EU EIP A2 Annual NAP Report 2019

Working Group NAP

Monitoring & Harmonisation of National Access Points in Europe

This report describes the progress of NAP implementations across Europe and the achievements of the A2 Working Group National Access Points (WG NAP) in 2019.

It also highlights other relevant projects and initiatives helping in the continued development of successful NAPs.

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Connecting Europe Facility

http://www.its-platform.eu
This 2019 annual report describes the deployment status of National Access Points (NAPs) in Europe as well as related work on NAP metadata, common features, data standards and common formats, harmonised declaration of compliance, and other issues, related to the EC Delegated Regulations for ITS Directive priority actions.
Preface

<table>
<thead>
<tr>
<th>PRIORITY ACTION</th>
<th>DELEGATED REGULATION</th>
<th>THEME</th>
<th>COMMON REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(e)</td>
<td>(EU) No 885/2013</td>
<td>provision of information services for safe and secure parking places for trucks and commercial vehicles</td>
<td>safe and secure truck parking</td>
</tr>
<tr>
<td>(c)</td>
<td>(EU) No 886/2013</td>
<td>data and procedures for the provision, where possible, of road safety-related minimum universal traffic information free of charge to users</td>
<td>safety related traffic information (SRTI)</td>
</tr>
<tr>
<td>(b)</td>
<td>(EU) 2015/962</td>
<td>the provision of EU-wide real-time traffic information services</td>
<td>real-time traffic information (RTTI)</td>
</tr>
<tr>
<td>(a)</td>
<td>(EU) 2017/1926</td>
<td>the provision of EU-wide multimodal travel information services</td>
<td>multimodal travel information services (MMTIS)</td>
</tr>
</tbody>
</table>

Table 1: EC Delegated Regulations and corresponding ITS Directive priority actions

This report uses the common references for the priority actions and delegated regulation references throughout.

Overview

By sharing the available knowledge and experiences of Member States (MS) that have already implemented NAPs, other MS can benefit from this knowledge and experience. At the same time this could lead to a more harmonised implementation of NAPs across Europe.

Harmonisation

In 2019 a harmonised declaration of compliance for safe and secure truck parking was published, MMTIS metadata was added to the Coordinated Metadata Catalogue, links with the FRAME NEXT project highlighted progress made towards a FRAME NAP architecture, the Common Features and LoS Support Document was updated, with new features added.

Monitoring

This report provides an overview of:
- state of the art of NAPs in Europe (chapter 2)
- common features & level of service (chapter 3)
- metadata (chapter 4)
- standards & common formats (chapter 5)
- MMTIS (chapter 6)
- architecture for NAPs (chapter 7)
- supporting the NAP / NB community (chapter 8)
- declaration of compliance (chapter 9)
- other relevant issues (chapter 10)

This report also contains an annex of the web-links to the NAPs and the contact points for the National Bodies.

Readers who would like to contribute information that can be used for the Annual NAP report are kindly requested to send an e-mail to Mr. R. Jorna (r.jorna@mobycon.nl). Information on new National Access Points and National Bodies is highly appreciated.
## 2019 WG NAP Highlights

### Number of Operational NAPs

<table>
<thead>
<tr>
<th>NAP Type</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe &amp; Secure Truck Parking</td>
<td>20</td>
<td>2017</td>
<td>2018</td>
<td>2019</td>
</tr>
<tr>
<td>SRTI</td>
<td>20</td>
<td>2017</td>
<td>2013</td>
<td>2019</td>
</tr>
<tr>
<td>RTTI</td>
<td>20</td>
<td>2016</td>
<td>2017</td>
<td>2018</td>
</tr>
<tr>
<td>MMTIS</td>
<td>20</td>
<td>2016</td>
<td>2017</td>
<td>2018</td>
</tr>
</tbody>
</table>

### Common Features & Level of Service
- WG NAP features are supported
- Two new 2019 features added & updated Support Document published

### Metadata
- Coordinated Metadata Catalogue has been updated to consider MMTIS
- Continuing involvement in the NAP metadata conversation

### Standards & common formats
- DATEX II – increasing implementation for NAP data exchange & progress towards v3
- Progressing MMTIS related standards and formats inc. SIRI, NeTEx, TAP- TSI, GTFS & GTFS-RT

### Architecture for NAPs
- Links with FRAME NEXT
- Significant progress made & working towards a FRAME NAP Architecture

### Declaration of Compliance
- WG NAP Declaration documents developed for STRI and RTTI are being used
- Declaration for Safe and Secure Truck Parking developed & published in 2019

### MMTIS
- First steps are being taken for MMTIS NAPs – it is a challenging situation
- Links to EU projects are already addressing issues and looking for potential solutions

### Supporting the NAP / NB community
- Group of NAP operators and NB representatives created to enable best practice exchange & operational harmonisation

### Other relevant issues
- High Level Task Force: SRTI delivery Proof of Concept will inform WG NAP
- 2020 specific data element research will give additional hands-on insight into how NAPs are functioning

### NAP Interactive Map

### EU EIP NAP activity Webpage
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1 Introduction

1.1 Scope & objectives of EU EIP

The **EU ITS Platform** (EU EIP) is the place where National Ministries, Road Authorities, Road Operators and partners from the private and public sectors of almost all EU MS and neighbouring countries, cooperate in order to foster, accelerate, and optimise current and future ITS deployments in Europe in a harmonised way.

EU EIP brings together the majority of the European key players, cooperating to establish an open “forum”, aiming at providing valid contributions for the future strategy and policy recommendation for better development and deployment of ITS service along European road corridors.

EU EIP is the follow up of actions already supported by TEN-T programme (2012-EU-50005-S European ITS Platform and 2013-EU-50001-S European ITS Platform+). The EU EIP runs for a five-year period from 2016 to December 2020.

By monitoring, processing, evaluating, and disseminating results delivered by the ITS Road Corridor projects (the Works projects that will be co-founded by EC within the CEF MAP ITS Call 2014), the EU EIP Platform can be considered as the technical European **ITS Knowledge Management Centre**, contributing significantly to the most effective use of ITS standards and specifications.

1.2 Monitoring & Harmonisation of NAPs - WG NAP in Activity 2

The task of this Working Group (WG) is to monitor the on-going implementation of NAPs, to learn from each other, and to harmonise NAP services across Europe. This activity builds on the earlier work in EIP and EIP+, which has resulted in the following relevant deliverables:

- SPA (Single Point of Access) – Coordinated Metadata Catalogue.

Currently, NAPs are being implemented in various MS, but they vary in approach, for example: data availability (links, metadata, databases) and procedures for assessment of compliance. WG NAP, and its predecessor SA 4.6, run from January 2016 until December 2020. Therefore, this work aims at monitoring NAP developments, contributing to harmonisation, and acting as a knowledge centre; for among others: MS, NAP operators, and Nominated National Bodies (NB) with respect to NAPs.

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1 WG NAP in Activity 2 in EU EIP is the follow-up of sub-activity 4.6 of EU EIP
The objectives of the activity are to:

- Monitor development of NAPs across Europe, identify improvement needs, make recommendations.
- Harmonise the approach towards NAPs in Europe, in particular in the field of Metadata in the scope of ITS specifications.
- Knowledge exchange between the various MS in the field of NAPs.

The tasks of the activity are:

- Task 1: Monitoring of NAP developments in Europe
- Task 2: Validation of features and level of service for NAPs to see if and to what extent quality criteria are applied by the NAPs and to find out if these quality criteria function well.
- Task 3: Recommendations for harmonisation of NAP approaches will be formulated with respect to (among others) metadata, DATEX II, common approaches on quality assurance, and other harmonisation issues arising from discussions with MS and other stakeholders.

Table 2 lists the member states and organisations involved in the activity:

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>ORGANISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL (Lead)</td>
<td>Rijkswaterstaat</td>
</tr>
<tr>
<td>PT (Active)</td>
<td>IMT</td>
</tr>
<tr>
<td>RO (Active)</td>
<td>ITS Romania &amp; RNCRIA</td>
</tr>
<tr>
<td>DE (Active)</td>
<td>BASi</td>
</tr>
<tr>
<td>UK (Active)</td>
<td>Department for Transport, Transport Scotland &amp; Highways England</td>
</tr>
<tr>
<td>SE (Active)</td>
<td>Trafikverket, The Swedish Transport Administration</td>
</tr>
<tr>
<td>FR (Participant)</td>
<td>Cerema</td>
</tr>
<tr>
<td>DK (Participant)</td>
<td>Vejdirektoratet, The Danish Road Directorate</td>
</tr>
<tr>
<td>ES (Participant)</td>
<td>DGT, Directorate-General for Traffic</td>
</tr>
<tr>
<td>FI (Participant)</td>
<td>Finnish Transport and Communications Agency &amp; Finnish Transport Infrastructure Agency</td>
</tr>
<tr>
<td>IE (Participant)</td>
<td>Transport Infrastructure Ireland</td>
</tr>
</tbody>
</table>

Table 2: Member States involved in A2 WG NAP

1.3 Methodology

This report is mainly based on the feedback of a survey completed by implementers of National Access Points and other relevant sources (among others: workshops, meetings with experts, literature review).

In total 28 NAP implementers completed the NAP survey, 27 Member States and Norway. No feedback was received from Malta.
2 State of the art of NAPs in Europe

This chapter describes the status of implementation of National Access Points in Europe, based on the survey carried out in 2019. This section is updated annually to show progress made in implementing the delegated regulations for safe and secure truck parking, SRTI, RTTI and MMTIS.

The following sections describes the information gathering methodology applied; and then the status of the NAPs for safe and secure truck parking, safety-related traffic information, real-time traffic information, and multimodal travel information is summarised.

2.1 Methodology for monitoring the status of European NAPs

For the monitoring of the status of implementation of NAPs in Europe a survey template has been created to describe the status of the NAPs per country. The survey required MS to provide details of:

- Ministry responsible for implementing the NAP and contact details.
- Nominated body for assessment of compliance, contact details, procedure for assessment of compliance.
- Status of implementation, including the URL of the NAP.
- Description of the NAP (operational or planned):
  - Availability of the data required by the delegated regulation
  - Language(s) of the NAP
  - Presence of any quality requirements
  - Data available in the NAP or only web-links
  - Data exchange via DATEX, other
  - Metadata and/or discovery service available
  - Number of organisations (public, private) using/providing data to the NAP.

This survey is intended to describe per country the current status of implementation of the delegated regulations noted above. The survey was completed by responsible ministries, National Access Points, National Bodies and/or other relevant actors via e-mail.

One completed survey was received per Member State.

In total, 27 MS and Norway have responded to the 2019 survey, which means that this survey gives an almost 100% coverage of the status of NAPs in the European Union.
With respect to this survey the following has to be noted:

- No feedback was received from Malta;
- For Portugal the information from the 2018 survey has been used, since the respondent stated that no changes were made since 2018;
- In the UK the NAP will be totally revised. Therefore, it was not useful to complete the NAP survey in 2019.

Therefore, in the following paragraphs, the status of the NAPs in 27 European countries is described, including the 2018 responses of Portugal, Malta and the UK are not included. The information from the 2019 survey is used to get a picture of the current status of National Access Points in the EU, to draw conclusions on harmonisation needs, and to share the knowledge and experience among MS.

Annex 1 gives an overview of the current status of National Access Points, indicating the web links to the National Access Points and contact points for the National Bodies responsible for the assessment of compliance.

2.2 Status of NAPs for Safe and Secure Truck Parking

This section describes the current status of implementation of the National Access Point for the provision of information services for safe and secure parking places for trucks and commercial vehicles, in short ‘NAP for safe and secure truck parking’. Delegated Regulation (EU) 885/2013 was adopted in 2013.

Table 3 shows the status of implementation from 2016 to 2019. In 2016 only four countries had a (partly) operational NAP. Four other countries had concrete plans to implement a NAP. In 2019, 16 countries have an operational NAP. Another seven countries (Croatia, Estonia, Greece, Latvia, Norway, Portugal, Romania) have concrete plans to implement a NAP, most of them in 2020. Two countries (Cyprus, Ireland) stated that they have not designated areas which require safe and secure parking for trucks and commercial vehicles.

- According to the 2019 survey around 15-20 Member States have an operational NAP for safe and secure truck parking, safety related traffic information and/or real-time traffic information.
- For multimodal travel information this number is significantly lower.
- A number of Member States still have to establish their first NAP.

