EUROPEAN
UNION
AGENCY
FOR RAILWAYS

Making the railway system
work better for society.

ACCOMPANYING REPORT N. ERA-REC-128/ACR
TO THE RECOMMENDATION OF
THE EUROPEAN UNION AGENCY FOR RAILWAYS

on

The amendment of Commission Regulation (EU) No 1300/2014 on the technical specifications for interoperability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility

Disclaimer:

The present document is a non-legally binding report of the European Union Agency for Railways. It does not represent the view of other EU institutions and bodies, and is without prejudice to the decision-making processes foreseen by the applicable EU legislation. Furthermore, a binding interpretation of EU law is the sole competence of the Court of Justice of the European Union.

Contents

1.   Introduction

The Article 7 of TSI PRM [3] requires the Agency to "*set up and run a working party in charge of making a proposal for a recommendation as regards the minimum structure and content of data to be collected for the inventories of assets.*

The Agency shall submit a recommendation to the Commission, including on content, data format, functional and technical architecture, operating mode, rules for data input and consultation, and rules for self-assessment and designation of the entities responsible for data provision. In order to identify the most viable solution, the recommendation shall take into account the estimated costs and benefits of all the technical solutions considered. It shall include a proposal for the timing of the establishment of the inventories of assets."

In order to prepare the required recommendation, a first Working Party had been established in September 2013 and held eight meetings until November 2014. The activities of the first working Party are detailed in a report entitled "Analysis and evaluation of the possible tools for the inventories of assets" dated 20th November 2014 [6]. As highlighted in the report, several conclusions had been reached by that first Working Party:

> › The scope of the inventory of assets should be limited to stations,
> › The functional architecture should eventually be based on the TSI TAP processes,
> › The data format should use the EN standard 'IFOPT'.

Additionally, several major characteristics of the system have been described, such as:

> › The main use cases,
> › The information to provide,
> › The operating modes, i.e. how the information is made available,
> › The rules for self-assessment and data input.

The report was presented to the RISC members during the Committee meeting n°72 in February 2015 and did not raise objections.

As highlighted in the conclusions of the report, further actions were required in order to progress and finalize the definition of the system:

> › Technical developments by an IT expert: those developments were subject of a tender launched by the European Commission in April 2015 [8] and awarded to the company Bilbomática S.A. in January 2016;
> › Questionnaire to Member States about the roles and responsibilities of stakeholders in the management of railway stations; the questionnaire was sent in January 2015. A report of the answers received was issued in June 2015 [7].

With the entry into force of the technical pillar of the 4th Railway Package in June 2016, the Agency has convened a renewed Working Party with new terms of reference for finalizing the recommendation required in the article 7 of the TSI PRM. The present report details the activities of that Working Party. It should be read as a complement to the documents already mentioned and listed in section 7.2. It is accompanied with a detailed Impact Assessment report [9].

2.   Working Party

2.1.   Composition and activities of the Working Party

The following table lists the participants to the Working Party: many of the participants are the same as for the previous Working Parties that discussed the TSI PRM and the Inventory of Assets. This facilitated the inception of activities as all participants were aware of the context and of the conclusions already made.

Table 1: participants to the Working Party

Organization	Representative	Deputy
AGE Platform		
AGE Platform		
CER		
CER		
EDF		
EDF		
EIM		
EIM		
EPF		
EPTTOLA		
ETF		
NB-Rail		
NB-Rail		
NSA Austria		
NSA Denmark		
NSA Finland		
NSA France		
NSA Germany		
NSA Germany		
NSA Hungary		
NSA Norway		
NSA Romania		
NSA Romania		
NSA Spain		
NSA Spain		
NSA Sweden		
NSA Sweden		
NSA Switzerland		

NSA Switzerland		
NSA United Kingdom		
UITP		
UNIFE		
UNIFE		
EC – DG MOVE		
ERA Interoperability		
ERA Interoperability		
ERA Interoperability		
ERA Interoperability TAP		
ERA Economic Evaluation		

2.2.   Meetings

The following meetings were organized:

- › Kick-Off   06/09/2016
- › Meeting 2   25/10/2016, experimentation of the IT tools
- › Meeting 3   01/12/2016
- › Meeting 4   17/01/2017
- › Meeting 5   07/03/2017
- › Meeting 6   10/05/2017

