



The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2008-2013) under grant agreement n°217920



## An Introduction to the TYROSAFE Project

# Tyre and Road Surface Optimisation for Skid Resistance and Further Effects

Tire Tech Expo 2010  
Cologne  
10 February 2010  
Manfred Haider

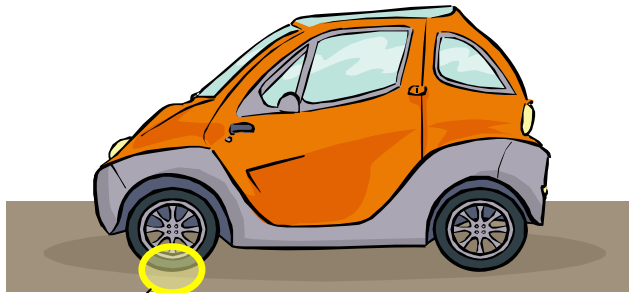


## Project information

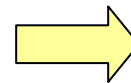
- FP7 Coordination Action
- Consortium:
  - arsenal research (Austria)
  - BASt (Germany),
  - LCPC (France),
  - RWS-DVS (The Netherlands),
  - TRL (UK),
  - ZAG (Slovenia),
  - FEHRL (Belgium)
- Duration: 2 years
- Starting date: 1st July 2008
- Approximately 1.1m EUR total
- Webpage: <http://tyrosafe.fehrl.org>



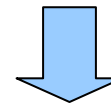
# Background



Skid resistance (safety)  
Rolling resistance (energy)  
Noise emission (health)



Interdependencies ??



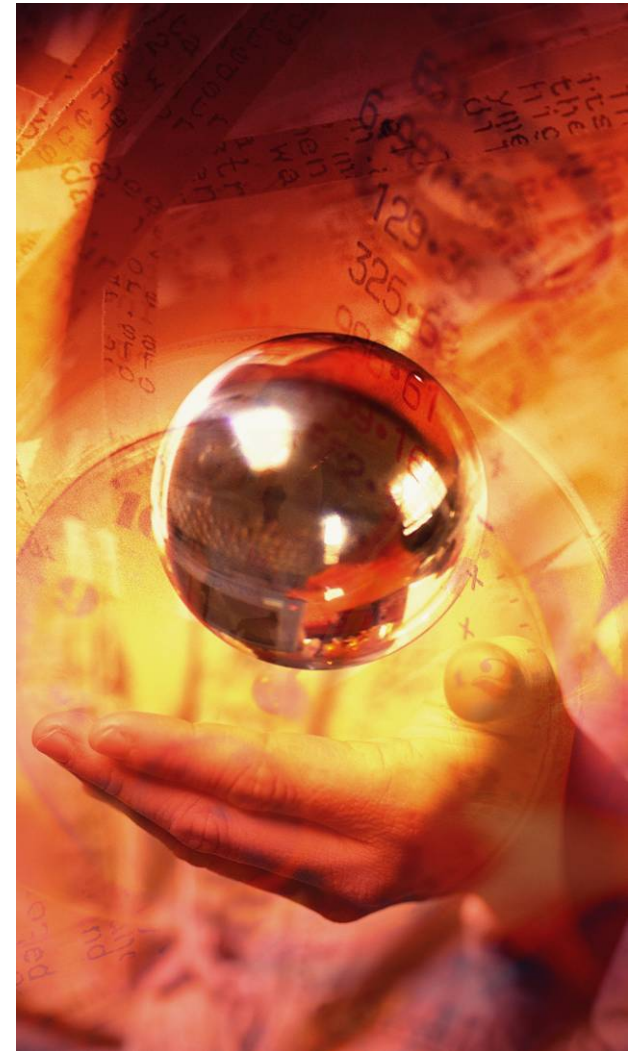
different ...