NOTE
Authors of this report have done their best to analyse the information from the survey in a concise and accurate manner.
If Member States note any mistakes in this report, this can be reported to the authors of this report. In the annual report 2020 this new NAP information will then be included.
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Planned (Q4 2016)</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
<tr>
<td>Belgium</td>
<td>Partly operational (Flanders only)</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>Planned 2020</td>
</tr>
<tr>
<td>Croatia</td>
<td>-</td>
<td>Planned (Q4 2019)</td>
<td>Planned (Q4 2019)</td>
<td>Planned (2020)</td>
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<td>Operational</td>
<td>Operational</td>
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<tr>
<td>Czech Republic</td>
<td>-</td>
<td>Not operational</td>
<td>Operational (via EU open data portal)</td>
<td>Operational (via EU truck parking portal)</td>
</tr>
<tr>
<td>Denmark</td>
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<td>Operational</td>
<td>Operational</td>
</tr>
<tr>
<td>Estonia</td>
<td>-</td>
<td>-</td>
<td>Planned (Q2 2019)</td>
<td>Planned (Q4 2019)</td>
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<td>Not operational or planned*)</td>
<td>Not operational or planned**)</td>
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<td>Greece</td>
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<td>Implementation ongoing</td>
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</tr>
<tr>
<td>Hungary</td>
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<td>Planned (Q4 2018)</td>
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<td>Not operational</td>
<td>Not operational*)</td>
</tr>
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<td>-</td>
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<td>Planned 2022</td>
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<td>Operational</td>
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<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
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<td>Not operational</td>
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<td>Planned (via EU truck parking portal)</td>
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<td>Planned**)</td>
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<td>Sweden</td>
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<td>Operational</td>
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</tr>
</tbody>
</table>

NOTES:
*) no designated areas which require safe and secure parking for trucks and commercial vehicles
**) based on 2018 survey

Table 3: Status of NAPs for Safe and Secure Truck Parking
Annex 1 gives an overview of the web links to the National Access Points and contact points for the National Bodies responsible for the assessment of compliance.

In general, the countries with an operational NAP make static truck parking information available, in particular information about the number of parking places. In some countries information about safety and equipment is also accessible. Only in Denmark, Germany, The Netherlands and Spain dynamic data on the available parking places are added for some regions. In all but two (Austria, Luxembourg) operational NAPs truck parking data are available within the NAP. In other cases, the data is available through web links to external data sources.

Most NAPs have no quality requirements for the data. This means that in most cases the data providers are responsible for the data. Those countries that reported quality requirements mention for example up-to-dateness, use of DATEX II, use of metadata, or service criteria related to truck parking infrastructure (e.g. according to the “Truck Parking Label” classification). In almost all operational and planned NAPs data is/will be provided via DATEX II format. Other formats mentioned are shapefiles (Finland) and .xlsx (Poland). A discovery service or metadata is available for nine NAPs, for three other (planned) NAPs this is planned/under discussion.

Most NAPs provide the data for free to the end-users. One Member State (Austria) leaves it to the data owner, whereas Portugal leaves it to the NAP operator IMT, and Luxembourg offers the data under a Creative Commons Zero licence. Hungary and Romania are currently planning to run a free service but might consider the possibility of selling (historical) data in a later stage. Generally, the language of the NAP is the national language plus English. However, in many countries the English translation is only partly implemented.

Five NAPs actively monitor their NAP use (Austria, Denmark, Germany, Slovenia, Sweden) and this is planned for five NAPs (Estonia, Greece, Hungary, Italy and Portugal). In the Netherlands the use of the NAPs will not be monitored for privacy reasons. In Luxembourg only the data owners can monitor the use.

In 20 countries a National Body for assessment of compliance has been nominated. One other country (Romania) is planning to do so. In seven countries the Nominated Body is the same as the NAP operator. The procedures for the assessment of compliance vary largely (from ‘nothing’ to ‘audits’), and in many cases this is still to be determined.

It should be noted that the harmonised Declaration of Compliance for Safe and Secure Truck Parking was only published in November 2019, so was not available at the time of the survey.

Data providers are mostly public authorities and concessionaires. In the Netherlands and Spain there are several private organisations who provide data. In most cases there is not much information available about the number of organisations who use the data from the NAP: for Czech Republic there were 62 downloads from the EU truck parking portal and Austria, Hungary and Denmark have respectively one, four and five users of the NAP for truck parking.
Apart from the national NAPs, the European Commission established a European Access Point for truck parking. The Czech Republic provides static truck parking information only to the European Access Point and Norway is planning to do the same; these countries do not have their own NAP for truck parking.

All MS are encouraged to provide their truck parking data to the European Portal. So far only a limited number of MS have done so, i.e.: Austria, Belgium, Czech Republic, Denmark, Germany, The Netherlands, Slovenia, Spain (Basque country), Sweden, and Switzerland. The content of the European Access Point for Truck parking is visualised in Figure 1.

Figure 1: European Access Point for truck parking

- 24 Countries have (or are very close to having) a National Access Point for safe and secure truck parking.
- However, not all data available in the National Access Points for safe and secure truck parking can also be found in the European Access Point.
- Only very few private parking operators provide data to the NAPs.

2.3 Status of NAPs for Safety-Related Traffic Information

This section covers the current status of implementation of the National Access Point for the provision of road safety-related minimum universal traffic information free of charge to users, in short ‘NAP for SRTI’.

The Delegated Regulation (EU) 886/2013 was adopted in 2013. Table 4 shows the status of implementation from 2016 to 2019. In 2016 seven countries stated they had an operational NAP for SRTI, whereas four
countries had concrete plans to implement a NAP. Currently, in 2019, 20 Member States have operational NAP for SRTI and five other Member States have concrete plans for a NAP for SRTI.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Planned (Q4 2016)</td>
<td>Operational</td>
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<td>Belgium</td>
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<td>Operational</td>
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<tr>
<td>Germany</td>
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<td>Operational</td>
<td>Implementation ongoing (start Q2 2019)</td>
<td>Partly operational</td>
</tr>
<tr>
<td>Greece</td>
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<td>Planned (Q4 2018)</td>
<td>-</td>
<td>-</td>
</tr>
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<td>Hungary</td>
<td>-</td>
<td>Planned (Q4 2018)</td>
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<td>Operational</td>
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<td>Latvia</td>
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<td>Planned (2022)</td>
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<tr>
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</tr>
<tr>
<td>Poland</td>
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<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
<tr>
<td>Portugal</td>
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<td>Planned (Q1 2018)</td>
<td>Planned (2018)</td>
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</tr>
<tr>
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<td>Planned (Q4 2018)</td>
<td>Planned (Q4 2019)</td>
<td>Planned (2020)</td>
</tr>
<tr>
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</tr>
</tbody>
</table>

**NOTES:**

*) Based on 2018 survey

Table 4: Status of NAPs for Safety-Related Traffic Information

Annex 1 gives an overview of the web links to the National Access Points and contact points for the National Bodies responsible for the assessment of compliance.
The delegated regulation states eight types of safety-related information that should be provided:

(a) temporary slippery road; 
(b) animal, people, obstacles, debris on the road; 
(c) unprotected accident area; 
(d) short-term road works; 
(e) reduced visibility; 
(f) wrong-way driver; 
(g) unmanaged blockage of a road; 
(h) exceptional weather conditions.

Most countries state they provide all information types, although exceptions exist. For example, Cyprus states that it never or rarely has exceptional weather conditions and Luxembourg starts with ‘slippery road’ as a pilot. Nine countries state that the information is available in the NAP. Nine others state that they provide web-links to the data. The Portuguese and Romanian NAPs are planning to offer both options.

Around a quarter of NAPs have quality requirements already or have plans for quality requirements for the data. Six countries (Austria, Denmark, Finland, Norway, Sweden) reported quality requirements, for example completeness of minimum metadata set, accordance to data quality frameworks developed in EU EIP sub-activity 4.1, ‘best effort’, validated information, or merely the requirements mentioned in the delegated regulation. Other countries have no quality requirements for the data, or do not know yet. In almost all countries with an operational NAP data is provided via DATEX II format, but other formats are also used in some cases, such as data files, xml, RSS, GEO-RSS, and JSON. Metadata is available for most NAPs, where the EIP Metadata Catalogue and DCAT-AP are mentioned as examples, but also search function based on key words.

The language of the NAP for RTTI is mostly the national language and English. However, in a number of countries not everything is translated to English.

Monitoring of the use of the NAP is undertaken for eleven NAPs. Four other NAPs are planning to do so. France, The Netherlands and Slovakia are not monitoring the use of the NAP.

Fifteen NAPs have data only supplied by public authorities (including concessionaires). Four NAPs (Austria, Netherlands, Spain, Sweden) have also private data sources. Examining the data users, seven NAPs have users from both private and public sector.

Some figures:

• Czech Republic: At the moment one organisation provides information. The NAP does not track how many users have used the data, but there have been more than 200 subscribers.
• Denmark: Two organisations provide information. Approximately 20 organisations (many of them large traffic information providers) use the data.
• Finland: One public organisation provides information. Several public and private organisations use the information (actual amount cannot be specified)
• Germany: Number of users is increasing.
• France: 38 road operators/authorities provide information as well as a number of private parties (Coyote, Mediamobile, Michelin, TomTom). It is unknown how many organisations use the NAP data.

• Italy: 144 parties provide information to the NAP. 14 partners make use of the NAP by bilateral agreement, many others use the NAP on their own.

• Netherlands: Three private and one public organisation provide information. Most private service providers use the NAP SRTI in their services.

• Norway: One public organisation (NPRA) provides information. There are 330 subscribers to the NPRA DATEX II node.

• Poland: Two organisations provide data to the NAP, i.e. the national road operator and Gliwice municipal road administration. Fourteen organisations use SRTI data from the NAP, including National Road Operator, Municipal road administration from the city of Gliwice and city of Gdynia, traffic safety providers, radio broadcasters, service providers.

• Slovenia: Two organisations are providing data. Six public and five private organisations use data from the NAP.

In total 22 Member States have a National Body for assessment in place. In seven countries the National Body is the same organisation as the implementing body, although the department might be different.

Five National Bodies use the harmonised Declaration of Compliance developed by EU EIP in cooperation with TISA, another National Body is planning to do so. Four other National Bodies have other assessment procedures, such as a self-assessment, an audit or a check against the specifications.

Although there seems to be an increase in the number of organisations that use the data from the NAP, NAP operators seem to pay little attention to monitoring the use of the NAPs. Thus, it is not clear to what extent Delegated Regulation 886/2013 has resulted in a wider use of SRTI.

2.4 Status NAPs for Real-Time Traffic Information

This section describes the current status of implementation of the National Access Point for the provision of EU-wide real-time traffic information services, in short ‘NAP for RTTI. Delegated Regulation (EU) 2015/962 was adopted in 2015. It applies from 13 July 2017. Table 5 shows that 20 countries have a (partly) operational NAP for RTTI. Six other countries (Belgium, Bulgaria, Croatia, Latvia, Portugal, Romania) have concrete plans to implement a NAP. In Poland the NAP for RTTI is not yet operational or planned.
## EU EIP A2 WG NAP - Annual NAP Report 2019

**Table 5: Status NAPs for Real-Time Traffic Information**

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Planned (Q4 2016)</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
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<td>-</td>
<td>In progress</td>
<td>In progress</td>
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<td>Bulgaria</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Planned</td>
</tr>
<tr>
<td>Croatia</td>
<td>-</td>
<td>Planned (Q4 2019)</td>
<td>Planned (Q4 2019)</td>
<td>Planned (2020)</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Partly operational</td>
<td>Partly operational</td>
<td>Partly operational</td>
<td>Partly operational</td>
</tr>
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<td>Czech Republic</td>
<td>-</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
<tr>
<td>Denmark</td>
<td>Planned (Q2 2017)</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
<tr>
<td>Estonia</td>
<td>-</td>
<td>-</td>
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<td>Finland</td>
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</tr>
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<td>France</td>
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<td>Operational</td>
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<td>Germany</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
<tr>
<td>Greece</td>
<td>-</td>
<td>Planned (Q4 2018)</td>
<td>Implementation ongoing</td>
<td>Partly operational</td>
</tr>
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<td>Hungary</td>
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<td>Operational</td>
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<td>Ireland</td>
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<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
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<td>Italy</td>
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<td>Operational</td>
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<td>Operational</td>
</tr>
<tr>
<td>Latvia</td>
<td>-</td>
<td>-</td>
<td>Planned</td>
<td>Planned (2022)</td>
</tr>
<tr>
<td>Lithuania</td>
<td>-</td>
<td>-</td>
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<td>Operational</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>-</td>
<td>-</td>
<td>Operational</td>
<td>Operational</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Planned (Q3 2017)</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
<tr>
<td>Norway</td>
<td>Planned (Q3 2017)</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
<tr>
<td>Poland</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Portugal</td>
<td>Planned (Q4 2017)</td>
<td>Planned</td>
<td>Planned</td>
<td>Planned*)</td>
</tr>
<tr>
<td>Romania</td>
<td>-</td>
<td>Planned</td>
<td>Planned</td>
<td>Planned (2020)</td>
</tr>
<tr>
<td>Slovakia</td>
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<td>Operational</td>
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<td>Slovenia</td>
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<td>Spain</td>
<td>-</td>
<td>Operational</td>
<td>Operational*</td>
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<tr>
<td>Sweden</td>
<td>Planned (Q1 2017)</td>
<td>Operational</td>
<td>Operational</td>
<td>Operational</td>
</tr>
</tbody>
</table>

**NOTES:**

*) Based on 2018 survey
The Delegated Regulation distinguishes three types of information:

- Static road data,
- Dynamic road status data,
- Traffic data.