2.3.   Input data

2.3.1.   Report on the analysis and evaluation of the possible tools for the Inventories of Assets

That report contains the conclusions of the first Working Party established in September 2013 concerning the following aspects of the Inventory of Assets:

- › Content: after analysing the existing texts and in order to avoid interfering with other Working Parties, it has been proposed to limit the scope of the Inventory to railway stations.
- › Data format: the information to be provided to the different users are data in a tabulated narrative format for the public and common indicators for authorities. To ensure interoperability, data will be formatted using a CEN standard for the identification of fixed objects in public transport. The detailed technical definition of the format remains to be done.
- › System architecture: the proposed architecture is based on the TSI TAP architecture, with data providers and data users exchanging the information directly. In addition, all data will be gathered in a central dedicated place, accessible to both the public and the authorities.
- › Data input: it is proposed that Station Managers make a self-assessment of the stations they manage. In order to identify the Station Managers, a questionnaire will be submitted to Member States. As an alternative, a third party assessment remains a possibility.

It was presented to the RISC members during the Committee meeting n°72 in February 2015 and did not raise objections. Many of the participants to the new Working Party contributed to that report and the conclusions listed above were generally endorsed by the participants. Nevertheless, the following aspects were put in question by CER and EIM:

2.3.1.1. Reporting on the TSI compliance in the Data Collection Tool

According to CER/EIM, the aims of the Inventory of Assets are to monitor accessibility and to eliminate identified barriers, not to report about TSI compliance. Progress on accessibility is not always related to renewals or upgrades and there is no added-value in monitoring a number of certificates of conformity to the TSI. The added value of the Inventory of Assets is to provide information about the accessibility to stations and its evolution.

The Agency acknowledged this remark and agreed with the idea that the TSI should not aim at collecting certificates. However, the "TSI compliance" information is to be understood as an element of the TSI strategy for stations, that is composed of:

- the possibility to assess individual components of a station at design stage independently from any specific project (TSI PRM, point 6.2.4);
- the absence of a 3rd party inspection on site for most of the TSI parameters (TSI PRM, Appendix E, Table E.1);
- the gradual improvement of accessibility in the case of existing stations (TSI PRM, point 7.2.2).

In this context, the "TSI compliance" information is a result of the self-assessment of the application on-site of a design for which an intermediate statement of verification has been issued. Providing this information does not involve a Notified Body after the design phase.

2.3.1.2. Self-assessment vs third party assessment

Some RUs and IMs consider that a specific expertise may be needed for data collection in some cases. for instance, there will be particular situations that could be not correctly appreciated by a non-expert (slope of a ramp, ease of opening of a door…). There may be also liability issues for some data that are linked to safety (condition of a warning tactile walking indicator). These RUs and IMs consider that a third party assessment is a better solution.

The Agency position is based on the Impact Assessment that showed that a third party assessment would cost much more than a self-assessment. It would also take more time without being a guarantee of a better quality of data (a third party would not be as reactive to changes as people on the field). At the end, assessment is made by users: for that reason, the importance of providing feedback is stressed in the recommendation. Feedback will permit that errors are corrected. In the case of misleading information (for instance a very steep ramp indicated as accessible), the presence of the "TSI compliance" column can also be of help. The Agency believes that a self-assessment combined with user feedback and the TSI compliance information can help provide the good information to the public.

2.3.2. Report on the questionnaire on the management of passenger railway stations

For collecting information about the management of passenger railway stations in EU Member States, the Agency prepared a questionnaire in 2015, whose purpose was to get information about the role given to each of the stakeholders involved. A report was issued in June 2015 [7].

The answers illustrate the variety of actors involved in the management of stations: Infrastructure Managers, Railway Undertakings, Authorities, real estate owners, other private companies, and all those stakeholders are possibly involved… However, the Infrastructure Manager and the Incumbent Railway Undertaking (that can be a franchisee) are the most frequently cited actors.

Therefore, it is generally possible to identify, for a given station, *"an organisational entity in a Member State, which has been made responsible for the management of a railway station"* (definition of the Station Manager as per the Rail Passengers' Rights and Obligations [4]). In the few cases where this is not the case, an alternative solution should be investigated and the Agency organized several country visits where the situation is not easy in order to identify alternatives.

