

RESEARCH PROJECT TITLE: INTEGRATING STRATEGIC NOISE MANAGEMENT INTO THE OPERATION AND MAINTENANCE OF NATIONAL ROAD NETWORKS

START DATE: May 2012

END DATE: September 2015

RESEARCH PROJECTS: The 2012 Conference of the European Directors of Roads (CEDR) Transnational Noise Research Call Consisted of Four Research Projects:

ON-AIR (Optimised Noise Assessment and Management Guidance for National Roads)

QUESTIM (Quietness and Economics Stimulate Infrastructure Management)

DISTANCE (Developing Innovative Solutions for Traffic Noise Control in Europe) and

FOREVER (Future Operational Impacts of Electric Vehicles on national European Roads)

PRIMARY SUPERVISOR: CEDR Programme Executive Board

PROJECT MANAGER: Dr. Vincent O'Malley

DESCRIPTION: The research programme was developed to address the needs of National Road Administrations (NRAs) by providing appropriate guidance and tools to assist with integrating noise into the planning of new, and the management of, existing national roads, while considering planning legislation in EU member states.

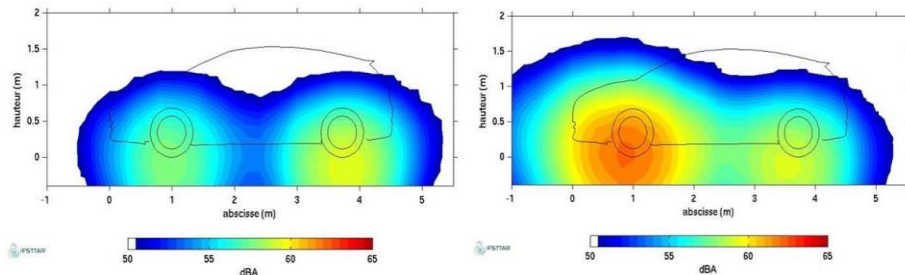
OBJECTIVES:

- Optimisation of noise assessment and management strategies
- Development of future visions for noise management on national road networks
- Integrating noise mitigation measures with national roads and how they perform over time
- Developing future visions for the management of noise on national road networks

BENEFITS: The overall aim of the research programme was to integrate strategic noise management into the operation and maintenance of national road networks; taking a holistic approach. The research covered representative geographical regions of Europe.

RESEARCH FINDINGS:

- **ON-AIR** developed a guidance book to facilitate integration of noise abatement into the three most common planning and management regimes for NRAs: planning of new roads and highways, planning of reconstruction and enlargement of existing roads and highways, and maintenance and management of existing roads and highways
- **DISTANCE** found that when it came to CNOSSOS-EU requirements, NRAs appear to be well prepared. However, some issues such as pavement degradation, ground surfaces and population assignment to building façades require additional effort from the majority of NRAs
- **FOREVER** concluded from limited tests on electric vehicles and hybrid electric vehicles, that CNOSSOS-EU over estimated the propulsion noise from electric vehicles (therefore a correction factor is necessary). EVs will have minimal impact on future noise levels on motorways
- **QUESTIM** observed a significant variation of aging effects among various surface types; from zero effect up to 5 dB/yr



CONTACT DETAILS

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