



BP5: PTW Design and Protective Equipment

Reference: BP5 019	Title of Project:	SIM, Safety in Motion
Version: 1	Website:	http://www.sim-eu.org/mos.html

Brief Description of Project:



The objectives of SIM are:

- to identify a suitable safety strategy for PTWs
- to enhance preventive and active safety acting on electronic vehicle management and improving Human-Machine-Interaction (HMI)
- to focus on integral passive safety devices
- to integrate all aspects in a prototype (prototypes of devices fitted on concept vehicle)

“The main objective of the **SAFETY IN MOTION (SIM)** project is to develop an innovative vehicle with new active, preventive and passive safety devices that will result in the decreasing of the number of powered two-wheelers (PTWs) accidents and related consequences for PTW riders (injuries and deaths).”

SIM Work Package structure



The three main factors or pillars for PTW safety are motorbike, motorcyclist and infrastructure. SIM focuses on the vehicle safety aspects, including the human-machine-interaction covering preventive, active and passive elements.

SIM	ACTIVE	PREVENT.	PASSIVE	POST-CRASH
MOTORBIKE	Suspensions, Brakes, ABS, ESP...	HMI, conspicuity, ...	Limbs protection, kinematics, algorithm, ...	e-Call
MOTORCYCLIST HELMETS/ CLOTHING	Training and Education	HMI, comfort, strap fasten, info exchange, conspicuity ...	Helmets & Clothing performance ...	
INFRASTRUCTURE	Maintenance, audits, ...	e-Safety	Performance when a motorcyclist impacts	Maintenance, reparation, ...

To help identify key casualty causation issues, analysis of a number of National statistic databases on motorcycle accidents was undertaken and integrated with the analyses performed on three in-depth motorcycle accident databases available to the consortium: DEKRA, GIDAS 2002-2003 and MAIDS.

Monitoring Data:	The project has used data from a number of in-depth PTW casualty studies to target research.
Results:	The SIM web-site is active and provides information on the project. The reports published to date indicate progress.
Key Effective Conclusions:	SIM appears to making progress towards the development and performance testing of advanced safety systems for PTWs. There is much in common with APPROSYS, PISa and SAFERIDER projects.
Projects for Comparison:	Saferider (BP5 016). PISa (BP5 020). APROSYS (BP5 018).
Justification:	The SIM project is ongoing and addresses emerging technologies. There appears to be potential to contribute to eSUM objectives in the medium term.