

Harmonisation of the 5.9 GHz spectrum band for real-time information exchange will improve road and urban rail transport safety

The Commission has adopted the Implementing Decision to improve safety of road and urban rail transport. The Decision harmonises across Member States the use of the 5.9 GHz band for real-time information exchange on safety conditions in connected transport.



The Implementing Decision will contribute to enabling real-time information exchange about safety conditions in intelligent road and urban rail systems, such as tramways, metros and suburban lines, that are enabled by new technologies, including 5G. The new Decision will double the available spectrum for these transport systems and will increase spectrum efficiency, leading to safer road and urban rail transport for everybody, crew and passengers, on board.

Intelligent transport systems (ITS), enabled by new technologies, such as 5G, encompass road and urban rail systems (including tramways, metros and suburban lines) which can exchange information with other vehicles and their surroundings. The driver, or in the near future an automated system, can exchange information on incidents that may put at risk the vehicle and its passengers, such as another vehicle on the path, slippery roads, road works, etc.

The continuous evolution of transport systems and the increasing number of safety services that they are providing require additional spectrum resources. ITS needs appropriate spectrum to enable real-time information exchange between vehicles, road-infrastructure, base-stations, etc. Allocating more radio spectrum for transport will support the full-scale of connected and automated mobility.

The new implementing decision, which repeals the Implementing Decision from 2008, doubles the

available spectrum for safety-related ITS. Moreover, the road-ITS and urban-rail-ITS are merged in one harmonised band thus significantly increasing spectrum efficiency.

Next steps

Member States should assign the 5.9 GHz band for intelligent transport systems by 30 June 2021 and they should report to the Commission on the implementation of the Decision by 30 September 2022. The Implementing Decision will be reviewed when market developments call for an update or at the latest by 30 September 2023.

Ongoing standardisation efforts at the European Telecommunications Standardisation Institute (ETSI) aim at better co-location and integration of different ITS technologies, which could lead to more efficient use of the above ITS-safety band.

Background

The new Implementing Decision on the 5.9 GHz band for Intelligent Transport Systems is a key step in reinforcing road and urban-rail safety in Europe. It will play a crucial role in meeting the EU goals set in the EU road safety policy framework 2021-2030 including a 50% reduction target for casualties and, for the first time, for serious injuries.

Connected and automated transport is among the new, revolutionary services that 5G connectivity will fully enable. The Commission recently published a Connectivity Recommendation to encourage and guide Member States in pursuing best practices for a faster rollout of 5G.

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