

NEW RELEASE

ROADWAY WINTER MAINTENANCE SUPPORT SYSTEMS AND INFORMATION EXCHANGE

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Road administrations in many countries use a Road Weather Information System (RWIS) as the core component for effective roadway maintenance and operations, with many doing so for decades. Through the effective integration of systems, road weather sensor data is used extensively in decision-making as it relates to roadway maintenance, highway operations and management processes.

This report, prepared by World Road Association (PIARC) Technical Committee 3.4 'Winter Maintenance' provides an international overview of the various practices that are currently in use. The report has been developed following a case study analysis of the current practices in: Canada, the United States, the United Kingdom, France, Germany, Austria, Switzerland, Italy, Slovenia and selected Scandinavian and Baltic countries.

The report provides an overview of the various practices currently in use in some countries and guides the reader through the extensive body of available information that deals either directly or indirectly with RWIS.

The report is structured in three main sections:

- Section 1: Results of International Survey
- Section 2: Supplementary Analysis
- Section 3: Conclusions

Information for this report was sourced from a combination of a comprehensive literature review and an international survey of PIARC Member Countries (information provided by 21 jurisdictions). Topics investigated include: standardisation of road weather sensors; deployment and maintenance of RWIS; and, integration into operations. The primary focus of the questionnaire was the identification of opportunities to optimise decision-making processes through the development of support systems and the use of management indices. Also investigated were the types of sensors used by road weather stations, file formats used for data exchange, information sharing protocols and the use of mobile road weather stations.

Other analyses were undertaken, focussing specifically on the consolidation of RWIS, in particular on standardisation efforts, the development of networks of road weather stations and the use of collected data.

The investigation has revealed that standards are at varying degrees of development among the surveyed jurisdictions. Furthermore, as RWIS have an undeniable connection to roadway maintenance components, there is a need to encompass a broad sphere of action. Data reliability and the resulting quality control process (selection, maintenance and calibration of sensors, validation of data, etc.) are essential. It is becoming more common that sourcing such information requires inter-jurisdictional information exchange.

The report provides the reader with reference to a number of valuable resources on this subject and contact information for the survey respondents. All of the survey responses are included as an appendix to the report.

This report can be accessed through PIARC's Virtual Library at:
<http://publications.piarc.org/en/search/detail.htm?publication=3374&solo>