At this stage, most countries indicate that they provide access to all three types of information, but not always all specific categories as mentioned in the delegated regulation. For example:

- Austria: The NAP is capable of presenting metadata on data according to Delegated Regulation (EU) 2015/962 for RTTI.
- Cyprus: Level of Traffic (speed and volume data) on primary road network of Cyprus and parking availability at Nicosia city centre parking areas.
- Czech Republic: Static road data, dynamic road data, and traffic data is available.
- Denmark: All currently available data are provided.
- Estonia: Traffic restriction data, road camera pictures, Locations of road cameras, Measurement results of road weather stations, Locations of road weather stations and traffic counters, road works, and traffic hazards
- Finland: Static road data (partially), dynamic road status data (partially), and traffic data (partially).
- France: Static data are available on the national road network. Dynamic and circulation data will be accessible on the national road network and Ile-de-France. Data speeds and travel time on the national road network will be made available soon.
- Germany: Data are provided by different road authorities, representing the 16 Federal States of Germany. Data coverage is not consistent across these road authorities, as each authority has different data sources. Some federal States provide all required data, while others provide some of them.
- Ireland: Vehicle speed, traffic flow, traffic concentration, VMS messages, weather station data, and travel times.
- Lithuania: Information about weather conditions, traffic information, traffic intensities.
- Luxembourg: The data available focusses on dynamic road status updates. Including: type of road status update, the location of the event, and the period of occurrence of event.
- Netherlands: Roadwork information, traffic management measures, real-time traffic data, travel times, estimated travel times, intensities, speed, safety-related traffic data
- Norway: The types of the static road data include in particular the categories: a), b), c), d), g), h), j), and l). Dynamic road status data include in particular: a), b), c), e), f), j), o), p) and Traffic data include in particular: d) travel times.
- Slovakia: Static road data (b, l, j, k, l), dynamic road data (a – f), and traffic data (a – c) are available.
- Slovenia: Static road data (except paragraphs (e), (j), (k), (l), and (m)), dynamic road status data (except paragraph (d), (l), (m), (n), and (o)) and traffic data (except paragraph (d)).
• Spain: For example: Road network links and some of their physical attributes, Road classification, Traffic regulations identifying dangers (Access conditions), Speed limits, Traffic circulation plans, Road closures, Lane closures, Roadworks, Accidents and incidents, Direction of travel on reversible lanes, Temporary traffic management measures, Traffic volume, Speed, Travel times.

• Sweden: Static and dynamic road data.

Eleven countries state that the information is (or will be) available in the NAP for RTTI. Eight countries state that they provide web-links to the data. Some countries (are planning to) offer both options.

Most Member States do not have quality requirements or have not yet decided about quality requirements for the data to be made available. Seven countries stated that there are/will be some form of quality requirements, e.g. completeness of minimum metadata set, accordance to the data quality frameworks developed in EU EIP sub-activity 4.1\(^3\), checks by road operators, validated information, best effort, or merely the requirements mentioned in the text for Delegated Regulation (EU) 2015/962 for RTTI.

DATEX II is the most common format for exchanging dynamic road status data and traffic data. For static/GIS data other formats will be used such as ESRI shape, INSPIRE, WMS/WFS-interfaces, TMC-code. Ten NAPs provide metadata, of which six use (or will use) the Metadata Catalogue.

Almost all countries state that the use of the data is/will be free of charge, but some NAPs have functionality to allow a charge for data, or this is to the decision of the data owner. Some countries who provide the data without a charge do request additional requirements. For example, France will not charge for the use of data but will request registration.

The language of the NAP for RTTI is mostly the national language and English. However, in a number of countries the English translation is only partly effectuated.

Monitoring of the use of the NAP is already done in ten NAPs, another three NAPs are planning to monitor the use of the NAP and seven NAPs do not monitor the use of the data. With respect to data provision, 11 NAPs provide access to data exclusively from public authorities (including concessionaires); six NAPs also provide access to private data sources. On the user side it can be noted that seven Member States report that they have users from both public and private sector.

The following list provides some examples of (potential) information providers and information users:

• Cyprus: The planned NAP will expand to cover data from municipalities, police, port and airport authorities, public transport operators, etc. Users can be found in the Public Works Department, police, Nicosia municipality, 2-3 universities, and (under development) 6-8 private companies via web service to receive raw data and develop their own services.

• Czech Republic: NTIC reports to have more than 200 subscribers. There are only few registered users so far.

• Croatia: Five motorway operators (three public, two private) will be providing data.

• Denmark: Two Divisions of the DRD provide data to the NAP. There are three users.

• Finland: One public body is providing data. Several public and private organisations use the data (actual amount cannot be specified).
• France: Apart from Directorate of Roads and concession operators, Michelin Travel Partner and TomTom also provide data.
• Hungary: Six parties, of which four motorway concessionaires) provide data.
• Italy: 144 parties provide information to the NAP. 14 partners make use of the NAP by bilateral agreement, many others use the NAP on their own.
• Netherlands: Seven parties providing data to the NAP; use of the NAP is not monitored.
• Norway: NPRA and EV Norway provide data. There are 330 users of the DATEX II node.
• Slovakia: Five public parties provide data to the NAP.
• Slovenia: Three public and one private organisation provide data. The data are used by six public and five private organisations.
• Spain: Among others Traffic Management Centres and traffic police provide information to the NAP. Information on data usage is not available.
• Sweden: STA is the only provider and user of the NAP.

According to the Delegated Regulation (EU) 2015/962 for RTTI a National Body is not required. Nevertheless, 13 Member States have nominated a National Body, whereas in four countries it is still to be decided.

- In approximately two thirds of all Members States the implementation of the National Access Point for the provision of EU-wide RTTI services is operational.
- At least six out of 18 NAPs for RTTI also provide data from private parties.

2.5 Status of NAPs for Multimodal Travel Information Services

This section describes the current status of implementation of the National Access Point for the provision of Multimodal Travel Information Services, in short ‘NAP for MMTIS’. The delegated regulation on this topic ((EU) 2017/1926) was adopted by the European Commission on 21 October 2017. For the first part (point 1.1 of the Annex of the Delegated Regulation) the static travel and traffic data should be made accessible through the NAP by 1 December 2019.

Ten Member States report a NAP for MMTIS, but these are not yet complete (Austria, Cyprus, Finland, France, Germany, Ireland, Lithuania, Italy, Luxembourg, Norway). Seven other Member States have concrete plans (Denmark, Estonia, Latvia, The Netherlands, Slovenia, Spain, Sweden). The content mainly consists of data on public transport and sometimes taxi services, and in some cases also information on cycling. It should be noted that there is a difference in interpretation between respondents: some state they have a NAP for MMTIS but it merely contains a public transport route planner, whereas others have Public Transport and other data, but do not call it a NAP.
Table 6 provides an overview of the current status of implementation for the NAPs on Multimodal Travel Information Services.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
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<td>In progress</td>
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<td>Croatia</td>
<td>-</td>
<td>-</td>
<td>In progress</td>
<td>No information</td>
</tr>
<tr>
<td>Cyprus</td>
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<td>Planned (Q2 2018)</td>
<td>In progress*)</td>
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</tr>
<tr>
<td>Czech Republic</td>
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<td>In progress</td>
</tr>
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<td>Estonia</td>
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<td>-</td>
<td>Planned (2020)</td>
<td>Planned (2020)</td>
</tr>
<tr>
<td>Finland</td>
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<td>Planned (Q1 2018)</td>
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<td>(partly) Operational</td>
</tr>
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<td>-</td>
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</tr>
<tr>
<td>Latvia</td>
<td>-</td>
<td>-</td>
<td>Planned</td>
<td>Planned (2022)</td>
</tr>
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<td>Lithuania</td>
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<td>-</td>
<td>-</td>
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<td>Luxembourg</td>
<td>-</td>
<td>-</td>
<td>Planned (Q3 2019)</td>
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<td>-</td>
<td>In progress</td>
<td>Planned (2020)</td>
</tr>
<tr>
<td>Norway</td>
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<td>Planned (Q4 2019)</td>
<td>Planned (Q4 2019)</td>
<td>Operational</td>
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<td>No information*)</td>
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<td>No information</td>
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<td>Planned 2020</td>
<td>Planned (2020)</td>
<td>Planned (2020)</td>
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<td>Planned (2020)</td>
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<td>Sweden</td>
<td>Pre-study ongoing</td>
<td>Pre-study ongoing</td>
<td>In progress</td>
<td>Planned (2020)</td>
</tr>
</tbody>
</table>

NOTES:
*) Based on 2018 survey

Table 6: Status of NAPs for Multimodal Travel Information Services
In six Member States the organisation in charge of implementing the NAP for MMTIS is different than for the other NAPs. In ten Member States it is the same organisation. Probably this is caused by the fact that in many cases the other delegated regulations dealt exclusively with data about the main road network, whereas the delegated regulation for MMTIS only partly deals with these data, but in addition also covers other modes of transport (public transport, taxi, cycling, ...), other road networks (e.g. urban) and other topics (e.g. electric charging). Thus, the role of the national road authority is less evident in the delegated regulation for MMTIS. The role of road authorities in the implementation of MMTIS NAP is often limited to delivering part of the data (RTTI).

Even though establishment of a National Body is not an obligation from the Delegated Regulation, 15 Member States have (or are planning) to nominate National Bodies for the assessment of compliance. How to carry out the assessment of compliance is not yet clear for most countries.

Five NAPs will only provide weblinks to the data, eight (will) have data in the NAP or (will) have a mix of weblinks and data, e.g. static data in the NAP and dynamic data via weblinks. Five Member States are or will be using the Metadata Catalogue, which has recently been updated for the purpose of multimodal travel information (see chapter 4). Two Member States will use elements of the Metadata Catalogue.

Data exchange will take place using DATEX II for road data, whereas NeTEx, GFTS, Transmodel and SIRI are mentioned for other modes, and INSPIRE for geographical data.

In chapter 6 more specific attention is paid to the National Access Points for Multimodal Travel Information Services.

- Following the delegated regulation, from 1 December 2019 the first set of multimodal travel and traffic data should be made available through the NAP by all Member States.
- Currently, nine Member States managed to do so, while eight other Member States have concrete plans to start the implementation.

2.6 NAP Interactive Map

During meetings and discussions with different stakeholders in the past years, it was found that very few people or institutions are aware that, at a European level, more and more countries have implemented, or are in the process of implementing, NAPs. Although information about them can be found in the EU EIP NAP Annual Reports, only a small percentage have access to them, and very few know exactly where to look for information about NAPs. In addition, the fact that each country uses a different name and there are no similarities in NAP web addresses, makes it harder to access or find information about NAPs.

In reality, using a search engine (Google, Yahoo, etc.) to find a specific National Access Point, or information about one, generally does not return the desired results; for example, the NAP being searched for is not listed in the top results, or returned results have nothing to do with a National Access Point.

Given these observations, the need to promote the existence of National Access Points in Europe became evident. This led to the decision to publicise MS National Access Points through a user-friendly web service.
Therefore, a NAP interactive map was created and has been posted as a link on the official website of the EU EIP project.

The page is hosted on an external server, ensuring the NAP interactive map easy to maintain and update.

The NAP interactive map can be accessed from the official EU EIP platform homepage from the link below:  

or directly by accessing the link:  

The purpose of this web page is to disseminate the knowledge on the existence of the NAPs across Europe. This website shows per country, where available, the NAPs for:

- Safe and Secure Truck Parking
- Safety Related Traffic Information (SRTI)
- Real-Time Traffic Information (RTTI)
- Multimodal Travel Information Services (MMTIS)

The EU EIP logo is situated in the top left corner of the NAP Map page, showing that this page is connected with the platform, this logo is also a link to the official EU EIP website.

To the right, Figure 2, is the map itself. When the cursor is positioned on one of the countries marked in the light blue colour, the colour changes, the country name appears, and by clicking the mouse button users are redirected to the page / one of the NAP pages in the country; for example, in the case of Sweden, users are redirected to the Swedish NAP homepage, Figure 3 below.

Figure 2: NAP Interactive Map
To further enhance NAP promotion, information sharing and engagement, the NAP Map includes a list of contact details of the designated national bodies. The designated national bodies are important as they are required to assess whether the requirements of the delegated regulations are being fulfilled in their countries; and should be known by any party contributing (or planning to contribute) to a NAP.

