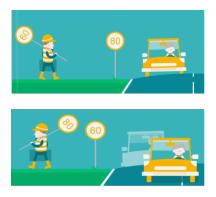


## Road data exchange in Norway and Sweden European Union Location Framework

Good practices



Key Data

Name: EULF Transportation Pilot Countries: Norway and Sweden Policy domains: Intelligent Transport Systems Interactions: G2C, G2B Process owners: National road authorities Users: Commercial map providers Introduced: 2015 Website: https://joinup.ec.europa.eu/community/eulf/og\_page /eulf-transportation-pilot

## Context

Intelligent Transport Systems (ITS) applications and, in particular, real-time traffic information services require up-to-date maps with consistent and relevant data based on the most accurate information available directly from public road authorities. For example, a public road authority will maintain information about a traffic sign that relates to a specific location on the road network. When information displayed on that sign changes, e. g. the height restriction is lowered, this is important safety information that needs to be shared reliably with ITS map providers so that the respective traffic sign attributes for that road segment are properly updated.

Users of ITS applications need accurate and timely safety-related data, while commercial ITS map providers need a reliable and harmonised mechanism that works seamlessly across borders to enable them to process updates on safety-related data from public road authorities accurately and efficiently. Furthermore, Member States' public authorities, including road authorities, need to promote mechanisms for sharing up-to-date data to improve public safety, reduce the risk of damage to infrastructure, as well as leverage their investment in INSPIRE-compliant data and services by making them applicable to a broad range of policies and applications.

## Solution

The EULF transportation pilot was an opportunity to support concretely the needs of businesses and citizens and address the policy requirements of the ITS Directive, while leveraging the INSPIRE investment by the European countries. It established an up-to-date flow of road safety data between road authorities and commercial map providers in Norway and Sweden, and provided guidance on linear referencing and exchange standards (the TN-ITS protocol), supporting the aims of the ITS Directive and drawing on INSPIRE. Partners included the JRC-led EULF project, ERTICO (a public/private sector European mobility solutions partnership), Norwegian and Swedish Road Authorities, TomTom and HERE (commercial navigation system providers), and Norwegian and Swedish Mapping Agencies (partners of the European Location Framework (ELF) project led by EuroGeographics).

## Relevance

This work has highlighted: (i) the value of timely road safety updates for commercial map providers and users; (ii) the need for public road authorities to make each step in their data processing as timely as possible, to minimise the time taken from making a physical change to disseminating the information about that change; (iii) the need to put in place effective data sharing and collaboration agreements between public and private parties, complementing the tested technical solution (iv) the need to agree on a common location referencing method to facilitate road data exchange (v) the importance of relying on INSPIRE transport network data when national road databases are not available.

https://ec.europa.eu/isa

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#### An Action supported by ISA

EULF is an activity supported by the European Commission's ISA programme. ISA stands for Interoperability Solutions for European Public Administrations



# **EULF Focus Areas**



- Technical and organisational alignment considerations taking into account INSPIRE and ITS Directive
- Promotion of a coordinated mechanism for the management and exchange of specific road data attributes
- Support to EC Digital Single Market strategy, through improving the free flow of data between public and private sector



- Coordinated data exchange mechanism based on relevant standards
- Commercial map providers which are international organisations are able to move from fragmented national processes to more standardised processes in different European countries.



- Improvement of Government to Business (G2B) road safety data exchange in support of road navigation services to citizens and businesses
- Countries less advanced on their National Road Database can leverage the investment made with INSPIRE
- Change of workflows at the organisational level towards greater efficiency and avoiding duplications



- More effective public private partnerships
- Pilot as a test bed where a thematic community comes together and tries to address a problem by taking into account the location aspects and the solutions that INSPIRE and the geospatial technologies offer
- Effective precursor to implementations in other MS, e.g. through CEF Transport pilots



- Tangible benefits to map providers in terms of reduced error rates (25% to 7% for speed limits), resulting in time savings for end users, while the cost has not changed Reduced effort in handling incremental updates compared to handling full datasets
- Minimal implementation costs for road authorities with mature road database
- Pilot road authorities moved from quarterly to daily updates to map providers
- Continuous flow of data from road authority to end user near real time processing and delivery

## Good practice contact information

## Website

https://joinup.ec.europa.eu/community/eulf/og page/eulftransportation-pilot

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## **European Union Location Framework**

Delivering savings, growth and better services through location enabled e-government

EULF website: http://ec.europa.eu/isa/actions/02interoperability-architecture/2-13action\_en.htm

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