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Motorcycle Safety: Connectivity and ADAS are promising technologies

Demo event shows the cooperation between motorcycle and car makers

‘For the first time in the history of the motorcycle industry, so many organizations came together to pursue one common goal – “Together for rider Safety”!’, Mr. Christof Lischka, current CMC President and Head of Development at BMW Motorrad, stressed the fact, that the motorcycle industry works actively together with car makers to improve safety of motorcycle riders.
Connectivity Systems (V2X) between motorcycles and other vehicles, most likely cars, as well as Advanced Driver Assistance Systems (ADAS), are key technologies which will increase rider safety significantly in the coming decade.
Hennes Fischer, spokesperson of CMC and Senior Adviser at Yamaha Motor Europe, explains: ‘We see V2X connectivity as an additional sensor for ADAS systems. The combination of both technologies is promising and we expect contribution of these technologies to make riding safer.’

Warning displayed in Left Turn scenario

Connected Motorcycle Consortium GbR www.cmc-info.net info@cmc-info.net

CMC demo event to showcase it all

CMC was initiated in 2015 and was proud to show the results of its years-long research culminating in a Demo event at the modern facilities of the Dekra Technology Center, at the Lausitzring near Dresden, Germany in September 2023.
Visitors were updated about how frequent accident scenarios between cars and motorcycles could be avoided by means of Connectivity Systems and ADAS.

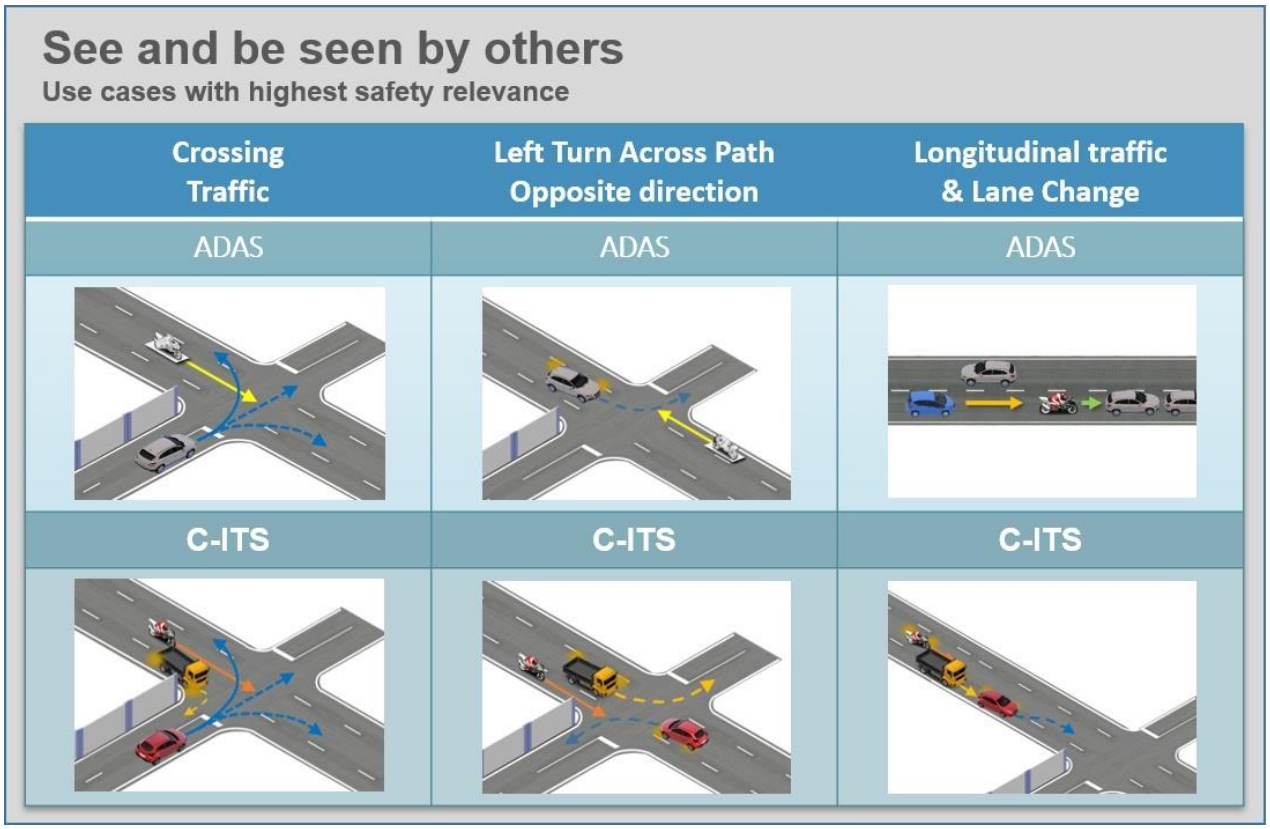
Systems of multiple OEMs working together

