

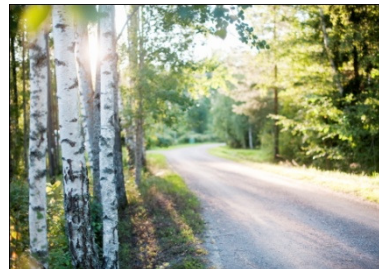
Swedish National Road Database (NVDB) and TN-ITS

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TRAFIKVERKET
SWEDISH TRANSPORT ADMINISTRATION

April 2016



Swedish National Road Database - NVDB



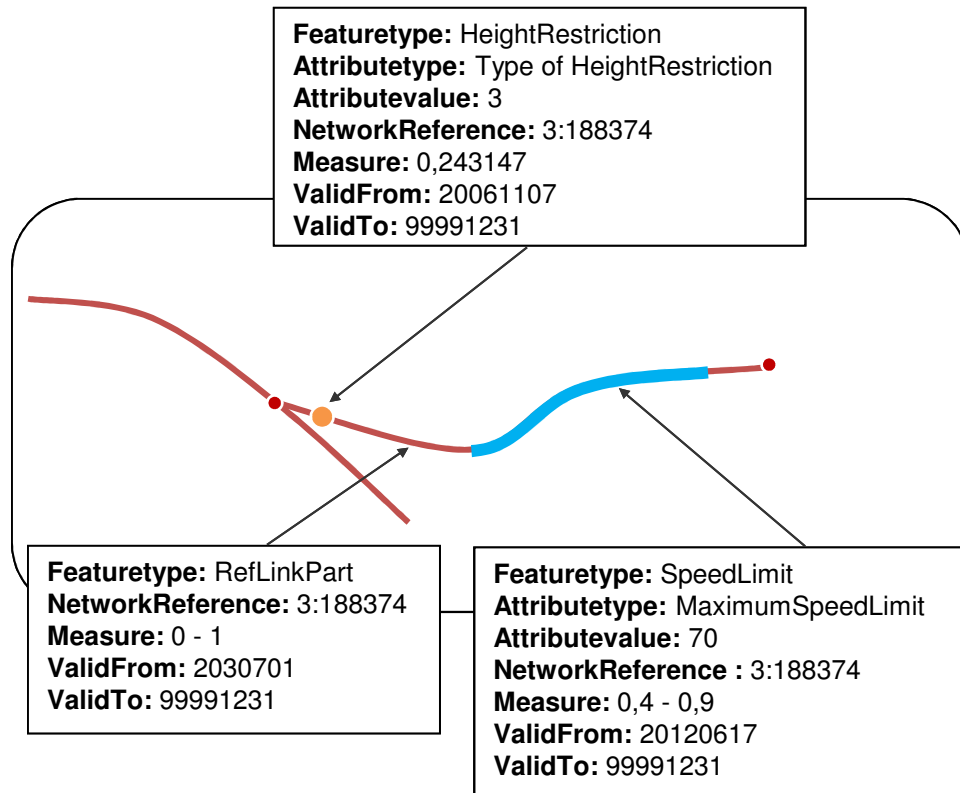
Government Commission 1996:
Former Swedish National Road Administration (SNRA) was commissioned to develop NVDB.