- measuring policies
- measuring methods
- measured parameters

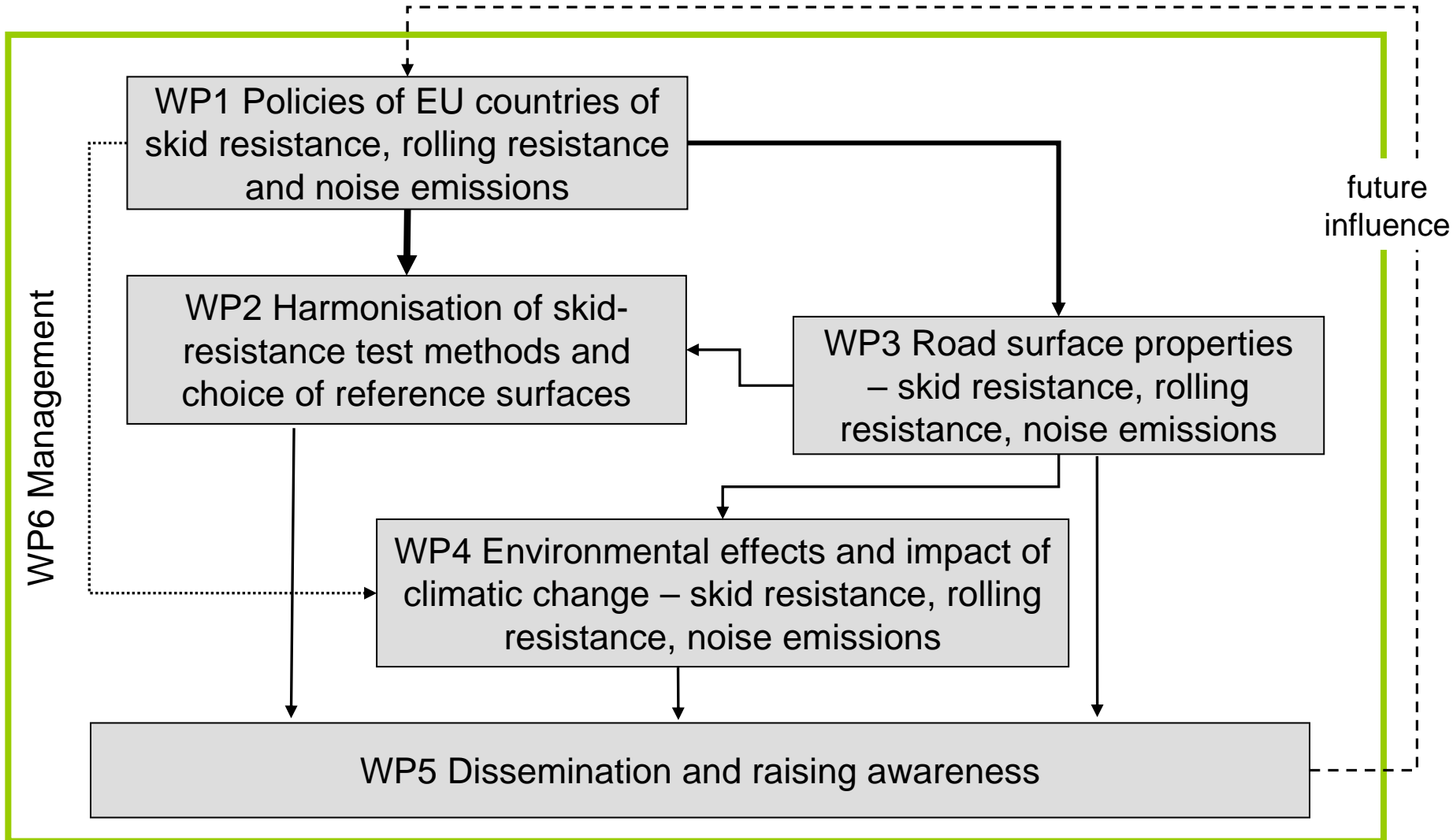


# Objectives

- raise awareness, coordinate and prepare
- for European harmonisation and optimisation
- of the assessment and management of essential tyre/road interaction parameters
- to increase road safety and support greening of European road transport



# Work Packages



### Activities of WP 1:

- Organization of 2 expert workshops (Portoroz, Brussels)
- Deliverable D06: “Report on policies and standards concerning skid resistance, rolling resistance and noise emissions” – completed
- Deliverable D08: “Recommendations for future harmonized EU policies on skid resistance, rolling resistance and noise emissions” – completed

# TYROSAFE WP1 workshop at SURF2008

- [http://videolectures.net/tyrosafe08\\_portoroz/](http://videolectures.net/tyrosafe08_portoroz/)
- <http://tyrosafe.fehrl.org/?m=38>