Therefore, on the new NAP Map page selecting the “NAPs” or “NBs” menu provides a complete list of all web addresses of the NAPs and the contact details of the NBs, Figure 4.
The list can also be found in Annex 1 of this report.

2.7 Conclusions

Based on the survey conducted in 2019 it can be concluded that MS are increasingly complying with the delegated regulations for safe and secure truck parking ((EU) 885/2013), SRTI ((EU) 886/2013), RTTI ((EU) 2015/962) and MMTIS ((EU) 2017/1926). However, there are still quite a few countries who have work to do.

With respect to the NAP on safe and secure truck parking, from the MS that have participated in the survey 24 countries currently have an operational NAP or have concrete plans to implement the NAP. This means that it is expected that in 2020 75% of all MS will have a National Access Points.

In the case of NAPs for safety-related traffic information currently also 23 countries have an operational NAP for SRTI; or have concrete plans to implement a NAP.

Currently, 26 countries have a (partly) operational NAP for RTTI or have concrete plans to implement a NAP. In short, this means that by 2020 nearly 90% of all countries have a National Access point for the provision of EU-wide real-time traffic information services.

Seventeen countries have already (partly) implemented or are planning to implement a NAP for multimodal travel information at short notice. This means that just over 50% of the Member States will have an operational NAP for MMTIS by 2020, whereas the first set of travel and traffic data should have been made available through the NAP on 1 December 2019.
For all National Access Points, it is generally the public authorities (including concessionaires) that provide the data. Data from private parties, either as actual data or as weblinks or metadata, are rather limited so far. Although there seems to be an increase in the number of organisations that use the data from the NAP, NAP operators seem to pay little attention to monitoring the use of NAPs. Thus, it is not clear to what extent delegated regulations have resulted in a wider (re)use of the various data sources.

- From 2016 to 2019 a gradual increase of the number of implemented and/or planned NAPs can be seen.
- It is expected that in 2020 approx. 90% of all Member States will have NAPs. Only for the NAP for MMTIS this percentage will be considerably lower (50%).
- To what extent the NAPs contribute to better information services for road users and travellers remains unclear, since monitoring of the use of the data in the NAP seems to be rather limited.
3 Common features & Level of Service

This task aims to identify and develop agreement of NAP common features and Level of Service (LoS). These are intended to facilitate effective NAP functioning and make the NAP a straightforward, valuable resource for users.

This task relates to the formulation, agreement and validation of common features and levels of service for NAPs.

The output of the task is a Support Document that describes a set of features intended to support good practice, help make existing and future NAP services available to a wider audience, facilitate data sharing, and promote the discovery of datasets.

The section below provides a summary of the task, 2019 activities, findings and progress, and the next steps for 2020.

3.1 Previous activities & initial findings

This task has three subtasks:

1: Identify current features / LoS and check whether they are functioning well
2: Recommendation of a set of features and LoS for national access points
3: Recommendations report

NAP Common Features and Level of Service – Support Document was finalised and published online in early 2018⁴; it was then updated in September 2019. Much of the original work was based on early NAP implementations, stakeholder feedback, the Open Knowledge Foundation⁵, and the World Wide Web Consortium⁶. The intended audience of this document are organisations responsible for NAPs.

The document contains 22 features to be considered in NAPs, covering five areas:

- Access
- Communication
- Finding datasets
- Update and maintenance
- Dataset information

⁵ https://okfn.org/
⁶ https://www.w3.org/
Each feature has a description, reasons for being included, examples, and benefits. It is intended that the features can be applied to NAPs for all of the ITS Directive Delegated Regulation services where a NAP is specified. The features are not mandatory or binding in any way; but are aimed at facilitating good practice in NAP implementation.

The document also contains an “Implementer checklist” to collect feedback on current and planned NAPs.

Based on implementer feedback received in 2018, two new features were added in 2019:

- In Access - **2.1.6. NAP requires data consumers to register for full access**
  - This would facilitate NAP operators in improving security and control data consumers activity. The benefit of this feature is Trust.

- In Finding datasets - **2.3.4. The NAP provides a map-based search**
  - This would provide data consumers with a map-based search option along with traditional text-based metadata search tools. The benefits of this feature are Access, Comprehension & Discoverability.

Both these features are included in the Support Document as “Nice to have”.

The updated version of the **NAP Common Features and Level of Services Support Document v 2.0** is now available and can be downloaded.[7]

### 3.2 Next steps

As most MS now have knowledge and experience of implementing at least one NAP, this task is relatively stable with the next steps related to the NAP implementers completing the checklist and providing feedback on the features.

WG NAP will review the application of the features in the deployed NAPs and update the Support Document if required.

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4 Metadata

Metadata describes the administration, organisation, and content of a dataset and of a data service. Metadata datasets are therefore crucial elements to make NAPs accessible and searchable.

This task examines the status of metadata in NAPs and provides recommendations.

The most visible Metadata representation are the dataset descriptions in NAP portals, see the example from the Mobility Data Marketplace (MDM, German NAP) in Figure 5.

Figure 5: Metadata as part of the data set description in a NAP portal

Metadata represent a recurring element of Delegated Regulations of the ITS Directive. Metadata have been mentioned to date for Delegated Regulation (EU) 2015/962 for RTTI and for Delegated Regulation (EU) 2017/1926 for MMTIS. It is recommended that Metadata should also have the same relevance for all other Delegated Regulations.
There is a need to harmonise Metadata descriptions and structures for the following reasons:

- to help to make data available and searchable for pan-European service providers,
- to ensure Metadata to be machine-readable in a later stage, and
- to ensure a common understanding of the listed data content.

In the context of EU EIP WG NAP, harmonisation approaches are being discussed in the field of Metadata. In particular, recommendations are being elaborated in terms of how to implement Metadata in existing and upcoming NAPs across Europe.

The activities of EU EIP WG NAP are based on:

- results from the former projects EIP and EIP+, in particular the “Coordinated Metadata Catalogue” (2015) as a proposal for a harmonised set of Metadata,
- evaluation of Metadata approaches in the MS so far, and
- identification of needs and requirements in order to further develop a recommended, harmonised Metadata approach across Europe.

4.1 Previous activities & initial findings

As an on-going work of EU EIP WG NAP, the current practice and experiences of individual NAPs in terms of Metadata approaches are being reviewed and evaluated.

As already found out in previous such reviews, the current 2019 NAP reports again indicate a quite heterogeneous Metadata landscape across all reviewed NAPs. The introduced “Coordinated Metadata Catalogue” is a reference in many instances. However, in some other cases alternative Metadata approaches are chosen, or no information on the Metadata approach is given at all. Reasons for this may be diverse system architectures, functionalities, and IT / Open Data frameworks of individual NAPs. Further, individual NAPs show different “maturity levels”: some NAPs have a long operational story (and maybe are already updating their systems), some others are only at a conceptual / building level.

An interesting note from the analyses of current NAP practices is that some NAPs provide their own “Metadata guidelines”, i.e. detailed advice how to create Metadata by NAP data providers. Such guidelines have been found within NAP user manuals (see Sweden⁸ and Germany¹⁰) or as stand-alone documents (see Greece¹¹). It can be concluded that such NAP-specific guidance may be a further success factor for high-quality Metadata in individual NAPs.

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⁸ https://www.its-platform.eu/filedepot_download/1701/5355
⁹ https://www.trafficdata.se/manuals/Manual_Trafficdata_version_1.1_Swe.pdf
When it comes to Metadata infrastructures in NAP deployments, EU EIP WG NAP is working hard to support NAP deployers (i.e. responsible organisations for NAPs). Such support is especially relevant for NAPs that are being updated or newly installed. In these cases, Metadata practices are proposed with the aim of efficiency and harmonisation across Europe.

Besides stakeholder exchange (see the “Metadata workshop” in June 2017\(^\text{12}\)), two dedicated documents have been provided by EU EIP WG NAP on that matter:

- “Metadata Guideline”\(^\text{13}\) (EU EIP, March 2018) - This guideline depicts and discusses alternative Metadata approaches for individual NAP environments, taking into account higher-level considerations for NAP implementations.
- “Coordinated Metadata Catalogue”\(^\text{14}\) (EU EIP, November 2019) – This work is a blueprint for Metadata structures at each individual NAP in Europe; defining a common, minimum Metadata set; and considering all data and information domains of the EU Directive and the respective Delegated Regulations.

The latter document, the “Coordinated Metadata Catalogue”, was of particular interest during 2019, as it has been revisited and widely updated. A major milestone was the additional coverage of multi-modal travel data and services, according to Delegated Regulation (EU) 2017/1926 for MMTIS. There were some challenges in this work due to new data domains and data formats, e.g. regarding public transport and geospatial information. After an iterative process with NAP stakeholders from Sweden, Austria and Germany, the updated “Catalogue” has been published on the EU EIP website and recommended for consideration in any European NAP.

The updated “Catalogue” has been also presented at the “5th Follow-Up Member States Expert Meeting” regarding Delegated Regulation (EU) 2017/1926 for MMTIS (at the European Commission on November 12th, 2019). The present members of the EC and the Member States showed high interest in this work. It will be also referenced in an upcoming version of the “Deployment Guidelines” of the EC.

### 4.2 Next steps

During recent talks with NAP deployers, it became evident that the “Catalogue” is a well-known and respected reference. In some cases when new NAPs are installed, EU EIP WG NAP has been contacted for potential “Metadata templates”, so the “Catalogue” could be presented. In some other cases, NAP deployers exchanged arguments why they decided NOT to apply the “Catalogue”, but some other Metadata standards.

Eventually, the discussion with NAP stakeholders on the Metadata topic will most likely continue, as frameworks and requirements for data provision in the NAP domain (as well as in the Open Government Data and Open Data domain) are constantly evolving. The introduced “Coordinated Metadata Catalogue” will remain a pivotal point of such discussions.

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\(^{12}\) https://eip.its-platform.eu/highlights/use-metadata-national-access-points-naps-discussed-workshop

\(^{13}\) https://portal.its-platform.eu/filedepot_download/1976/6295

\(^{14}\) https://www.its-platform.eu/highlights/harmonised-metadata-national-access-points
Further, some specific, short-term Metadata actions are identified that will be accomplished during the remaining lifetime of EU EIP WG NAP. In particular, a standardised modelling of “Catalogue” will be initiated. Such modelling will translate the so far “unconnected” Metadata fields of the “Catalogue” into a structured model containing entities and relationships (as it has been done in other standardised modelling, such as DATEX II and DCAT-AP). The UML modelling technique will be used for this. Such modelling will add several benefits towards efficiency and acceptability of the “Catalogue”. Technically, it will also allow the machine-readability of the Metadata definitions in the “Catalogue”.

- The “Coordinated Metadata Catalogue” has been updated to consider multi-modal travel data and services, according to Delegated Regulation (EU) 2017/1926 for MMTIS.
- A continuing exchange with, and support to, individual NAP deployers has been established.
5 Standards & common formats

All delegated regulations supplementing the ITS Directive refer to certain standards to be used when exchanging information with NAPs.

While DATEX II is prevalent, the NeTEx CEN/TS 16614 and SIRI CEN/TS 15531 standards are also stated. This task highlights relevant developments and implementer feedback.

Additionally, the following are also relevant in the context of NAP data exchange:

- **TAP–TSI** - technical specification for interoperability (TSI) for telematics applications for passenger services (TAP)
- **Public transport** — **Open API** for distributed journey planning – CEN/TC 278
- **GTFS** - Google Transit Feed Specification and **GTFS-RT**

The following chapter provides a brief description of these standards and the conclusions, mainly about DATEX II implementation, from the 2019 survey on the status of national NAP developments.

5.1 DATEX II standard

DATEX II was developed as a standardised solution to communicate and exchange traffic information among traffic centres, service providers and information broadcasting companies. The usage of DATEX II for data exchange is named in Delegated Regulations for safe and secure truck parking ((EU) 885/2013), SRTI ((EU) 886/2013), RTTI ((EU) 2015/962) and MMTIS ((EU) 2017/1926).

For example, in Delegated Regulation 885/2013, for safe and secure truck parking, in article 5 it is stated: “Public or private parking operators and service providers shall share and exchange data referred to in paragraph 1 of Article 4. For these purposes they shall use DATEX II (CEN/TS 16157) format or any DATEX II compatible international machine-readable format”.

