

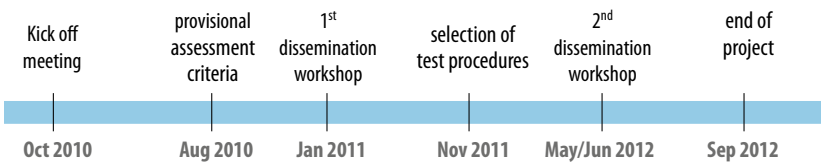
■ Motivation and Objectives

For the real life assessment of vehicle safety in frontal collisions the compatibility between the opponents is crucial. Although compatibility has been analysed worldwide for years, no final assessment approach was defined. EEVC WG15 and the FP5 VC-COMPAT project activities developed two test approaches which are important candidates for the assessment of compatibility. Both are composed of an off-set and a full overlap test procedure. However, no final decision was taken. In addition another approach (tests with a moving deformable barrier) is more and more in focus of today's research programmes.

FIMCAR assesses different off-set, full overlap and MDB test procedures for their suitability in a compatibility assessment approach. The objective of FIMCAR is to deliver the missing research results needed to fully develop a commonly accepted approach for crash compatibility assessment. The FIMCAR consortium consists from major car manufacturers and research organisations. In addition cooperation with external parties such as Euro NCAP, GRSP IG FI, NHTSA, JMLT, JARI, Kia/Hyundai facilitates worldwide discussions and FIMCAR harmonisation activities.

■ Project Plan, Milestones and Deliverables

The figure summarizes the most important milestones and deliverables within the course of the project. In total 23 Milestones and 30 deliverables are planned.



■ Technical Approach

- Analysis of accident data as input data for further research and especially for cost benefit analysis.
- Definition of evaluation criteria for the assessment of different compatibility assessment procedures.
- Analysis of different candidate test procedures according to the evaluation criteria developed before.
- Fleet modelling with different approaches to support the investigation of different test procedures and to analyse the possibilities of numerical compatibility assessment (MBS, parametric FE models and generic full detail models).
- Evaluation and comparison of test procedures.
- Definition of the final test approach.

■ Achievements

WP1: accident analysis showing compatibility issues with current fleet data.

WP2: analysis of different assessment criteria for off-set test procedure and assessment of different off-set test procedures, analysis of existing test results.

WP3: analysis of different assessment criteria for full overlap test procedure and comparison of rigid and deformable barrier tests, analysis of existing test results.

WP4: definition of FIMCAR MDB test procedure, analysis of existing test results and start of MDB test programme.

WP5: generic and parametric car model fleet completed.

WP6: definition of FIMCAR compatibility characteristics and evaluation method for the assessment of the different test procedures.

Budget	6 M€	Funding	3.8 M€
Duration	36 months	Start	October 2009
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