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 – road transport network

Car network

- mandatory

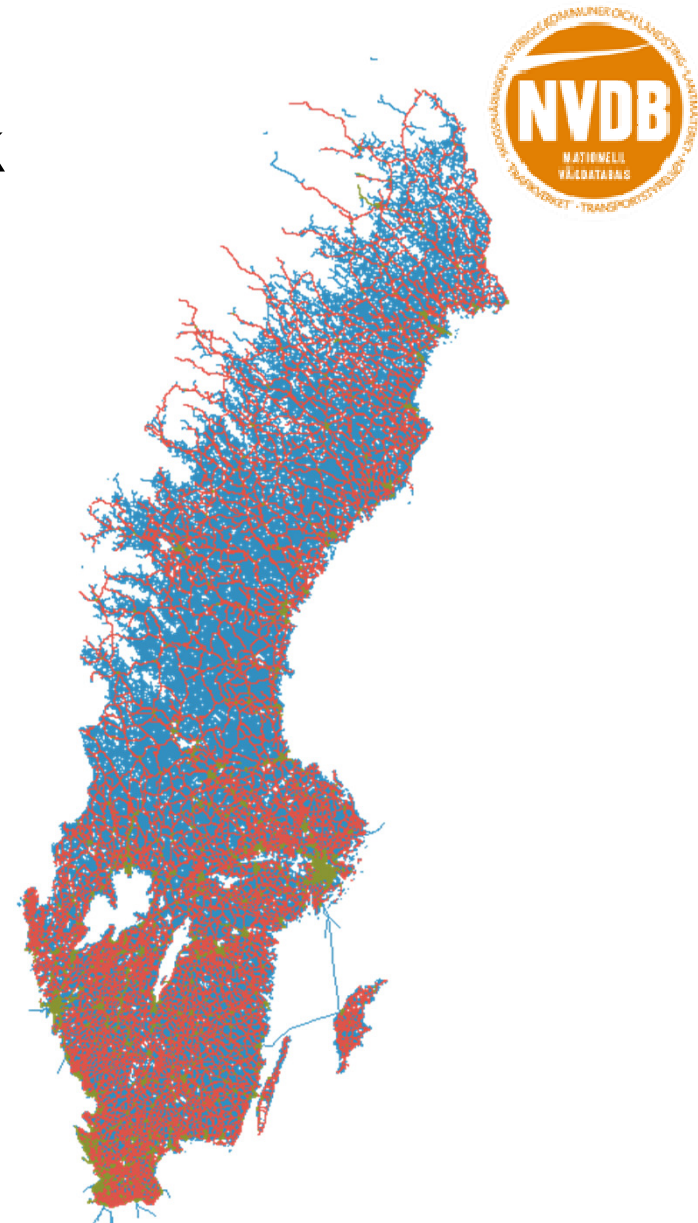
Bicycle network

- mandatory from May 2015

Walk 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
Walk	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 content



