

ROSANNE

Rolling resistance, **S**kid resistance, **A**nd **N**oise **E**mission
measurement standards for road surfaces

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ROSANNE

- Collaborative research project, funded by EC under grant agreement No. 605368
- Call topic: Innovative, cost-effective construction and maintenance for safer, greener and climate resilient roads
- Project start: 2013-11-01
- Duration: 36 month
- Total budget: 3 million EUR

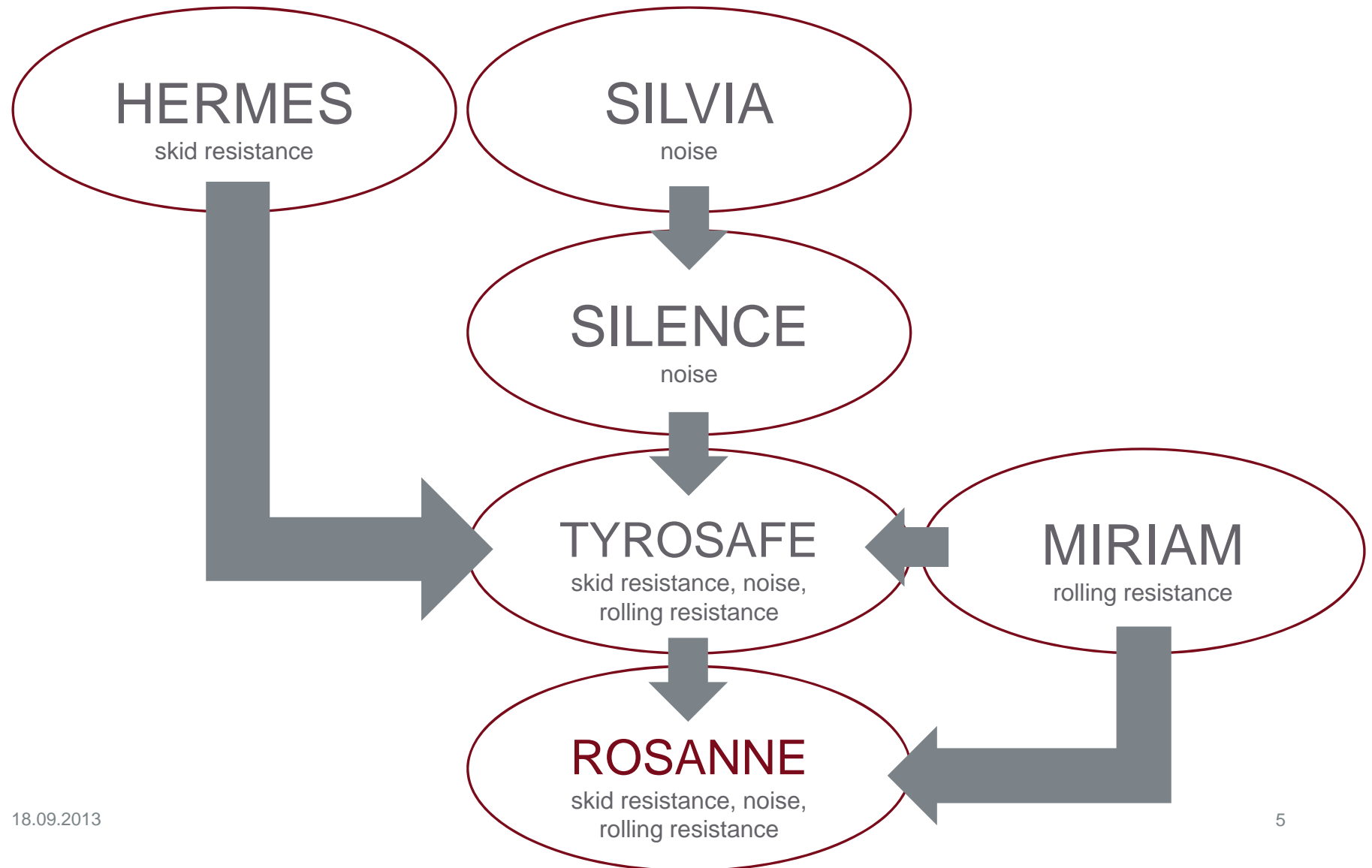
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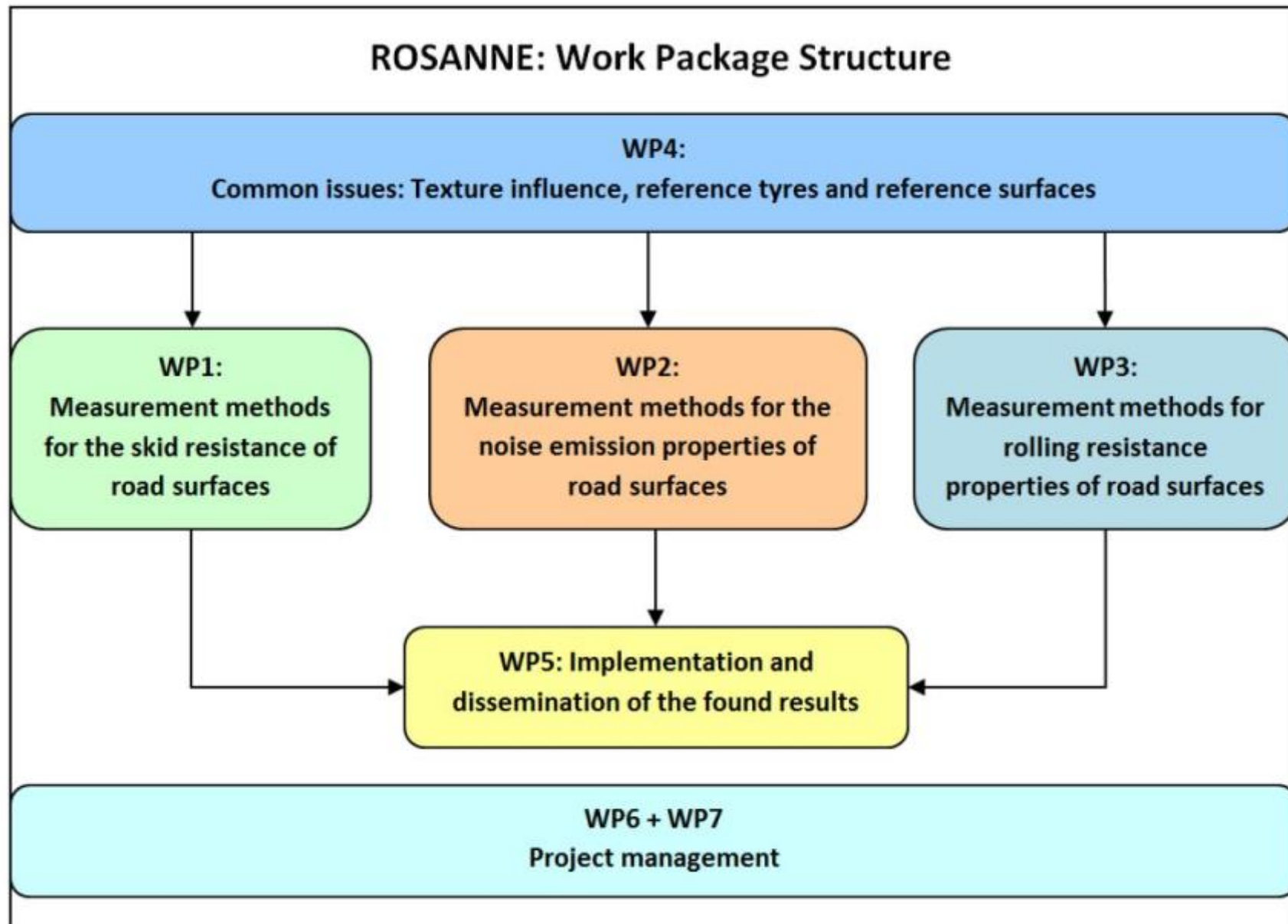
- Partners
 - AIT (AT, coordinator)
 - DRD (DK)
 - TRL (UK)
 - VTI (S)
 - BAST (DE)
 - IFSTTAR (F)
 - BRRC (BE)
 - TUG (PL)
 - ZAG (SI)
 - FEHRL (EU)
 - DIN (DE)
- Stakeholder Reference Group
 - Road Administration
 - CEDR
 - FHWA (USA)
 - EAPA (asphalt industry)
 - EUPAVE (concrete pav. industry)
 - Measurement provider