Similarly, in Delegated Regulation (EU) 886/2013, for SRTI, in article 7 it is stated: “Public and/or private road operators and/or service providers shall share and exchange the data they collect pursuant to Article 6. For that purpose, they shall make these data available in the DATEX II (CEN/TS 16157) format or any fully compatible and interoperable with DATEX II machine-readable format through an access point.”
However, common and harmonized recommended reference profiles or recommendations are only available as follows:

- **Delegated Regulation (EU) 885/2013 – safe and secure truck parking**
  - DATEX II Profiles available
  - Parking Publications are part of DATEX II v3
  - The profiles can be found at: [http://www.datex2.eu/content/act-e-truck-parking](http://www.datex2.eu/content/act-e-truck-parking)

- **Delegated Regulation (EU) 886/2013 – SRTI**
  - Recommendations are available
  - DATEX II Guide for Road-Safety Related Traffic Content in DATEX II.
  - Link: [http://www.datex2.eu/content/act-c-safety-relevant-traffic-information](http://www.datex2.eu/content/act-c-safety-relevant-traffic-information)
  - DATEX II organisation is working on a DATEX II reference profile that is considered to contain all events that are known as “SRTI-flagged” in the EU

- **Delegated Regulation (EU) 2015/962 – RTTI**
  - For dynamic information, several parts of DATEX II have to be taken into account:
    - For real-time event (roadworks, traffic management, ...), Situation Publication
    - For real-time messages, VMS Publication
    - For real-time traffic information, Elaborated Data Publication
  - For static data, the INSPIRE Directive (2007/2/EC), has drafted detailed technical documentation of transport network specification which includes many of the static data elements of this delegated regulation. Further development in this is required to link the work of INSPIRE.
  - DATEX II is also able to provide historical traffic data, Location of the measurement site, static signal like speed limits,

- **Delegated Regulation (EU) 2017/1926 – MMTIS**
  - this regulation extends some of the services from Truck Parking, SRTI, RTTI to all the road network. The provision in DATEX II is possible with dedicated location referencing.

There are also some other initiatives to promote and support the use of DATEX II for NAPs:

- In the CROCODILE project ([https://crocodile.its-platform.eu/](https://crocodile.its-platform.eu/)) a ‘Man in the middle’ has been developed called Middleware system. This system maps SRTI data of more advanced data sources to simpler data clients. Especially for those parties having not implemented the entire list of possible SRTI relevant events, this middleware enables the exchange of information for triggering Traffic Management Plans (TMPs) cross border.

- As reported by the national NAP body, the NAP in Greece will also make available to data providers an online tool that will assist them in providing their datasets in a DATEX II compliant format.

- TIPI, the French IT Framework developed within previous European project since TEMPO Program and EasyWay, offers to local authorities an entry point to provide their real-time road event, which will be published in DATEX II version 2.3 on the URL for SRTI and RTTI.

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5.2 NeTEx & SIRI standards

NeTEx and SIRI are CEN standards managed by CEN/TC278/WG3/SQ9 and CEN/TC278/WG3/SQ3.7, a committee of public transport experts from different European countries\(^\text{(16)}\). These standards are based on the Transmodel\(^\text{(17)}\) framework.

**NeTEx**

The NeTEx (Network Timetable Exchange) standard is a CEN standard (CEN TS 16614-1, 16614-2 and 16614-3) for exchanging public transport data, based on Transmodel (EN 12896-1 to 9), aiming at standardising the way of exchanging data between the information systems involved in public transport. It is based on open technologies (XML, XSD, and UML) and enables service operators and authorities to represent public transport data anywhere in Europe using common formats, standard rules, and uniform protocols.

NeTEx is divided into three parts:

- Part 1: Network topology (CEN TS 16614-1)
- Part 2: Timing information and Scheduled Timetables (CEN TS 16614-2)
- Part 3: Description of the tariffs (CEN TS 16614-3)

Standards are, by their own nature and definition, broad documents that incorporate a very large spectrum of requirements that are beyond local needs and specific implementations. This means that standards’ documents are quite large and detailed and somewhat difficult to use for practical applications complying with it. In addition, some local or national specificities can lead to a specific use or a specific codification to be used for certain information or legacy data formats that may be meaningless for all other applications. Finally, in order to use NeTEx, a set of choices need to be made: some elements proposed by the standards are optional and it must be decided if these items are to be used or not. All of this means, essentially, that the use of profiles is mandatory to adjust the use of a standard to a specific context and a specific use case. The profile may contain information such as:

- details of services
- details of the fixed objects
- details on the options proposed by the standard
- details on optional elements
- precision on the codifications to be used

The NeTEx deliverables comprise of:

1. a CEN Specification document (in three parts),
2. a data model in the standard UML modelling language and


\(^{17}\) [http://www.transmodel-cen.eu/](http://www.transmodel-cen.eu/)
(iii) an accompanying XML schema providing a formal electronic description that can be used by data processing software. Data in NeTEx format is encoded as XML documents that must conform exactly to the schema – standard XML validator tools can check conformance automatically. The schema can also be used to create bindings to different programming languages, automating part of the implementation process for creating software that supports NeTEx formats. Some example XML document encoding different data sets and exchange functions are provided along with the schema.

In effect, documents in NeTEx format are computer files that can be exchanged by a wide variety of protocols (http, ftp, email, portable media, etc). In addition, a SIRI based protocol is specified for use by online web services. The common SIRI framework is used to describe a specific NeTEx/ data service (SIRI-NX) with specialised messages that can be used to request and return messages containing data in NeTEx format, as well as publish/subscribe messages for push distribution. The SIRI-NX responses return a NeTEx XML document that satisfies the request criteria (and also conforms to the NeTEx schema). There is a WSDL binding for this SIRI NeTEx service to make it easy to implement services and service clients as http requests.

A NeTEx service need only implement those elements of relevance to its business objectives – extraneous elements present in the binding can be ignored. Parties using NeTEx for a particular purpose will typically define a “PROFILE” to identify the elements that must be present, and the code sets to be used to identify them, for example a Norwegian NeTEx profile has been defined that specifies the use of NeTEx for the exchange of NeTEx data. This profile is now used in the Nordics as a “Nordic profile”.

For more information on NeTEx see section 6.2 of this report.

**SIRI**

SIRI defines a standard for exchanging **dynamic public transport passenger information** data in XML format. **SIRI (Service Interface for Real-time Information)** is divided into five parts:

- **Part 1** describes the context and the framework including the different organisations involved, public transport vehicle control centres, fleet of public transport vehicles, network information, information provision systems, passenger information services or devices.

- **Part 2** describes the communication infrastructures and mechanism to exchange real time information.

- **Part 3** specifies individual application interface of functional modules on real-time tables (production, estimated, at stop, for connection) or on monitoring of vehicles with current position and travel time.

- **Part 4**, named Facility Monitoring, enables the exchange of information on the current status of available facilities.

- **Part 5** is linked with DATEX II to provide real-time information on situation and incident that appends along the road network and which impacts the journey of the public transport vehicles.

To give some simple examples, SIRI provides:

- real-time departure which could be different from the departure announced in the time table provided by NeTEx,

- real-time information about the position along the route to an individual vehicle,
synchronisation between arrival and departure to guarantee the connection, if connections are needed for a journey

A SIRI-Lite version is also available which is a profile of SIRI to make it simpler to implement and deploy according to the usage of Representational state transfer (REST) than SIRI uses SOAP.

5.3 TAP – TSI standard

A technical specification for interoperability (TSI) for telematics applications for passenger services (TAP) of the trans-European rail system has been defined by Regulation 454/2011. These specifications are maintained by ERA, European union Agency for Railways18. This agency is also responsible of the TAF-TSI which applies to freight transport by rail.

TAP TSI allows the harmonisation/standardisation of procedures, data and messages to be exchanged between the computer systems of the railway companies, of the infrastructure managers and of the tickets vendors in order to provide reliable information to passengers and to issue tickets for a journey on the European Union railway network, in accordance with Regulation n°1371/2007 on rail passengers rights and obligations19. TAP – TSI can also be used in the context of urban rail systems.

The Technical Specification for Interoperability on “Telematics Applications for Passengers” (TAP – TSI) prescribes protocols for the data exchange of:

• timetables
• fares / tariffs
• reservations
• information to passengers in station and vehicle area
• train running information, etc.

5.4 Open Journey Planning standard

The Open Journey Planning (OJP) API will allow a system to engineer just one interface that it can make available widely (to authorised users or openly as they so choose) rather than having to engineer separate APIs for each bipartite exchange arrangement that may be required with other systems20.

The principle of the OJP standard is based on a distributed journey planning. Two profiles are possible for a journey planner system:

1. Active which receives the request from the traveller with origin and final destinations, analyses the possible routes, requests to each passive journey planner involved in the route calculation, collects and combines the responses from each of them and provides the responses to the traveller who choice his preferred route.

18 https://www.era.europa.eu/
19 https://ec.europa.eu/transport/modes/rail/interoperability/interoperability/telematic_applications_en
2. **Passive** which receives the request of the active journey planner to calculate routes in its geographical area, transmits the responses to the active journey planner.

The basis of this standard is that the most relevant journey planner to provide the most accurate and updated information is the one which is operating closely to the public transport network.

It limits the data collection and data update at centralised level to avoid risk of delay and big data exchange of unused data.

Existing journey planning systems (and probably some that will be developed in the near future) may require their own specific APIs for use with their closest partner systems, where the volume of enquiries is such that efficiency considerations demand a tightly specified API for such clients. The intention of the Open API is to provide an opportunity for just one universal channel to exchange information to lower-volume users – once created then there is little reason not to allow as many users of this API as may wish to use it.

The greatest use of public transport (in terms of the number of passenger journeys) happens in urban areas where frequent and regular services cater for the needs of relatively short-distance journeys. Usage then declines as journey distances get longer – with inter-regional and international journeys comprising the smallest number of public transport journeys.

However, the need for information about PT services is least in areas with frequent and regular services, where passengers quickly get to know about the services they rely on for most of their journeys – and therefore their need to check information systems is relatively infrequent. Longer distance journeys, however, are made less often and for a variety of reasons there is a much greater need to obtain information for such journeys before setting off. So, the need for information is greatest for the very journeys that are made least often. It is difficult to make a business case to provide information systems geared specifically to the needs of the longer-distance travellers, therefore. Instead it becomes important to find ways of meeting the information needs of those passengers by using information collated and delivered primarily for the much larger group of those making short-distance journeys.

### 5.5 GTFS & GTFS-RT formats

TriMet in Portland, Oregon, along with Google, was one of the first public agencies to try and tackle the problem of online transit trip planners through the use of open datasets that are shared with the general public (How Google and Portland’s TriMet Set the Standard for Open Transit Data in Streetsblog SF)

TriMet worked with Google to format their transit data into an easily maintainable and consumable format that could be imported into Google Maps. This transit data format was originally known as the Google Transit Feed Specification (GTFS). GTFS provide the static information for the public transport network and time table.

As a result of developer innovation, GTFS data is now being used by a variety of third-party software applications for many different purposes, including trip planning, timetable creation, mobile data, data visualisation, accessibility, analysis tools for planning, and real-time information systems. In 2010, the GTFS format name was changed to the **General Transit Feed Specification** to accurately represent its use in many different applications outside of Google products.

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21 [https://gtfs.org/gtfs-background](https://gtfs.org/gtfs-background)
Among public transportation data formats, GTFS stands out because it was conceived to meet specific, practical needs in communicating service information to passengers, not as an exhaustive vocabulary for managing operational details. It is designed to be relatively simple to create and read for both people and machines. Even organisations that work with highly detailed data internally using standards like NeTEx, use GTFS as a way to publish data for wider consumption by software developers who are more familiar with the Android applications.

GTFS-RT is the real-time data extension for GTFS. It can be translated in SIRI-Lite.

5.6 Objective & methodology of DATEX II activity in WG NAP

The DATEX II activity in WG NAP is primarily focused on identifying the needs and experiences of NAP implementers with respect to using DATEX II for data exchange. The main objectives of the activity are to:

- Organise interviews with NAP implementers and service providers on DATEX II needs and implementation experiences.
- Analyse DATEX II needs for NAP and formulate proposals towards the DATEX II organisation.
- Develop conclusions/recommendations for DATEX II needs for NAP.

The survey organised in 2019 by WG NAP gave a good picture on how DATEX II is used by NAPs and it confirms an increase of the knowledge about DATEX II in the national implementations. Also, compared to last year, more countries have operational NAPs which contributes to an even better picture of the DATEX II and other standards usage by NAPs. As concluded in the previous survey, the expertise level is still divided: there are countries that are very familiar with DATEX II, while others are just beginning, and for the moment using proprietary formats to exchange data. Finally, a very positive conclusion is that some countries are already planning and working towards implementing DATEX II v3, the latest version of the standard.

This activity is carried out in close cooperation with SA4.5 (Liaison for data exchange) which ensures the link between EU EIP and the DATEX II organisation. The main goal of the SA4.5 consists on centralising all EU EIP new user needs regarding DATEX II model and to disseminate information to the DATEX II organisation. SA4.5 acts as the unique interface between the DATEX II organisation and EU EIP. Additionally, the A2 DATEX II activity will also maintain a direct link with the DATEX II organisation through ITS Romania/ELECTRONIC SOLUTIONS experts that are involved in the DATEX II organisation.