Road reference network

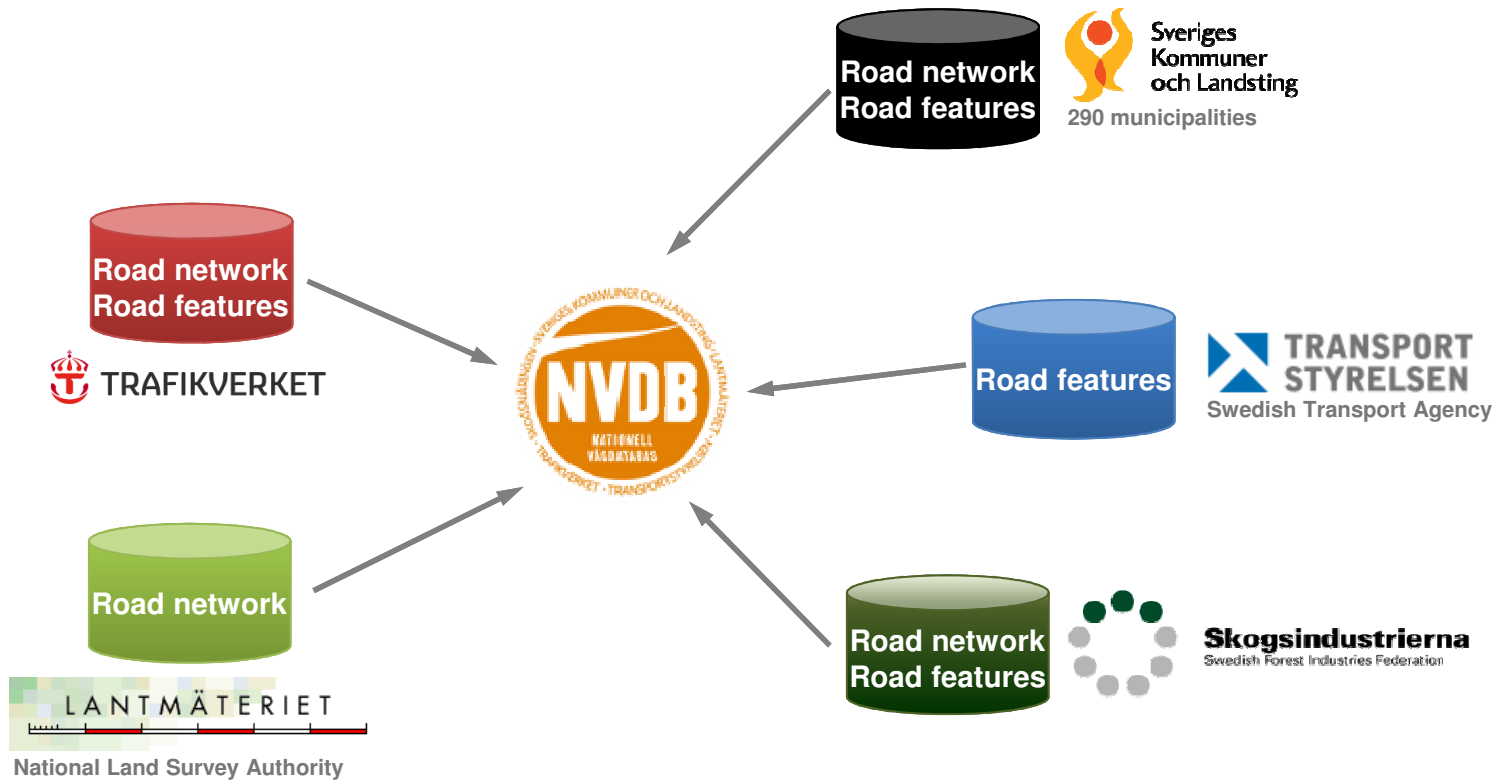


Road feature data

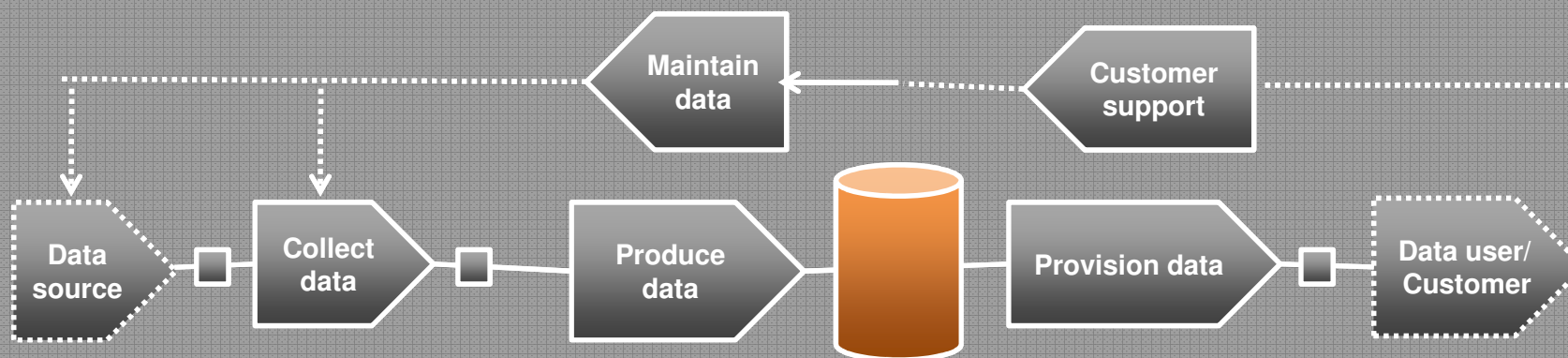
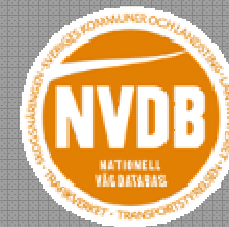
- Traffic regulations
- Administrative information
- Technical information
- Special information for forest roads



