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## Report of the President to the General Assembly of 17 June 2014

### Introduction

TN-ITS, the Transport Network ITS Spatial Data Deployment Platform was founded a bit more than a year ago at its inaugural General Assembly in Dublin, 5 June 2013, held in connection to the 2013 ITS European Congress. This report is presented on the occasion of the second General Assembly, to be held on 17 June 2014 in Helsinki, in connection with the 2014 ITS European Congress.

According to the Terms of Reference, the objective of TN-ITS is "to give support, on a permanent basis, for the implementation of priority actions 1.2 and 1.3 of the 'Action Plan for the Deployment of Intelligent Transport Systems in Europe' of the European Commission (for short 'ITS Action Plan') of 16 December 2008, as published in document COM(2008) 886 final/2 of 20 March 2009 (corrigendum to the original document)."

This can be translated into the following more operational mission statement: "to facilitate and foster, throughout Europe, the digital maintenance of ITS-related spatial data at public road authorities, the immediate exchange of such data between public road authorities as data providers, and map makers and other parties as data users, and the timely integration of such data on the side of ITS map providers".

The basic idea behind the concept is simple and straightforward. ITS applications using map data evolved over time from navigation via advanced driver assistance systems to cooperative systems. In this development the requirements for the up-to-dateness of the map data have been gradually increasing. On the other hand it is difficult for ITS map providers to keep their maps up-to-date. As the public road authorities create the changes in road attributes, they would in principle, given adequate digital systems for data maintenance, the most efficient source for providing immediate and complete information concerning changes in road attributes, on a continuous basis. While the original focus was on information related to traffic signs, the concept can be easily extended to other types of road infrastructure information and even geometry elements (and the exchange specification is easily extensible for such information). The increasing interest in automated driving points to an even more important role for (and hopefully an increasing interest in) the TN-ITS data exchange in the near future.

The Platform derives from solid work done in the ROSATTE project, which ran from January 2008 until June 2010. In this project the three parts of the intended data chain were successfully implemented and trialled in several test sites across Europe. The three parts concern data maintenance on the side of authorities, a proper exchange mechanism, and data integration at ITS map providers. Already during the project the idea was developed for an international platform, to foster adoption and roll-out of the concept across Europe. This idea was further developed in the period September 2011 until June 2013, by the eMaPS support project, in closed cooperation with the revived Digital Maps Working Group of the iMobility Forum, and it led to the foundation of TN-ITS a year ago.

This report gives a short overview of the activities of the past year, and of the current state of the platform.

## Membership

The platform was established with eight founding members, one regional and five national public authorities (Norway, Sweden, Finland, Flanders, Ireland and the UK), and two ITS map providers (Nokia/HERE and TomTom). In the Board meeting of 17 September 2013 the goal was formulated to have two additional members for 2014. We have worked hard on trying to convince EU member States to join the wagon. At the beginning of the year there was a sign that two additional countries would join, but unfortunately, and despite further efforts, this has not yet materialised. Discussions were held with various other countries as well, without success so far. We believe that the intended data chain is a useful concept that will bring substantial benefits the parties involved (public road authorities and ITS map providers) as well as to the public in general. To develop as a solid platform that brings something to its members, membership needs to substantially increase. We will continue to work on this, give presentations and talk to Member State representatives. Given the budget cycle in governments, we hope that several additional countries will take a decision to join well before the end of the year.

## Working groups

Already when the idea for the platform was developed during the ROSATTE project, its five Working Groups were defined. Four of the five Working Groups (WGs) are currently active, while we have found recently a WG Leader for WG 4, but not yet activated the working group as such. The work in the working groups was started at a joint Working Group meeting held in Stockholm on 14 November last year. Since then each of the four active working groups has had a number of conference call meetings, and progress is being made, be it at a moderate pace.