ROSANNE main objective

- The main objective of this project is to advance the harmonization of measurement methods for **skid resistance**, **noise emission** and **rolling resistance** of road pavements and prepare for standardization.
- In this the project will follow the recommendations of key predecessor projects like TYROSAFE, HERMES, SILVIA and MIRIAM.
- The project aims at performing prenormative research to enable the creation or improvement of European standards in the working field of the working group CEN TC 227 / WG5.

ROSANNE predecessors

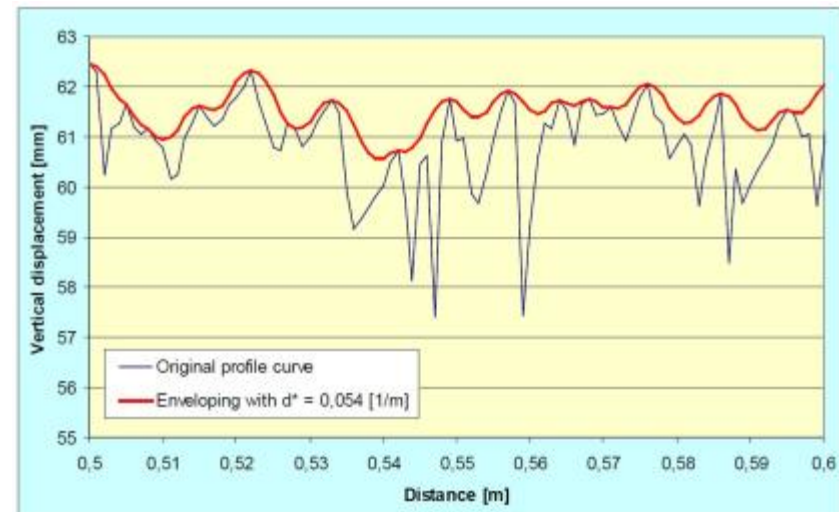




ROSANNE WP4 - Texture

- Explore potential of recent developments in the measurement of surface texture
- Deliver parameters that better reflect physical process of tyre/road interaction
- Improve understanding of how texture influences skid resistance, noise emission and rolling resistance
- Investigate lateral variation of texture