2.3.3. *Prototypes of the IT tools developed for the tender MOVE/B2/2014-646*

On the 15th April 2015, the European Commission, DG MOVE, issued a tender for a service contract regarding the development of a model and associated tools for the harmonization of data on the accessibility of railway stations [8]. This tender was launched in the context of the Connecting Europe Facility Multi-Annual Work Programme 2014[1].

The contract included 4 work packages:

› WP1. Creation of a harmonized model for the modelling of stations: determine a specific use case related to the TRIP and NIP functions and, from the specificities of this use case, create a harmonized model for the modelling of the stations. The resulting model should be flexible to accommodate additional data for additional functionalities.
› WP2. Analysis of the existing situations vis-à-vis the projected harmonized model: this WP covers the analysis of the existing situations and how they can integrate the projected harmonized model developed in WP1.
› WP3. Development of the tools for the formatting, exchange and validation of data: station managers may decide to convert their existing data to the harmonized model or to collect new data directly according to the model. Therefore, WP3 was two-fold:
› WP3.1. Development of tool for the conversion, validation, storage and transfer of existing data,
› WP3.2. Development of data collection tool for the collection of new data that will enable station managers to gather the required data directly according to the harmonized model.
› WP4. Development of a specific public database and website, including:
› WP 4.1 Development of a central database that will store the information provided by the station managers.
› WP 4.2 Development of a website that will make use of the information delivered by the station managers and provide information in the form of tabular lists of station characteristics.

The contract was awarded in January 2016 to the company Bilbomática S.A.

3. Outputs of the Working Party

The Working Party focused on the following points:

› Entities responsible for data provision,
› Proposal for the timing of the establishment of the inventory of assets.

The Working Party could also refine the description of the technical and functional architecture of the system thanks to the experimentation of the IT tools developed by the company Bilbomática S.A.

---

[1] Annex to the Commission Implementing Decision of 26.3.2014 establishing a Multi-Annual Work Programme 2014 for financial assistance in the field of Connecting Europe Facility (CEF) - Transport sector for the period 2014-2020; paragraph 3.1.3

3.1. Entities responsible for data provision

As illustrated in the answers to the questionnaire on the management of passenger railway stations, situations vary in Europe. Whereas in many cases the Infrastructure Manager(s) and/or Incumbent Railway Undertaking have been made responsible for the management of stations, there are situations where the roles and responsibilities are not clearly allocated, or where they are allocated to entities that do not have the technical capability of contributing to the Inventory of Assets.

In order to overcome that issue, the TSI should be written in a way that considers that variety of situations. In a first draft of the recommendation, the Agency proposed that Member States should designate a "Station Accessibility Rapporteur" for each station, being the central point for the exchange of data. However, EIM and some Member States commented that the most cost-efficient would be to let it up to the Member States to decide how they provide information, the Station Accessibility Rapporteurs being only one of the possible solutions. The Agency and the Working Party agreed with that remark.

Consequently, the final draft of the recommendation concentrates on the data to be provided rather than on the entities providing the data; it's up to Member States to ensure that the data are provided. Given the absence of requirement regarding the independence and expertise of the entities providing the data, Member States have some flexibility to find the best solution according to the organization of their railway sector, under the condition that for each station there shall be a unique entity exchanging the data.

3.2. Milestones for the establishment of the inventory of assets

The Agency is of the opinion that the first series of data from the Inventory of Assets can be transferred to the central database and made available to the public shortly after the entry into force of the revised TSI. This opinion is based on:

› The availability of data: in a majority of Member States, the entity managing the stations for most of the network is the infrastructure manager or the incumbent railway undertaking. Those entities generally have data for their stations, which can be converted to the harmonized model[2].
› The simplicity of the data collection: as developed in §3.3.1 below, data are easy and quick to collect. The interface of the data collection tool will be available on tablets and paper.
› No specific expertise is required for collecting the data. Although some RUs and IMs consider that a specific expertise for data collection is needed in some cases (for example in case a particular situation could be uncorrectly appreciated by a non-expert), the recommendation did not follow that approach: as shown in the Impact Assessment Report it would result in much higher costs and a longer data collection period.

Associations of passengers support this Agency opinion.

However, sector organizations and some Member States highlighted the fact that a certain number of prerequisites had to be satisfied before collecting and exchanging the data, which are:

1. Entities exchanging data have been identified and have been officially given the task to participate to the Inventory of Assets system and,
2. These entities have set up their internal procedures, organization and IT infrastructure necessary for the collection and storage of new data or for the conversion of existing data.

