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New Measurement Equipment for Pavement Condition

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The result!



ViaPPS = ViaTech Pavement Profile Scanner



the main road to oslo airport 2007..











Feb 2008

Torleif Haugødegård NPRA Tech. dept.



Sporete
veg

- A danish visitor from Sweden...



New laser skanner with 1 sensor



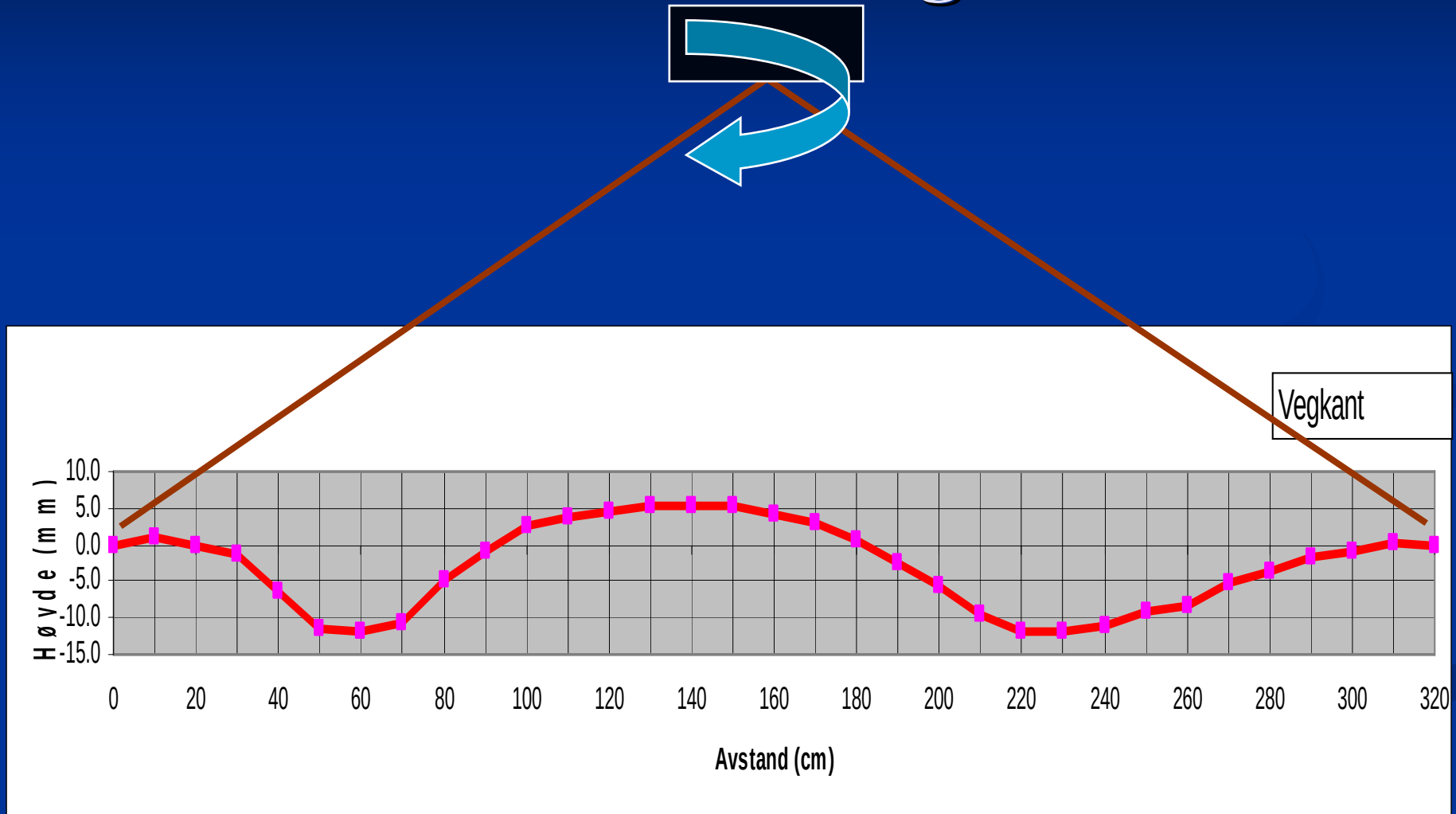
**ALFRED: old beam
technology, 17 ultrasonic
sensors**

Transversal profile Lofoten (PMS_NUG 2002)



Cross profile of a road lane

New PPS: rotating laser



Tech. data ViaPPS:

