

Master thesis at Building Technology

Title

Eco-label for roads

Background

Road transport is crucial for the territorial cohesion within the European Union and to open new business opportunities abroad. In terms of infrastructure (with more than 5.000.000 km of paved roads) and transport of both goods and passengers, it could be considered as the most important transport network in EU-27. The White Paper on Transport, takes into account major policy initiatives for a competitive and resource efficient transport system under sustainable developments. Furthermore, ERTRAC (European Road Transport Research Advisory Group) sets out the following ambition: "Towards a 50% more efficient road transport system by 2030". However, these targets have challenges and threats to be tackled such as the deterioration of existing infrastructures, their susceptibility to climate change and the expected increase of road freight transport (between 40-50% compared to today), maintaining competitive strength of EU transportation while addressing environmental goals, without forgetting the limited financing due to the economic stringency. Therefore, there is an ambitious goal to fulfill these needs but it is clear that should be achieved in the most cost-effective way. To achieve this the European Commission has funded a research framework within the 7th Research Framework to develop an EU-harmonized holistic and innovative Eco-labeling methodology, that will integrate LCE concepts for the assessment of future and existing road infrastructures, as well as their construction products (asphalt mixtures and cement-based materials: structural concrete and soil cement), in terms of environmental, technical and socio-economic performance.

Aim/Purpose

The aim of the Master thesis is to develop a first proposal how such an EU Eco-label should consider.

Method

After a decent literature study the following work may be carried out:

- Identifying already existing eco-labels for roads in Europe and abroad
- Development of a list of aspects and parameters that should be considered
- Evaluating the feasibility through expert interviews (e.g. with EU project partner)
- Interpretation and critical discussion of the results

Supervisor

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Examiner

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