5.7 Feedback from the WG NAP surveys

Regarding the NAPs for truck parking, out of 28 replies, 10 are providing data using DATEX II in line with the common Parking Publications profiles. Another 14 do not have a Truck Parking NAP and the other three are using their own formats: .xls files or Shapefile.
Most of those using DATEX II did not mention any technical difficulties with it. Only one issue which could be considered very problematic was mentioned by Denmark: version 2.3 “cannot be used for validation of DATEX II XML messages with Level-B extensions which extend objects that are already extended in version 2.3”. This issue, also mentioned last year, has been submitted to DATEX II Support and is pending resolution.

It is worth mentioning that all those that are using DATEX II have version 2.3 while Hungary and Romania are planning to upgrade to version 3.

Other issues mentioned regarding DATEX II in NAPs for truck parking are:

- **Czech Republic**: numbering scheme needs to be developed (how to identify Rest Area objects from facilities, exits to parking spaces)
- **Hungary**: location referencing not working properly due to the lack of necessary OpenLR updates

At least two reports suggest that future developments will be to provide dynamic parking information. This is included in the DATEX II standard but is not available or not used yet.

Another important aspect is that many NAPs are not databases, so data format is dependent on the supplier. Therefore, as mentioned at least by Germany, some datasets are available in DATEX II using the common European profile while others are using different profiles bilaterally agreed between the parties exchanging the information. Germany also supports “EU-wide harmonisation of DATEX II profiles for interoperability reasons”.

All the NAPs that are databases provide all the data elements required by the Delegated Regulations.

Regarding the NAPs for SRTI, out of 28 replies, 18 use DATEX II and three of them also use other formats: xml, proprietary data files, RSS, GEO-RSS and JSON. All the others either do not have a NAP for SRTI or did not provide an answer. No technical difficulties were reported except for Denmark, which mentioned the same issue as for the NAP for truck parking.

Same as for Truck Parking NAP, many NAPs are not databases, so data format is dependent on the supplier. However, all those that are using DATEX II have version 2.3.

Seven NAPs that are databases provide all the data elements required by the Delegated Regulation while the other four NAPs reported as databases provide only some of those data elements.

Looking at DATEX II profiles for SRTI NAPs, the most relevant answers are from Czech Republic and Greece, who are using only the recommended common profiles for SRTI and the answer from Italy who is using several different profiles tailored for the needs of each communicating party.

Regarding the NAPs for RTTI, out of 28 replies, 19 use DATEX II for dynamic road status data and most of them also use other formats (e.g. xml, JSON, Shapefile) for static data. The regular use of other data types is to be expected as not all information required by RTTI regulation can be provided in DATEX II standard.

No major technical difficulties were reported except for Denmark, which mentioned the same issue as for the NAP for truck parking.

Other issues mentioned regarding DATEX II in NAPs for RTTI are:

- **Netherlands**: harmonisation of geo-referencing
- **Hungary**: location referencing not working properly due to the lack of necessary OpenLR updates
Same as for Truck Parking NAP, many NAPs are not databases, so data format is dependent on the supplier. However, all those that are using DATEX II have version 2.3.

Regarding the NAPs for MMTIS, out of 28 replies, only two use DATEX II while most of them use other formats (e.g. xml, JSON, NeTeX, SIRI, GTFS, TRANSMODEL). This is to be expected as only a few countries currently have a NAP for MMTIS and few datatypes required by MMTIS regulation can be provided in DATEX II standard. No major technical difficulties were reported.

The following general issues were identified regarding DATEX II for all types of NAPs:

- Implementers are looking forward to the new version 3.0 (or the new Light alternative) expecting it to be simpler / less complicated

- Surprisingly, no report mentions lack of standard profiles as a problem. Most likely custom profiles were defined with data suppliers and users. This conclusion is supported at least by the report from Germany which mentions regarding RTTI NAP that “Depending on the data type, specific DATEX II profiles are applied”. This situation could lead to incompatibility between NAPs from different countries.

5.8 Update on DATEX II organisation

The current major focus of the DATEX II group is on developing the new version of the standard. Also, they are aiming to provide more support to the users and one of the actions in this respect is the redesign the website which is the main access point for all information about DATEX II for all target groups. This means the website incorporates different types of information (technical level / management level). All information is more easily accessible and structured so both new and existing users find everything they need to work with DATEX II and learn about its operational use and current developments.

Based on the current status of NAP implementations in Europe, DATEX II organisation was able to draft a visual representation showing which countries use DATEX II in their NAPs, what version of DATEX II is used and what data categories are exchanged using DATEX II protocol required by a Delegated Regulation. It also shows which countries are related to the DATEX II organisation. The information comes from the analysis of the NAP surveys, collected by the EU EIP NAP activity, in combination with desk research of the data categories exchanged per NAP per delegated regulation. The visual representation can be found at the following web address: https://datex2.eu/naps.

This dedicated webpage showcases the use of DATEX II at NAPs for safe and secure truck parking, SRTI, RTTI and MMTIS, based on information derived from the 2019 surveys collected by EU EIP WG NAP; cooperation between DATEX II activity and the DATEX organisation. The visual representations links to the nodes directory for further details on the implementations. Using a toggle button, the user is able to switch between the map data on safe and secure truck parking, SRTI, RTTI and MMTIS.
5.9 Conclusions

This activity is focused on identifying the needs and experiences of NAP implementers with respect to using DATEX II for data exchange. This year the activity continued to maintain a close cooperation with Activity 4.5 and DATEX II organisation, also supported by the involvement of Romanian experts both in EU EIP and DATEX II organisation.

The survey organised this year by WG NAP gave a good picture on how DATEX II is used by NAPs. The feedback was interesting and provided relevant information on the status of implementation and existing issues. The newly added questions, when compared with the previous year, also helped to further clarify the status and main issues about DATEX II implementation.

Overall, only one major technical issue was reported, however it is submitted to DATEX II support which suggests the positive conclusion that implementers are aware of the help they can receive from the DATEX II organisation.

The clearest situation regarding DATEX II implementation is for truck parking NAPs, mostly because common EU DATEX II profiles are available. For the other types of NAPs, the implementations are more complex. This is partly due to the fact that DATEX II cannot be used for all data types and partly because common recommended reference profiles are not available yet.

This need for common profiles is confirmed by DATEX II organisation and can also be concluded based on the report from Germany where, in the case of RTTI NAP, it mentions that:

“a DATEX II has been created for the data type <<road works>>, which is recommended to be used by all Federal States as data suppliers...... Discussions and trainings with the Federal States are on-going, with the goals of consistent usage of the DATEX II profile.”

Germany also reported that it supports “EU-wide harmonisation of DATEX II profiles for interoperability reasons”.

Regarding the preparation of the annual surveys, one major conclusion coming from the requirements of DATEX II organisation, is that it would be useful to know in detail which data categories (out of those required by a Delegated Regulation) are provided by a certain standard and the version of DATEX II they are using. In other words, not mention the standards in general but actually specify which one is used for each element.

The NAP survey confirms an increase of the knowledge about DATEX II in national implementations. Also, compared to last year, more countries have operational NAPs which contributes to an even better picture of the DATEX II, and other standards, usage NAPs. A very positive conclusion is that some countries are already planning and working towards implementing DATEX II v3, the latest version of the standard.
6 MMTIS

Within the scope of this task, the main objective is to identify the developments in the field of the implementation of **NAPs for MMTIS**, focusing on **road transport**.

To reach such an objective, we have identified specific, measurable and relevant objectives:

- continuing and broadening the work that was carried out;
- surveying the latest developments and projects for MMTIS NAPs;
- identify and take note of the major questions, issues and barriers for the adoption of MMTIS NAPs by the different Member States;
- identify gaps and non-conformities with the EU Directives in the existing MMTIS NAPs;
- systematise and share best practices in the development of MMTIS NAPs as a set of guidelines;
- exchange experience with other projects dedicated to MMTIS.

6.1 Scope

The framework for the coordinated and effective implementation of intelligent transport systems across Europe was set by the ITS directive. To accomplish this objective, specifications are needed to ensure seamless continuity and integration of multiple and heterogeneous services within and across member states. The ITS Directive Delegated Regulation for the provision of EU-Wide Multimodal Travel Information Services (EU) 2017/1926, MMTIS, proposes the necessary requirements to make EU-wide multimodal travel information services accurate and available between Member States, concerning public and private stakeholders across all transport modes, namely:

- the technical means to comply with functional requirements;
- procedural obligations of the various stakeholders;
- levels of services (Delegated Regulation (EU) 2017/1926 for MMTIS is not only about data, but also about services).

In a first step, the MMTIS deals with static data from transport operators and authorities, infrastructure managers and transport on-demand service providers. In a second step, optionally, dynamic data can be made available where Member States decide to do so. This data is to be exchanged through National Access Points (NAP) and via license agreements of data providers, using a defined group of standards/specifications. Regarding MMTIS, the National Access Points are expected to provide information for public transport and other scheduled modes for the comprehensive TEN-T networks, using the NeTEx CEN/TS 16614 standard and subsequent versions, technical documents defined in Regulation (EU) No 454/2011 and subsequent versions, technical documents elaborated by IATA or any machine-readable format fully compatible and interoperable with those standards and technical specifications. As an option for Member States, similar documents shall be produced for dynamic information, and more specifically those using CEN SIRI CEN/TS 15531 standard.
From a road transport service operator perspective, Delegated Regulation (EU) 2017/1926 for MMTIS, should consider some relevant issues such as:

- relevant actors involved;
- what is the information that can be relevant for road operator;
- which are the existing standard protocols to exchange relevant information;
- Specific (for each transport mean) and common (can be used between several transport means) metadata;
- which roads, streets and stops should be considered;
- how to integrate this information, and how to present it to the end user;

Focusing on road transport, Annex 1 – Data Categories of the Delegated Regulation (EU) 2017/1926, MMTIS, answers some of these questions.

According to the document, the **static data** to be exchanged includes (but is not limited to):

- **Level 1**
  - Local search (origin/destination, access nodes, geometry/layout, points of interest)
  - Trip plans (calendar, mapping day types to calendar dates)
  - Trip plan computation — scheduled modes transport (interchanges, routes/lines, transport operators, timetables, stop facilities access nodes, vehicles, accessibility
  - Stop facilities and accessibility
- **Level 2**
  - Stop search (transport on demand)
  - Bike sharing stations / Car-sharing stations
  - Refuelling /electric charging stations
  - Information services: tariffs, complementary information, trip plans
- **Level 3**
  - Detailed common standard and special fare query (all scheduled modes)
  - Information on how to book and pay the services
  - Where how to pay for car parking, public charging stations for electric vehicles and refuelling points
  - Detailed trip plans
  - Trip plan computation

As for optional **dynamic data**, some examples include:

- **Level 1**
  - passing times, trip plans and auxiliary information (disruptions, delays, cancellations)
  - status of access node features (including dynamic platform information, operational lifts/escalators, closed entrances and exit locations)
- **Level 2**
  - Passing times (estimated departure and arrival times of services, current road link travel times)
Information services (availability of publicly accessible charging stations for electric vehicles and refuelling)
- Availability check (car-sharing availability, bike sharing availability, car parking spaces available (on and off-street), parking tariffs, road toll tariffs)
- Level 3
  - Trip plans (future predicted road link travel times)

6.2 MMTIS NeTEx profiles

From a practical point of view, profiles can be seen as implementation guidelines for a certain standard. In practice, it is a huge endeavour to have a comprehensive coverage of all the needs of a given country. For instance, just for the mentioned Part 1 of NeTEx, which is the Public Transport Network topology and timing concepts, the complete model is composed by innumerous fields. At the same time, the demand for quality is high and the general belief for a successful implementation of multimodal information is to ‘do it well or don’t do it at all’. So, to produce the profile needed for MMTIS NAPs covering all needs of a Member State it is advised to follow a “divide to conquer” approach, incrementally building the national profile for public road transport, by modules. The very first step, however, should be to involve all the relevant stakeholders.

In fact, there is a wide range of organisations, group or individuals who may affect, be affected by or perceive itself to be affected by a decision, activity or outcome of the national MMTIS NeTEx profile. To avoid lack of data, and to ensure quality of data and information services, stakeholders have to become engaged in the earlier stages of the national profiles’ definition, giving their ideas and aspirations for possible project options.

The objective of this first step is identifying and incorporating stakeholder concerns, needs and values in MMTIS. It is a two-way communication process that provides a mechanism for exchanging information and promoting stakeholder interaction with the technical teams responsible for developing the NeTEx profiles and/or NAPs for Delegated Regulation (EU) 2017/1926, MMTIS.

