

PROJECT

OSCCAR

Future Occupant Safety for Crashes in Cars

Funding: European (Horizon 2020)

Duration: Jun 2018 - May 2021

Status: Ongoing

Total project cost: €7,688,335

EU contribution: €6,989,395



[CORDIS RCN : 215993](#)

Background & policy context:

OOSCCAR uses a comprehensive integrated approach for the development of future advanced occupant protection systems. It will provide a unique human body model (HBM)-based development and assessment framework, covering main challenges of future road safety due to the introduction of highly automated vehicles as well as changes in demographics: relevant accident scenarios (mixed traffic), future vehicle interior designs, new occupant sitting positions, ageing population etc. This demands for targeted changes and adaptations of scenarios, procedures and tools for occupant safety development, assessment and homologation, not addressed by e.g. regulations or consumer crash tests today. The resulting complexity requires an emphasis on virtual methods.

Objectives:

Based on the analysis of future relevant accident scenarios and considering new, highly automated vehicles (HAVs) enabled sitting positions, OSCCAR will develop and demonstrate advanced occupant protection principles. These require assessment with improved HBMs (omni-directionally biofidelic, active and robust), considering gender and demographic factors as well as improved soft tissues material properties. Furthermore, OSCCAR will develop fully integrated assessment methods for complex test scenarios of the complete crash phase providing the required level of confidence as current physical test procedures do. OSCCAR will also contribute to the harmonization of HBMs, a harmonized validation of injury criteria as well as the improvement of virtual testing standards.

Methodology:

Eventually OSCCAR will develop a clear roadmap towards large scale implementation of virtual testing methods for advanced safety solutions, not only relevant in the automotive domain but also for two-wheelers, VRUs, or in sports. Due to its excellent partner consortium with key players from industry and research from Europe, North America and Asia, OSCCAR is in the position to ensure global future deployment and application of its results and achievements.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Other programmes: MG-3.2-2017 Protection of all road users in crashes

Lead Organisation:

Kompetenzzentrum - Das Virtuelle Fahrzeug Forschungsgesellschaft M.b.h.

Address:

Inffeldgasse 21a / 1. Stock
8010 GRAZ

Austria

Organisation Website:

<http://www.v2c2.at>

EU Contribution: €921,125

Partner Organisations:

Autoliv Development Ab

Address:

Wallentinsvagen 22
447 83 Vargarda
Sweden

EU Contribution: €382,841

Trumpf Laser Gmbh

Address:

Aichalder Strasse 39
78713 Schramberg
Germany

Organisation Website:

<http://www.trumpf-laser.com>

EU Contribution: €201,813

Ludwig-Maximilians University Of Munich

Address:

Geschwister-Scholl-Platz 1
80539 MUENCHEN
Germany

Organisation Website:

<http://www.uni-muenchen.de>

EU Contribution: €379,690

Technische Universitaet Graz

Address:

Rechbauerstrasse
8010 Graz
Austria

Organisation Website:

<http://www.tugraz.at>

EU Contribution: €321,000

Robert Bosch Gmbh

Address:

Robert-Bosch Platz
70839 Gerlingen-Schillerhoehe
Germany

Organisation Website:

<http://www.bosch.com>

EU Contribution: €444,491

Volvo Personvagnar Ab**Address:**

Avd 50090 Hb3S
405 31 Goteborg
Sweden

EU Contribution: €476,145

Toyota Motor Engineering & Manufacturing Europe**Address:**

Bourgetlaan 60
1140 EVERE (BRUXELLES)
Belgium

Organisation Website:

<http://www.toyota.eu>

EU Contribution: €222,734

Rheinisch-Westfaelische Technische Hochschule Aachen**Address:**

Templergraben
52062 Aachen
Germany

Organisation Website:

<http://www.rwth-aachen.de>

EU Contribution: €559,688

China Automotive Technology And Research Center**Address:**

68, EAST XIANFENG ROAD, DONGLI DISTRICT
TIANJIN
300300
China

EU Contribution: €0

Esi Group**Address:**

Avenue De Suffren 100-102
75008 Paris
France

Organisation Website:

<http://www.esi-group.com>

EU Contribution: €246,595

Tsinghua University**Address:**

Qing Hua Yuan
Beijing
100084
China

EU Contribution: €0

Universite De Strasbourg

Address:

Rue Blaise Pascal 4
67070 Strasbourg
France

Organisation Website:

<http://www.unistra.fr/>

EU Contribution: €341,250

Siemens Industry Software And Services Bv

Address:

EINSTEINLAAN 6
2289 CC RIJSWIJK
Netherlands

EU Contribution: €399,375

Daimler Ag

Address:

Mercedesstrasse
70327 Stuttgart
Germany

Organisation Website:

<http://www.daimler.com>

EU Contribution: €233,625

Idiada Automotive Technology Sa

Address:

L Albornar
43710 Santa Oliva
Spain

EU Contribution: €130,063

Siemens Industry Software Nv

Address:

INTERLEUVENLAAN 68
3001 LEUVEN
Belgium

Organisation Website:

<http://www.plm.automation.siemens.com>

EU Contribution: €105,031

Universitaet Paderborn

Address:

Warburger Strasse 100
33098 Paderborn
Germany

Organisation Website:
<http://www.uni-paderborn.de>
EU Contribution: €397,241

Volkswagen

Address:
Berliner Ring 2
1894 WOLFSBURG
Germany

Organisation Website:
<http://www.volkswagen.de>
EU Contribution: €322,371

Bundesanstalt Für Strassenwesen (Federal Highway Research Institute)

Address:
Brüdenstrasse 53
51427 BERGISCH GLADBACH
Germany

Organisation Website:
<http://www.bast.de>
EU Contribution: €209,088

Chalmers Tekniska Hoegskola Ab

Address:
-
41296 GOTHENBURG
Sweden

Organisation Website:
<http://www.chalmers.se>
EU Contribution: €695,230

Technologies:

Safety systems
Evidence-based research for road safety
Development phase: Implementation

STRIA Roadmaps: Cooperative, connected and automated transport

Transport mode: Road transport

Transport sectors: Passenger transport

Transport policies: Safety/Security

Geo-spatial type: Other