

Swedish National Road Database (NVDB) and TN-ITS

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SWEDISH TRANSPORT ADMINISTRATION

January 2017



- NVDB - Swedish national road database
- STA implementation of a TN-ITS web service
- Challenges and lessons learned
- The future



Swedish National Road Database - NVDB

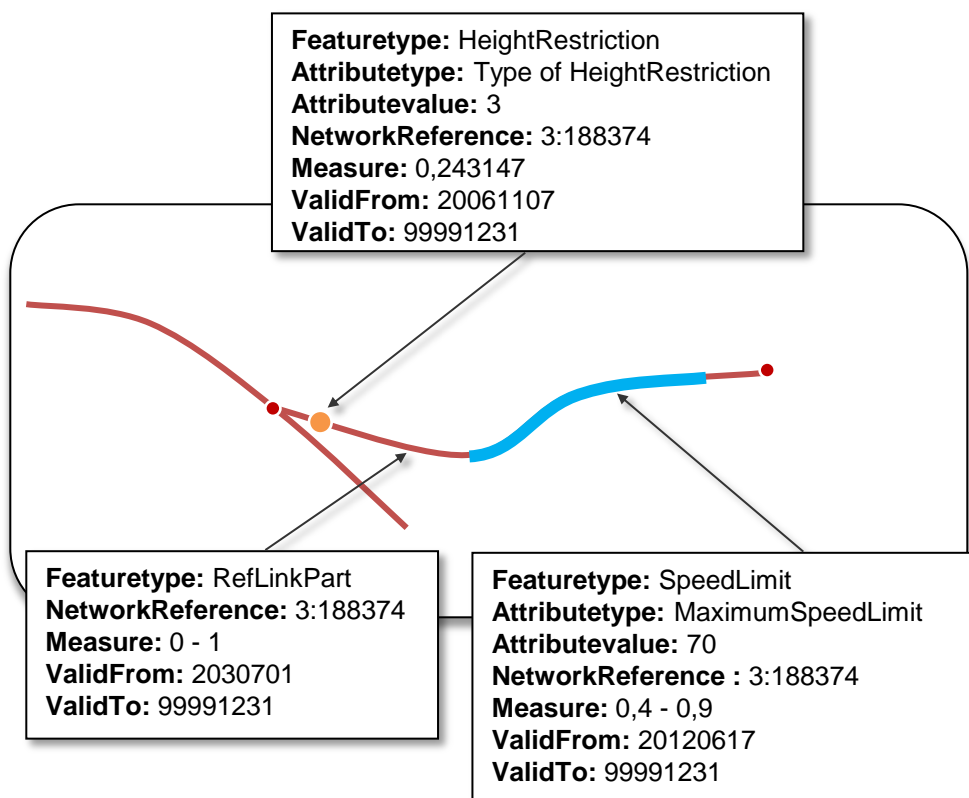


Government Commission 1996:
Former Swedish National Road Administration (SNRA) was commissioned to develop NVDB.

NVDB should be a tool for achieving the transport policy objectives

Swedish Transport Administration (STA) is responsible for the collection, maintenance and provision of national road data.

NVDB road network and feature concept



Road network

Geometry and topology

Road features

Properties (e.g. Speed limit) for a section of road or physical objects connected to the road (e.g. road barrier)

Connection

Specifies where, on the road network, a feature is connected through linear referencing

Time

Specifies validity in time for network parts and features

NVDB data content

Road reference network



Road feature data

- Traffic regulations
- Administrative information
- Technical information
- Special information for forest roads



