New MDSS in Slovenia

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ABSTRACT

RWIS developed for Slovenian motorways has already been introduced to SIRWEC community as well as nowcasting model INCA and upgraded METRo model which are integrated in the system. In last winter season (2015/2016) an upgrade into MDSS was implemented. New MDSS is able to calculate METRo forecasts on the whole Slovenian motorways with 30 m spatial resolution and 1 hour time resolution (up to 24 hours in advance) and supports high-resolution weather forecasting system (INCA and ALADIN). Road forecasts can support winter maintenance decision with automatically treatments selection (MDSS provides time, type, amount and place of each treatment). The consultant for this module was company Klimator AB from Sweden. System is developed as a modern cloud-ready web application in the MVC (model-view-controller) framework Laravel 5.
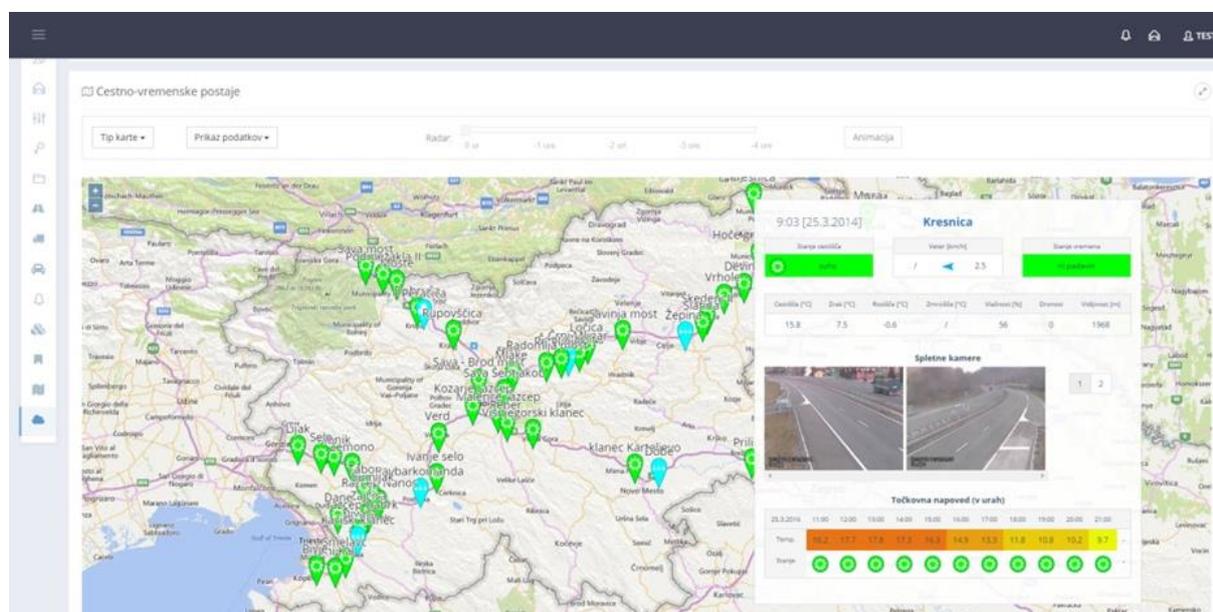
Thermal mappings on the whole Slovenian motorways were performed in 2016 with equipment developed for this project. Results were used to provide better route-based forecasts and for analysis of road weather stations location.
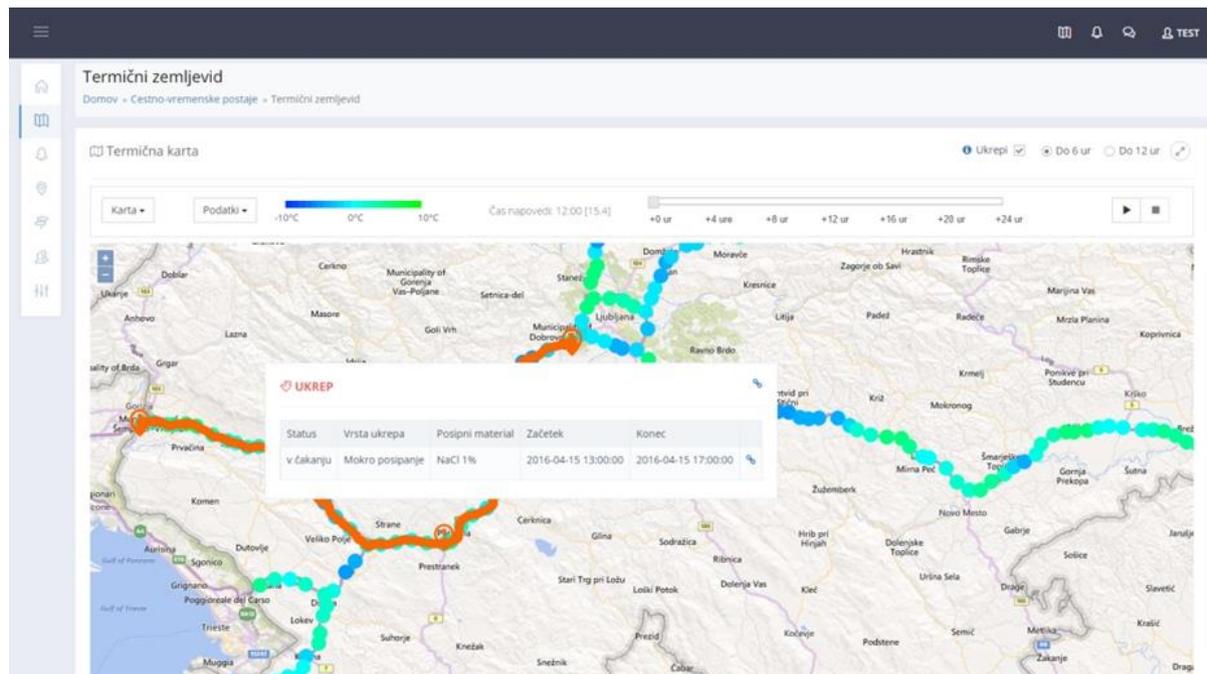
The new MDSS with some unique approaches and functions will be used for the first time in the winter 2016/2017. We will be happy to report our results and experiences at the next SIRWEC conference.