The second step, after the stakeholders’ engagement, is a thorough analysis of all the potential data elements involved, as well as the relevant exchanges between different identified application elements. This provides a focus onto relevant parts of the NeTEx standard, and a first idea on the options, values and parameters relevant for the applications. Once these have been identified, the profile can be completed.

The main difficulties Member States face while developing the respective MMTIS NeTEx profiles seem to fall into three main categories:
1. the size of the task at hand,
2. reach an agreement on elements involved,
3. the quality of the data available.

NeTEx profile support & progress

Regarding the size of the task at hand, the very large spectrum of requirements that the elements in the standard specification must cover means that there is a lot of work involved in matching the standard with the specific requirements of the objective at hand (defining the national profile) and selecting the potential elements that must be in the profile to have a complete coverage of the needs of all stakeholders. This is also
related to the second difficulty, naturally: involving all relevant stakeholders to understand their data needs and data availability, retro-feeding the first task of defining the need subset of the standard.

NeTEx profiles for passenger information are already available in France, Norway, more recently in Germany and The Netherlands. Also, each national NeTEx profile must, naturally, comply with the common minimum European profile developed within TC278/WG4/SG9. This profile is a "minimum" profile for passenger information, covering all needs shared by member states.

The implementation of Delegated Regulation (EU) 2017/1926 MMTIS is supported by:

- CEF Programme Support Actions (PSAs), such as the recent IDACS and DATA4PT projects;
- Individual Standardisation Activities, such as INSPIRE-MMTIS Project or TN-ITS Extension;
- MMTIS Stakeholder workshops;
- Other studies/activities, such as the recent Persons with Reduced Mobility (PRM) study;

The “DATA4PT - Data for Public Transport” European Project – PSA under the CEF Transport to support Member States in the development and deployment of European public transport data standards Transmodel, NeTEx and SIRI for the provision of Union-wide multimodal travel information services”, started recently, bringing together nine Member States; the specific objectives of the project include:

- Support the technical development of Transmodel, NeTEx and SIRI to fulfil the needs of MMTIS providers,
- Develop data validation tools and test platform,
- Conduct required updates for all standards,
- Assist the development of National SIRI profiles,
- Facilitate the operational use of Transmodel, NeTEx and SIRI standards by Public Transport Operators and Public Transport Authorities,
- Exchange of best practice.

One of the key actions of the project is the setup of an expert team to be able to support any project using Transmodel, NeTEx or SIRI in Europe, providing and supporting Member States for writing national profiles, and train new experts. The project will also provide validation tools, a test platform and specific training.

The IDACS, “ID and Data Collection for Sustainable fuels in Europe”\(^{22}\), is the PSA “Data collection related to recharging/refuelling points for alternative fuels and the unique identification codes related to e-Mobility actors” where 16 Member States come together to:

- set up harmonised e-mobility Identification Codes for Charging Point Operators and e-mobility service providers;
- implement ID registration repository for exchanging information on these e-mobility ID codes;
- ensure that all data of infrastructure for electricity and hydrogen are made available through the NAPs.

The IDACS project started in January 2019.

\(^{22}\) https://ec.europa.eu/transport/content/programme-support-action-addressed-member-states-data-collection-related_en
Another PSA example is the Portuguese MMTIS Action “How2Go”. The objective is to support the early implementation of the delegated regulation under Directive 2010/40/EU by MS, including the public transport authorities, public transport operators, and service providers in their territory, for the provision of Union-wide multimodal travel information services which apply to the TEN-T network including urban nodes. In the scope of the project, the national NeTEx is to be developed and the planned NAP will be extended for MMTIS.

The PRM study, Mapping Accessible Transport For Persons With Reduced Mobility \(^2\), aimed at assessing whether the digital travel information systems are providing information on the infrastructural accessibility conditions to/from transport services that allow PRM users for informed decisions on their travel plans and how this could be enhanced. The study designed and conducted a pilot experiment involving an interactive web-map travel information and journey planner application. The pilot demonstration was evaluated in three different contexts:

1. A cross-border scenario, involving German and Dutch border (NL/DE);
2. A national scope scenario for rail, involving the United Kingdom (UK);
3. A last mile scenario, involving the urban region of Lisbon (PT).

The service intended to make use of both public transport information, as well as available accessibility information. The NeTEx profile developed in the context of this pilot is an important milestone and brings also added value for those working in this field, addressing a possible common set of attributes and improving the feasibility of future PRM projects.

The final report was recently submitted to the Commission.

6.3 Future work

Regarding the EC MMTIS roadmap, the static data for the comprehensive TEN-T (including Urban Nodes) should include timetables, access nodes, accessibility PRM and network topology by 2019; bike-sharing & car-sharing stations, vehicle facilities, basic common standard fares, how and where to buy tickets by 2020; and detailed cycling network attributes, estimated travel times and the rest of the information by 2021. Other parts of the network should be covered by 2023.

If the Member State choose to include dynamic data in the NAP, they are encouraged to follow the mentioned timeframe. As mentioned in section 2.5, nine Member States report a NAP for MMTIS, but these are not yet complete, and eight others Member States are in the process of completing it. Some of them, as Austria or Portugal, for instance, adopted a strategy of extending the existing NAP to include MMTIS. At the beginning of October 2019, the Commission published a report to the European Parliament and Council on the implementation of the ITS Directive with analysis of MS reports for 2014 and 2017 recognised that MMTIS NAPs are “still in early implementation” and given the positive developments reported, the EC reckons it seems “appropriate to continue supporting current Member States’ efforts”.

The expectation is that the MMTIS regulation will give a boost in the provision of multimodal travel information in general, the data heterogeneity and gaps are blocking the process, with major efforts being still required to achieve the desired levels. Despite the availability of standards and the growing trend towards

open data, in real life a rather ugly picture is shown for data quality: datasets have different information, different data attributes, different purposes or incomplete data. The datasets do not contain all the expected information, there is lack of accuracy where the information does not reflect the ‘true’ situation; lack of data versioning where a system may not be using the latest available data and is therefore at risk of misrepresenting the ‘live’ situation, lack of coherence, i.e. that the data is not compatible and internally consistent (e.g. a set of summer timetables and stops that are operated in the winter), and lack of compliance, i.e. that the data does not match the rules of the format, just to name but a few issues with real data. There is also the stakeholders’ sensitivity associated with tariffs information (as per Part 3 of the NeTEx model).

The relevance of the aforementioned quality of data issues is also stressed in the report to the EP and Council on the implementation of the ITS Directive with analysis of MS reports from October, where it acknowledges the need “to assess the need for further action”. These and other pressing issues were also thoroughly discussed during the “ITS Directive MMTIS - 5th Follow Up Expert Meeting”, held in Brussels in November 2019.

In the near future there are still some problems to be addressed. As already mentioned, standards are very broad and agreement is needed on what elements to include, what options to select and so forth, and this also means there is lot of space for differing interpretations on national level, which, in turn, sets a lot of pressure and complexity on European-wide harmonisation of providing data/service.

On the other hand, the European NeTEx minimum profile is officially not finalised and not covering all service levels. But one could argue that the biggest issue will still be quality of the available data and the limited access to data in the desired format (e.g. data for public transport modes typically exists for large conurbations and cities but is not necessarily available in a suitable format to other parties unless data access policies have been adopted).

For many services, though not all, it is simpler to take a set of data that has already been processed into a common format, rather than taking numerous raw feeds from many sources which would require aggregation and a higher level of data quality checking. The data that is offered in the open data portal or the NAPs does not have any data quality checks or data expiration dates (for instance, the positional coordinates for stops are sometimes outdated).

Moreover, there is the issue of the costs of scaling up: providing sources of dynamic data (e.g. SIRI real time feeds) or existing travel information services, requires a supporting business model. Finally, despite the fact that cities and operators sometimes have their own continuously improved databases, which they have refined and corrected using much of their own resources and day-to-day operation knowledge, this data is very valuable and cannot be easily obtained from them (i.e., data divergent for the one available through NAP or Open Data).

- WG NAP have complemented the work carried out by existing projects & extend coverage to include Delegated Regulation (EU) 2017/1926, MMTIS.
- Some of the major questions, issues and barriers for the adoption of MMTIS NAPs by the MS have been assessed.
- Outstanding issues underlying MMTIS data quality have been identified.
- The first steps of guidelines for the development of MMTIS NAPs have been taken.
7 Architecture for NAPs

7.1 What is an ITS architecture?

An Intelligent Transport System (ITS) architecture is a set of high-level views that enable plans to be made for integrating ITS applications and services. It normally covers technical aspects, plus the related organisational, legal, and business issues.

Using an architecture helps to ensure that the resulting ITS deployment:

- can be planned in a logical manner → integrates successfully with other systems
- meets the desired performance levels → has the desired behaviour → is easy to manage
- is easy to maintain → is easy to extend → satisfies the expectations of the users.

7.2 FRAME NEXT

The aim of FRAME NEXT is to support the EU-wide harmonisation of the six priority actions, by extending the existing FRAME architecture with a number of blueprint architectures. These blueprints will define the minimal architecture that should be implemented in each member state.

From an architectural point of view, it is a fact that the various NAPs currently in operation at first sight seem to be providing their services using quite different technical solutions.

To achieve a next level of harmonisation in NAPs, the first area tackled in FRAME NEXT consisted of developing a first European blueprint ITS architecture for NAPs. Therefore, FRAME NEXT studied details of three NAPs in

24 FRAME NEXT http://frame-online.eu
operation, from the Netherlands, Germany, and Austria. It appears that all three NAPs name roles differently but have approximately the same meaning/purpose, see Figure 6.

In architectural terms these three different NAP schemes can be described as seen in Figure 7:
The conclusion of this work resulted in a preliminary list of NAP roles:

1. NAP Organisational operator
2. NAP Technical operator
3. Content provider
4. NAP Content manager
5. NAP Content publisher
6. Content consumer
7. NAP user support
8. NAP Content procurer (optional)
9. NAP Knowledge provider (optional)

A draft of the final NAP architectural blue print is seen in Figure 8. This is however not the final NAP architectural blue print of a NAP as some issues still have to be solved.

Figure 8: A draft of the final NAP architectural blue print

FRAME NEXT is currently working on a final document “NAP Architecture”.
8 Supporting the NAP/NB community

To enable best practice exchange and operational harmonisation (where wanted and needed), a group of NAP operators and NB representatives was created. An organisational structure and work plan for this group are to be created in 2020.

Next to the creation of supporting documents or guidelines for NAP or NB operations, a network (or community) of people responsible for NAPs and NBs is seen as a crucial achievement for success, which previously had been underdeveloped.

This EU-wide group could:

- give operational support for NAPs and NBs;
- exchange best practices;
- find common issues worth working on jointly (harmonisation, standards, formats, templates ...);
- act as single voice/liaison/lobby towards EU Commission and international organisations.

8.1 Create a community of NAP operators & NB representatives

In order to get a community of NAP operators and NB representatives started, EU EIP facilitated a workshop in October 2019 with 30 participants from 13 countries.

At the end of the workshop it was agreed that a small group of participants will work on creating a NAP/NB position paper on the structural setup of the group, describing among others the role, targets, objectives, connections, ambition, functions and a workplan for such an organisation.

The idea is to set up a ‘light’ organisation (chair/secretariat) with working groups, two or three meetings per year and an IT infrastructure to share information.

The proposed working groups are (still subject to change):

1. Data standards
2. National Body processes
3. NAP architecture
4. Best practices exchange / collaboration tool for group communication
5. External connections, influencing and communications
- 1st NAP / NB Workshop held 30 October, Utrecht
- Agreement that exchanging best practice & operational harmonisation is worthwhile
- Working Group to be formalised, Terms of Reference drafted
9 Declaration of Compliance

Without a harmonised approach, road authorities, road operators, digital map producers, service providers, truck parking operators, public transport companies, etc. run the risk that if operating in more than one country they will have to submit a declaration of compliance in different formats, different languages, under a variety of different rules.

Similarly, the organisations responsible for carrying out the assessment of compliance could possibly be facing discussions with a whole range of actors (road authorities, road operators, digital map producers, service providers, parking operators, public transport companies, etc.) that operate within their territory that might submit their own declarations of compliance in different languages and in a variety of formats.

9.1 Previous activities & initial findings

Through a joint effort of EU EIP and TISA in 2016 and 2017 Uniform Declarations of Compliance Forms have been developed for Delegated Regulations (EU) 886/2013 for SRTI, and (EU) 2015/962 for RTTI.

In 2019, in a joint effort of EU EIP with ESPORG, a Uniform Declaration of Compliance has been developed for Delegated Regulation (EU) 885/2013, safe and secure truck parking.

These three Uniform Declarations of Compliance, together with introductory letters and explanatory notes can be downloaded from the WG NAP website.

