

News about Swedish trials with the TSD and Raptor

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Pavement Materials

Pavement Design

Pavement Management

Private-Public-Partnership

Green solutions

Challenges!

37.5→51.4→56→60→64→74 → **+105t**

Load +100% (ca 50 Y)

Additional axles

More frequent loading / Unloading

Exemptions (-150t)

Deformations?

Cracks?

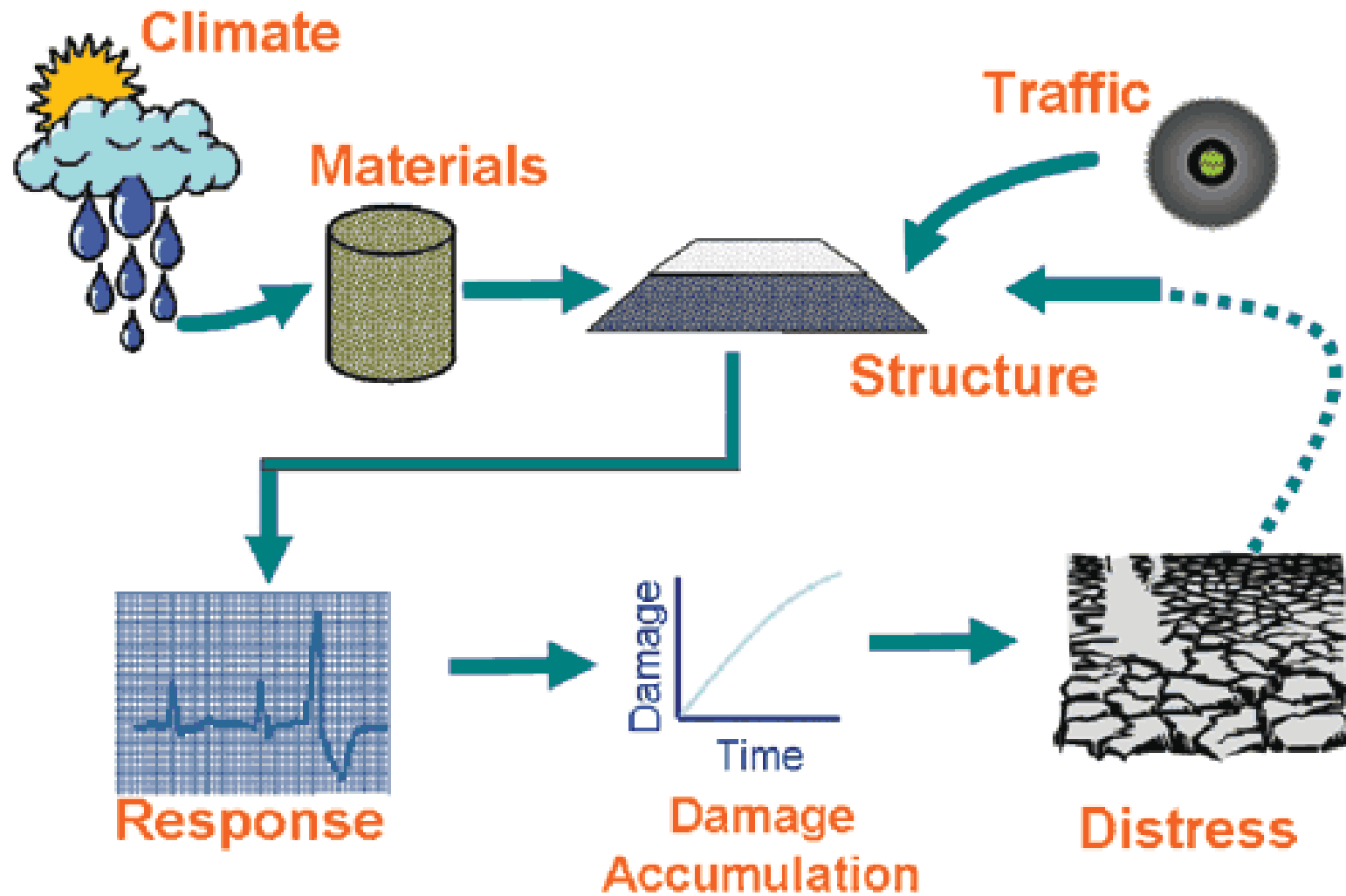
Other damages?

