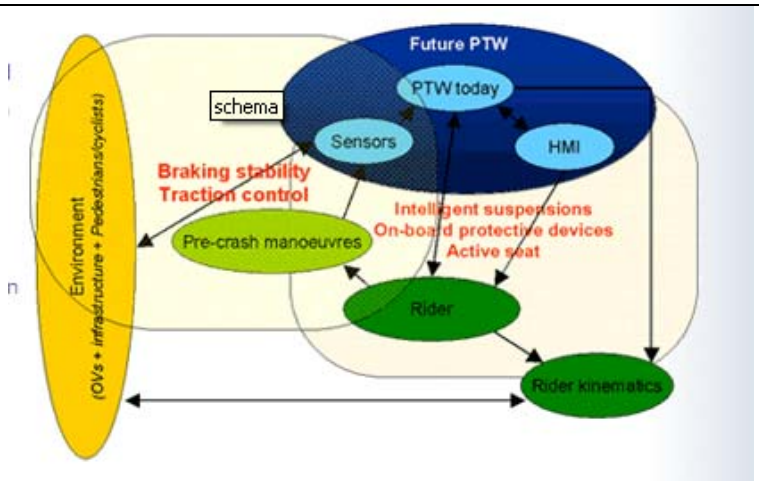
BP5: PTW Design and Protective Equipment

Reference: BP5 020	Title of Project:	**PISa PTW Integrated Safety Project**
Version: 1	**Website:**	http://www.pisa-project.eu/
Brief Description of Project:	PISa is closely linked to the SIM project. The aim of the PISa project is to develop and implement "reliable and fail-safe" integrated safety systems for a range of Powered Two Wheelers (PTWs), which will greatly improve the performance and primary safety (handling and stability) and can link to secondary safety devices.  The project uses a Malaguti Spidermax as a test vehicle. Within the project PTWs will be fitted with integrated safety systems to demonstrate the potential of such systems to reduce the incidence and severity of up to 50%of PTW accidents. The specification of components of such safety systems will be defined from relevant accident mechanisms and rider assistance functions identified and from identification of existing technologies and safety systems in cars. The systems will take human reaction to information, warning and support systems in to account. Specific sensors and actuators will be developed and integrated into an operational safety system for PTW 's to allow for driver warning and assistance and to improve handling and stability, to be innovative and beyond current state-of-the-art.	

	 The developed systems will be implemented in PTWs and evaluated by executing road and track tests and performing simulations. The cost savings in terms of reduction in accidents and injuries will be related to the costs of fitting the integrated safety systems to PTWs.
Monitoring Data:	The project is focused on developing solutions to common PTW collision types. New systems will be modelled and then subjected to performance testing.
Results:	PISa continues until early 2010. A web-site is operational and testing of systems has begun.
Key Effective Conclusions:	PISa appears to offer potential for the development of advanced safety systems to improve braking and stability.
Projects for Comparison:	Saferider (BP5 016). SIM (BP5 019). APROSYS (BP5 018).
Justification:	The project is ongoing and focuses on emerging technologies. There does appear to be potential, in the medium term, to contribute to eSUM WP3 objectives.