

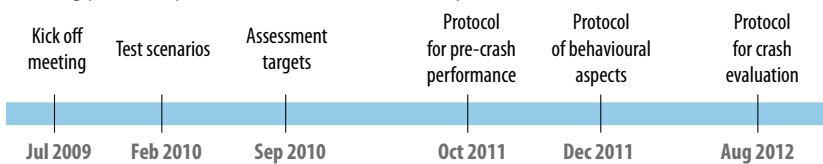
■ Motivation and Objectives

Pre-crash sensing systems that use environment sensors to detect dangerous traffic situations have a high potential to improve vehicle safety due to their ability to influence crash conditions and/or adapt to these crash conditions. In order to enable wide spread introduction a project dedicated to the development of assessment procedures has been initiated involving members of EUCAR, CLEPA and EARPA.

The main objective of the study is to develop harmonised and standardised assessment procedures and related tools for frontal pre-crash sensing systems. Procedures will be developed for driver behaviour evaluation, pre-crash system performance evaluation, crash performance evaluation and socio-economic assessment.

■ Project Plan, Milestones and Deliverables

The figure summarises the result timeline for the development of a protocol for crash evaluation involving pre-crash performance and behavioural aspects.

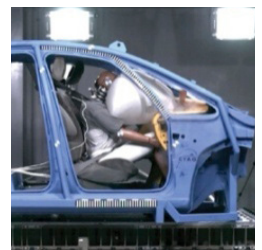
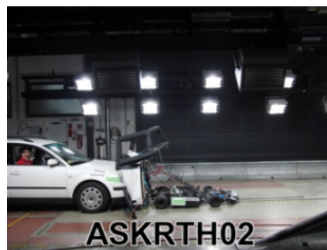
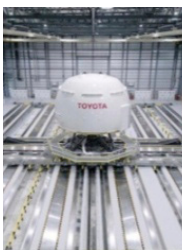


■ Technical Approach

- Define test scenarios and evaluation criteria based on field data and information from FOTs.
- Investigate the driver behaviour in relation and interaction to a pre-crash sensing system by means of driving simulator test and track tests with volunteers.
- Develop test and assessment methods for the remote sensing systems and pre-crash actions suitable for regulatory testing and consumer assessment.
- Develop methods to evaluate the benefits of pre-crash systems during the crash phase of an accident, based on experience in the passive safety field.
- Validation of repeatability and reproducibility of the developed assessment methods.
- Develop methods for the socio-economic impact assessment based on results from previous
- EU Research Framework projects like eIMPACT.

■ Achievements

- Test scenarios derived from real world accident data.
- Methodology to estimate safety benefits by use of test-results developed.
- Driver behaviour model in terms of reaction timings to warning established.
- Pre-crash test methods and related tools, including approaches for driver reactions, developed and testing ongoing.
- Methodology to evaluate crash performance at minimum costs developed and being applied.



Budget	5.4 M€	Funding	3.6 M€
Duration	42 months	Start	July 2009
DG	Research / SST	Contract n°	233942
Coordinator	Paul Lemmen, FTSS Europe B.V.	Contact	plemmen@humanetics.eu
Partners	15 partners: FTSS, Daimler, PSA, BAST, Bosch, Chalmers, IDIADA, TNO, Toyota, TRL, TRW, Uniresearch, TUG, CEESAR, UoC		
Website	www.assess-project.eu		