IEEE 802.11p / ITS-G5 for C-ITS which has the objective to improve road safety and traffic flow; and to reduce the environmental impact of automotive traffic.
- An absolute minimum requirement is that any vehicle equipped for C-ITS, should be able to communicate with any other C-ITS equipped vehicle. Hence C-ITS interoperability should be managed and guaranteed. In principle, any new model of C-ITS equipment compliant to the standards, has to be interoperable with any other incumbent models of C-ITS standardized equipment, and the newcomer has to bear the cost for interoperability.
- It needs to be assured that LTE-V2X based C-ITS in the 5,9 GHz band, coexists interference free, in particular with ITS-G5 based C-ITS at 5.9 GHz and DSRC Electronic Toll Collection (ETC) at 5.8 GHz (as well as to Smart Tachograph and Weights & Dimensions). The implementation of EU transport policy, such as the user and polluter pays principles; enforcement of drive and rest time or weights & dimensions can only be guaranteed if these systems run interference-free.

Road safety is our priority and will only be served if the requirements above are fulfilled, in particular, vehicles have to be able to directly talk to each other. New technologies should consider the systems already deployed on our roads ('backwards interoperability'). This also relieves road operators from having to double equip roads.

ASECAP is committed to cooperation with all partners. ASECAP is supporting C-ROADS. We share the deployment principles of the Amsterdam Declaration, the 5G Action Plan and the C-ITS Strategy:

- the goals of C-ITS are: road safety, traffic efficiency and environmental performance;
- the hybrid communication approach;
- interoperability. These goals we also share with the Car2Car Communication Consortium.



We are committed to assuring the smooth implementation of EU transport policy goals, such as the user and the polluter pays principles, as well as enforcement of drive and rest time or weights and dimensions that are all under threat from radio interference and operate on the same frequency band as road charging. ASECAP supports the implementation of the existing ETSI mitigation process (TS 102.792) and urges that any C-ITS solution be tested against these standards before deployment.

We are implementing C-ITS. Road operators from 16 EU Member States already deploy C-ITS under the umbrella of C-ROADS platform.

ASECAP

ASECAP is the European Association of Operators of Toll Road Infrastructures, whose members' networks today span more than 50,266 km of motorways, bridges and tunnels across 22 countries.

ASECAP's purpose is to defend and develop the system of motorways and road infrastructures in Europe applying tolls as a means to ensure the financing of their construction, maintenance and operation.





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