Climate impact?

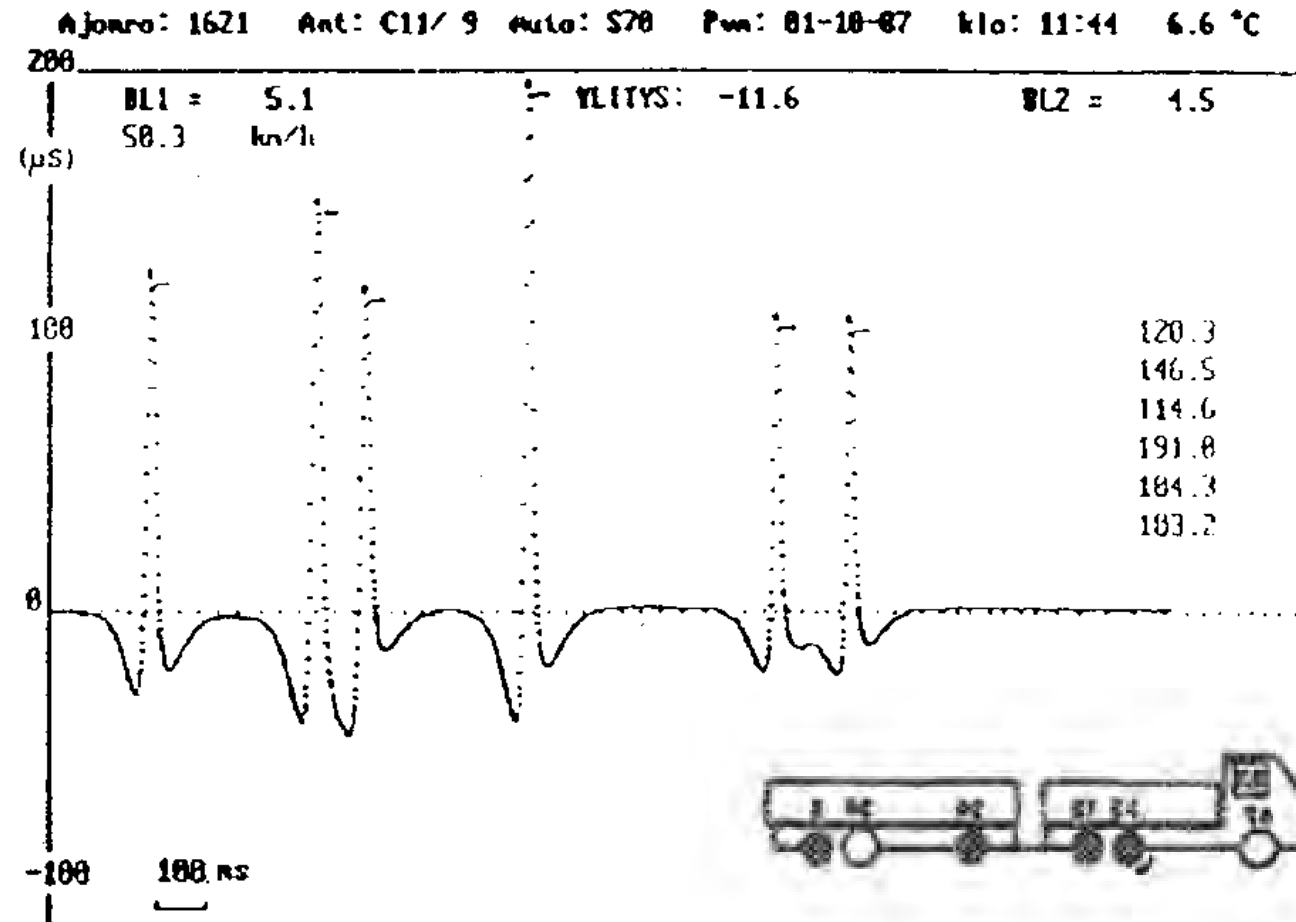
Long term contract 10-50 Y
Win contract!
Warranties!
OPPORTUNITIES & RISKS!