NVDB Data Collection



Process for quality assured provision of data

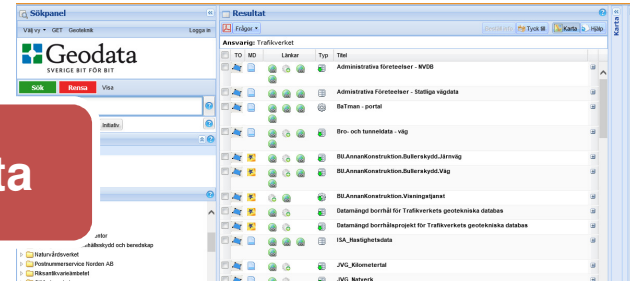


ISO 9001 Certification

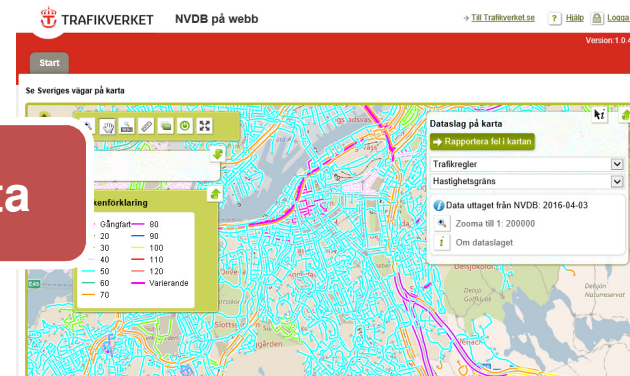
Access to NVDB



Find data



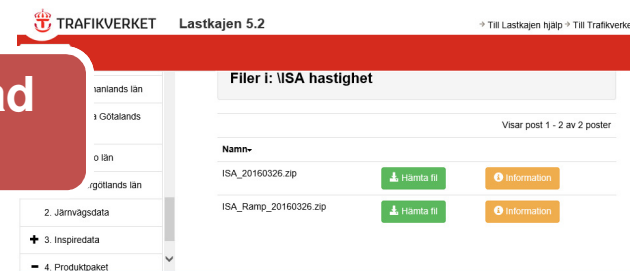
View data



Connect to data

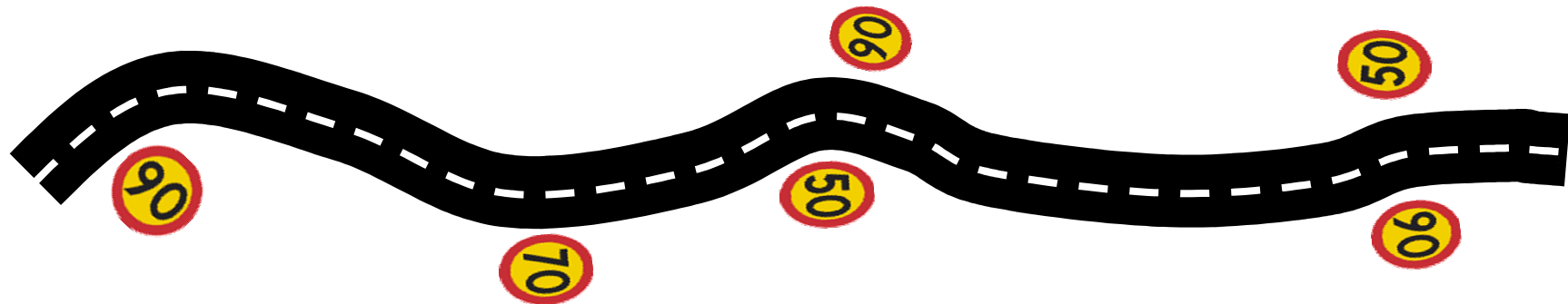


Download data



Intelligent Speed Assistance - ISA

- ISA is an in-vehicle system that supports drivers' compliance with the speed limit.
- The ISA system uses information on the position of the vehicle in a network in relation to the speed limit in force at that particular location.
- NVDB can provide ISA systems with valid speed limits through the Swedish ISA file.