The Agency acknowledged these arguments.

---

[2] See for example the § 2.2 of the report on the analysis and evaluation of the possible tools for the Inventories of Assets [6]

First, the difficulty for some Member States to identify or appoint the entities collecting the data has been considered by enabling such Member States to extend the time for populating the database, simply quantifying and notifying the extension to the Commission with its justification.

Second, the Agency improved its part, reducing to 9 months the time needed for the technical developments.

Third, the final recommendation proposes to monitor the implementation of the Inventory of Assets with a dual indicator. This indicator will report:

› The percentage of stations in the system per Member State; it is expected that this indicator will rise rapidly where existing data can be converted, but more slowly where data need to be collected. Where it takes time to appoint the entities exchanging the data this indicator may even remain null for some time.
› The percentage of data completeness per stations, per Member State; it is expected that this indicator will not reach 100% where data are converted from existing databases but will reach 100% where data are collected with the Data Collection Tool developed for the project.

The milestones indicated in the recommendation take this dual indicator into account.

The Agency will issue a progress report on the development of the Inventory of Assets 30 months after entry into force of the revised TSI.

3.3.   Experimenting the IT tools

3.3.1.   Data Collection Tool

During the second Working Party meeting on 25th October 2016, Working Party members carried out an experimentation of the Data Collection Tool in the two stations in Lille, Lille Flandres and Lille Europe, with the aim to:

› Evaluate the effort to collect data for 2 rather big stations;
› Evaluate the adaptability of the tool to different station architectures;
› Evaluate where the data collected can lack precision;
› Consider how to provide this information to users.

The experimentation of the Data collection Tool in a real environment demonstrated its user-friendliness and adaptability during a test of the tool performed by the Working Party members in the stations of Lille Flandres (station on a single level with 17 platforms) and Lille Europe[3] (station on 3 levels with 4 platforms).

The experimentation permitted to identify some necessary changes to be brought to the tool. Some of them have been implemented by the contractor, such as the inclusion of a reference point. However, not all comments made by the Working Party members could be taken in consideration in the course of the project.

The list of proposed changes further to the experimentation is given in the table below:

PROPOSED CHANGE	IMPLEMENTATION
1. The "reference point" field should be a drop-down list including the following elements: a. Main station entrance b. Alternative station entrance c. Assistance point d. Information desk e. Platform f. No reference point	Implemented. These values have been included in the Reference Point drop down list in the DCT.

---

[3] The International area of Lille Europe giving access to trains to and from the UK was not assessed.

PROPOSED CHANGE		IMPLEMENTATION
2.	Separate « Contrasted stairs with tactile walking surface indicators and marking of transparent obstacles" into: • "Contrasted stairs with tactile walking surface indicators from reference point" for all elements where it is present • "Highlighting of transparent obstacles" only once for a station in the Signage element below the "Presence of visual information at eye level in the station" field, with the possible answers: "Yes, No, Partially, To be completed, Not Applicable" and the NIP field "Unassessed, Partially, Yes"	Not implemented. The fact of splitting one field into two is considered a complex task at this stage of the project. New fields creation in DCT should imply the WP3 interface modifications - DCT, web services and harmonized model - and database model modifications which are already delivered.
3.	Split "Consistent tactile path with braille or tactile information on handrails and walls" in two fields "Consistent tactile path from reference point" and "Braille or tactile information on handrails and walls" for all elements where it is present.	Not implemented. Same reason as explained in point #2.
4.	The opening hours field for toilets should be added.	Not implemented. Same reason as explained in point #2.
5.	A field "Number of PRM parking places" shoud be added	Not implemented. Same reason as explained in point #2.
6.	Replace "Presence of visual information at eye level in the station" with "Timetable information at eye level in the station" SIGNAGE.	Implemented. Label change updated in DTC.
7.	Replace the wording "Tactile and contrasting walking surface indicators on platforms" with "Tactile and contrasting walking surface indicators at the boundary of the danger area" PLATFORMS	Implemented.
8.	Replace the wording "Ticket vending machine or equivalent (Card refilling)" with "Ticket vending machine or equivalent"	Implemented.
9.	Replace the wording "Stopping points" with "Stopping points for other modes of transport"	Implemented.
10.	Remove the words "Presence of" or "Existence of" from all fields where they are present (ex: "Existence of boarding devices on platform", "Existence of a dynamic visual information system", etc.	Implemented.
11.	Apply a consistent wording in the "complementary" field: "Complementary information about accessibility or the service itself".	Implemented.
12.	For consistency, the first fields should always be the ones relative to the access to the element.	Implemented The new fields order has been performed.

