

Joint Research Centre

the European Commission's in-house science service

*Serving society
Stimulating innovation
Supporting legislation*

The Transportation Pilot

ITS European Congress

08 June 2016
Glasgow

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Societal challenges in Transport sector

Decarbonisation of transport



Road safety



ITS as a key to address these issues

Connected cars



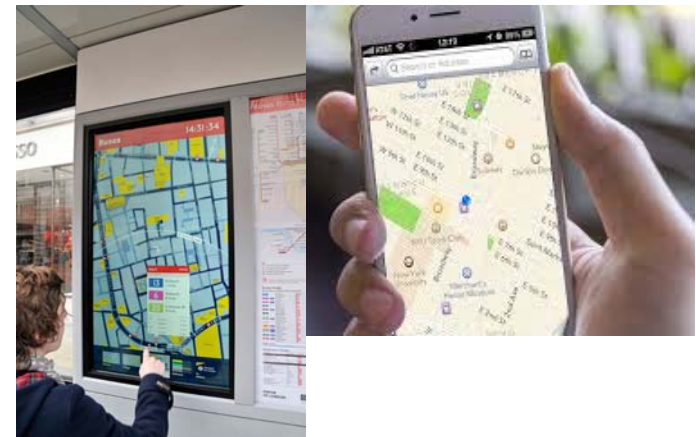
Smart mobility



Cooperative systems



Digital maps



ITS Directive requires data for digital maps

Main points

- Provision of EU-wide **real time traffic** information services
- Provision of EU-wide **multimodal travel** information services
- Creation of **standards** for the integration of accurate public **road data in digital maps**
- Ensure coherence and convergence with **INSPIRE**, in particular for **static data**

Envisaged benefits

- Optimisation of business exchange
- Reduction of duplication
- Increase in dissemination
- Better reuse
- Cost and time savings