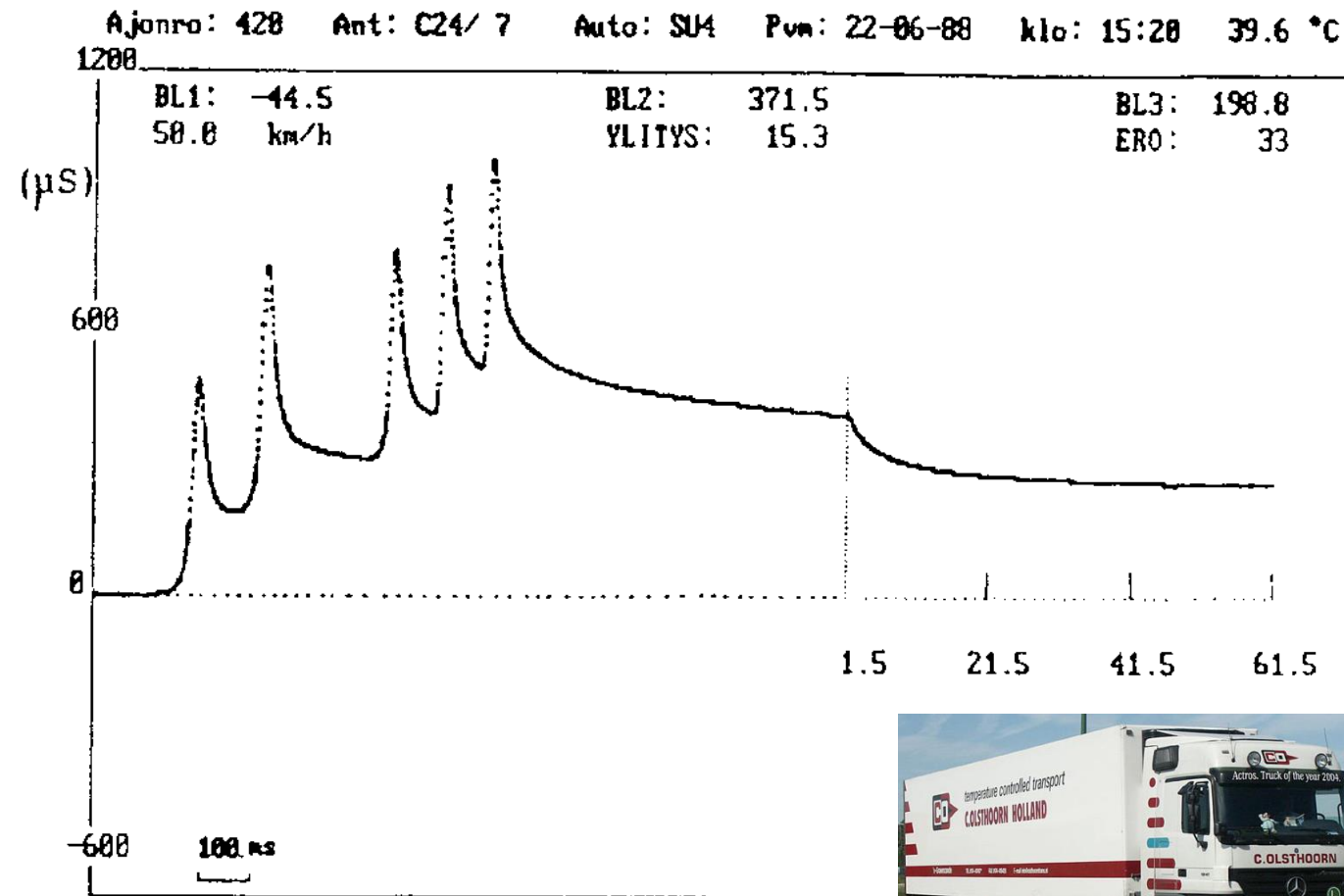




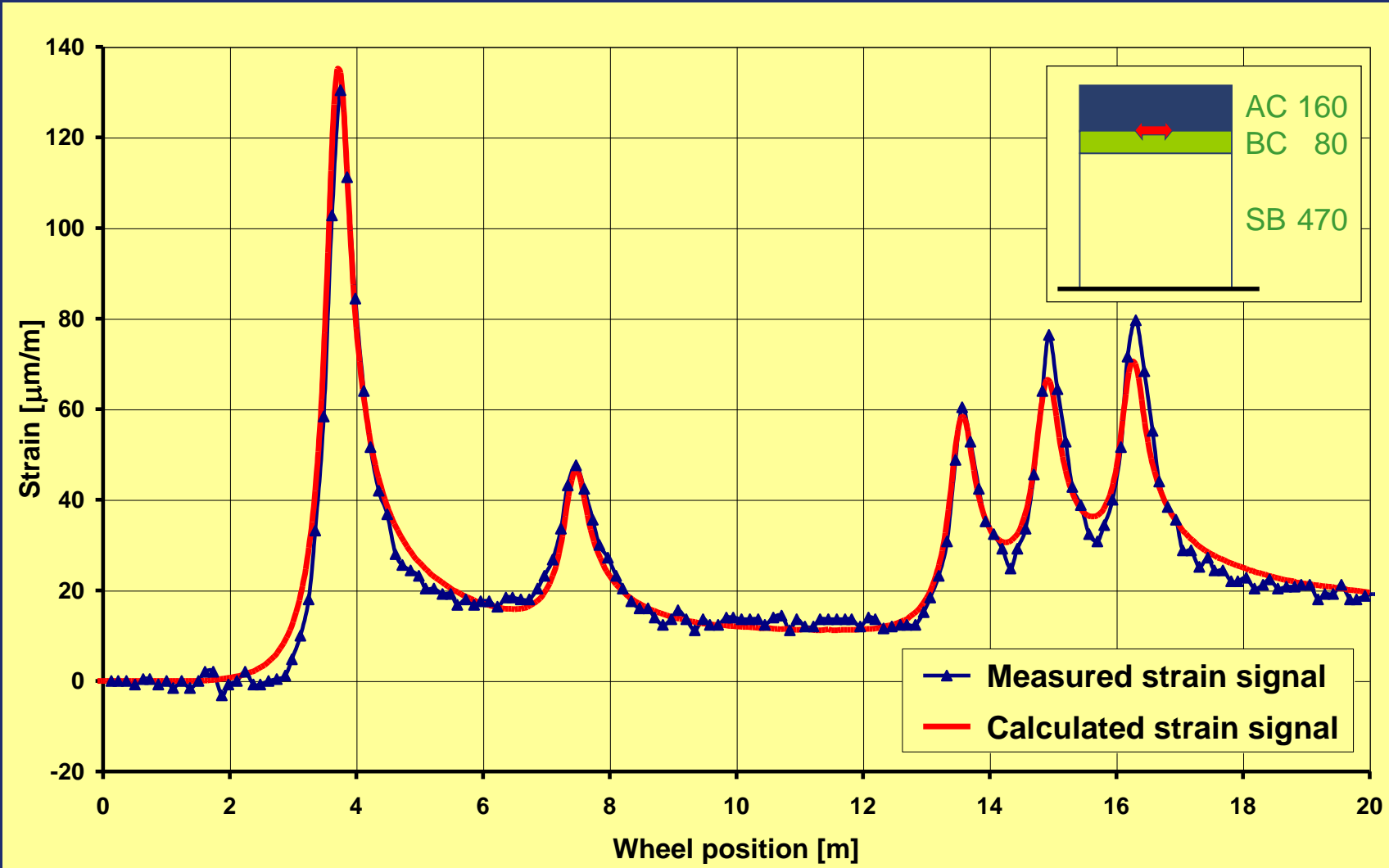
Longitudinal strain curves



Transversal strain curves

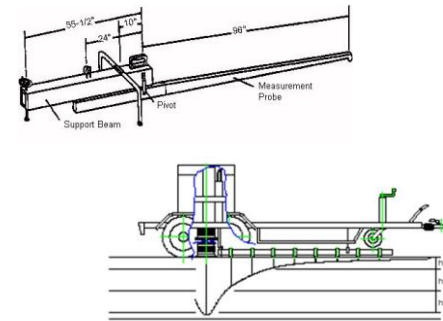


COMPARISON BETWEEN MEASURED AND