3.3.2. Public Website

The design and content of the public website were also examined by the Working Party members and several improvements were brought. For example, for refining a search giving several results, the initial version of

the website included a summary table of station characteristics that was considered misleading (figure 1); it has been removed from the final version and replaced with a map listing the stations fulfilling the search criteria (figure 2).
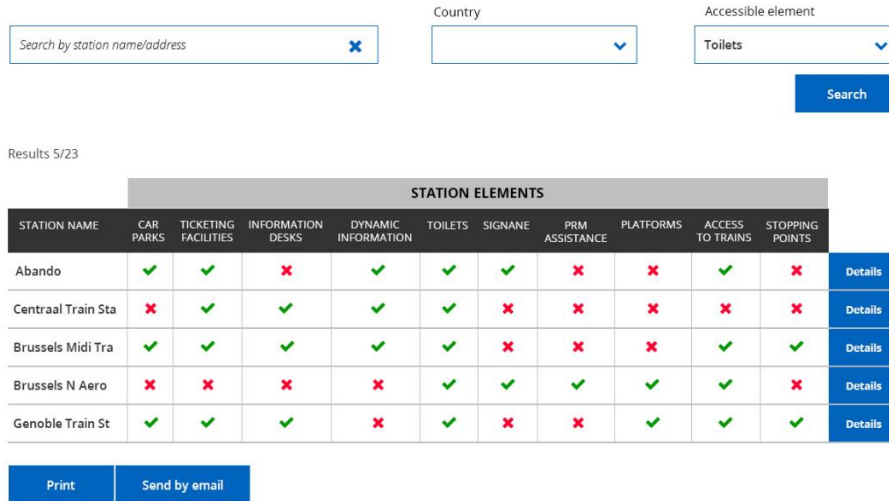
Figure 1 – search refining: summary table of station characteristics (removed from the final version)

Figure 2 - search refining: map and list of stations

Modifications were brought also to the way the information is provided to the website visitor. The first prototype with a summary table of station characteristics was not perceived as very clear. Therefore, the station accessibility information in the final version is shown grouped into 4 main parts: General information and accessible routes, Services, Platforms, Assistance.

4.   Outputs of the public consultation

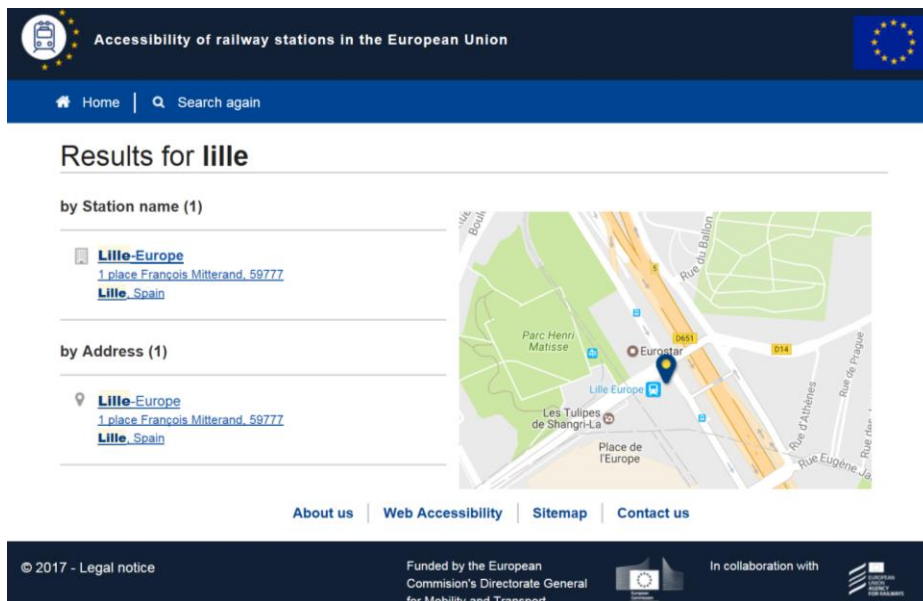The proposed amendments having no direct impact on the social environment or working conditions of workers in the industry nor on the rail freight customers, no consultation of the social partners and rail freight customers was necessary.