- 140 rotations/sec; 1 profile every 12 cm at 80 km/h
- 4 m measurement width, 550 surface points
- crossprofile + road marking lines
- length profile/IRI

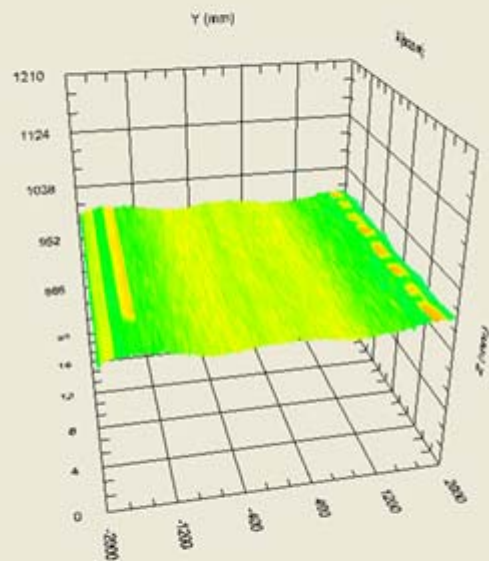




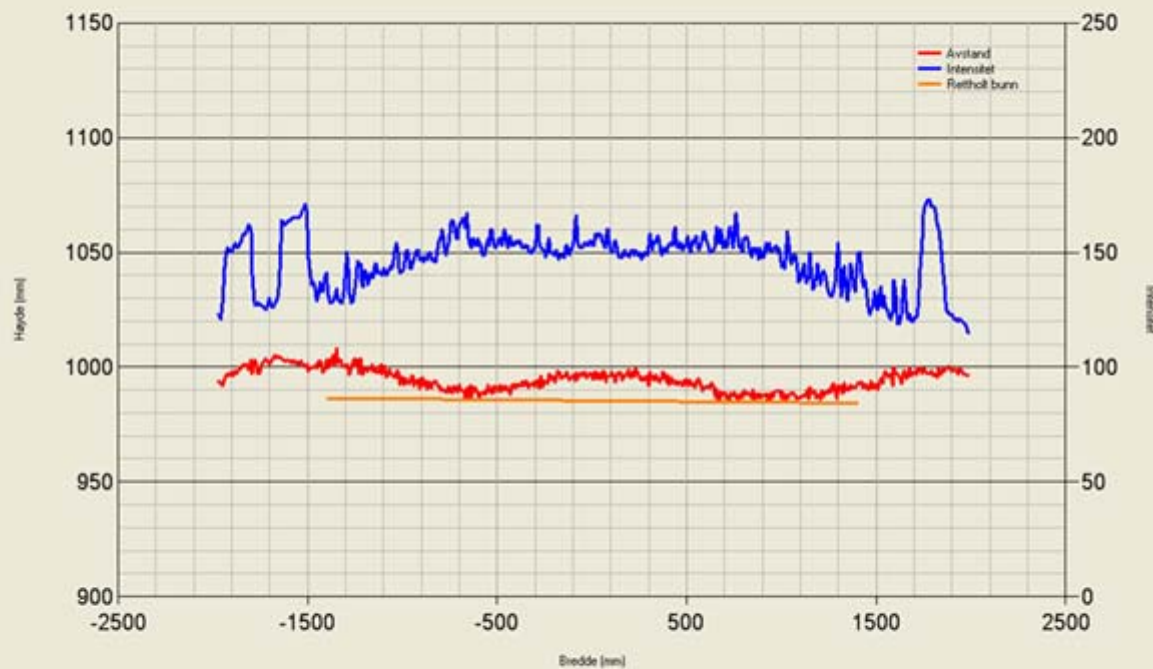
Fylke: Veg: HP: Meter: Felt:
6 EV134 4 1354 1

ViaPPS Sensorer

Profil Nr. 488801



Profil Nr. 488801



Tverrfall: Spordybde: MPD:
Kurveradius: Sporvidde:
Målekvalitet: IFI:

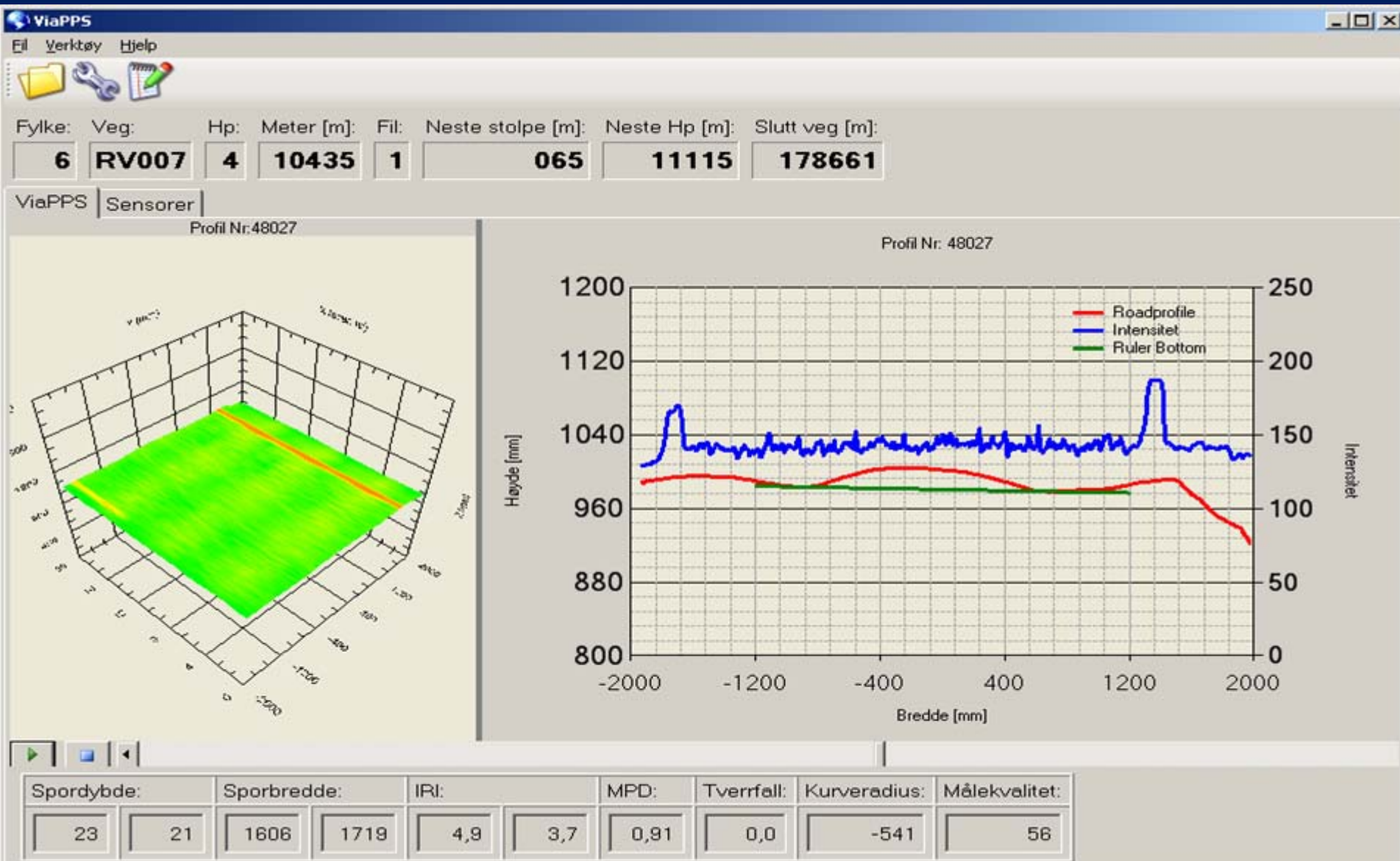


Typical transversal profile of a main road in Norway

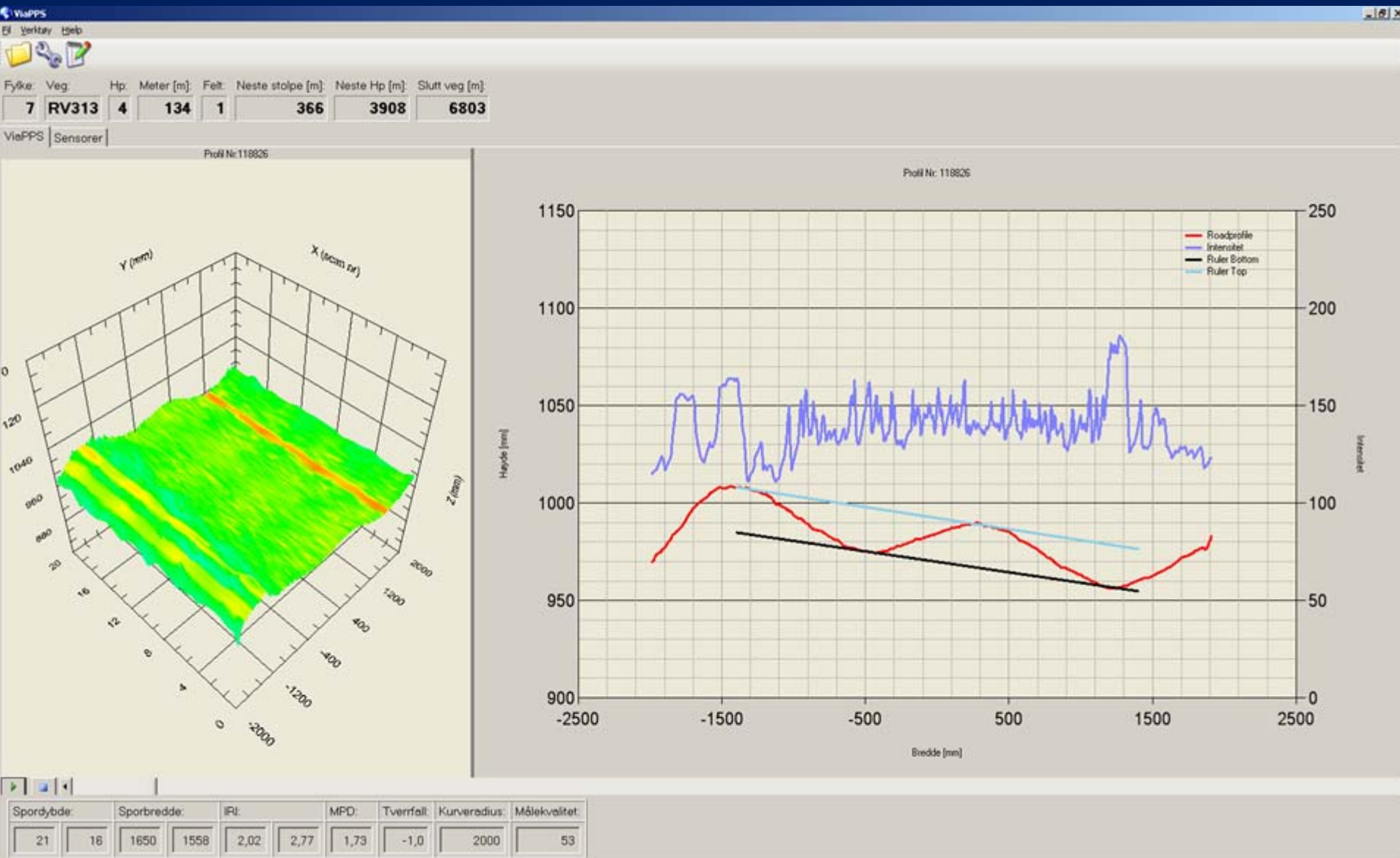