CALCULATED TRANSVERSAL STRAIN SIGNAL



Example of deflection measurements

- Benkelman Beam (1952)
- LaCroix Deflectograph (1957→)
- FWD (Late 1960s)
- Danish Deflectograph (1972→)
- Curviamètre (1972→)
- RDT (1992-2006)
- HSD (2003 →)
- TSD (2010 →)
- RAPTOR (2017 →)

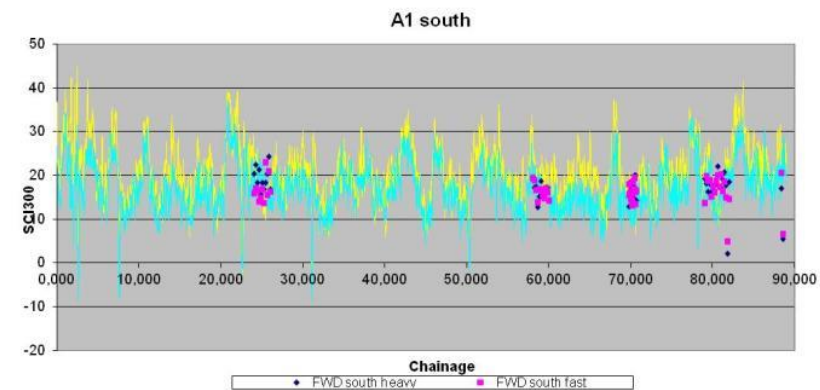
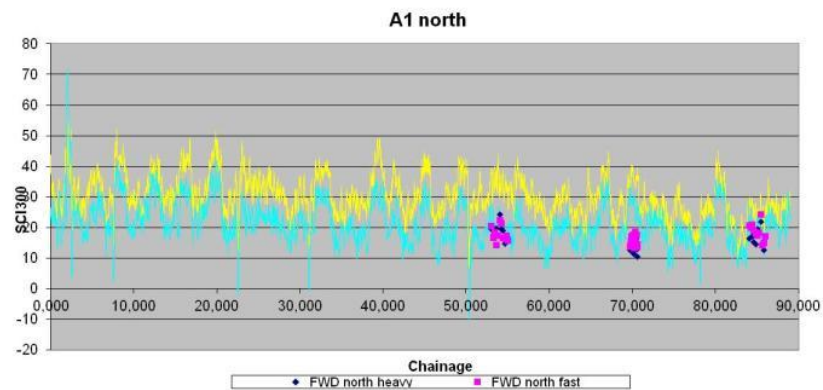


HSD-measurements on A1 Poland, 2008/2009

- Performed HSD-measurements (0/000-151/900 km)