A public consultation was carried out from February to May 2017 on the Agency website for passengers associations, including representatives of persons with disabilities and persons with reduced mobility. Answers were received from AGE Platform Europe, DECO the "Associação Portuguesa para a Defesa do Consumidor" and the European Disability Forum. Contributions are available on the Agency website.

Associations support the the development of the Inventory of Assets: DECO *"consider that an inventory of assets is an important contribution to the identification of the existing obstacles and barriers and for providing practical information to users, that may also be an important tool on monitoring and in the overall evaluating progress on accessibility"*, AGE *"welcomes this draft recommendation"* and *"believe that the Inventory of Assets (IoA) will not only be helpful to further improve the inclusion of persons with reduced mobility, but will actually be of benefit to the whole society"* and EDF *"very much agrees with the general purpose of the ERA Recommendation and supports the creation of the Inventory of Assets database"*.

On the other end, EDF *"ask for a speedy and complete collection of the data within shorter deadlines than proposed in order to make the tool usefulfor the implementation of the TSI-PRM and for the use of passengers"*. Further to the discussions held in the Working Party, this request could not be retained.

Associations also express several detailed comments: where possible, these comments have been taken into consideration in the recommendation. For other comments, specific answers have been provided to each association.

5.   Conclusions and next developments

5.1.   Conclusions

The Agency believes that the Recommendation ERA-REC-128 together with the technical documents it refers to cover all aspects of Article 7 of the TSI PRM: "*content, data format, functional and technical architecture, operating mode, rules for data input and consultation, and rules for self-assessment and designation of the entities responsible for data provision. In order to identify the most viable solution, the recommendation shall take into account the estimated costs and benefits of all the technical solutions considered. It shall include a proposal for the timing of the establishment of the inventories of assets.*"

The present report and its annexes, together with the reference documents listed in section 7.2, give an explanation of the technical and economic choices that were made in order to define an IT system that would be:

› **Useful**: the detailed information provided will be useful for users to assess the accessibility of the station for themselves. The consideration of all characteristics of a station gives a global vision of its accessibility for all categories of impairments. Authorities will also be able to monitor easily the evolution of accessibility as well as the progress of compliance to the TSI.

› **Interoperable**: it is essential that stations are modelled according to a harmonised format so that data can be exchanged, not only with the Agency but also between stakeholders of the railway system and with stakeholders of other transport modes. The harmonised IFOPT model that has been developed allows this interoperability.

› **Adaptable**: an essential need expressed by stakeholders was that the system should enable the use of existing data; the development of data conversion protocol together with the basic

data content required by the system will enable entities who already have structured data to use them for the Inventories of Assets.

› **Consistent**: the user-friendliness and adaptability of the data collection tool as well as the simplicity of the data will ensure the consistency of the data, even if collected by non-accessibility specialists. The possibility to provide feedback per station will allow the convergence of data.

› **Evolutive**: the system has been designed open for improvements, including the direct exchange of information between stakeholders (from a Station Manager to Railway Undertakings operating in the station or to Public Transport Authorities operating to/from the station), the inclusion of additional content (pictures, maps) or the development of interactive applications (route planners).

› **Affordable**: the cost for data collection has been kept as low as possible by allowing self-assessment to be performed and by keeping the data simple to collect. The interoperability of data will avoid costs for the development of multiple data converters in the future.

5.2. Further developments of the IT tools and transfer to the TSI TAP

5.2.1. Further developments of the IT tools

The Agency will set up a test environment for testing the IT tools; testing will firstly consist in a verification of the effective deployment of the softwares and of their interfaces. In a second step, testing may take the form of a pilot production phase, involving one or more entities that would volunteer for collecting new data with the data collection tool or for converting existing data. The Agency plans to make such test from September 2017; initial discussions have taken place within the Working Party.

As indicated in section 3.3, all the comments made by the Working Party further to the experimentation of the Data Collection Tool and public website could not be taken in consideration by the contractor in the course of the project. These comments are mostly related to the way the data are collected and displayed to the public; the required modifications for implementing these comments should be carried out during the project development phase after adoption of the revised TSI PRM.