Also a typical transversal profile of a main road in Norway

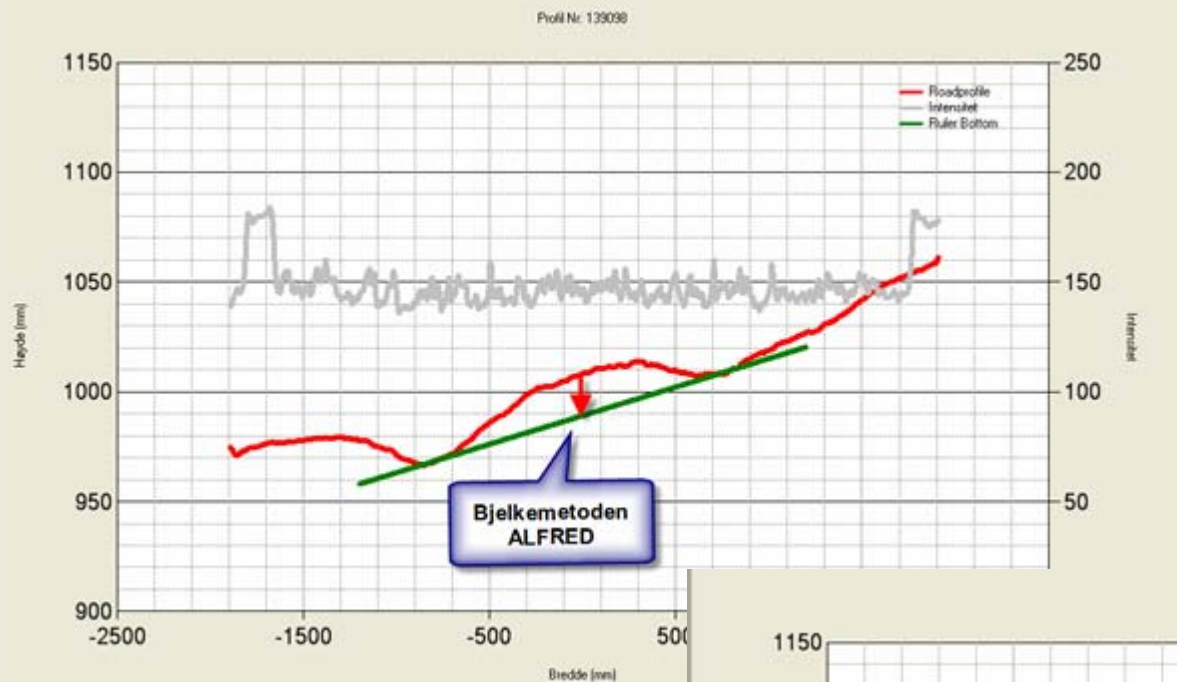
PPS calculation method "alfred"



