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## A Successful Project Ending

Over the past few years, TYROSAFE has coordinated, planned, identified knowledge gaps for areas of future research, and proposed research ideas on the interactions of tyres and roads related to safety and their environmental impact. The results of this two-year project that began in July 2008 were presented at the Final Seminar held in Brussels within the framework of TRA 2010. The main objectives were to raise awareness, coordinate and prepare for European harmonization, and to optimize the assessment and management of essential tyre/road interaction parameters, in order to increase safety and support greening of European road transport. These objectives and outcomes are reviewed in this final edition of the TYROSAFE Newsletter.

### TYROSAFE Final Event

The Final Seminar took place in Brussels during the TRA 2010, at the SQUARE Brussels Meeting Centre on Thursday 10 June 2010 with a half-day seminar and evening cocktail. The seminar brought together representatives from road -related industry, including road decision makers, owners, operators, stakeholders, contractors, academia, the European Commission, and researchers at national and local level. The purpose of the seminar was to highlight the many successful deliverables and outcomes this project has achieved over its two-year course.

The project consortium of seven, AIT (Austria), BAST (Germany), LCPC (France), RWS-DVS (The Netherlands) and TRL (UK), ZAG (Slovenia), and FEHRL (Belgium) brought together a broad range of expertise from across Europe.

Manfred Haider (AIT), Project Coordinator, opened the seminar by presenting an overview of the project's initial objectives and concept. He then presented an award to the TYROSAFE YouTube Video competition winners, for their video entitled "TyroSafe-CARO your car and road science lab". More on this later.

A keynote talk from Michel Boulet, LCPC, Technical Director & Chairman of CEN/TC227/WG5 "Surface Characteristics" focussed on the European standardisation context for TYROSAFE. The leaders of Work Packages 1 and 2, Roland Spielhofer (AIT)

and, Minh-Tan Do (LCPC) then presented their findings. In his keynote talk, Steve Phillips, FEHRL Secretary General, covered the context for implementation of the TYROSAFE work, after which Karen Scharnigg (BAST), and Peter Roe (TRL), leaders of WP3 and WP4, summarised their work on Road Surface Properties Influencing the three main parameters, and the Environmental Effect and Impact on Climate Change.

Two open discussions also took place, one on EU Policies and the TYROSAFE Roadmap, and another on the effects and impacts of climate change, the latter following the stimulating presentation that Peter Roe had given on WP4.

After an active discussion with the experts and final remarks from Manfred Haider, the Final Seminar came to a close with the showing of the TYROSAFE Project promotional video, which emphasizes the essential elements of the whole project. The video's primary use will be for raising awareness to the general public and road administrators, and as a visual means of continuing dissemination of the project's achievements.

For those who missed this event, the presentations were individually filmed and are now available on Video Lectures, [http://vlnmedia.net/tyrosafe/evn/brussels\\_07.html](http://vlnmedia.net/tyrosafe/evn/brussels_07.html).



**Figure 1 Final Seminar Summary Report**



**Figure 2 YouTube Video Competition winner's, Gregor Salobir and Teja Pišek**



**Figure 3 Discussion panel on EU Policies and the TYROSAFE Roadmap**



**Figure 4 Peter Roe (TRL), WP4 leader presentation**

## Project Results

The project aimed to increase road safety and reduce the environmental impact of road/tyre interaction in Europe by means of raising awareness.

The project has produced a number of comprehensive technical reports that review various aspects of tyre/road interaction and the policy context in which road surfaces are managed and maintained. The most significant of these are recommendations for future policies concerning road surface properties, the Roadmap and Implementation Plan for harmonisation of skid resistance measurement techniques, and the reports on influences of road surface properties on skid resistance, rolling resistance, noise emissions, their interdependencies, and the investigation of their interaction with climatic change.

The results of the project include a thorough evaluation of the role of the key road surface parameters, skid resistance, rolling resistance and noise emissions of road surfaces in the context of the European road transport system, including their interdependencies and the interaction with the climate.

Common and compatible assessment management of road surface parameters in Europe will enhance safety and reduce environmental impact. Wider implications are the reduction of accidents and the reduction of CO<sub>2</sub>, air pollutant and noise emission from road traffic. This will benefit both the European economy and the general public, relying on road transport as an efficient, safe and ecologically sustainable transportation system.

TYROSAFE managed to provide an overview of the remaining knowledge gaps to be assessed, as well as provide recommendations for managing essential road surface properties. Possible ways to the future harmonisation of policies and assessment methods have been shown.