DRI, Danish Road Institute



TSD-measurements on A1 Poland and in Sweden

Traffic Speed Deflectometer (TSD) 2013-2015



Ibdim - Road and Bridge Research Institute

- Non-destructive testing
- Structural Assessment of Pavement Systems

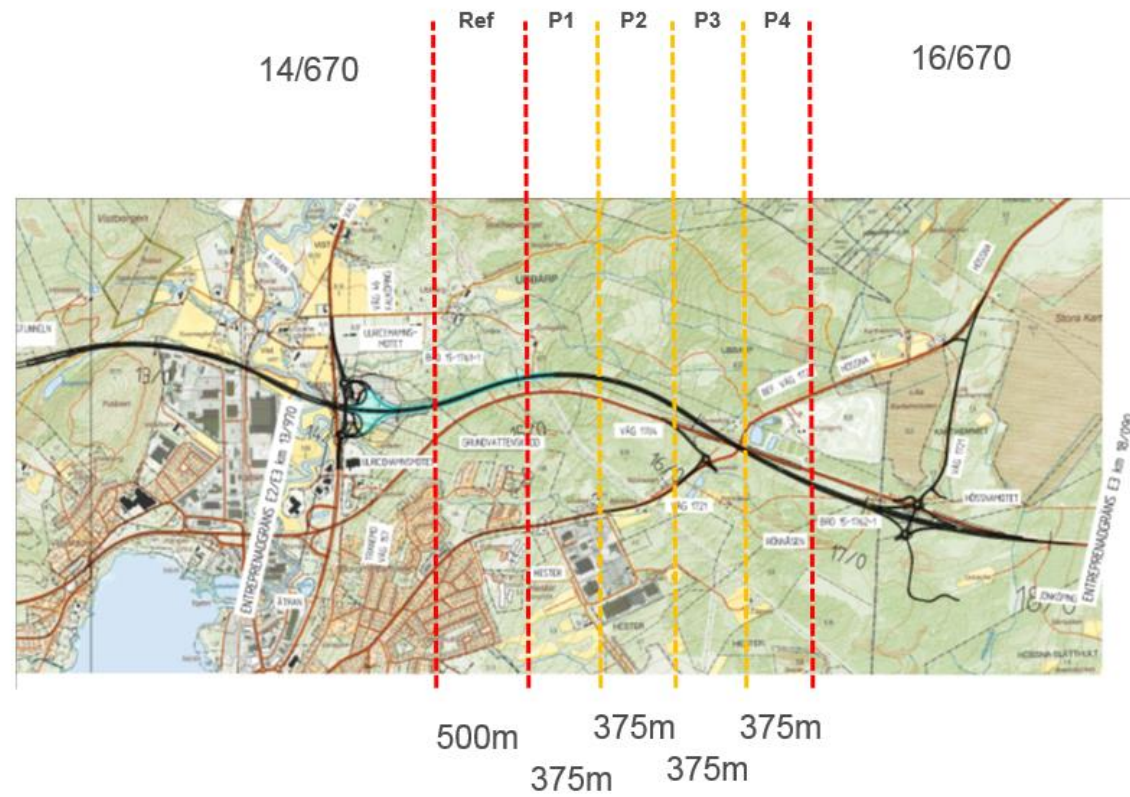


Dynatest Raptor, Sweden / Norway, 2019



Effect of environment friendly transports 2019-2021 & Innovative pavements (SNRA-Industry)

- Effect of BK4 (74t)
- Instrumented test sections Rv40 and E20
- Functional properties
- Laboratory evaluation, DSR, Seismic measurements (MASW), Master curves, surface measurements, GPR, RST, IRI, FWD, TSD, RAPTOR etc.
- Pavement analysis



