INSPIRE and ITS Applications

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INSPIRE Workshop Warsaw
Agenda

About HERE/Map Building

TN-ITS – Map Update Exchange

INSPIRE and digital Maps
HERE in numbers

- **200** Countries mapped
- **7,000+** Employees in 56 countries focused on delivering the world’s best map and location technologies
- **400** Employees in 56 countries focused on delivering the world’s best map and location technologies
- **30+** Years of experience transforming location technology
- **700,000** 3D data points per second per car
- **7,000+** Employees in 56 countries focused on delivering the world’s best map and location technologies
- **700,000** 3D data points per second per car
- **100M** Vehicles and counting
- **28** TB map data collected per day
- **400** HERE cars collecting data for our maps

In-car navigation systems in Europe and North America use HERE maps.
Building the World’s Best Map is a big data problem, but focusing on a single data stream would be missing the point:

- 400+ HERE collection vehicles
- >50 Local GIS expert teams
- >50 Billion records per month by thousands of expert communities and developers
- 105 Billion basic probe points/month
- Rich sensor data from >400,000 vehicles
- Closed loop with leading companies across all industries
- 80k sources & suppliers
World’s best map data

Lidar vehicles

3,000,000 KM covered in 50+ countries

1 TB highly accurate data per week

700,000 points per second
It all starts with the best possible sources

80,000 high quality sources

- Sources provide the foundation for the map
- Standardized data audit Processes

Imagery
Government Contacts
Third Party Data
HERE True
Postal Data
Call Center
Telecom & Utilities
Probes
Remote Collection
TN-ITS- Map Update Exchange
TN-ITS Vision and Mission

**Vision**

Bringing fresher map data to intelligent transport services

**Mission**

Facilitate and foster the exchange of ITS-related spatial road data between road authorities as trusted and quality data providers, and, data users as map makers and other parties.
TN-ITS Storyboard

2013: TN-ITS founded as ERTICO Platform

2014-2015: Transportation Pilot with JRC & EULF: operational services NO, SE

2016-2017: CEF Pilot EIP A4.7: five MS: IE, UK, BE/FL, FI, FR


2018-2021: CEF Grant TN-ITS GO: nine additional MS: NL, HU, CY, SL, EE, LT, PT, ES, GR

Towards TN-ITS services in 15 EU countries
TN-ITS Members
The TN-ITS data chain

Road Authorities publish changes of road data

Map makers retrieve, verify and integrate these changes in their platform and bring this to map users

Drivers can benefit from up-to-date fresh map data in their in-vehicle system, stand-alone navigation device or smartphones

→ to share effectively any changes to road data and ensure a seamless data chain
Incremental updates

Since start in 2015:

About 1 mil. changes received from Norway, Sweden and Finland

Resulted in more than 500k Database changes/validations
TN-ITS GO: further deployment in EU

- CEF MOVE/B4-2017-63 2M€ Grant
- 20 partners across EU
- First TN-ITS services in nine MS
- Improvement in five existing implementations
  - Pilot services to become fully operational
  - Feedback loop from Map Makers
  - New features supporting new use cases
- Minimum coverage TEN-T network – ambitions is more!
- Start Jan 2018 – 4 Years
Main benefits of TN-ITS

• Trusted Source
• Incremental updates – pointing to the changes
• Daily updates
• Standardization
• Automatization
• One Interface and data license per country
INSPIRE and digital Maps
Examples of Public Data Sources

- Point Addresses
- Transport Networks
- Points of Interests
- 3D City Models
- Road Signs

HERE Reality Index™
Adress Data

Integration of APIs

Automated Process

Regular updated Point Addressing
Road Network

Germany

Data is used to detect:

• New constructions
• Road Classification
• Roundabouts
INSPIRE Data is an important source

Data Quality

Harmonization of Access Points

Standardization is Key

Data at big scale

Regular updates

Licensing
Thank you

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