9.2 Next Steps

It is proposed to use the Uniform Declaration of Compliance Form for a pilot period of three years. Shortly before the completion of this three-year period, an evaluation shall be carried out with national organisations responsible for the assessment of compliance, road authorities, road operators, digital map producers, and service providers, in order to assess whether the form has addressed the identified challenges or if it needs to be modified.

The stakeholders recommend that this Uniform Declaration of Compliance Forms will be used from now on by all relevant actors across Europe as the only form for declaration of compliance.

https://eip.its-platform.eu/activities/monitoring-and-harmonisation-national-access-points
Similarly, the national organisations responsible for the assessment of compliance can use this Uniform Declaration of Compliance Form as the standard Declaration of Compliance form in their country.

The Uniform Declaration of Compliance Form is supported by TISA, ESPORG, the EU EIP project, and the European Commission (DG MOVE).

For the Delegated Regulations (EU) 2017/1926 for MMTIS, a uniform Declaration of Compliance does not yet exist. The WG NAP will investigate together with stakeholders if such a Uniform Declaration of Compliance can be agreed upon for Delegated Regulation (EU) 2017/1926, MMTIS.

- In 2016 and 2017 Uniform Declarations of Compliance for (EU) 886/2013 SRTI and (EU) 2015/962 RTTI were published.
- In 2019 the Uniform Declaration of Compliance for (EU) 885/2013, safe and secure truck parking was published.
- 2020 investigate, together with stakeholders, if a Uniform Declaration of Compliance can be agreed for (EU) 2017/1926 MMTIS.
10 Other relevant issues

To complement to the earlier chapters, this section describes new NAP elements.
These are identified within WG NAP, from NAP stakeholder feedback and from related NAP initiatives.

10.1 High Level Data Task Force

The High Level Data Task Force was established at the High Level Meeting on Connected and Automated Driving, the 15th of February 2017 in Amsterdam. The task was to set the first steps to deploy data-sharing for safety related data. The final goal though, is to indicate a common architecture of coherent systems for providing and sharing data from all relevant categories within each Member State that ultimately would allow for cross-border exchanges to foster pan-European solutions. The task force works with questions concerning architecture, technical issues and policy and legal aspects.

Initially a small group started the work, but at the beginning of 2018 it expanded to include 8-10 Member States, Service Providers (HERE, TomTom), 5-6 vehicle manufacturers, ACEA, VDA and DG Move. In November 2019 five new actors joined the cooperation. More about the Data Task Force can be found at:

https://www.dataforroadsafety.eu/

The concept

The concept is to encourage Public-Private data sharing to improve road safety by structuring a trusted/trusting community to deliver SRTI, as described on the delegated regulation for SRTI. Creating a “Safety Eco-system” where participants have to give and get, the idea of reciprocity has been a key so far. A deployable model (technical and process) will be in place that can support both SRTI and commercial services. The goal is to establish a solution that can be scaled and maintained across the EU (geographical scaling on a common base).

The focus of the work in the High Level Data Task Force is on terms and conditions for data exchange, not on technical solutions; data sharing is prioritised over standardisation. It is very important to consider how to ensure that data supplied for road safety purposes (or other non-commercial purposes) is not used for commercial purposes. The idea is a decentralised approach where each actor establishes an access point from where all other actors can get access to data. Road Authorities, NAPs, Aggregators, Service Creators, Service Distributor, Vehicle Manufacturers should be granted access to the relevant data and/or information on a non-discriminatory basis.
The Proof of Concept (PoC)

The PoC was launched on 3rd of June 2019 at the ITS European Congress in Eindhoven at the High Level round table and it will last for one year. The objective is to evaluate the data-exchange concept and the PoC will evolve over time with more data and more mature data-exchange. A Memorandum of Understanding (MoU) has been signed, including terms and conditions for participants.

A sustainable solution

To be able to continue and scale up the data sharing after June 2020 when the PoC ends, it is essential to establish a sustainable solution, including sustainable terms and conditions. The major task for the Data Task Force is now to agree on the way forward. One major question is an open license vs a closed agreement that replaces the current MoU. The goals of the license have been set to account for:

- Reciprocity,
- Transparency,
- Little administration,
- Restriction on usage,
- One size fits all license,
- GDPR alignment.

10.2 Data research on specific data element

So far, within this EU EIP activity, studies have been carried out on metadata, common feature and Level of Service, standards and data profiles used in National Access Points. Now, as more NAPs are operational, is the time to research on how the data sets that are published in the NAPs can be accessed and used.

For this exercise, several National Access Points will be chosen at random. The aims of this task are to find out:

- How to find the data;
- How to access the data (guest / registration);
- Description of data, and in what language;
- Language of data sets;
- How to use data (API existence, push/pull services)

Read more about the High Level Data Task Force – PoC

Data Task Force - https://www.roundtable-dtf.eu/
This research will look from both the publisher and consumer perspectives. In the first instance this investigation will be carried out without any help or support from the NAPs Administrators. In case this is not be possible contact will be made with the NAP operator to get the necessary support.

The findings of this exercise will be shared in the next Annual NAP Report.
11 Summary & conclusions

Current status of NAP implementation

For the monitoring of the status of implementation of NAPs in Europe a survey template has been created to describe the status of the NAPs per country. The survey required MS to provide details of:

- Ministry responsible for implementing the NAP and contact details.
- Nominated body for assessment of compliance, contact details, procedure for assessment of compliance.
- Status of implementation, including the URL of the NAP.
- Description of the NAP (operational or planned)

According to the survey of 2019 around 15-20 Member States have an operational NAP for safe and secure parking for trucks and commercial vehicles, safety related traffic information and/or real-time traffic information.

For multimodal travel information this number is significantly lower. A number of Member States have yet to establish their first NAP.

Common features & Level of Service

This task aims to identify and develop agreement of NAP common features and Level of Service (LoS). These are intended to facilitate effective NAP functioning and make the NAP a straightforward, valuable resource for users. The Common Features and Level of Service Support Document was updated in 2019, no features were rejected by NAP implementers, and their feedback led to the addition of two new features.

In 2020 NAP implementers will be asked again to complete the checklist, provide comments and proposals on the current features.

Metadata

Metadata describes the administration, organisation, and content of a dataset and of a data service. Metadata datasets are therefore crucial elements to make NAPs accessible and searchable. This task examines the status of metadata in NAPs and provides recommendations.

In 2019 the “Coordinated Metadata Catalogue” was updated to consider multi-modal travel data and services, according to Delegated Regulation (EU) 2017/1926. Continuing exchange with, and support to, individual NAP deployers has been firmly established within this task.

In 2020 a standardised modelling of “Catalogue” will be initiated translating the so far “unconnected” Metadata fields of the “Catalogue” into a structured model.
Standards & common formats

All delegated regulations supplementing the ITS Directive refer to certain standards to be used when exchanging information with NAPs. While DATEX II is prevalent, the NeTEx CEN/TS 16614 and SIRI CEN/TS 15531 standards are also stated. This task highlights relevant developments and implementer feedback.

The 2019 NAP survey confirms an increase of the knowledge about DATEX II in national implementations. Compared to 2018, more countries have operational NAPs which contributes to an even better picture of the DATEX II, and other standards, usage NAPs. A very positive conclusion is that some countries are already planning and working towards implementing DATEX II v3, the latest version of the standard.

MMTIS

Within the scope of this task, the main objective is to identify the developments in the field of the implementation of NAPs for MMTIS, focusing on road transport. Major questions, issues and barriers have been identified for the adoption of MMTIS NAPs by the different Member States.

From the experience of other European projects, the group have identified the outstanding issues, the underlying data quality data need urgently and effective action since MMTIS are data intensive. From these pieces of work WG NAP have started and listed the first steps of guidelines for the development of MMTIS NAPs.

Architecture for NAPs

To support harmonisation of NAPs in Europe it is of value to explain the concept of architecture. A first important step in setting up a NAP is defining the architecture.

FRAME NEXT is a project that extends the European ITS Framework Architecture, now known as the FRAME Architecture, with the activities of the different member states in Europe, within the priority actions of the ITS Directive (Directive 2010/40/EU) and with the methodologies and tools that make a modern ITS architecture attractive and appealing for ITS. FRAME NEXT are drafting a NAP architecture, WG NAP are connected the project to and supporting this.

Supporting the NAP / NB community

Thirty NAP operators and NB representatives from 13 countries met in a workshop in 2019 and agreed to set up a group to work on fostering common approaches in NAP and NB operations and act as a community for NAP and NB best practice exchange and mutual support. A position paper with a work plan is being created and future meetings are foreseen.

Declaration of compliance

The Delegated Regulations for safe and secure truck parking, SRTI, RTTI and MMTIS request MS to manage NAPs and to carry out an assessment of compliance for these Regulations. This task involves harmonising the process, developing common templates and guidance. In 2016 and 2017 Uniform Declarations of Compliance for (EU) 886/2013, SRTI, and (EU) 2015/962, RTTI, were published.
In 2019 the Uniform Declaration of Compliance for (EU) 885/2013, safe and secure truck parking was published. Going forward WG NAP will investigate, together with stakeholders, if a Uniform Declaration of Compliance can be agreed for (EU) 2017/1926, MMTIS.

Other relevant issues

High Level Data Task Force has been set up, designed to improve road safety by sharing data generated by vehicles and infrastructure between countries and manufacturers. A 12-month proof of concept started in June 2019.

In 2020 WG NAP will carry out research on how the data sets that are published in the NAPs can be accessed and used, from both the publisher and consumer perspectives. The findings of this exercise will be shared in the next Annual NAP Report.
12 Annex 1

Overview of National Access Points and National Bodies

This annex gives an overview of the National Access Points and National Bodies responsible for assessment of compliance in Europe with respect to the Commission Delegated Regulations 885/2013 (safe and secure truck parking), 886/2013 (SRTI), 2015/962 (RTTI) and 2017/1926 (MMTIS).

Status per December 2019.

### National Access Points

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<th>Safe and Secure Truck Parking</th>
<th>Safety Related Traffic Information (SRTI)</th>
<th>Real Time Traffic Information (RTTI)</th>
<th>Multimodal Travel Information Services (MMTIS)</th>
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Table A 1: Overview of European NAP Links
## National Bodies

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<td>AustriaTech – Gesellschaft des Bundes für technologiepolitische Maßnahmen GmbH Contact details: <a href="https://vs-stelle.at">https://vs-stelle.at</a> <a href="mailto:kontakt@vs-stelle.at">kontakt@vs-stelle.at</a> Mag. (FH) Damaris Anna Gruber, MA T: +43 1 26 33 444 - 36 Benjamin Witsch, MSc (FH) T: +43 1 26 33 444 - 31 Raimundgasse 1/6, 1020 Wien</td>
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<td>ROAD INFRASTRUCTURE AGENCY Contact details: urb. Zlati Peshev Head of Department Information Technologies and Systems +359 88 9040449 <a href="mailto:z.peshev@api.bg">z.peshev@api.bg</a> 1606 – Sofia, bld. „Macedonia“ 3</td>
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<td>Ministry of Transport Communications and Works Contact details: Aristotelis Savva Executive Engineer Public Works Department Strovolou Avenue 165 Nicosia, T.K. 2048, Cyprus Tel: 00357-22806646 Mob: 00357 – 99318561 Fax: 00357 - 22498935 email: <a href="mailto:asavva@pwd.mcw.gov.cy">asavva@pwd.mcw.gov.cy</a></td>
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<td>DRD, Planning and Traffic Division, Department for Administration Contact details: Mads Hedegaard <a href="mailto:mhed@vd.dk">mhed@vd.dk</a></td>
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<td>NAST - Nationale Stelle für Verkehrsdaten Contact details: Nationale Stelle für Verkehrsdaten Bundesanstalt für Straßenwesen Brüderstraße 53 51427 Bergisch Gladbach <a href="mailto:nast@bast.de">nast@bast.de</a> <a href="https://nationalestelleverkehr.de/">https://nationalestelleverkehr.de/</a></td>
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<td>National Transport Authority Contact details: Peter Cranny E-mail: <a href="mailto:peter.cranney@nationaltransport.ie">peter.cranney@nationaltransport.ie</a></td>
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<td>Lithuanian Road Administration J. Basanavičius g. 36, LT-03109 Vilnius, Lithuania. Tel.: + 370 5 232 9600, e-mail: <a href="mailto:lra@lra.lt">lra@lra.lt</a></td>
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<td>Administration des ponts et chaussées Direction 38, boulevard de la Foire . L-1528 Luxembourg contact: Paul Mangen, Tél. +352 2846-1100 . Fax +352 262563-1100 E-mail : <a href="mailto:paul.mangen@pch.etat.lu">paul.mangen@pch.etat.lu</a></td>
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NOTES:
x = ‘not known’ or ‘to be decided’
no = there is/will be no National Body (NB)

Table A 2: Overview of National Body contact details