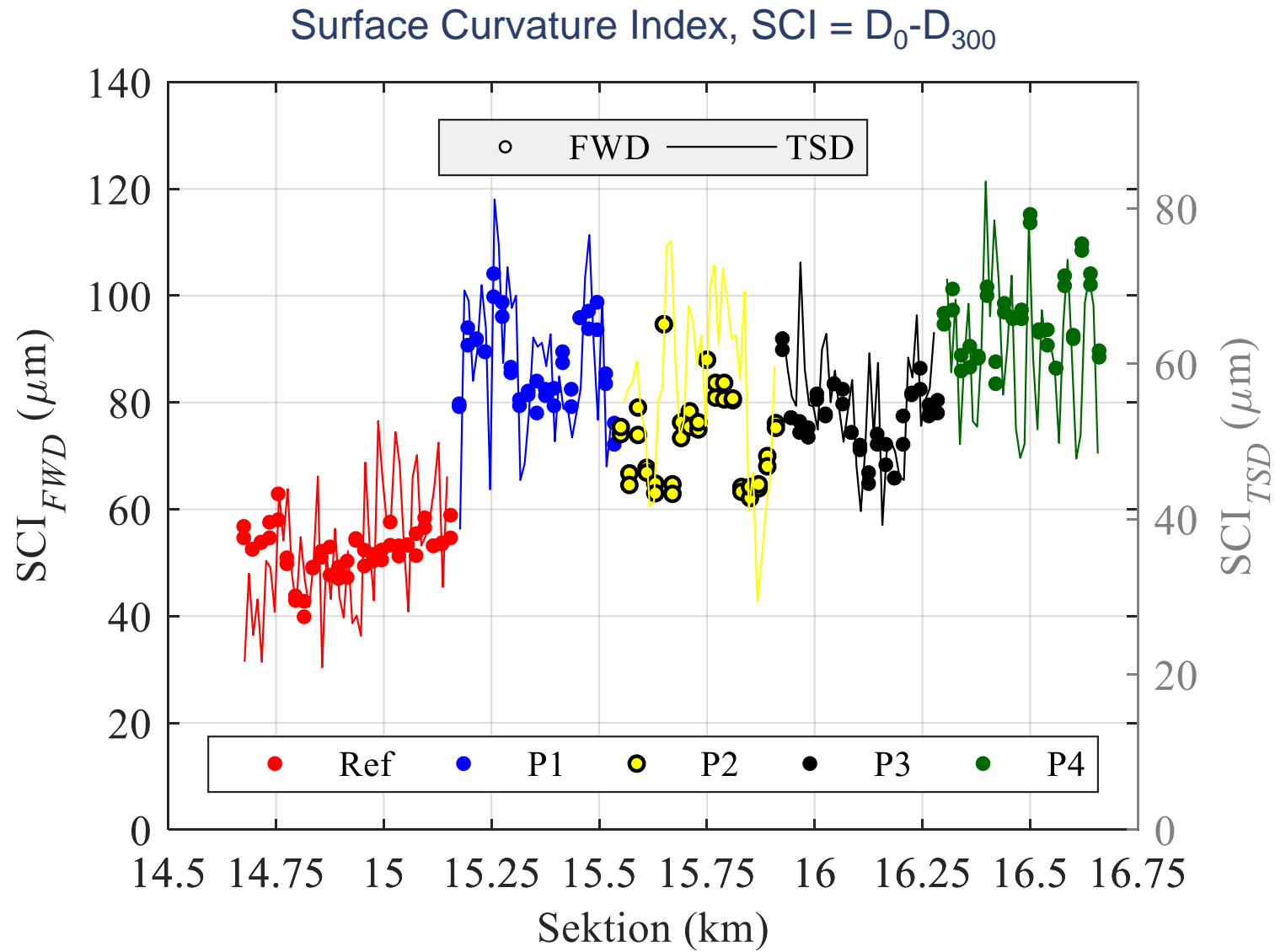
	Ref. 500 m	P1 375 m	P2 375 m	P3 375 m	P4 375 m
4 cm Slitlager ABS 16	70/100	70/100	50/70	45/80-65 (4 % SBS)	25/55-80 (7,5 % SBS)
5 cm Bindlager ABb 22		50/70		45/80-65	25/55-80
5 cm Bärlager AG 22	70/100	160/220	50/70	45/80-65	25/55-80
5 cm Bärlager AG 22	160/220	Obundet			
	>20 år	10 år	???		