PPS calculation method "alfred"



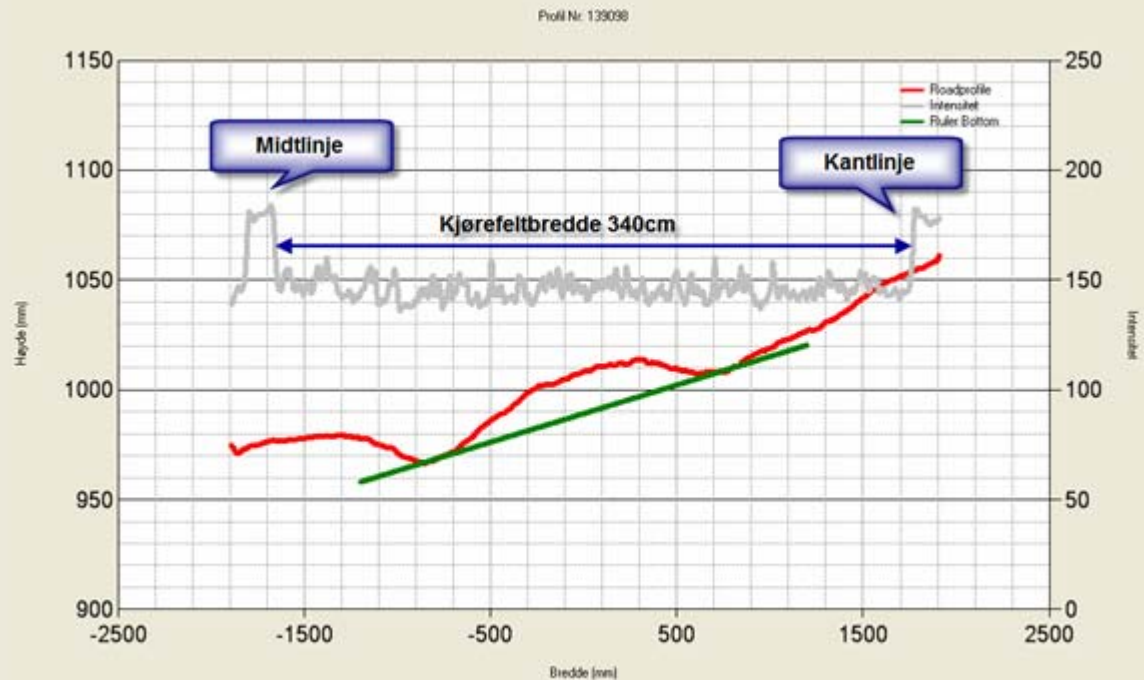
PPS calculation method "alfred"



