Slippery Road Information System

Using floating car data to improve the quality of informaton about road conditions.

Only 14 % can make a correct judgement to whether a road is slippery.

More than 50 % estimate the friction to be normal when in reality it is considerably reduced.

The risk of an accident is 9 times higher in snowy roads.

The risk of an accident is 20 times higher in icy roads.

Correct, relevant and real time information concerning road conditions is important for many reasons.

It is needed to enable the winter maintenance organisation with respect to how, where and when they conduct their activities.

But the information is also important for the driver, in order for her, to adjust how she drives (speed, awareness, preparedness, distance to other vehicles etc.), where she drives (route planning) and when she drives according to the current road conditions.

Validation season 2006/2007

20 cars were equipped with the hardware and software needed to collect the data required.

The Road Weather Information System (RWIS) in the area was adjusted in order to report information with greater frequency.

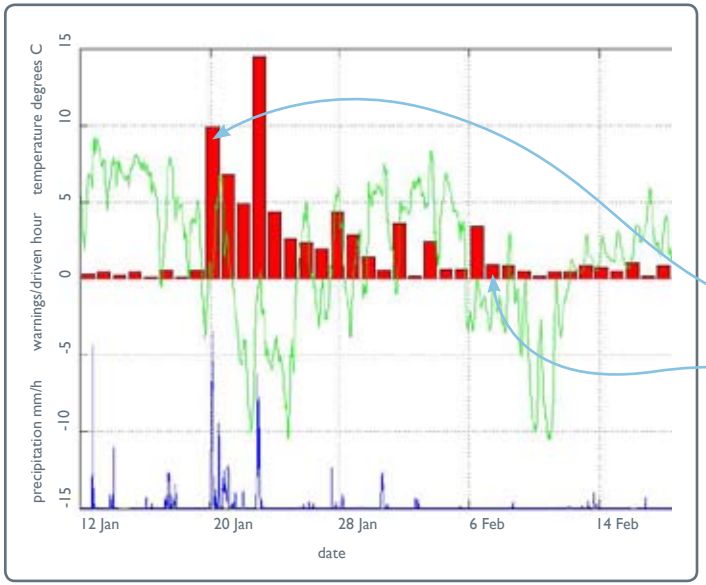
Three snowploughs were equipped with the hardware and software needed to collect data regarding position and actions taken.

The result confirmed our theories and showed a clear connection between the actual road condition and the data collected.

Validation season 2007/2008

The scope of the validation will be increased to include 100 cars. The technology and methods are being improved thanks to the lessons learned from the previous season.

Our aim is to involve potential users of the information, in order to be aware of all relevant needs and develop the project according to them.



Outcome of Validation season 2006/2007

The bars in the figure show the number of warnings, due to slippery conditions, that the system has registered per driven hour.

The curves for temperature and precipitation show clearly how these parameters correlate with slippery road conditions.

Vision

Cars

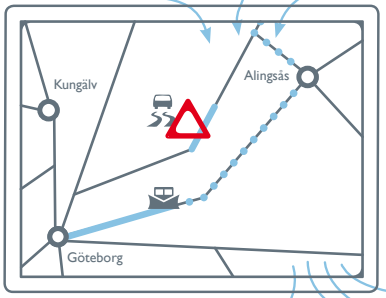
Activities in the ESP and ABS systems are registered together with background data as position frequency of windscreen wipers, temperature etc.

Snowploughs

Conducted as well as planned maintenance actions are registered togheter with position and planned routes.

RWIS-stations

Weather parameters such as temperatures, wind conditions, humidity, amount and type of precipitation are measured and registered.



High risk of slippery: 200 - 500 m.

The data is aggregated and analysed according to the methodology developed and validated within the project.

The result will enable us to deliver information on:

- where roads are slippery in close to real time
- where actions have been taken and
- where actions will be taken next.

Our hope is that the information will reach the public as well as the winter maintenance organisation in a near future.

Together we can save lives!

Radio

Cell phone

Navigator

Internet

The SRIS (Slippery Road Information System) project is a collaborative effort supported by IVSS. The vision of the project is to guide road-users in assessing current road conditions but also to enable improved and more effective maintenance of winter roads.

Find more information on the project at www.sris.nu.