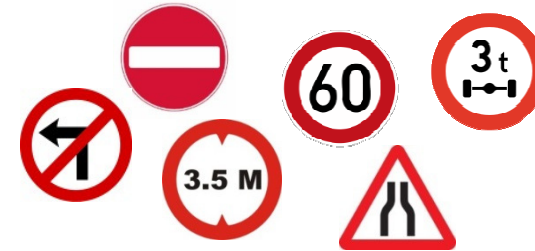


Intelligent Transport Systems (ITS)

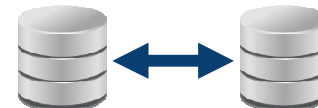
- ITS can significantly contribute to a cleaner, safer and more efficient transport system
- In 2008 the Commission adopted an ITS Action Plan
 - Action area 1: Optimal use of road, traffic and travel data
- The ITS Directive was adopted on 7 July 2010 to accelerate the deployment of innovative transport technologies across Europe

TN-ITS helps road users get fresh map data from the road operators to the vehicle's navigation systems

Linking road authorities and mapmakers

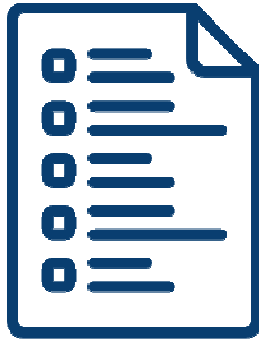


Creating a seamless data value chain



Providing reliable, accurate road data to drivers





Standardisation

Define & maintain TN-ITS specifications in CEN/TC 278 WG7

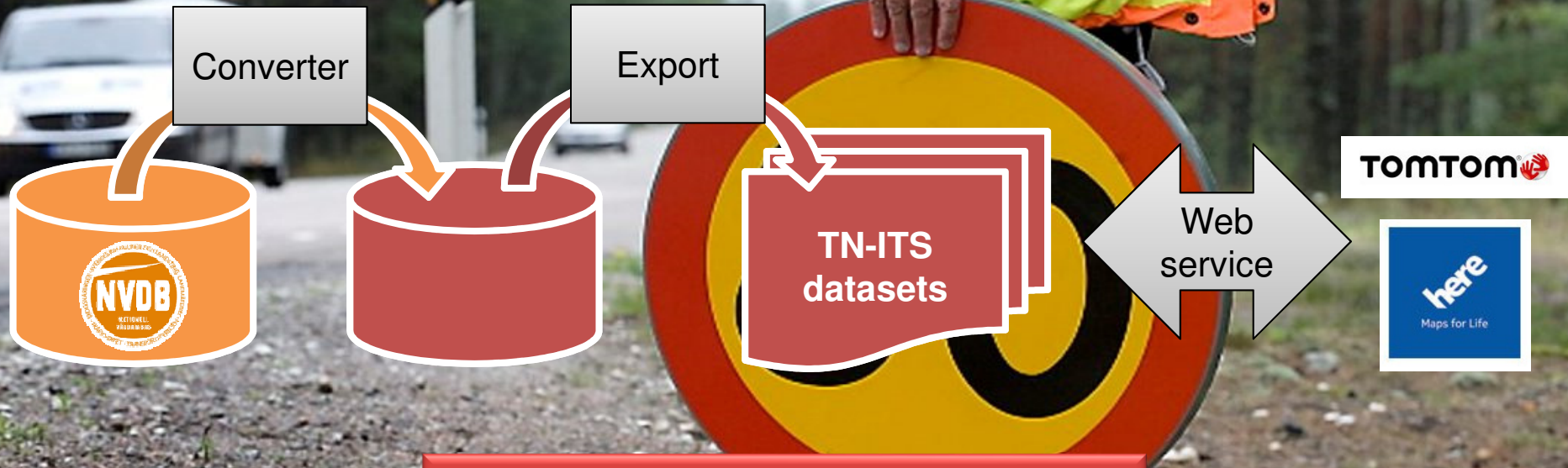


Implementation

Provide guidelines, tools and services to support implementation in **Belgium, Finland, France, Ireland, Norway, Sweden, and United Kingdom.**