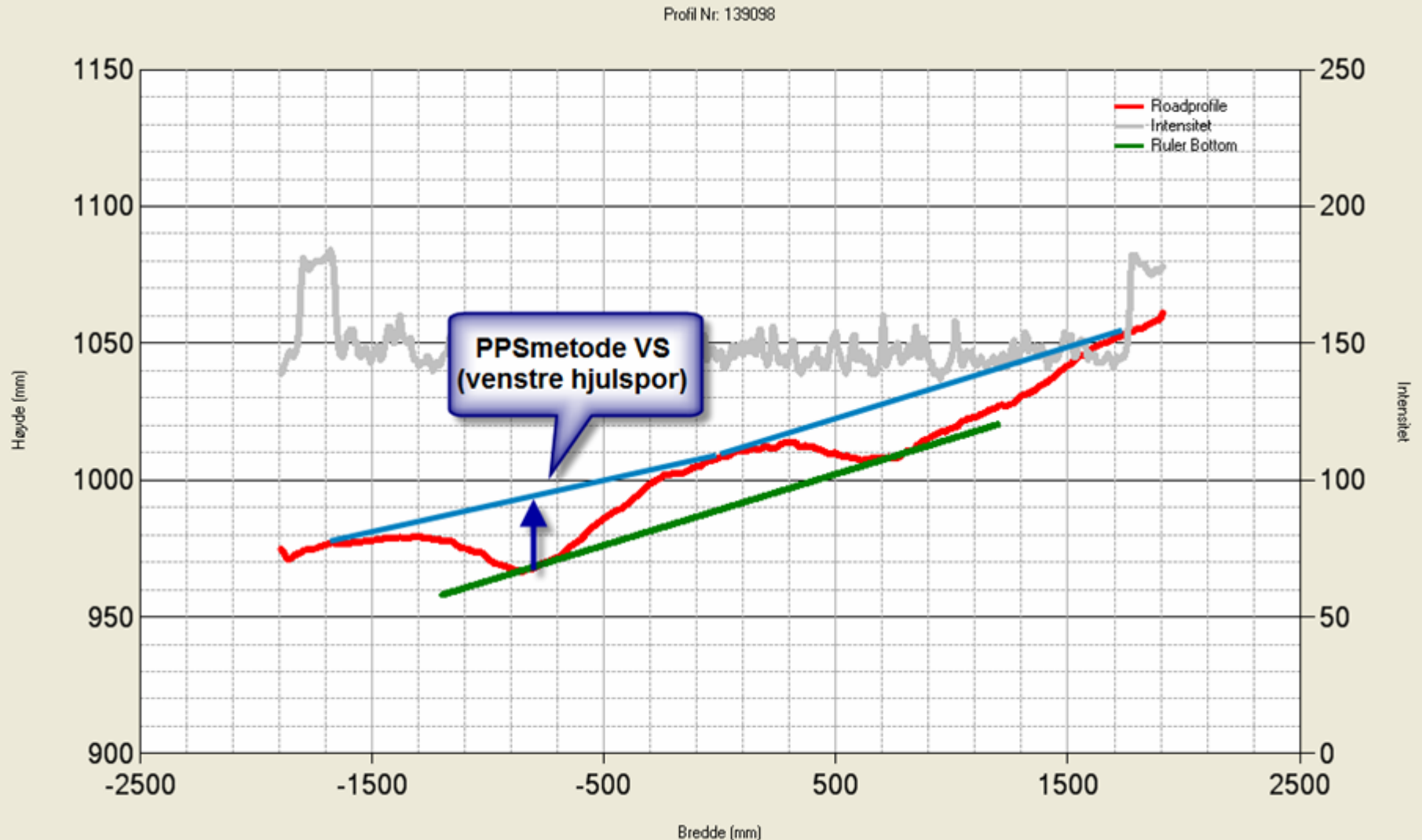
PPS
new possible
calculations:

Feb 2008

To



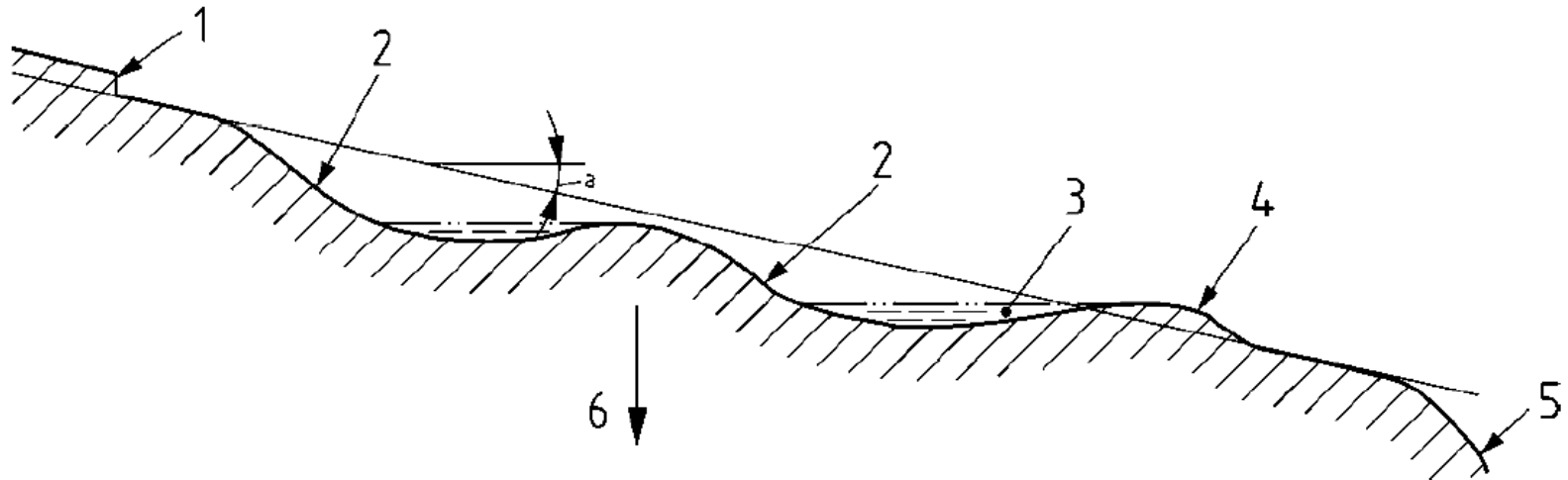
PPS new calculations: ruts left+right



PPS new calculations: ruts left+right+?



CEN definitions



Key

- 1 step
- 2 rut
- 3 water depth
- 4 ridge/bump
- 5 edge slump
- 6 gravity

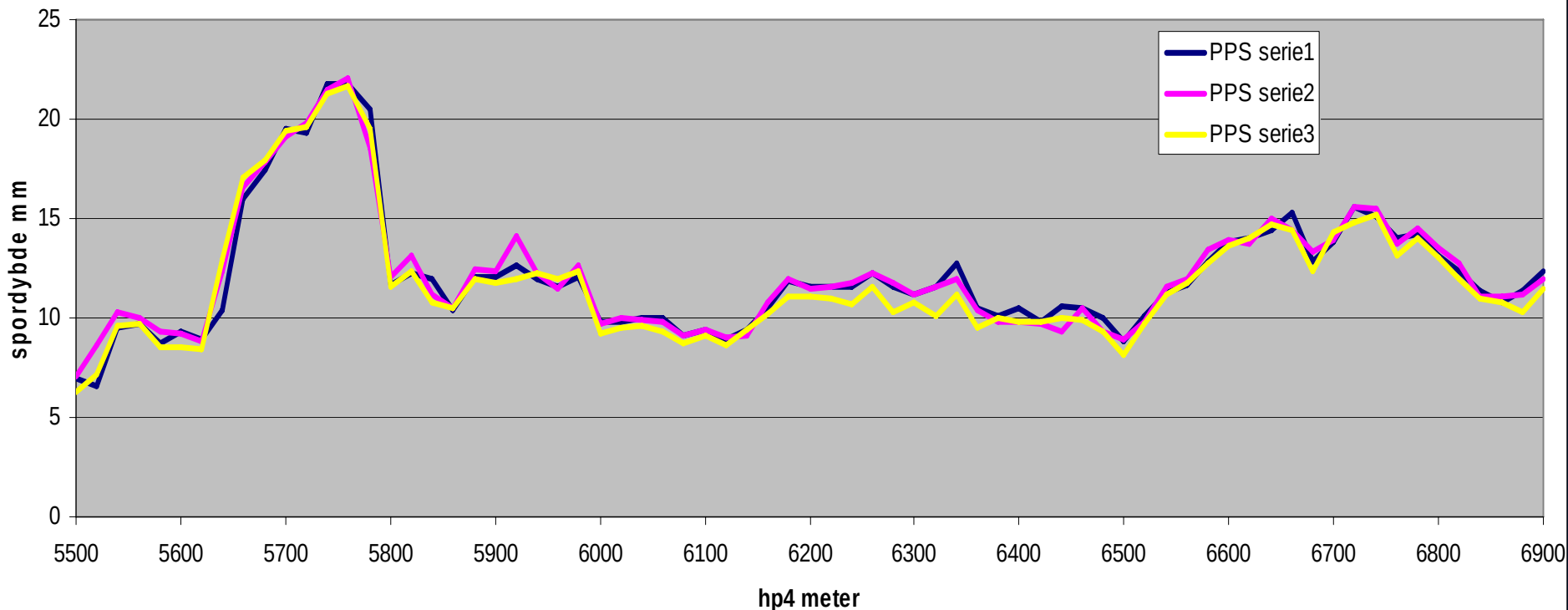
Figure 1 — Schematic overview of the different characteristics of transverse unevenness

Office in the car!

