Road Weather Information System

State of play –

Slobodan Basurić - PERS

Forth Technical Commity on Roads, 27. January 2021
In Serbia we have experience with RWIS from 2004. During a Pilot Project conducted in cooperation with the Swedish National Road Agency (SNRA), thermal mapping of the entire road network in the country was carried out. The result of thermal mapping was to define the minimum number of Road Weather Stations (RWS) and their locations.

And we was implemented 6 road weather station In Mačva and Kolubara District, where we also started with first hybrid service level agriment for road maintenance od 1360km of national network.
At the moment we have 32 RWS active and connected to RWIS and 18 RWS active but not connected to RWIS but they work in the local and they are used at tunnel operational centers. The plan is to set up another 49 RWS by mid-2021 and to connect all RWS into a single RWIS and to upgrade old one by the end of 2021. Then the entire territory of the national road network will be covered with a minimum of a total of 99 RWS.
RWS Data

Newer RWS give us the following data:
- Air temperature;
- Relative humidity;
- Dew point;
- Type of precipitation;
- Precipitation intensity;
- Visibility;
- Wind speed;
- Wind direction;
- Road temperature (new sensors at three depths t1-0, t2-10 cm and t3-20 cm);
- Freezing temperature of NaCl;
- Height of the water layer on the road;
- Percentage of ice;
- Friction (friction) on the road;
- NaCl concentration;
- Conditions on the road (wet, wet, snow, ice, water with salt solution).
RWIS

Road weather information system gives us information on whether and when it is necessary to remove snow and ice from the roads. Various parameters are monitored and the need for intervention is concluded by trained operators. We also use RWIS to calculate the number of interventions in snow clearing or de-icing.
THANK YOU

GOOD BYE