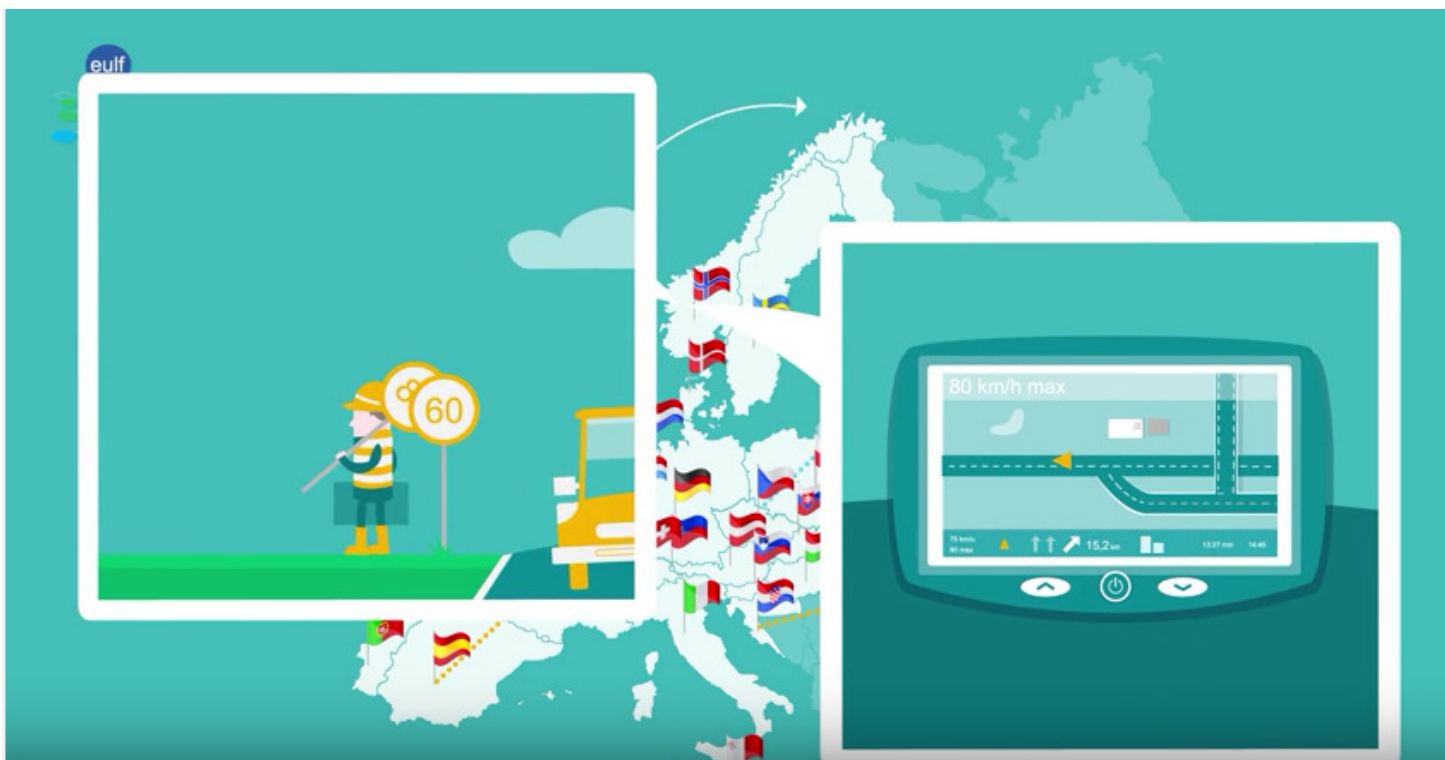
TN-ITS implementation

TN-ITS



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

The transportation pilot



Thank you for your attention!

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