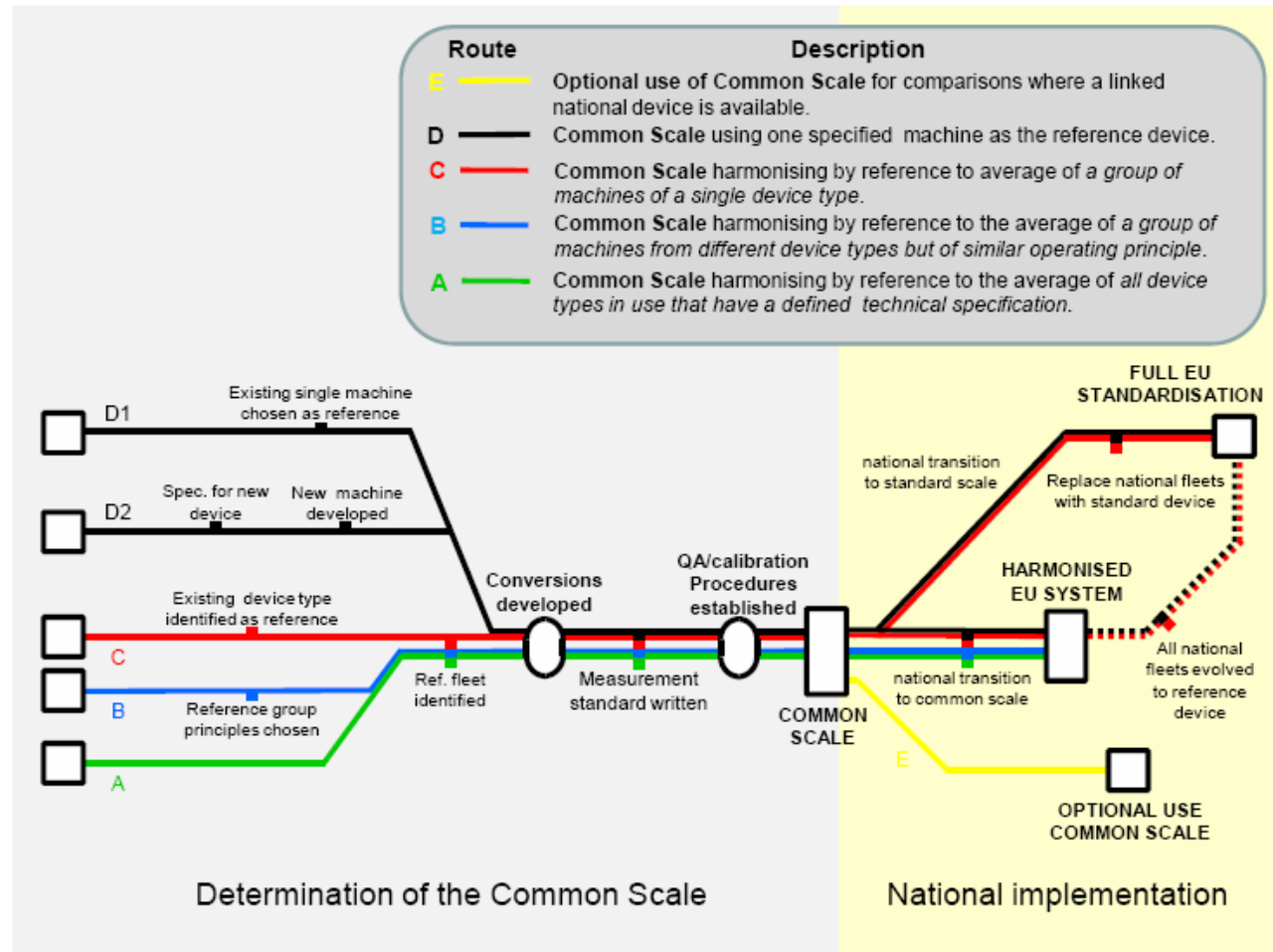


## Activities of WP 2:

- Organization of expert workshops
- Deliverable D04: “Report on state-of-the-art of test methods” – completed
- Deliverable D05: “Report on analysis and findings of previous skid resistance harmonisation research projects” – completed
- Deliverable D07: “Report on state-of-the-art of test surfaces for skid resistance” – completed
- Deliverable D09: “Road map and implementation plan to future harmonised test methods and reference surfaces” – completed

