

PROCROSS

Development of procedures for cross asset management optimisation

A research project of the cross-border funded joint research programme “ENR04 – Effective asset management meeting future challenges”

The programme is a cross-border funded, transnational joint research programme that was initiated by **ERA-NET ROAD II** (ENR2).

The participating National Road Administrations (NRA) in this Joint Research Programme are Belgium (Flanders), Denmark, Finland, France, Germany, Ireland, Lithuania, Netherlands, Norway, Slovenia, Sweden, Switzerland, and United Kingdom.

The budget is EUR 2.85 million and the duration of this joint research programme is 30 months.

Intro

One of the key tasks in the asset management process is an improved and optimised coordination of all maintenance activities on the different subassets according to the expectations and requirements of road users, road operators, road owners and other affected parties. It is a complex process which needs flexible and adaptable methods, the experiences from the road owners and operators and a clear definition of the stakeholders' requirements.

Description

The main objective of the project is the development of optimised procedures for cross asset management of the total road infrastructure (including all sub-assets like pavements, structures, road furniture etc.). The project aims at a recommendation for a holistic road asset scheme to balance the maintenance expectations of different sub-assets and stakeholders.

This is somehow different to the traditional approach in asset management where monitoring and measurement data are used to assess condition levels for each sub-asset in the road transport system more or less separately. Overall life-cycle costs/performance and asset values are of secondary order within many actual procedures.

An asset management approach should consider all influencing parameters (*e.g. age, environment, materials, deterioration processes, loadings, maintenance policies, etc.*) and impacts from a more practical point of view. Different sub-assets (*e.g. pavements, tunnels, bridges, culverts, walls, noise barriers, variable message signs, drainage systems, etc.*) through experience and best practice are proposed into a combined cross asset framework.

The main benefit of introducing such a holistic road asset scheme is to save monetary and non-monetary resources and minimising of negative impacts from socio-economic, technical and environmental points of view.

Expected results

The result of the PROCROSS project is a holistic approach for the cross asset optimisation of maintenance activities on the total road infrastructure. Based on a state of the art investigation, which will be carried out in close cooperation with European road administrations, the procedures to be developed will enable to combine maintenance activities on different sub-assets and thus to reduce all negative impacts and effects to road users and other affected parties under different requirements and expectations.

This project will be tested in practice to show the exploitation and potential for road administrations.

The results will cover an extensive field of application concerning:

- Make a survey of the State-of-the-Art to find out good practice in cross asset management optimisation;
- Benchmark of cross asset management optimisation procedures
- Improve efficiency of asset management of the total road infrastructure
- Assess maintenance activities from different stakeholders' expectations and requirements
- Support of the decision makers to underline the necessity of maintenance activities from a holistic point of view
- Provide a basis for the implementation of cross asset management optimisation procedures in the form of the Final report "The Procedures for Cross Asset Management Optimisation"

Duration	01/11/2010 - 31/10/2012
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