Another possible evolution relates to the geo-location of stations. The public website currently offers the geo-location only when the geographical data of a station have been manually introduced through the data collection tool or converted from an existing system. A project for the digitalization of European station addresses is currently carried out by the Commission and Eurostat, whose results could be imported to the public website so that the stations geo-location data would always be available.

5.2.2. Transfer to the TSI TAP [5]

The Agency considers that ticket vendors and railway undertakings should provide the information relative to the accessibility of stations for which they propose timetable information or offer ticketing.

This opinion is supported by the TSI TAP which requires in its point 4.2.6.1 that *"[the Railway Undertaking publishes] …. conditions of access to the station building and platforms, including whether the station is classified as accessible for PRMs and whether is staffed for PRM support…."*. Making accessibility information about a station of departure or arrival available to the public together with the timetable and pricing information relative to that station[4], that is considered by the Agency as the condition for making the Inventory of Assets really useful for the public.

---

[4] This includes intermediate stations where a change of train is necessary

Therefore the Agency recommends to transfer the technical documents developed for the Inventory of Assets in the corpus of technical documents of the TSI TAP so that future developments take place in the context of the TSI TAP change control management procedure.

5.2.3.   The Inventory of Assets in an open data/open source context

The development of the Inventory of Assets entailed the creation of specific IT tools and will generate the creation of considerable data. The Agency is of the opinion that these tools and data should be shared as much as possible so as to maximize the benefits for all stakeholders including the public.

Openness should be encouraged for the data and the IT tools. This requires that the necessary framework conditions are in place that define the conditions for use and re-use of the data and the tools and solves the liability issues when it comes to providing data to the public. Developing this framework will be a task of the Agency with the Commission during the finalization of the IT tools after the adoption of the revised TSI.

6.   Definitions and abbreviations

6.1.   Definitions

Definition	Description
TSI PRM	Technical specifications for interoperability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility
TSI TAP	Technical specification for interoperability relating to the subsystem 'telematics applications for passenger services' of the trans-European rail system

6.2.   Abbreviations

Abbreviation	Description
CEN	European Committee for Standardization
ERA	European Union Agency for Railways
IM	Infrastructure Manager
PRM	Person with Reduced Mobility
RISC	Railway Safety and Interoperability Committee
RU	Railway Undertaking
TSI	Technical Specification for Interoperability
WP	Working Party

7. Reference documents and legislation

7.1. Reference legislation

N°	Title	Reference	Version
[1]	Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on the interoperability of the rail system (Recast)	OJ L 138, 26.5.2016, p. 44.	*N.A.*
[2]	Regulation (EU) 2016/796 of the European Parliament and of the Council of 11 May 2016 on the European Union Agency for Railways and repealing Regulation (EC) No 881/2004	OJ L 138, 26.5.2016, p. 1.	*N.A.*
[3]	Commission Regulation (EU) No 1300/2014 of 18 November 2014 on the technical specifications for interoperability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility	OJ L 356, 12.12.2014, p. 110–178	*N.A.*
[4]	Regulation (EC) No 1371/2007 of the European Parliament and of the Council of 23 October 2007 on Rail Passengers' Rights and Obligations	OJ L 315, 3.12.2007, p. 14–41	*N.A.*
[5]	Commission Regulation (EU) No 454/2011 of 5 May 2011 on the technical specification for interoperability relating to the subsystem 'telematics applications for passenger services' of the trans-European rail system	OJ L 123, 12.5.2011, p. 11–67	*N.A.*

7.2. Reference documents

N°	Title	Reference	Version
[6]	Report on the analysis and evaluation of the possible tools for the Inventories of Assets		*1.0 20/11/2014*
[7]	Report on the questionnaire on the management of passenger railway stations		*1.0 04/06/2015*
[8]	Services – contract notice Development of a model and associated tools for the harmonisation of data relative to the accessibility of railway stations *(Extracts of the technical specification in annex)*	2015/ S 070-123783	*N.A.*
[9]	Full Impact Assessment Inventory of assets – Assessment of accessibility characteristics and data collection		*TBC*

8.   **Annex 1: Extracts of the** *"Tender specifications for a service contract regarding the development of a model and associated tools for the harmonization of data on the accessibility of railway station"*

The following extracts detail the work packages contained in the specification.