# WP2 Harmonisation of skid-resistance test methods and choice of reference surfaces

## D09 Roadmap:



The TYROSAFE Metro Map

## Activities of WP 3:

- Organization of expert workshops
- Deliverable D10: “Report on different parameters influencing skid resistance, rolling resistance and noise emissions” – completed
- Deliverable D14: “Interdependencies of parameters influencing skid resistance, rolling resistance and noise emissions” – ongoing work
- Deliverable 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 ” – ongoing work

## Activities of WP 4:

- Organization of expert workshops
- Deliverable D12: “Report on future research areas for environmental effects” – ongoing work
- Deliverable D16: “Report on possible impact of climatic change on road surfaces and tyres with regard to skid resistance, rolling resistance and noise emission” – ongoing work

# WP5 Dissemination and raising awareness

## Some activities of WP5

- Management of the project website
- Management of internal communication
- Management of the Stakeholder Reference Group
- Project newsletters, leaflet and poster
- Link to other projects
- Publication of one page on Research Review of the EU Parliament
- Dissemination at conferences, events and workshops:
  - SURF 2008 in Portoroz
  - Seminar on Pavement Surface Characteristics 2008 in Guimaraes
  - Tire Technology Expo and Conference 2009
  - Aula Ineco 2009 in Barcelona
  - Tire Technology Expo and Conference 2010
  - Video competition organisation at TRA 2010
  - Tyrosafe stand at the Research Connection 2009 in Prague

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**TYROSAFE**  
 Tyre and road surface optimisation for skid resistance and further effects

7th Framework Programme  
 Theme 7 - Transport  
 Coordination Action  
 Starting Date: end of July 2008  
 Duration: 48 months  
 Budget: 1.5 million EUR

**TYROSAFE NEWSLETTER**  
 ISSUE 02  
 January 2009

especially at high risk locations, had noticeably reduced the number of crashes. Some expressed the view that authorities might prefer not to know whether they had a problem and that this was why no measurements were made.

There was a sense that moving towards a harmonised approach could be useful. However, the majority of those present were technical experts rather than policy makers and so it was difficult to judge what the policy implications in different countries might be.

**Skid resistance**

The discussion on skid resistance began by considering what the benefits of policies might be. Responses varied markedly as the range of practice became apparent, which varied from sophisticated policies such as those in use in the UK and New Zealand, through countries that made measurements but did nothing with them, to no policy at all.

Generally, most of the current policies for skid resistance cover acceptance limits for newly built roads, minimum tests and Pavement Management of roads in use. Some countries do not have any criteria

**Noise emission and rolling resistance**

The main objectives of the TYROSAFE project are to coordinate research on essential tyre/road interaction parameters and to raise awareness of their impact, in order to:

- Improve Road Safety  
Reduce occurrence of accidents through safer roads with better skid resistance
- Facilitate the Greening of Road Transport  
Road surfaces and tyres optimised for low rolling resistance, resulting in lower CO<sub>2</sub> output, and for low noise emission
- Introduce European Harmonisation  
Compatible road behaviour across Europe leading to reduced human error

Calendar  
 Register your pages for the full list of events  
 See Issues | Month | Year | Events  
 July 2009

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

July 2009  
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 1 2 3 4 5 6 7  
 8 9 10 11 12 13  
 14 15 16 17 18 19 20  
 21 22 23 24 25 26 27  
 28 29 30 31 1 2 3

with the participation of  
 arsenal research  
 bast  
 FEHRL  
 LCPC  
 TRL  
 ZAGC

# Outputs and impact

## Expected output and impact

- Recommendations for common European policies and approaches concerning the tyre/road interaction effects
- Improving Road Safety
  - Reduction of accidents due to safer, comparable roads (better skid resistance)
  - Safer roads allow for increased mobility
  - Comparable road behaviour on European Roads decreases level of human error
- The Greening of Surface Transport
  - Recommendations for optimising road surfaces and tyres towards low rolling resistance (reduced CO<sub>2</sub> production) and noise emission



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**Thank you for your attention  
and interest  
on behalf of the TYROSAFE team!**