The topic of WG 1 is Location Referencing. The WG, led by TomTom, is looking at existing methods for dynamic location referencing. AGORA-C and OpenLR were already implemented in the ROSATTE trials. A latest development in this field, Universal Location Referencing or ULR, originating from the TPEG community, is being studied. In addition study will be made of the applicability of methods of linear referencing for the purpose of high-precision location referencing, as required for TN-ITS data exchange. The WG will be working on a number of deliverables for this year.

For details of the progress made in WG 2 - Specifications and standardisation, the reader is referred to the next section on Standardisation.

WG 3 is addressing Implementation support. The WG, led by Trafikverket, is rather active, and is working on a number of deliverables for this year. A discussion with WG 4 is planned to clearly delineate the domains of the two WGs, to avoid overlaps and guarantee a solid cooperation.

The topic of WG 4 is Generic tools and reference implementation. As already mentioned above, the WG has a WG Leader since recently (the Department for transport Tourism and Sport of Ireland), but yet needs to be activated.

WG 5 is involved in Policy, Awareness and Dissemination. Led by the Department for Transport of the UK, it has focused on policy related discussions, giving presentations on

TN-ITS and its remit, on producing or updating dissemination materials like the Fact Sheet and the Policy Paper, and has set up the web site. The latter is still needing further improvements, which are scheduled to be implemented soon.

## Standardisation

This concerns standardisation of the exchange framework specification that was one of the core deliverables of the ROSATTE project. This is the field of TN-ITS WG 2. Here substantial progress was made. Extensive discussions concerned the route to be taken to turn this specification into a formal document. There were two options foreseen: make it an extension of the INSPIRE Transport Networks specification, adding elements that are currently not available in INSPIRE. The other was a route through CEN to a formal standard (EN) or a Technical Specification. Or possibly a combination of both routes.

In discussions with the JRC, especially at a WG 2 meeting in Stockholm on 5 March 2014, it came about that an INSPIRE extension document is easily created, but has no formal status. Therefore finally the route through CEN was chosen. Given the fact that the duration for making a Technical Specification is substantially shorter than for a standard, we opted for the moment for this. Old WG 7 of CEN ("Geographic Data Files") was revived and renamed to "ITS Spatial Data", and a preliminary work item was adopted, both in September last year. Currently the latter is in a TC ballot for adoption as a full work item. The TN-ITS specification document is discussed in a final internal review and will be updated and rearranged as necessary before submitting it for a TC internal review after adoption of the new work item. Following a comments resolution, a final version will be sent out for a TC ballot. If all runs well, we could have a CEN Technical Specification early next year.

In the mentioned WG 2 meeting in Stockholm, the existing TN-ITS specification document was reviewed, as well as the recommendations for further alignment with INSPIRE, as expressed in one of the deliverables of the eMaPS project. In view of the fact, as mentioned above, that an extension document of the INSPIRE Transport Networks specification does not have a formal status, and of the fact that the TN-ITS specification is already highly aligned with INSPIRE, it was concluded that there is not urgent need to implement these alignment recommendations.

## Board

The Board is composed of the elected President, the ERTICO representative who has ex officio the role of Secretary, the Treasurer, the five Working Group leaders, and three appointed members representing respectively DG MOVE, ITS Nationals and CEDR. The Board had two physical meetings in the past year (27 June 2013 and 21 January 2014, both held at ERTICO), and one meeting by conference call (17 September 2013, to establish the Annual Plan and Budget for 2014). At the General Assembly of June 2013 we had Working Group Leaders appointed and, ex officio, at the same time as representative on the Board, for the Working Groups 1, 2, 3 and 5 (representatives of respectively TomTom, the NPRA of Norway, Trafikverket of Sweden, and the Department for Transport of the UK). Also we had appointed representatives of DG MOVE and ITS Nationals on the Board. During the year Nokia/HERE has agreed to take the role of Treasurer, the Department for Transport Tourism and Sport of Ireland has taken up the role of WG 4 Leader and thereby a position in the Board, and a representative of CEDR was named and has accepted to serve on the Board. These roles will be formalised at the General Assembly.

