

A road map towards implementing a probabilistic road weather information system

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The German National Weather Service (DWD) runs a dedicated forecast system for providing detailed information on the road conditions in Germany. This road condition and weather information system, called SWIS (Straßenzustands- und Wetter-Informations-System), was set up about 20 years ago with the objective to support the efficient management of the German road network, especially during winter time. It aims to enable decision-makers to optimize their planning and distribute their resources in the most cost-effective way.

Considering the inevitable uncertainties of weather forecasts, and recognizing the potential benefits of incorporating reliable predictions of these uncertainties in the decision-making process, we are in the process of extending our forecast system to incorporate such probabilistic information. Whilst the technical implementation of such a system seems to be a relatively straightforward process, it is expected that the transfer of the probabilistic information into the decision-making processes of the users might pose the greater challenge.

This contribution will outline the road map and first user feedback on the implementation of the probabilistic component in SWIS.