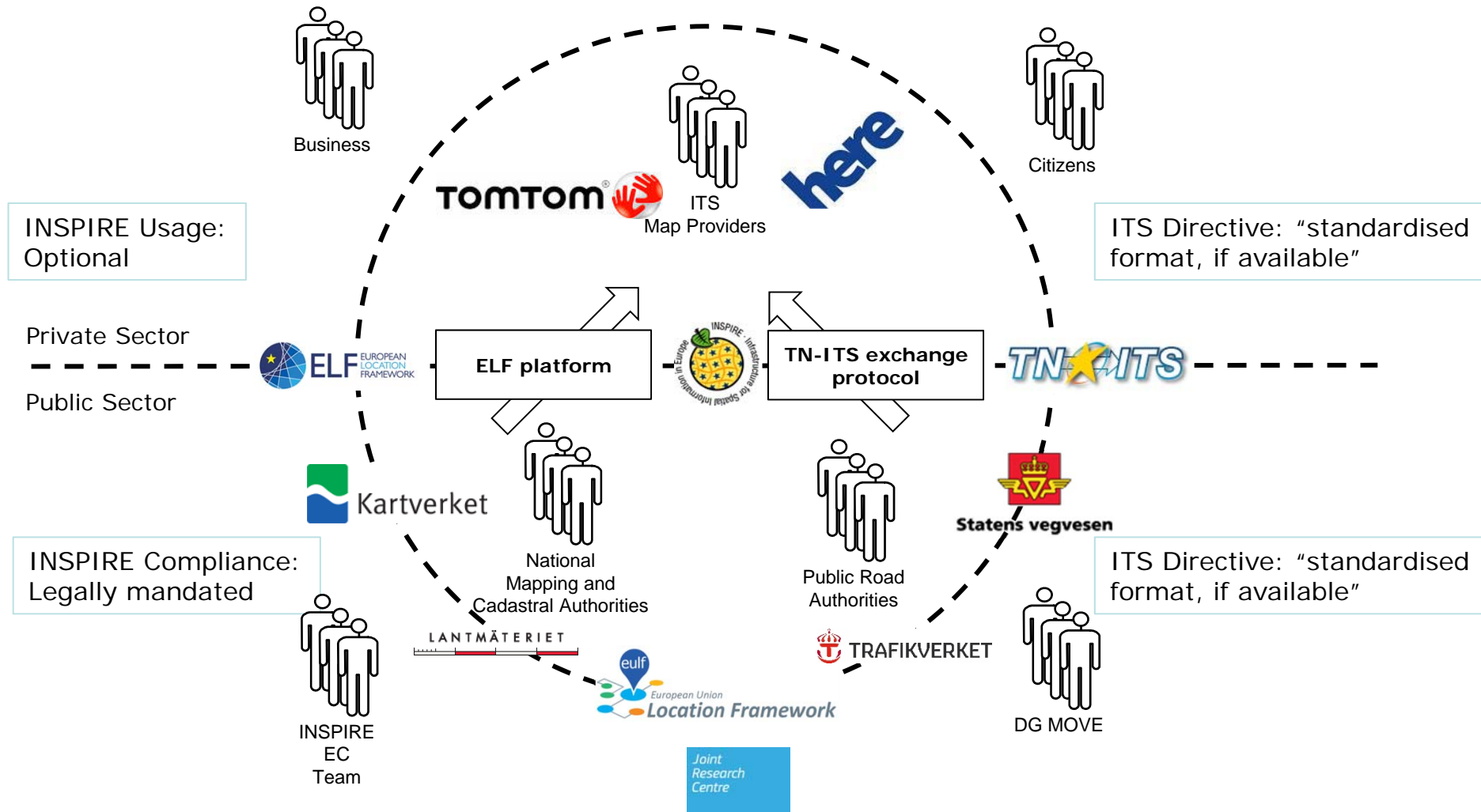
Transportation Pilot goals

to support concretely the needs of businesses and citizens by addressing the policy requirements of the ITS Directive, while leveraging the INSPIRE investment

