



CMC Newsletter Issue 15 / December 2020

Connected vehicles to enhance motorcycle safety

Connected Motorcycle Consortium launches Basic Specification

Founded in 2016, CMC aims at joining forces between motorcycle manufacturers, suppliers, research institutes and associations, to make motorcycles part of the future connected mobility.

Until then, C-ITS (Cooperative Intelligent Transport System) specifications for passenger cars have not sufficiently taken motorcycle specific safety factors and challenges into consideration.

An important goal therefore set out by CMC was to define a **first Basic Specification** for motorcycles to connect and 'talk the same language' to other vehicles or infrastructure by means of wireless communication.

This is being achieved with the official publication of a set of documents to address various topics related to the introduction of C-ITS for motorcycles.

These documents are now available for download on the CMC website:

<https://www.cmc-info.net>

Executive Summary



Accidentology



Applications



System Specification



Evaluation Report



Other standards



HMI Guideline



Application Roadmap



The website shows the chapters that compose the CMC Basic Specification

Importance of connectivity for motorcycle safety

C-ITS allows road vehicles to communicate with each other, with roadside infrastructure and with other road users. C-ITS has a high potential, especially for motorcycles, to prevent accidents before they occur.

Accident analysis shows that more than half of collisions with motorcycles are caused by the other vehicle driver. Not seeing the motorcycle coming, or misjudging distance and speed, are primary accident causes. A closer look at accidents with motorcycles reveal that 72% of the drivers' failures are because the vehicle driver did not see the motorcycle. This perception failure may be summarized in the statement often heard after such crashes: 'Sorry, but I didn't see the motorcycle at all'.

CMC believes that such accidents could be mitigated by future technologies, which will enable motorcycles to 'talk' to cars and other vehicles. Drivers may be alerted in case critical situations in traffic are foreseen by vehicle connectivity systems. The integration of motorcycles in the C-ITS ecosystem will bring significant safety benefits. CMC has been working on applications in which connectivity would allow to warn drivers and riders of potentially dangerous situations.



Example: Left Turn Assist could warn about approaching motorcycle

Towards the future: CMC 'NEXT'

Following a Memorandum of Understanding signed in April, BMW Motorrad, Honda Motor Co. Ltd., KTM AG, Yamaha Motor Co. Ltd, have signed an agreement beginning of December to continue their efforts on motorcycle safety and connectivity in a next step named CMC 'NEXT'. The scope is wider and the motorcycle experts will be looking at further improvements of the specification while at the same time taking account of new functions supported by on-board sensors both in cars and in motorcycles.

**the term 'motorcycle' in this text covers all types of Powered Two Wheelers (PTW).*

Together for Rider Safety