The implementation of the proposed policies and recommendations will, in the end, depend on decisions made by stakeholders in road transport, like road administrations and

transport ministries. Implementation is beyond the scope of this project; however, it is essential to encourage the industry stakeholders to acknowledge the relevance and benefits that a harmonised measurement method, allowing direct comparison of policies and skid resistance performance, will provide.

It is hoped that TYROSAFE's contribution to the debate will particularly encourage the public authorities of the Member States to use existing knowledge and sponsor research, to help reduce fatalities and promote environmental compatibility of road surfaces. In addition, the project created a solid scientific background for further research on the development of harmonised policies, with regard to essential road surface properties.

## Project Deliverable Highlights

### WP1

- D06: Report on policies and standards of all EU countries concerning skid resistance, rolling resistance and noise emissions
- D08: Recommendations for future harmonised EU policy on skid resistance, rolling resistance and noise emissions

### WP2

- D05: Report on analysis and findings of previous skid resistance harmonisation research projects
- D09: Roadmaps and implementation plan for harmonised skid resistance measurement methods

### WP3

- D14: Interdependencies of parameters influencing skid resistance, rolling resistance and noise emissions
- D15: Report on knowledge gaps and proposals for future research concerning optimisation of road surfaces and tyres for skid resistance, rolling resistance and noise emission

### WP4

- D12: Report on future research areas for environmental effects

- D16: Report on possible impact of climatic change on road surfaces and tyres with regard to skid resistance, rolling resistance and noise emission

All the technical deliverables from the TYROSAFE project are available at no charge from the TYROSAFE website via the public link:

[http://tyrosafe.fehrl.org/?m=49&id\\_directory=977](http://tyrosafe.fehrl.org/?m=49&id_directory=977)

The website also contains information on workshops and previous newsletters, as well as a lot of other valuable information.

## TYROSAFE Videos

As part of the process of raising awareness, the project team introduced the "TYROSAFE YouTube Video Competition". This initiative gave an opportunity to a wider community – on a worldwide level - to take part and learn about the TYROSAFE project and its safety developments.

The aim of the video competition was to create a short video that conveyed the importance and raised awareness about the interactions between tyres, roads and safety. The competition was advertised to major universities in the areas of research, engineering, and the visual arts, and posted on many Research-related websites. A Professor at the University of Maribor, Faculty of Civil Engineering, in Slovenia took up the idea by making this a class project. The winner's of the TYROSAFE Video competition went to "CARO - Your car and road science lab", from Gregor Salobir, Alma Muminović, Teja Pišek, Ana Repušič, Karmen Vesenjāk, Gregor Švajger, and mentored by Matjaž Šraml, Klemenčič Mitja, from the University of Maribor.



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The **promotional video** covering the essential elements of the project and highlighting the role of road surfaces in providing safer, quieter and greener roads, premiered at the Final Event is available on [www.fehrl.tv](http://www.fehrl.tv), FEHRL's YouTube Channel, <http://www.youtube.com/user/tyrosafe> and on the TYROSAFE project homepage.



## Infrastructure Database

To collect and share existing knowledge about the TYROSAFE objectives, several databases were set up Under the Knowledge Base of WP5.

A tool expanded by the TYROSAFE project is the **Research Infrastructure database**, initially a product of the FP5 TREE project. This database has been revived and updated. It includes a number of equipment and testing centres catalogued in relation to road pavement testing aspects.

The new system has a Laboratories database of the hosting institutes and a Facility database of individual equipment. In implementing on the Tyrosafe/FEHRL Content Management System, the laboratories database will link to the FEHRL partner's database. This will allow a user to view an institute and see what equipment their institute has, as well as link to projects they were previously and currently involved in.

A complete new database design has been developed, as well as a review of the existing catalogue, and refining the scope of the updated catalogue, with emphasis on research infrastructures pertaining to Skidding Resistance, Rolling Resistance, and Noise

Emissions. The database will be available on the TYROSAFE project website starting 1 July 2010.

Another database, the **FEHRLopedia** (<http://tyrosafe.fehrl.org/>, select FEHRLopedia tab) has also been expanded as a public tool. This database, created by FEHRL, provides a common portal for knowledge sharing and gathering. It is used as a referencing library for literature reviews and technical reports, and has a multilingual interface to support the dissemination and exploitation of results in different languages. It has been developed to exclusively show reports that have been selected with particular relevance for the TYROSAFE project.

Both databases are beneficial as part of the knowledge inventory for future and continued research in relation to the TYROSAFE project.

## To Conclude

TYROSAFE would like to thank everyone involved in the project for their support and valuable input in making this project a success.



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