Transportation pilot video



Transportation Pilot: Actors and Methodology

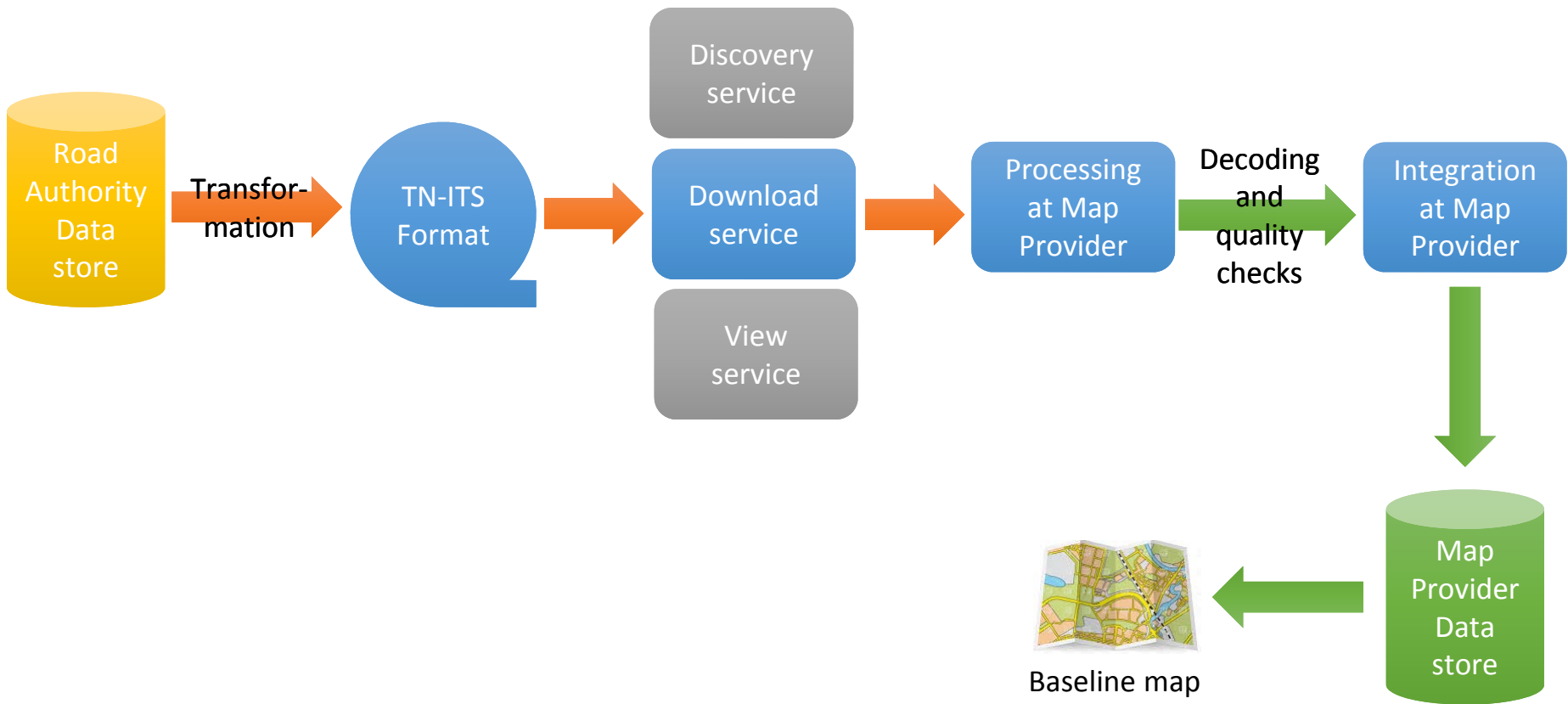


The road safety attributes

TN-ITS Attribute	SE	NO	INSPIRE
SpeedLimit/MaximumSpeedLimit	X	X	X
RestrictionForVehicles/MaximumHeight	X	X	X
RestrictionForVehicles/MaximumLadenWeight	X	X	X
RestrictionForVehicles/MaximumWeightPerSingleAxle	X	X	X
RestrictionForVehicles/MaximumLength		X	X
RestrictionForVehicles/MaximumWidth	X		X
RoadName/Name	X	X	X
RoadNumber/Number	X	X	X
WarningSign/DangerousCurve		X	
WarningSign/MooseCrossing		X	
WarningSign/PassingWithoutStoppingProhibited	X	X	
NoEntry	X		X



TN-ITS data exchange workflow



What is ELF? ... in short:

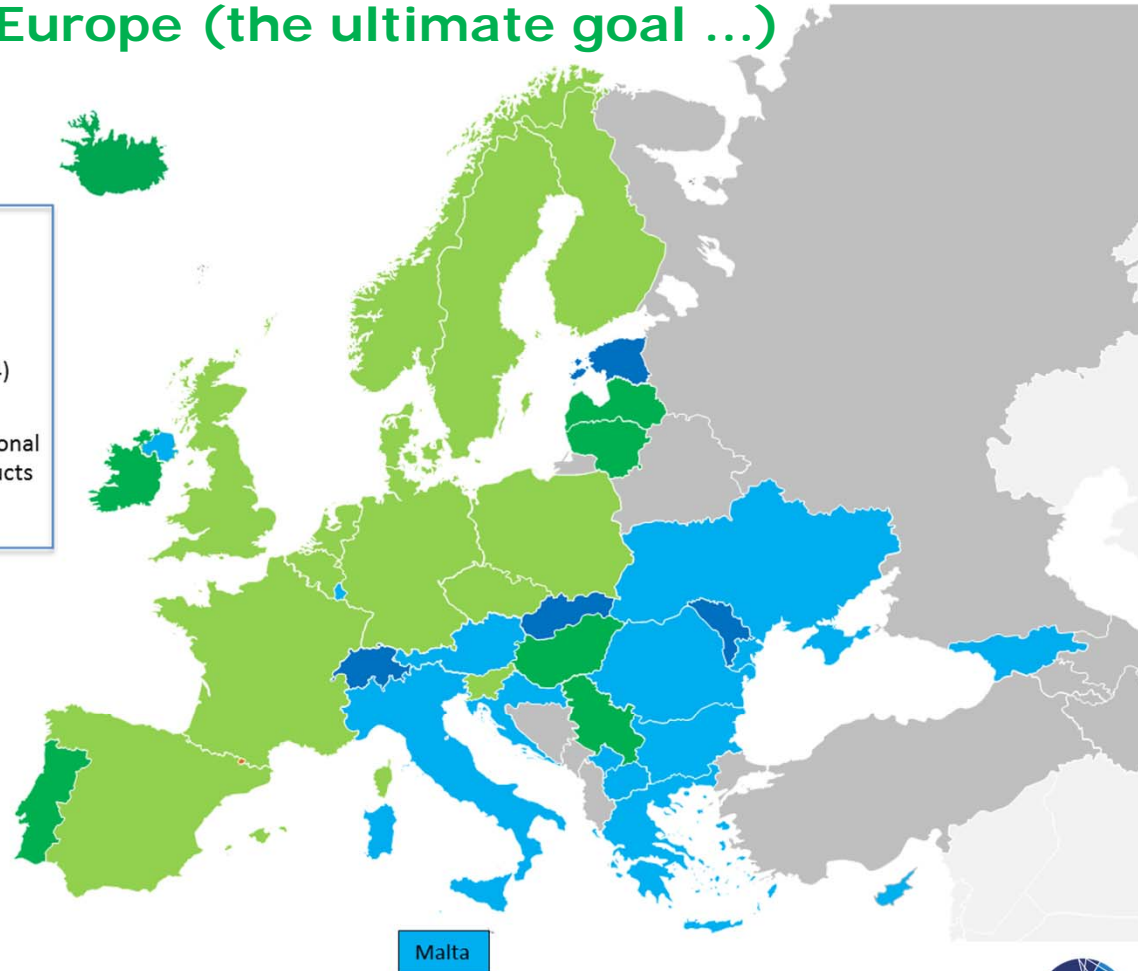
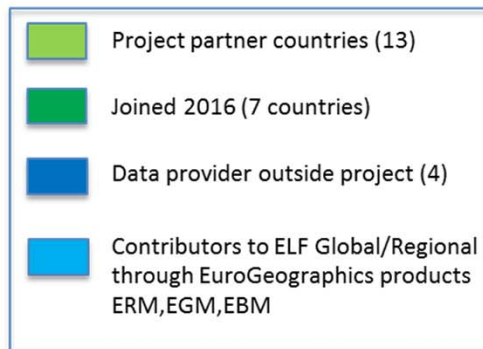
The **European Location Framework** is

- a technical infrastructure delivering ***authoritative, interoperable, cross-border*** geospatial reference data for analysing and understanding information connected to places and features
- delivered by a consortium of mapping agencies, private companies and academia (41 partners) across Europe