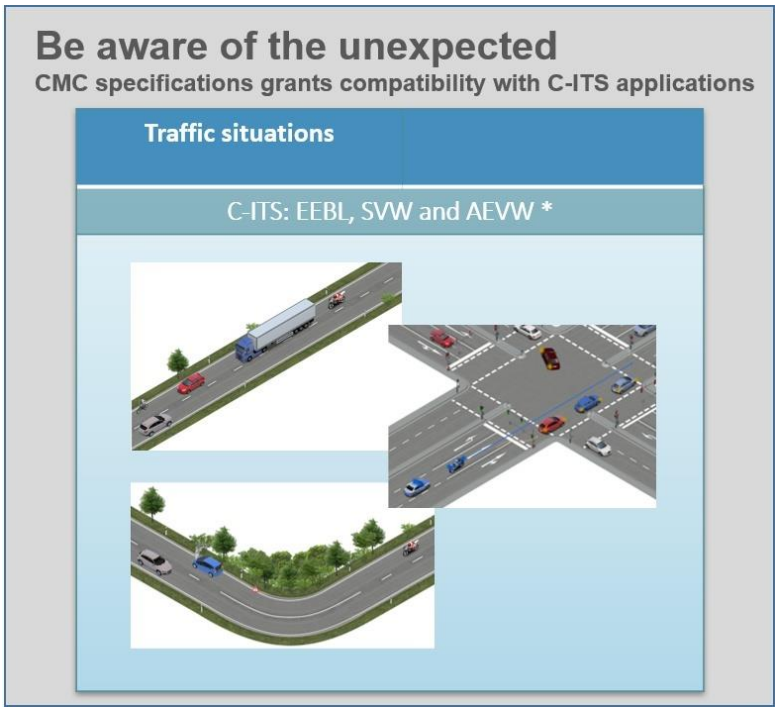
Next to the world leading motorcycle makers BMW, Honda, Ducati, KTM, Suzuki and Yamaha, also prominent carmakers, such as BMW, Honda, Lamborghini and Volkswagen participated in the event. Close to 80 guests had a chance to experience the systems live in one of the cars. In general, they were impressed to see the actual workings of these systems, and also by the fact that systems of such a diverse mix of brands, could work flawlessly together.

Do Not Pass Warning on motorcycle

Connectivity and ADAS use cases shown

The images below indicate which use cases were demonstrated at the event.





Research studies presented

The following 4 topics were addressed in special presentations:

Accident research

CMC engages accident research in order to prioritize the most impactful use cases and applications.

Earlier accident studies from Germany were now complemented with those for the whole of Europe and led to a fine-tuning of priorities. Studies will be continued with U.S. and Japan in the future.

Rider Reaction Time

This topic is very important to understand: how much time is there before a situation becomes critical or not? How should a rider be warned, and what influences that such warning is actually observed and responded to?

CMC initiated the first studies specifically dedicated to motorcycle riders and the results showed remarkable differences between warning types.

Application Simulation

Scientific simulation programs can simulate use cases; by creating variations in values, hundreds of different simulations can be created for a single use case and add a deeper understanding for the flexibility of the situation.

Motorcycle rider protection through ADAS

BMW presented the ADAS system that is already being equipped in cars and how effective it can be regarding collision avoidance. The importance of Automated Emergency Braking was highlighted.

Systems working together to support automated emergency braking:
A forced braking by ADAS avoids a collision with an oncoming motorcycle

Step by step towards solutions

All in all, CMC demonstrated how both Connectivity systems and ADAS play an important role in enhancing motorcycle safety; on the one hand, by providing warnings in time to react; on the other hand, by automated collision avoidance on the very last moment.The Demo Event proved highly productive and successful, significantly advancing the knowledge base and internal collaboration within the C-ITS community.

Links to media material

Video and press kit materials can be found on CMC's website or be downloaded via the following direct links; Please note that video file downloads may be over 200 Mb each.

- To download the pre-event press release text, click here.
- To download the demo event images, click here.
- To download the demo event video recap, click here.
- To download the CMC introduction video, about making powered two wheelers part of the future connected mobility, click here.
- To download two more videos, showing the C-ITS and ADAS use cases that were focused on during the event, click here.

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Together for Rider Safety