



Conférence Européenne
des Directeurs des Routes
Conference of European
Directors of Roads

HI-SPEQ


Hi-speed survey Specifications, Explanation and Quality

Research project funded under the CEDR Transnational Road Research Programme

CEDR Call 2013: Ageing Infrastructure Management - High Speed Non-destructive Condition Assessment

CEDR Call 2013: Ageing Infrastructure Management is a Transnational Road Research Programme organised by CEDR (Conference of European Directors of Roads). The funding partners for this programme are Denmark, Germany, Ireland, Netherlands, UK and Slovenia

Details	
Acronym:	HI-SPEQ
Start:	April 2014
End:	March 2016
Budget:	EUR387.5k
Co-ordinator:	Alex Wright, TRL, UK
Contact:	mwright@trl.co.uk
Partners:	AIT, Austria VTI, Sweden ZAG, Slovenia COWI, Denmark Fugro, Netherlands
PEB Project Manager:	Rolf Rabe, Germany, Rabe@bast.de
Website:	http://www.hispeq.com



Project Summary:

To efficiently manage their road networks road administrations rely on high quality condition data to understand the condition of the asset and plan and undertake maintenance programmes. High speed surveys have become a key source of this information. Initially providing data on the shape and condition of the road surface, in recent years these have expanded to measure structural robustness and the structure of the pavement itself. High speed surveys bring significant advantages to condition assessment but they use different techniques and provide a wide range of different data types. Many policies are applied across Europe to define the requirements for the survey equipment, the surveys and the data delivered. This causes problems for those commissioning the surveys, those undertaking the surveys and those using the data.

HI-SPEQ aims to deliver improvements to the process of describing high-speed survey equipment, specifying the requirement for surveys/survey equipment and the regimes that should be applied to ensure the quality of data delivered. HI-SPEQ will also improve the ability to obtain good value from the measured data by making use of the best derived parameters to assess condition within asset management systems.

In summary:

- Utilising stakeholder consultation, current best practise and the extensive experience of our team in developing and delivering high-speed surveys, survey equipment and survey specifications, HI-SPEQ is identifying the data that can be collected on road networks to measure surface condition, structural condition and road structure at high speed and the type of equipment that can be used to collect this data.
- This will be used to determine the requirements for, and the capability of, current high speed survey equipment to deliver interactive templates and best practise guidance for describing the equipment used on the network.
- Building on the equipment capability and descriptions developed above, HI-SPEQ will investigate how network surveys can be specified to deliver the needs of road Authorities and, using current examples, will clarify how such surveys can be commissioned and provide interactive templates for specifying surveys of surface and structural condition on the European road network, accompanied by guidance.
- Having explored the equipment and the survey processes HI-SPEQ will then use the experience of the team and the lessons learnt in real world routine surveys to identify the processes that should be applied to ensure that these surveys meet their expected levels of quality, and through this provide guidance to help Authorities specify suitable QA regimes for their network surveys.
- Finally, HI-SPEQ explores the way that high speed survey data can be processed and analysed in order to recommend the most effective ways to convert survey data into meaningful condition parameters that can be input to asset management systems.

A key focus of HI-SPEQ is the delivery of outputs that can be implemented by road administrations via interactive guidance and templates that can be taken forward by individual road administrations to form the basis for developing strategies and specifications for their own network surveys. This will be accompanied by promulgation of the results of the work across a wide range of stakeholders and the provision of training materials to allow road administrations to further disseminate and implement the results within their own organisations.