NVDB – road transport network

Car network

- mandatory

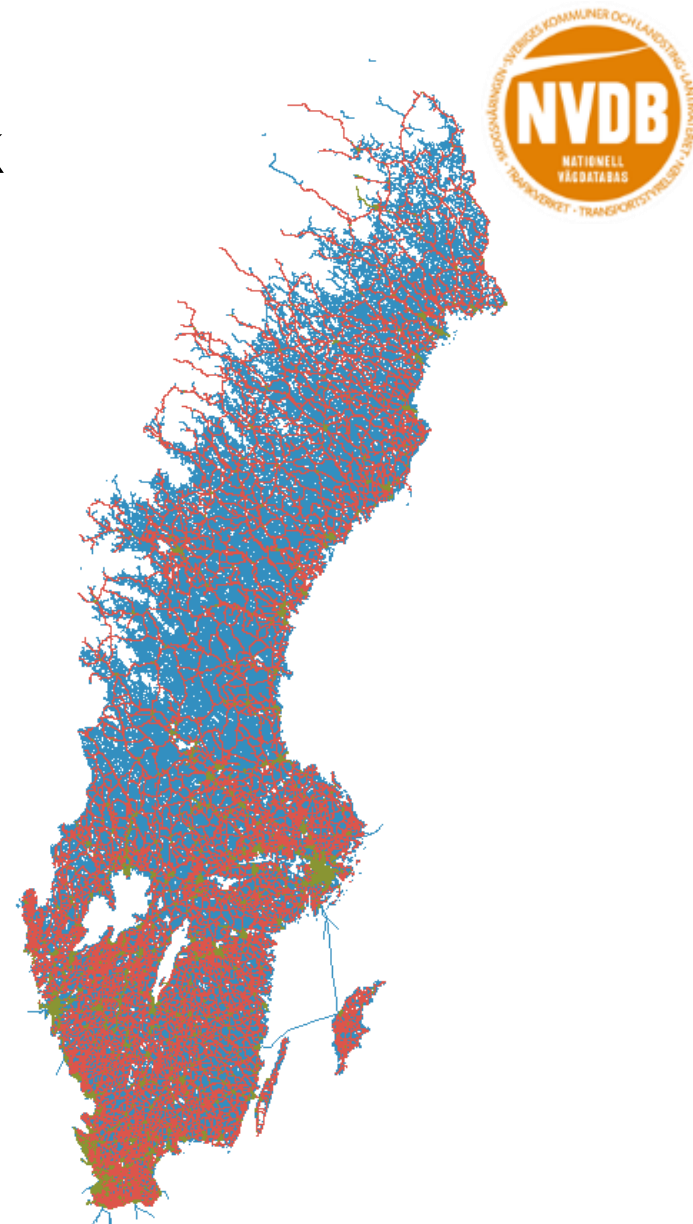
Bicycle network

- mandatory from May 2015

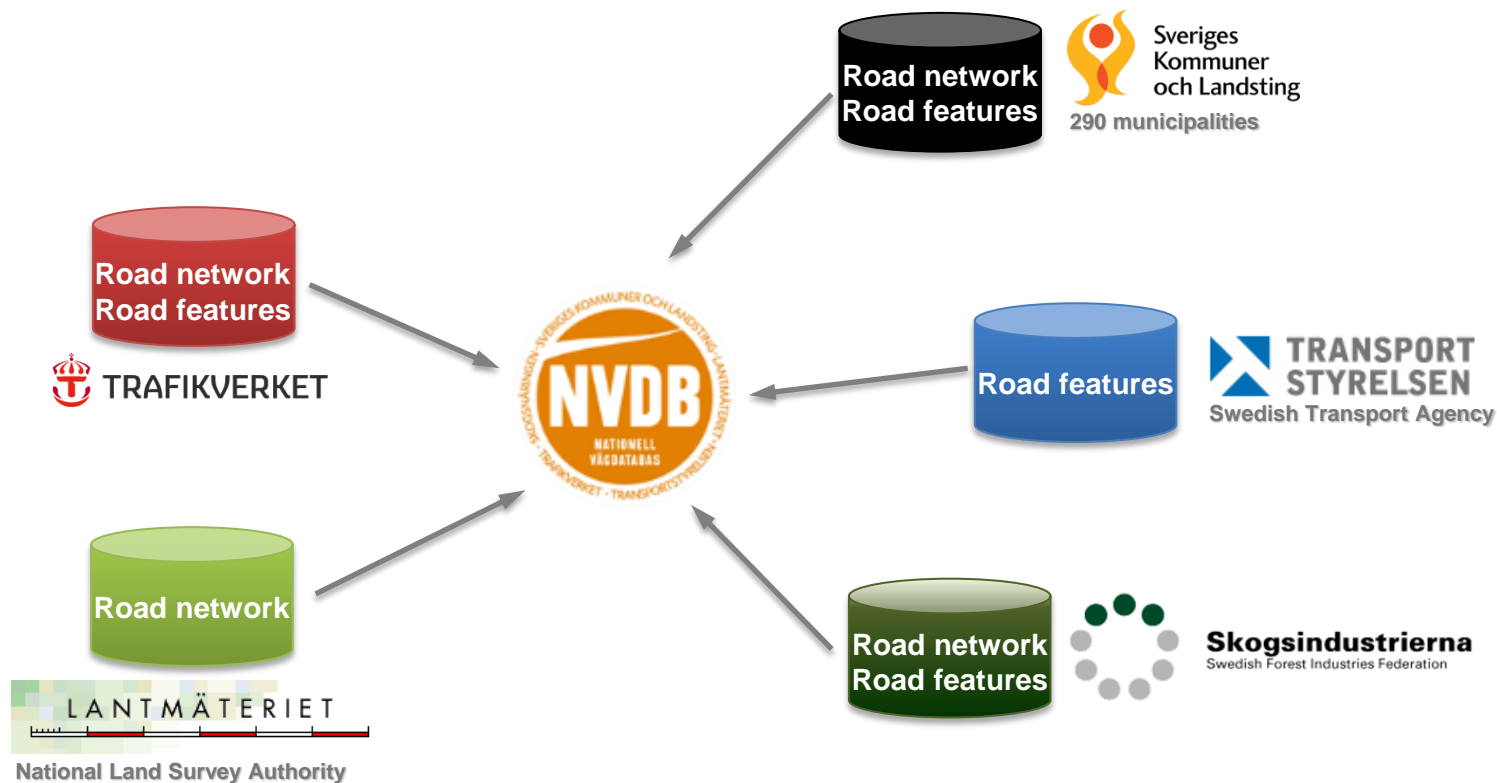
Pedestrian network

- voluntarily from 2015

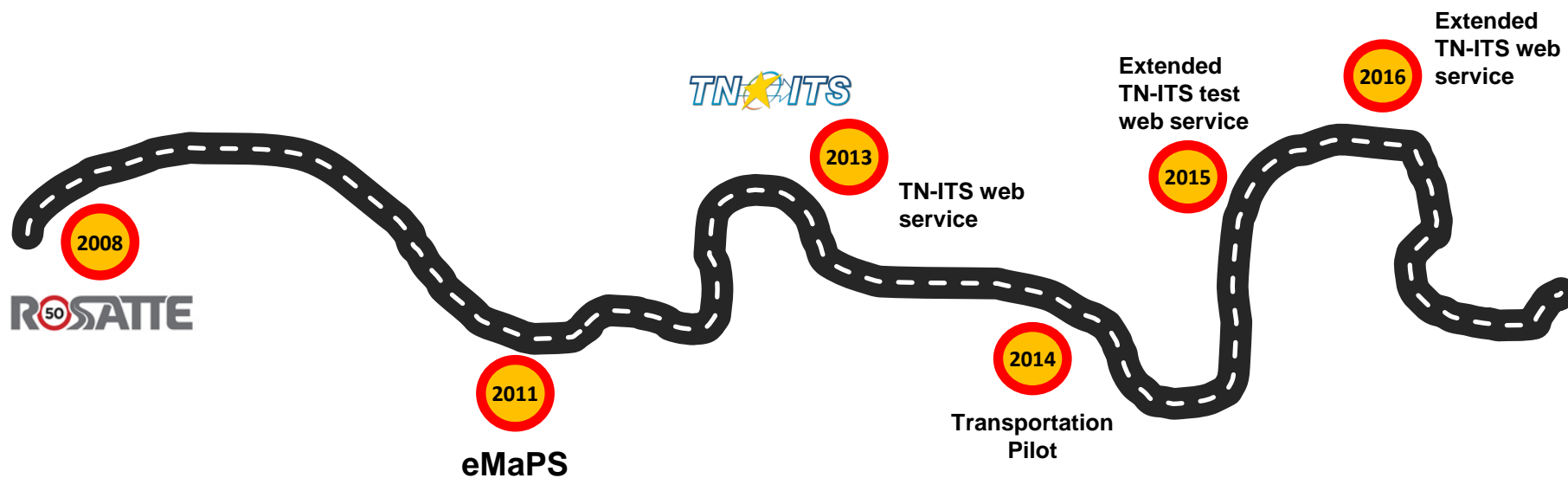
Road networktype \ Road authority type	State	Municipal	Private	Total length
Car	98 550 km	42 235 km	460 058 km	600 843 km
Bicycle	2 503 km	16 416 km	899 km	19 818 km
Pedestrian	3 km	686 km	88 km	777 km
Total length	101 056 km	59 337 km	461 045 km	621 438 km
Total percent	16%	10%	74%	



