Workshop on quality of Multimodal Traveller Information Services – Workshop summary

EU EIP Context and Workshop Goal

For many years, Intelligent Transport Systems (ITS) and core European ITS services have represented a major implementation objective of the road operators collaborating within the European ITS Platform (EU EIP) community. EU EIP serves as the technical knowledge management centre for the responsibilities of road authorities and road operators in ITS. Part of this engagement is the work on quality requirements for European core ITS services (as covered by Delegated Regulations under the ITS Directive 2010/40/EU). In former project phases, a set of quality requirements for real time traffic information (RTTI) and safety related traffic information (SRTI) has been elaborated, tested and validated in different Member States. The summary results of these efforts are available as "Quality package for safety related and real-time traffic information services" (Kulmala et al. 2016) on the EU EIP website. A major element of the quality related work in the current work programme of EU EIP (2016-2020) is to broaden the perspective beyond RTTI and SRTI to the full set of priority services of the ITS Directive.

In this respect, the first focus is to define quality criteria, quality requirements and assessment methods for Multimodal Travel Information Services (MMTIS). EU EIP Activity 4.1 has organised a questionnaire among project partners in order to define a set of quality criteria and for this set, preliminary quality requirements have been developed. The next step was to organise an open workshop to discuss these preliminary results with the EU EIP community and external stakeholders.

Workshop Process

More than 25 experts on quality of multimodal traveller information services from ten European Member States have joined the workshop in Bruxelles on 30th March 2017. The workshop, hosted at ERTICO offices, has been co-organised by ITS Romania and BASt. The quality experts have covered both road and railway transport as well as urban public transport. The attendance demonstrated a good mix of four major stakeholders: the European Commission; road, railway and public transport administrations and operators; representative associations like UITP, TISA, CER and POLIS; and service providers. In the morning, the agenda focused on presenting the context of the Delegated Regulation on MMTIS and the stakeholders' view on the quality of MMTIS (see table below). The afternoon started with more detailed presentations about activities on quality of MMTIS in EU EIP and was followed by an interactive element with work split in 5 groups. The goal of the group work was to gain individual feedback on the quality definitions, as proposed by the Sub-Activity 4.1 members, especially to find out if those definitions are understandable, useful and applicable. The task for the group work was formulated as follows:
"Imagine your group is the quality manager for a MMTIS service. For your service, relevant quality criteria have been identified. For each of the criteria, answer the following:

- *Are the criteria definitions in the context of this service clear?*
- *How could the criteria be interpreted in the context of your service? (Give a concrete example!)*
- *Are the criteria practical/feasible in terms of quality assessment? (Can they be handled/monitored?)*
- *How would you classify the quality levels for this service? (Basic / Enhanced / Advanced Level)."*

Presentation title	Presenter and affiliation
Objectives of EU EIP Activity 4.1	Torsten GEISSLER, Sub-Activity 4.1 leader
EU Regulation on MMTIS – context and current status	Stephanie LEONARD, EC-DG MOVE
Stakeholders' view on assessing quality of MMTIS	Martin JANSEN – RWS/ Plannerstack Guido DI PASQUALE – UITP Johanna TZANIDAKI – TomTom Christian KLEINE – Here Rütger FENKES – CER

Workshop Findings

Presentations and group work within the workshop have reconfirmed the initial objectives and work that has been carried out within EU EIP. They also helped to understand that further much more detailed analysis has to be done and it became clear that the views of the different stakeholders on the subject are quite varied.

The presentation from Stephanie Leonard stressed the importance of providing data access while at the same time maintaining control on how it is accessed. It also underlined that the Delegated Regulation establishes a stepwise approach with services implemented on the Core Network by 2019 and on other roads by 2023. Finally, providing updates on detected errors as soon as possible is considered as very important.

The presentations from the stakeholders also revealed several relevant aspects. Firstly, users seem to consider that MMTIS should be provided for free therefore it is difficult for the service providers to build a business case. It can be imagined that concepts like Mobility as a Service could bring improvements in this respect. At the same time, quality of the services is very important because repeatedly providing wrong information will make customers stop using the service.
Open data is also a very relevant issue in the context of MMTIS and many public transport operators/city administrations are reluctant to provide their data as they do not see any benefits of doing so. At the same time, it is common to consider data as an asset that should not be shared.
Another relevant aspect is the use of common and approved data standards, like for example NetEX, TAP/TSI, GTFS or SIRI.
In terms of quality, the consistency of the information provided to the users is very important. This means that the information has to accurate and complete regardless of the service supplier. For example, DB prefer to provide calculated journey data instead of raw timetable data to other voyage planning service providers.

The results from the group work can be summarised as follows:

- For each of the analysed MMTIS data types, some of the quality criteria are better understandable while some other criteria may need some more clarifications:
  - Especially for the "Level of Service" criteria ("Geographic coverage", "Availability"), the definitions are mostly clear. In these cases, the practicability for quality assessment is also given. Also, definitions on quality levels can be easily made.
  - The "Level of Quality" criteria ("Location Accuracy" etc.), however, depend on an individual interpretation in the context of a specific MMTIS data type. In some cases, an interpretation had to be guessed, so further clarification is required. In some other cases, criteria were even defined as "not relevant" for a MMTIS data type. As a consequence, the practicability for quality assessment and definitions on quality levels were seen as difficult in these cases.
- In general, MMTIS data types that are used for location search ("Park & Ride stops" etc.) are seen as comparable to digital map or GIS services. The data quality is therefore related to the representation

of the real world in this digital map. Some of the criteria, such as “Event coverage” seem to be misleading in this context.

- In general, the correlation between the criteria “Classification correctness” and “Event Coverage” should be better explained.
- For complex data types: it may become necessary to distinguish or to prioritise the included data contents. For example: static travel data for “Road Network” may be distinguished based on the road class (main road, secondary road, etc.) or the application (“ease of navigation”, “safety-related”, etc.)
- The quality levels (basic / enhanced / advanced) were proposed by the groups, depending on an individual assessment how important or critical a criterion may be in the context of applicability, safety and other factors. Some controversial discussions were led, so the group’s level definitions can be only seen a starting point.

Overall, the output from the group work is seen as very valuable for the upcoming work of Sub-Activity 4.1. Some quality definitions, as elaborated by Sub-Activity 4.1. so far, may require some refinements or additional explanations, to avoid questions and uncertainties when applying the MMTIS quality criteria in practice. This is related to the descriptions of the various MMTIS data types (as listed in the Annex of the Delegated Regulation for MMTIS) as well as to the applicability of some of the definitions on quality criteria and quality levels. Especially for static data for location search, alternative approaches may to be checked.

Outlook

The workshop has served as the first milestone within the relevant EU EIP sub-activity towards a complete definition and delivery of quality criteria and requirement for European MMTIS services. Based on the group work findings, the Sub-Activity 4.1 will refine and further develop the definitions of quality criteria and quality levels. To make the definitions better understandable, the Sub-Activity 4.1 will elaborate examples for specific MMTIS data types. Further, a continuing exchange with the stakeholders is planned.