



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

**ASECAP POSITION PAPER  
ON RLAN  
(RADIO LOCAL AREA NETWORKS)**

The Electronic Toll Collection (ETC) in Europe is based upon the EU Directives 2004/52/EC and 2019/520 that clearly sets the use of the 5.8 GHz DSRC (“Dedicated Short-Range Communication”) microwave technology [in the range 5795-5815 MHz] as one of the approved technological options for ETC deployments.

Currently, more than 50,000 km of high-capacity motorways in Europe are covered by DSRC for toll charging and enforcement. There are around 20.000 DSRC transceivers (Road Side Equipment) installed and more than 35 million DSRC On Board Equipment (OBE) units in use, generating more than € 30 billion of annual revenues for the motorway operators and the European Member States.

ASECAP (the European Association of Operators of Toll Road Infrastructures) is particularly concerned with the possibility of extending the RLAN frequency spectrum up to 5850 MHz and the impact such an extension may have on the ETC DSRC installations and deployments.

Studies show that RLAN devices transmitting in the DSRC frequency range, located close to road toll stations can lead to lost road toll transactions if no mitigation is used. This is the outcome of several studies including measurements performed by CEPT and ECC (see CEPT Report 57 and ECC Report 244), by ETC equipment manufacturers, road toll operators and national administrations. A single RLAN transmitter placed close to a road toll station can result in a completely blocked road toll station.

ASECAP is of the opinion that frequency sharing between RLAN and road toll equipment is possible. It should be noted that only RLAN transmitters close to a road toll station could cause interference (if no mitigation is used). For most of Europe’s land surface, RLAN causes no problem to road tolling. Also in countries with many road toll locations, only a fraction of the land area is affected (e.g. less than 1% of the land area of France or Italy).

**ASECAP is of the opinion that RLAN transmissions in the DSRC frequency range 5795 – 5815 MHz should be allowed to transmit more than 25 mW only if a mutual agreed and verified mitigation technique has been implemented and put in effect, in order to avoid interferences with the tolling equipment.**

In this context, **ASECAP invites the RLAN community to jointly develop mitigation techniques taking as a basis the already existing proposals** (ECC Report 277, ETSI TR 103 319 Technical Report). Any mitigation measure that may be applied will have to ensure an appropriate level of protection to the incumbent road tolling systems.

In the course of realizing such mitigation techniques **ASECAP has set up and maintains a geolocation Protected Zone Database (PZDB) which is available and can be used by the RLAN community.**

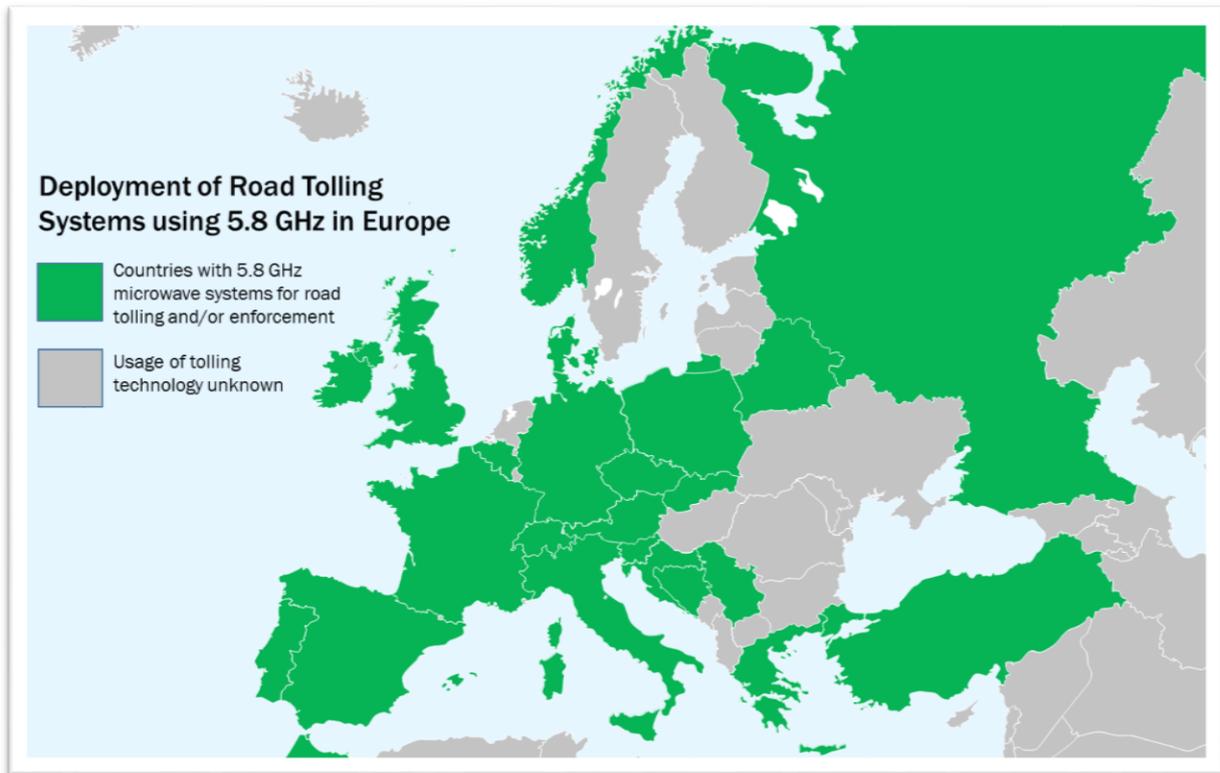


Figure 1. A map of Europe showing which countries use 5,8 GHz systems for road tolling and enforcement

**About ASECAP:**

*ASECAP is the European Association of Operators of Toll Road Infrastructures, whose members' networks today span more than 50,000 km of motorways, bridges and tunnels across 21 member 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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