

ESReT
European Safety Review Tool

Research project funded under the CEDR Transnational Road Research Programme
CEDR Call 2013: Safety - Safety Review

CEDR Call 2013: Safety is a Transnational Road Research Programme organised by CEDR (Conference of European Directors of Roads). The funding partners for this programme are Germany, Ireland, Netherlands and UK.

Details	
Acronym:	ESReT
Start:	April 2014
End:	September 2015
Budget:	EUR303.0k
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Website:	http://www.trl.co.uk/solutions/safety/road-safety/european-safety-review-tool-(esret)/



Project Summary:

The CEDR Transnational Road Research Programme Call 2013 identifies five research programmes. This project responded to Research Topic C, Safety, which was further described in the CEDR Description of Research Needs (DoRN) dated September 2013. The overall objective of the Safety Programme is to “provide information and tools for national road administrations to use in relation to Accident Prediction Models, Stopping Sight Distance and Safety Inspections”. The DoRN focusses on three main initiatives (also referred to as themes or objectives in the DoRN): Accident Prediction Models; Stopping Sight Distances; and Safety Review. This project specifically addresses the needs related to the third initiative: Safety Review.

A clear requirement of the DoRN was that the implementation of the results of this programme and tools developed should be independent of differences in the way in which the various road authorities in the different EU countries operate and are structured. In other words the results of the projects must be applicable in EU countries and not be limited by differences between countries related to road classification, design and operational standards, data capabilities etc.

The main aim of the project is to develop practical tools to assist road authorities in undertaking route based site visits and assessments following the identification of high risk locations as part of a Road Authority’s Network Safety Management (NSM) activity. The project will do this through the delivery of:

1. A smart phone ‘app’ that can be used in the field by practitioners to collect and record road attribute data. This application will, where possible, facilitate automated collection of road attributes and will deliver a ‘low-cost’ method for data collection.
2. A web-based tool that will:
 - a. Receive the data collected in the field via the mobile phone network
 - b. Compare the attribute data to design standards and safe system rules to identify deficits
 - c. Generate potential treatments based on the deficits identified and the results of data analyses undertaken by the road authority
 - d. Prioritise treatments in accordance with the degree of safety deficit and the results of crash data analyses

The project will provide tools for use in the investigation of high risk road sections after these have been identified through data analysis/network screening. The tools will incorporate the results of network screening/data analysis into the prioritisation of treatments; however will not support network screening/development of safety performance functions. The prioritisation will be independent of the methodology used to identify high risk sections.

The project outputs will help teams undertaking a safety review to complete these in a timely, consistent and repeatable manner; and without the need for high levels of resourcing or specialist equipment. In light of this, the project is for the development of a tool that can be applied to high risk sections only, and not to be used at this time to identify and prioritise treatments across the whole road network. This is to address one of the key concerns as identified in the DoRN that the process should not be resource intensive. The project will however lay the foundations for a network wide prioritisation tool should this be considered useful in the future.

Among other sources, the tool will draw upon foundational work undertaken in the ERA-NET Road call “Safety at the heart of road design”; drawing upon the results of EuRSI, IRDES and ERASER.