

Questions and Answers

Name / Medium:	Q&A:
Andre Lang (ifz) / Martin Winkelbauer	Dear Martin, could you please let us know if the presentation slides and materials from today will be made available to participants after the webinar? Thank you again for hosting such a great and important session. Kind regards, André Martin: <i>Once you read this, you have already seen the download site.</i>
Hugues FELIX / Paul Mangen	Dear Paul, I have a YouTube channel "MyMotorcycleTours" and amongst my video there are thematic videos. One was about the rules for motorcyclists in several European countries. Well appreciated video with 24.000 views in 4 weeks. I intend to make a thematic video on the road markings and being from Brussels, Luxembourg is close by for me to take some rushes with my cameras and my motorbike. The narrative of my videos is in french but with subtitles in 4-5 languages. I would like to use your feedback for this video Paul: <i>Dear Felix, no problem for that. Contact me and we'll sort out, what I can do for you.</i>
Mark Collins / Martin Winkelbauer	Hi Martin Can the presenters discuss which types of crashes have been reduced the most? Head on, run off outside of corner etc Martin: <i>We selected curves based on run-off-the-road in or shortly behind the curve (left hand), and run-off and collisions with oncoming vehicles in right hand curves. Hence, it was these we have avoided.</i>
Paulo Ferreira / General Question	How is it measured about No motorcyclists in winter? I live in Portugal, and I'm a motorcyclist for 37 years, and I've been driving all year. Friction is a real problem that cannot be ignored, because it is only felt when driving in winter. In my opinion this is a very serious statement. In Portugal, the number of motorcyclists from all over Europe is immense, even in winter. Martin: <i>All methods to measure friction are standardised, I don't know a single one which includes dry surfaces. They all require a wet surface. Hence, they are irrelevant for 90% for the days and something like probably 99,9% of the motorcyclists running over. I widely quit riding in winter, but when I did, I used Heidenau K73 M&S Silica, I recommend giving it a try. As you know, we trust in 3M Stamark 380, extremely high friction for a log time.</i>

Maria Nordqvist / Martin Winkelbauer	What is the cost of the measure in the different countries and is it cost efficient when you look at the results (saving lives, less injuries, lower speed etc)? Martin: <i>In Austria, for the macroeconomic loss of a single slight injury, you can paint one curve for 100 years at least. For sure, it depends on the “size” of a curve and the material you need. But on average, in our case, one curve is about 1000 Euros including work and material.</i>
Odd Anders Magnussen / Paul Mangen	Have you made a formula or method for applying the markings in a curve? If possible the use of engineering programmes for setting the line seems like a more efficient method than "trying and failing" based on driving there with a MC if we are to use this method on our dangerous curves. Paul: <i>No, there was no formula or an engineering program used. But the method we applied, from the engineer’s point of view, was that an engineering consultant and the administration independently analysed the road section on a map/plan and determined/selected each on it’s own for which curves the marking should be applied. Then we’ve crossed the results and took the final decision together. On site, the marking was then applied to 95% of the preselected curves. Please keep in mind that on the selected Luxemburgish roads (mainly in valleys) the curves are consecutive (f.e. only a few 180°). Therefore, it’s on site where you have to determine if all the parameters (in particular the (non-)visibility of the end of the curve) are given to apply the marking.</i>
Juan Carlos Martins / Jan Petter Wigum	Very interesting and useful. I haven't come across them on my routes yet, and so far, I wouldn't know how to interpret these new markings. Hopefully, they will soon be rolled out across Europe with standardized symbols. Congratulations to KfV on the initiative! I look forward to the links to the PowerPoint presentations so I can study them in detail. Many thanks to everyone. Best regards from Valencia, Spain. Martin: <i>Juan, have an eye on our google earth site and plan your trips accordingly, I promise, you’ll get some of Europe’s finest roads. Once you are in Norway, don’t leave out the road to Lisebjerg!</i>

Fritz Wiesinger / Martin Winkelbauer	Did you try out cold plastic products instead of expensive tapes? Martin: <i>No, we did not. But others did:</i> Paul: <i>We only used cold plastic products on our sections, as we can apply these with our own teams and do not have to acquire tapes. It gives us the possibility to exactly adjust the length of the stripes. And our experience with cold plastic products is very good.</i> Jesper: <i>The FIM has a homologation program for track-paint which may be interesting as alternative</i> https://www.frhp.org/p/public/Public_Circuit_Painting_Technical_Requirements
Angel Rodrigo Naharro / General Question	A key study missing from this overview is MOISEBIM, developed in Spain and promoted by the Diputación Foral de Bizkaia. The project applies advanced digital twin technologies to evaluate different patterns of counter-perceptual road markings and other safety measures aimed at improving motorcyclist behaviour on high-risk road sections. Using highly realistic virtual replicas of the road and immersive motorcycle simulation, different solutions can be tested and compared before being implemented in the real world. Their effectiveness is assessed through objective performance indicators such as rider trajectory, lane positioning, speed, steering response and riding stability. This approach makes MOISEBIM a data-driven virtual laboratory for optimising road-safety measures and generating scientific evidence to support future design criteria and safer infrastructure for motorcyclists. The proposed methodology integrates SCAN2BIM-based digital reconstruction, immersive simulation, artificial intelligence and physics-based vehicle dynamics within a controlled experimental framework, enabling the reproducible and quantitative assessment of counter-perceptual treatments across different road geometries, operating conditions and rider profiles. For further information, please do not hesitate to contact angel.rodrido@mobility.sener

Henriette Wallén Warner / General Question	To go from a pilot to a more general use the markings need to be easily deployed - without test drivers, experienced motorbikers etc. Is that even possible? Martin: <i>I actually tried to give you the most important rules and full experience. It is an advantage being an experience rider with some theoretical background in vehicle dynamics. Last summer, we have trained all road maintenance departments in Tirol (both the workers and the bosses) to enable them to do that themselves. My answer, hence: Yes, is possible! You can train your “natural intelligence” using the curves you find on our google platform worldwide.</i> Paul: <i>It also depends on your marking team, whom after several curves acquire a good experience, but the first one’s should be done with an experienced motorcyclists (police or instructors)</i> Jesper: <i>Your national motorcyclist association will most likely be able help you with volunteerly specialist in “curve technique”</i>
Jorge Rubino / Martin Winkelbauer	This isn't a question: I’m writing from Argentina to congratulate you on the webinar and thank you for what I’ve learned. All of us: <i>Thanks, it was a pleasure</i>
Mahdi Sadeqi / General Question	FYI: We have tested the Austrian road markings and Scottish PRIME markings in driving simulators, and we observed a more favorable lateral position of the drivers (statistically significant), but no significant difference was observed in speed or acceleration. This was done as part of a broader project involving Belgian drivers and in the context of the Belgian road environment. Mario: <i>Hi Mahdi. Your results using a simulator appear to be consistent with what we noticed in our pilot experimental trial in Australia, with marginal before-after speed changes and a considerable shift of motorcyclists’ lane position away from the centreline zone.</i> Paul: <i>I suppose this has also to do with the profile of the section itself. If you have a series of curves (unevenly distributed) and following shortly one after the other, this will have an impact on speed with or without marking. On the other hand, if there are like 180° curves with long distances in between, this will have less impact on speed behavior.</i>