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THORAX

Thoracic injury assessment for improved vehicle safety

Project details	
Domain	Vehicle Technology: Passive Safety
Duration	from 01/02/2009 until 31/07/2012
Website	http://www.thorax-project.eu/
Other sources	Project details

About 41,600 people were killed and more than 1.7 million injured in European road accidents in 2005. Although the number of road fatalities has declined by more than 17% since 2001, more efforts will have to be made if the EC's targets on reduction of road fatalities and injuries are to be met. The THORAX Project will focus on reduction and prevention of thoracic injuries, one of the dominant causes for fatalities and injuries in car crashes.

The objective of THORAX is to develop the required understanding in thoracic injury mechanisms and to implement this into numerical and experimental tools that will enable the design and evaluation of advanced vehicle restraint systems that offer optimal protection for a wide variety of car occupants. In order to maximise the safety benefits gained from new vehicle technology for different genders, ages and sizes, these tools will have to be more sensitive to the in-vehicle occupant environment than what is the case today. THORAX mobilises the European research community and car industry to study real world loading conditions and related injury mechanisms given the variation in occupant characteristics and system functionalities offered by modern restraint systems. The gained know-how will be implemented in hardware and software demonstrators that will be evaluated for their added potential on restraint optimisation.

THORAX aims to stimulate the introduction of new technologies in vehicles to further reduce road fatalities and injuries to car occupants in Europe and make the traffic safer for young and older drivers. The project also aims to increase the level of competitiveness of the European automobile industry. Safety is a proven selling point, as underlined by a substantial involvement of European car industry in THORAX. The developed tools will be forwarded for usage in design of IS vehicle systems and assessment procedures of such systems. For this purpose THORAX will cooperate with related projects, as defined in a CSA.

Coordinator

- [First Technology Safety Systems](#) (NL)

Partners

- [Autoliv Research](#) (SE)
- [BAST - Federal Highway Research Institute](#) (DE)
- [Chalmers University of Technology](#) (SE)
- LAB - Laboratory of Accidentology and Biomechanics PSA Peugeot-Citroen/Renault (FR)
- [Partnership for Dummy Technology and Biomechanics](#) (DE)
- [Continental AG](#) (DE)
- [Uniresearch](#) (NL)
- [Universidad Politécnica de Madrid](#) (ES)
- [INRETS - Institut National de Recherche sur les Transports et leur Sécurité](#) (FR)
- [TRL - Transport Research Laboratory](#) (UK)