

Safety Progress for Powered Two Wheelers

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Road safety is a major concern for Powered Two Wheelers. With regard to the Road Safety Charter, the motorcycle industry in Europe has committed to progressively supply more powered two wheelers equipped with advanced braking systems to the market: the majority of street models available in 2010 will be equipped with an advanced braking system. ACEM member Honda went further by bringing the date forward to 2007. Advanced Braking Systems are brake support systems which take the vehicle's distinctive characteristics, e.g. balance, weight, dynamics, and general capacities, into account. Examples of such systems include the ABS and Combined Braking Systems.

The Plan for Action, following the results from the MAIDS project, describes an integrated approach, with an overview of actions taking into account Human factors (riders and other vehicle drivers), Vehicle factors, and Environmental factors. The Safety Structure is installed to support the implementation of the Plan for Action. It consists of 8 task groups in which particular objectives and projects have been defined and are being carried out.

Today, there are great variations regarding quality and content of initial rider training schemes in Europe. ACEM supports the Initial Rider Training Project, sponsored by the European Commission and the Swedish road traffic authority, FIM, and FEMA. The main objective of the project is to ensure harmonised minimum quality and content for initial rider trainings, which are easy to teach and to check. Honda has recently committed to the road safety charter to make at least 1000 packages available of the riding trainer software to the European market by 2007, to be deployed in riding schools, etc.. The trainer is a motorcycle simulator in an affordable package, aimed at basic vehicle control skills and traffic hazard perception.

Road designers and traffic engineers need to take into consideration the specific needs of motorcyclists as PTW have distinctive characteristics which make some features of the road to a hazard. ACEM will provide this information as a contribution to the guidelines of the new Infrastructure Audit Directive from the European Commission, to be expected in 2006. The report outlining the guidelines will be published and made available in the coming months.

Since a few years, the industry, together with its international partners has been developing a methodology for evaluation of Motorcycle Conspicuity.

With regard to passive and protective safety, it is clear that advancement in this field is extremely difficult for motorcycles. Industry's efforts have been continuing on the improvement of the standard for evaluation of vehicle passive safety devices including the design and specification of special motorcyclist crash dummies. Honda has announced the world's first Motorcycle Airbag System to be introduced in 2006 in the United States. The integration of an airbag on a motorcycle is extremely difficult as there are many crash scenarios to take into account. KTM and BMW are developing a cervical spine protection system specialised for competition purposes. The objective is to reduce the risk of injury to the neck, the cervical spine, the spinal cord and the collar bone in the event of a serious fall. Cooperative Rider Assistance Systems will inform the surrounding traffic with the presence of a PTW and will warn the rider and other vehicle drivers for dangerous situations. The main objective of ACEM in this domain is to elaborate the specific PTW requirements for such systems, so that these will be taken into account in the various standardisation efforts.