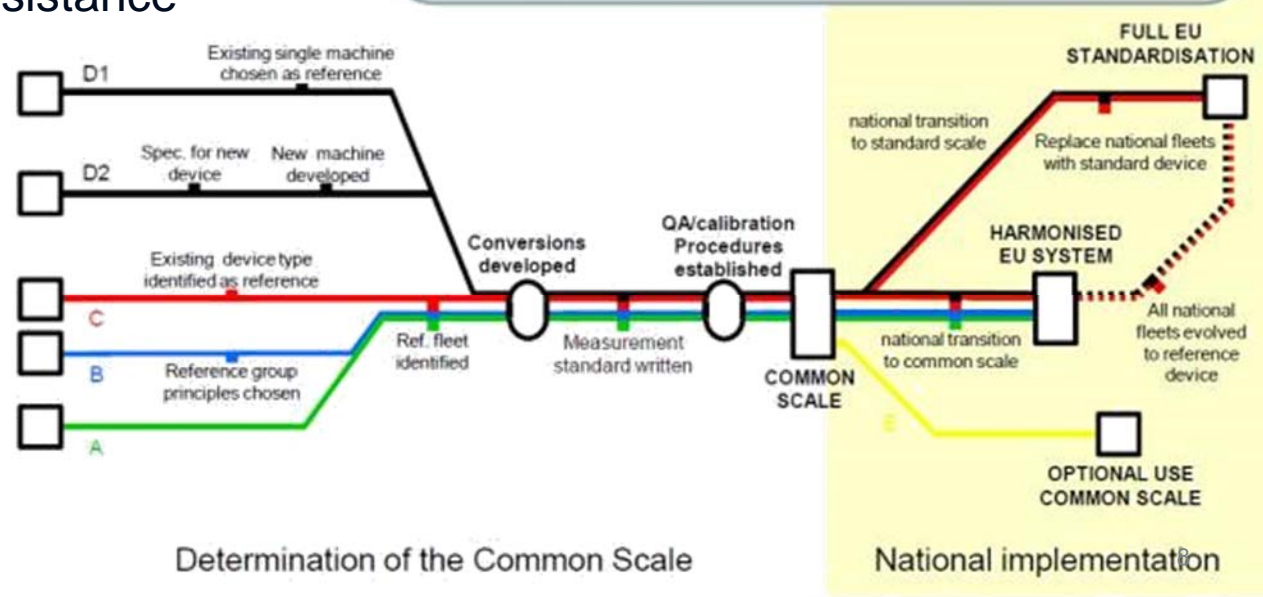
- Reference tyres and pavements
 - Define and investigate necessary performance for the measurement of all three properties
 - Prerequisite for harmonization of all future measurements.



ROSANNE WP1 - Skid resistance

- Starting point is the TYROSAFE roadmap for skid resistance harmonisation
- Derive conversion factors for common scale for group of similar devices
 - longitudinal skid resistance
 - sideways skid resistance

Route	Description
E (Yellow line)	Optional use of Common Scale for comparisons where a linked national device is available.
D (Black line)	Common Scale using one specified machine as the reference device.
C (Red line)	Common Scale harmonising by reference to average of a group of machines of a single device type.
B (Blue line)	Common Scale harmonising by reference to the average of a group of machines from different device types but of similar operating principle.
A (Green line)	Common Scale harmonising by reference to the average of all device types in use that have a defined technical specification.



ROSANNE WP2 – Noise emissions

- Combine existing measurement methods
 - SPB
 - CPX
 into a harmonised pavement noise characterization method
- Evaluation of new method for
 - acceptance testing
 - monitoring
 - compatibility with env. noise calculation methods (e.g. CNOSSOS-EU)
- Solve remaining problems, e.g. influence of temperature



ROSANNE WP3 - Rolling resistance

- Standardize trailer measurements
- Study influencing road surface parameters
- Develop correction procedures for influences
- Investigate link to vehicle fuel consumption



ROSANNE WP5 - Implementation and dissemination of results

- Develop a roadmap for implementation of the draft standards developed by WP1 to WP3 and to accompany and support the standardization process
 - Assess achieved level of quality and readiness of each topic
 - Propose appropriate format for resulting documents
 - Regular updated of project progress in technical committees of CEN and ISO

- Dissemination and networking
 - Stakeholder reference group
 - Website

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