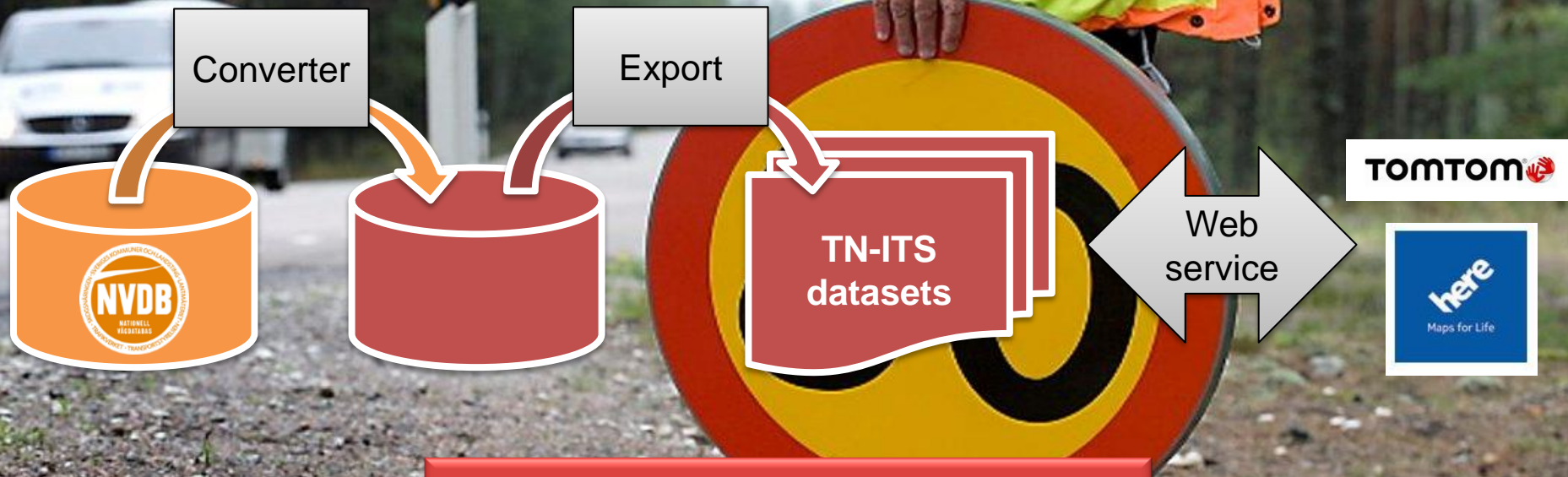
NVDB Data Collection



Time line



TN-ITS implementation



Result: Available daily incremental speed limit updates from NVDB in a standardised way in line with the ITS directive

Service deliveries

Safety feature type	Safety feature property value
SpeedLimit	MaximumSpeedLimit
RestrictionsForVehicles	MaximumWeightPerSingleAxle MaximumHeight MaximumLadenWeight MaximumWidth
NoEntry	
(PassingWithoutStopping Prohibited)	
RoadName	Name
RoadNumber	Number

Documentation

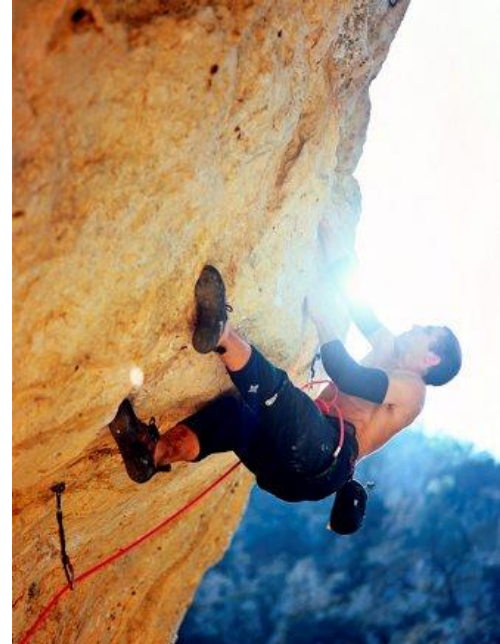
[Service description](#)

[Service metadata](#)



Challenges and lessons learned

- Solution maintenance
- Mapping the specification
- Information lost during translation
- Translation capacity
- Data collection
- Ownership and licensing
- Dependencies to other components
- Specification changes – how to make them happen?



The future

- How does TN-ITS relate to other activities within the ITS directive or other ITS related regulations?
- Are TN-ITS services considered to be an Inspire invocable spatial data service (SDS)?
- User feedback and support – to what extent?

Thank you for your attention!

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