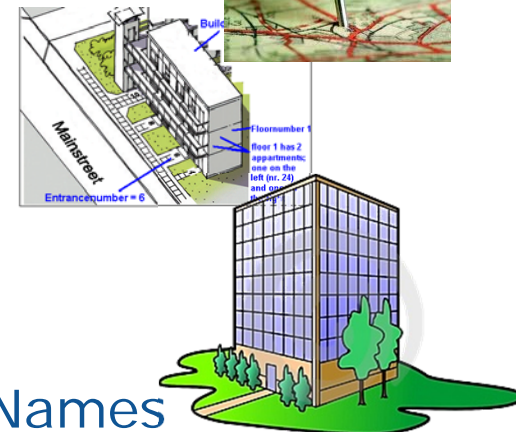
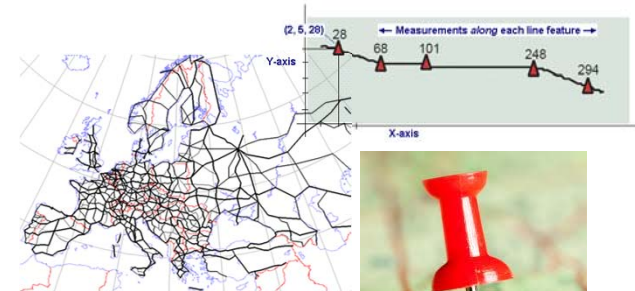
ELF infrastructure data coverage

Full coverage of Europe (the ultimate goal ...)



ELF services and relevant INSPIRE data

- Topographic Base Map
- Administrative Base Map
- Cadastral Index Map (CP, BU, AD, AU)
- Geolocator (GN, AD, AU)
- Download Services
(AD, AU, BU, CP, EL, GN, HY, LC, PS, TN)



KEY INSPIRE Themes

AD Addresses
 AU Administrative Units
 BU Buildings
 CP Cadastral Parcels
 EL Elevation

GN Geographical Names
 HY Hydrography
 LC Land Cover
 PS Protected Sites
 TN Transport Networks



Transportation pilot **achievements**

- **TN-ITS data exchange** implemented and running **in Norway and** extended in **Sweden**
- **Linear referencing from INSPIRE used to complement TN-ITS location referencing**, enabling a reliable way to cross reference data published through different services
- **First** occasion for **ELF services** to **test** their platform
- Draft **technical specification** prepared for formal **submission** of the TN-ITS standard under **CEN TC-278**
- **Input** to the **CEF EU-EIP/SA-47 project**



Transportation pilot main **benefits**

- The **use of the TN-ITS** revealed tangible **benefits** for map providers and consumers, **reducing speed limit error rates by 72%**
- **Road Authorities** (SE, NO) passed from **quarterly to daily updates to map providers**, facilitating more transactional based products
- If extended to other EU countries, commercial map providers would be able to move **from disparate national processes to more standardised ones** in different EU countries



Transportation pilot main **benefits**

- **Continuous flow of data** from road authority to end user – **near real time processing and delivery**
- **Reduced effort** in handling **incremental updates** compared to handle full datasets
- Change of workflows at organisational level towards **greater efficiency** and **avoiding duplications**
- Realising **EU investments** and **leveraging MS efforts in INSPIRE** and ELF



Sustainability in Norway and Sweden

Sustainability Aspects	SE	NO	Note
Plan for continued daily data exchange	Y	Y	
Road authority licensing conditions: open	Y	Y	
More data in the exchange process in the future	Y	M	Wish list available
Road authority supply to other commercial players in the future	Y	Y	
Change of data management process (from collection to provision)	Y	Y	
Retention of historical data by road authorities	Y	M	
Integration of data in the production environment of map providers	Y	In progress	

Next steps

- Testing on **more road safety attributes** by the Commercial Map Providers
- **Continued testing of the ELF platform** by the Commercial Map Providers
- Formulate **recommendations for the INSPIRE Transport Network Data Specs** based on lessons learnt
- **Extension into further countries** through the ongoing **CEF EU-EIP/SA-47 project**
- Start investigating **the extension of this approach in additional** countries among the **28 Member States**



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<http://inspire.ec.europa.eu/>



website:

http://ec.europa.eu/isa/actions/02-interoperability-architecture/2-13action_en.htm

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EULF Joinup Community:

<https://joinup.ec.europa.eu/community/eulf/description>

Transportation pilot video:

<https://www.youtube.com/watch?v=jnny5ATwTYE>

INSPIRE video:

<https://www.youtube.com/user/inspireEU/videos?flow=grid&view=15>