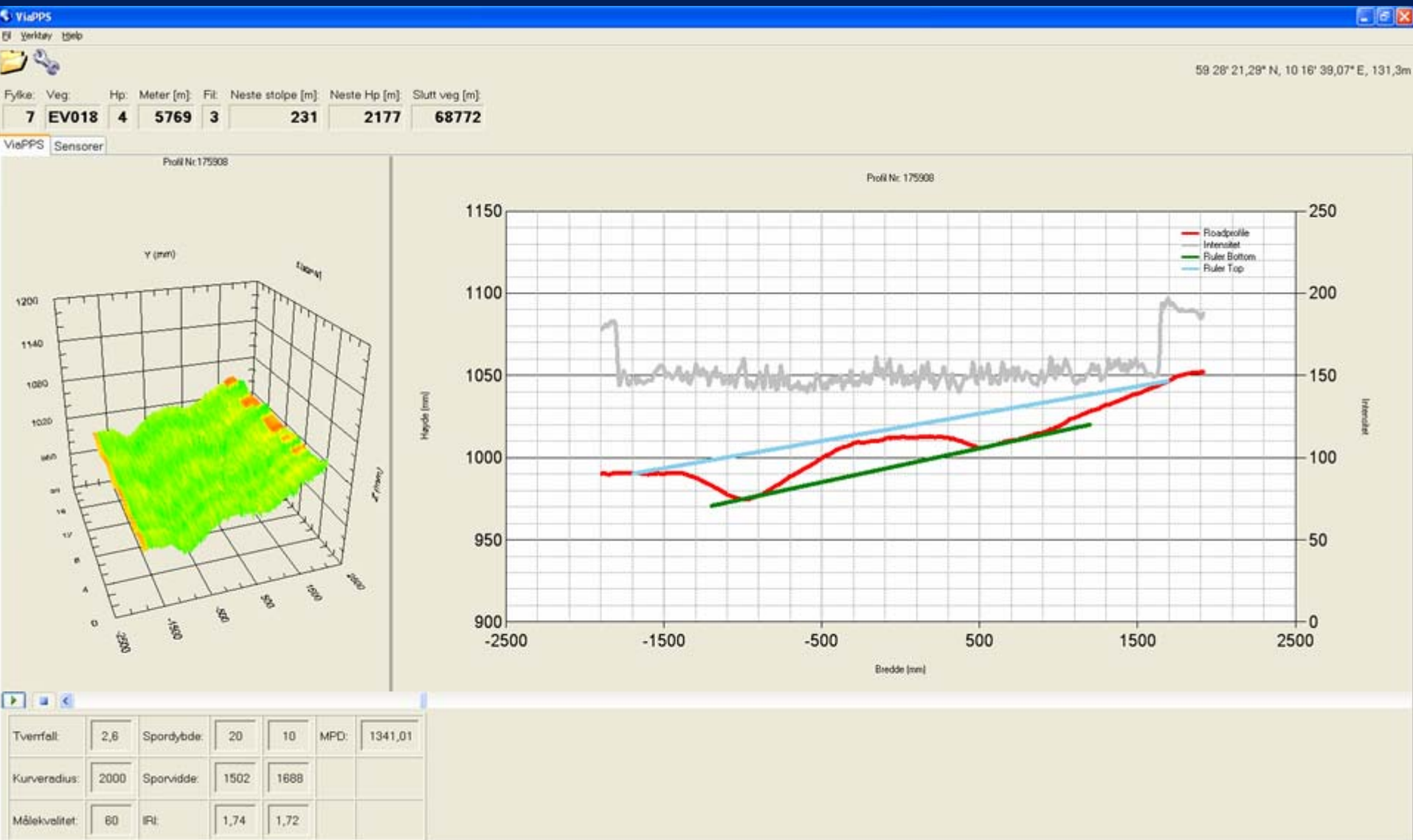


Repetition testing PPS

Vestfold E18 FoU-strekning; 3 PPS måleserier



PPS examples, wire+''alfred''



PPS examples, wire+”alfred”



PPS examples



PPS examples (video)

- ViaPhoto road photos E18
- ViaPPS measurments E18

A photograph of a yellow and orange van driving on a two-lane asphalt road. The van has a scanner mounted on its roof and a green sign on the front that says "Registrering". The road is flanked by green grass and trees. In the background, a white car is visible on the road. The text "Pavement Profile scanner on the road again!" is overlaid in yellow on the right side of the image.

Pavement Profile
scanner on
the road
again!



Thank you!