## European Commission

TN-ITS has been and is strongly supported by the European Commission. The Platform strongly draws upon previous work in the EU-funded projects ROSATTE and eMaPS (DG CONNECT), as well as in two occurrences of the eSafety Forum respectively iMobility Forum Digital Maps Working Group (2005 and 2011/2013). The idea was from the very beginning strongly linked to the ITS Action Plan, priority actions 1.2 and 1.3. Currently we have strong support from DG MOVE, who is presently engaged in establishing the specification for priority action (b) as foreseen in the ITS Directive (Article 3), which is directly linked to the mentioned priority actions of the ITS Action Plan.

In addition, TN-ITS is strongly supported by the European Commission's Joint Research Centre (JRC). The JRC is the technical custodian of INSPIRE. The TN-ITS specification, which is now going through the standardisation process, is highly aligned, in a technical sense, with INSPIRE, and the idea is that the provision of TN-ITS type spatial data is set-up in Member States as an integral part of the INSPIRE framework that is being set up anyway. Together with the JRC, TN-ITS is actively involved in the set-up of the Transportation Pilot (see the next item).

## Transportation Pilot

INSPIRE is the infrastructure for spatial information in Europe that was established to support Community environmental policies. The JRC is acting as the overall technical coordinator of INSPIRE. The JRC has taken the initiative to set up a few pilots to demonstrate the potential value of INSPIRE for other sectors than the environmental sector, and the transport sector is one of the targeted sectors. For this reason the JRC, through its EULF (European Union Location Framework) project, is now teaming up with TN-ITS to set up what has been named the Transportation Pilot. Another partner in this effort is the EU-funded ELF (European Location Framework) project, which is building a pan-European cloud platform and web services using INSPIRE, to enable access to harmonised data in cross-border applications.

The Pilot will have two phases, and will run from mid 2014 until mid 2015. In Phase 1 the existing TN-ITS service in Sweden will be extended and enhanced, while a similar service will be set-up in Norway. With respect to TN-ITS, Sweden and Norway belong to the most advanced countries in Europe. The two ITS map providers will actively participate, and intend to further integrate the intake of TN-ITS updates into their production environment, in such a way that it can be ported for use in other countries. The intention for Phase 2 is to set up a similar service in two other countries that are less advanced in terms of TN-ITS. The Pilot partners will report on and debate the plans for this team-up, and intend to report at the 2015 ITS World Congress in Bordeaux on the results. An important topic of the Pilot will also be to explore, in close cooperation with WG 1, the important topic of linear location referencing.

## Finance

Much of the work in TN-ITS is based on in-kind contributions from the members, in terms of participation in the activities and providing contributions. The costs for the hours of the TN-ITS staff (President and Secretary, both involved on a part-time basis) and additional travel and miscellaneous costs are kept at a minimal level. These costs are in principle to be covered by membership fees (according to the Terms of Reference TN-ITS is a self-

funding partnership). ERTICO covers part of the membership fee of its partners that are a member on TN-ITS, while the NPRA has agreed to support TN-ITS with a similar contribution for 2103 and 2014, to help the Platform in its start-up phase. The contributions of ERTICO and the NPRA amounted to EUR 20,000 for 2013, and to respectively EUR 20,000 and EUR 16,000 for 2014. The support of the NPRA comes to an end at the end of this year, while the ERTICO contribution (in respect of the fee of its members) will likely continue at the same size. This clearly points to another reason why an increased number of members is essential for the future of the Platform.

## Conclusion

In conclusion it can be said that substantial progress was made in starting up and establishing the platform, and in initiating its core activities.

The rationale for the existence of TN-ITS is clearly a sufficient number of members finding it useful to team up for this important topic, to be active in TN-ITS and its Working Groups, and to support and learn from each other concerning implementation. The size of the membership is lagging behind schedule, and for the continuity of the Platform, in terms of both its financing, and giving the Platform body and making it sufficiently interesting for members to be part of it, a significant increase of the membership is required for 2015.

The Transportation Pilot is an important and promising activity in terms of strengthening the links with the European Commission and the INSPIRE community, and in terms of doing some actual roll-out of TN-ITS services.