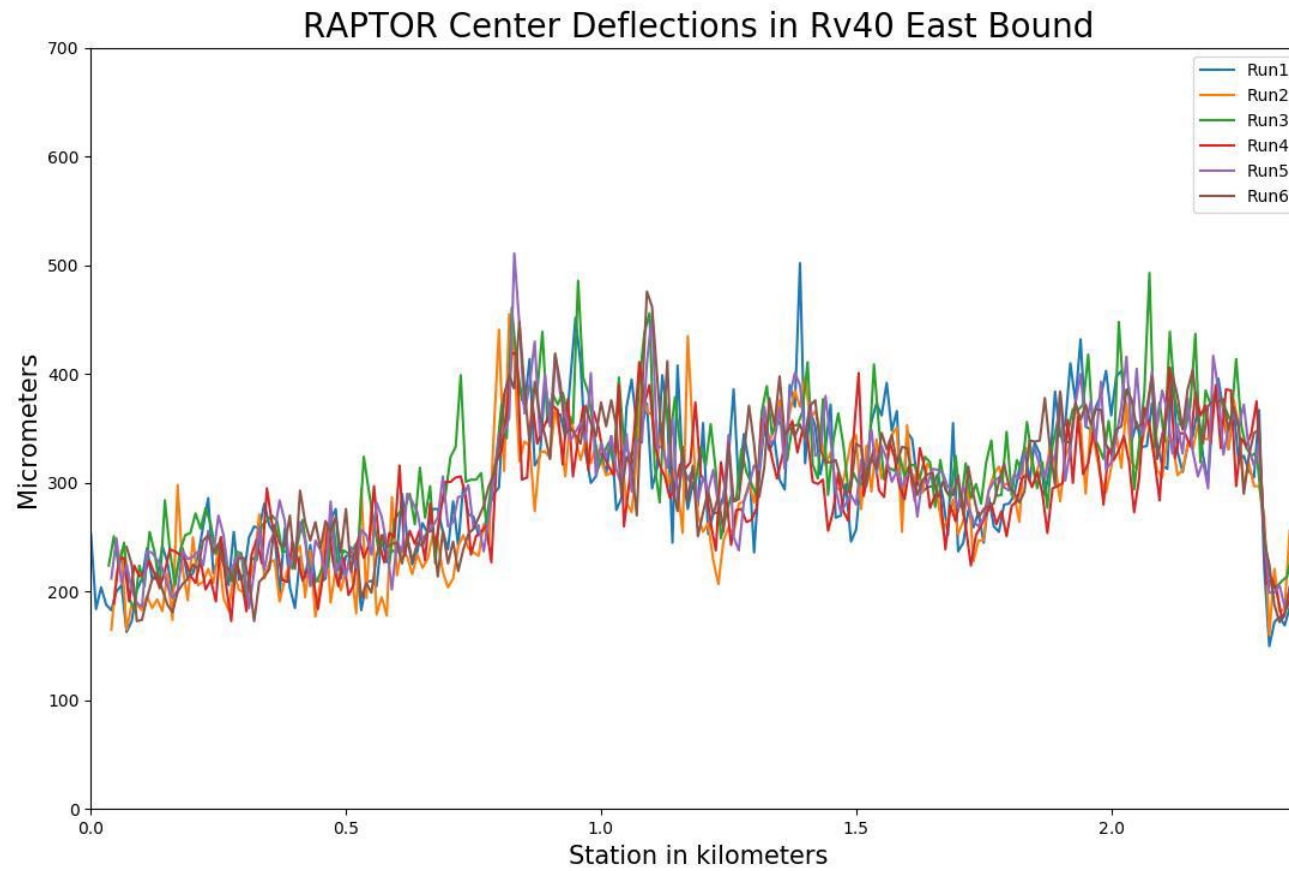
Ekvivalent antal standardaxlar ~ 14 miljoner

Introduction









Nerskogveien north bound, Norway