WP1. Creation of a harmonized model for the modelling of stations:

For the system to be shared, the data shall be provided according to a European standard. The standard that has been retained is EN 28701: 2012 (Identification of Fixed Object in Public Transport – 'IFOPT'). IFOPT enables the modelling of all the elements constitutive of a railway station. This model can be used for the provision of a standardised description of simple and even complex stations. However, IFOPT supports several scenarios and functional use cases. The aim of WP1 will be to determine a specific use case related to the TRIP and NIP functions and, from the specificities of this use case, to create a harmonized model for the modelling of the stations.

The harmonized model shall cover all details of a STOP PLACE, including the STOP PATH LINKS and NAVIGATIONS PATHS with ACCESSIBILITY LIMITATIONS.

The resulting model should be flexible in order to accommodate additional data for additional functionalities, e.g. pictures and routing capabilities.

This WP will be implemented in cooperation with DG MOVE and the European Railway Agency (ERA) who will provide details on the information required for the TRIP and NIP functions together with the preliminary draft model based on IFOPT. The detailed arrangements will be established during the inception phase of the contract.

The Commission authorises, in the meaning of article I.8 (e) of the service contract, the station managers in Member States and the European Railway Agency to use the harmonized model in all ways as stipulated in the referred article (I.8).

Deliverables

- model file provided as UML document (Enterprise architect version 9)
- documentation of the harmonized model

All deliverables for the WP1 must be submitted no later than 4 months after the entry into force of the contract. The contractor and the Commission may decide to change this deadline at the kick-off meeting: the contractor must duly justify any change of the deadline; the change has to be approved by the Commission.

After receiving the Commission's comments, the contractor will have 20 days to make necessary adaptions to the deliverables, thereby addressing all the Commission's comments.

WP2. Analysis of the existing situations vis-à-vis the projected harmonized model:

This WP covers the analysis of the existing situations and how they can integrate the projected harmonized model developed in WP1.

WP2 includes the following tasks:

- Elaboration of a questionnaire that will be addressed to station managers. The questionnaire will have the objective of getting a view of the existing situation regarding:

  o the existence of local databases gathering accessibility information,
  o the data model of these databases,
  o the format of the information when it exists,
  o the compatibility of the existing databases with the model defined in WP1.

- Analysis of the answers and categorization by station managers (existence of legacy database, unstructured data, no data) and, when data exist, level of compatibility with the proposed model.

- Elaboration of a strategy for each category identified in order to enable the conversion of data by station managers.

Deliverable
- report (questionnaire, result, analysis)

The deliverable for the WP2 must be submitted in no later than 8 months after the entry into force of the contract. The contractor and the Commission may decide to change this deadline at the kick-off meeting: the contractor must duly justify any change of the deadline; the change has to be approved by the Commission.

After receiving the Commission's comments, the contractor has 20 days to make necessary adaptions to the deliverable, thereby addressing all the Commission's comments.

WP3. Development of the tools for the formatting, exchange and validation of data

WP3 is two-fold. According to the categorization made during WP2, station managers may decide to convert their existing data to the harmonized model or to collect new data directly according to the model. The tool to be developed shall be hosted by the station manager and shall support both methods to enter the data into the local database of the station manager. The database shall be based on the harmonized model as developed in WP 1.

WP3.1. Development of a tool for the conversion, validation, storage and transfer of existing data

This WP will require the development of a tool with the following functionality:

1. Provide an Application Programming Interface (API) for the connection to legacy databases or files already provided by the station manager. This interface shall be capable to access the following systems: SQL databases, web services, CSV-files and XML-files

2. Provide a transformation and validation component to convert the data of the legacy systems to the harmonized model and to validate these data in order to verify the structure, completeness and consistency of the data delivered by a station manager.

3. Provide an external interface that will enable station managers to exchange their data according to the harmonized model. The external interface has to be based on XML according to the standard CEN/TS 16614-1:2014 (NeTEx).

4. The tool shall be able to inform other parties if a new dataset has been made available by the station manager. This functionality has to be compliant with the TAP TSI technical document B.60.

5. The tool shall be able to provide – on request – the actual valid dataset to third parties. This functionality has to be compliant with the TAP TSI technical document B.60.

It will also require the development of a user's guide in English.

WP3.2. Development of a data collection tool for the collection of new data

This WP will require the development of a data collection tool that will enable station managers to gather the required data directly according to the harmonized model. This tool shall be an easily usable web application utilizable on different platforms (e.g. desktop PC or laptop, tablet / smartphone (Android, iOS,…)…).

Optionally, the tool should offer the possibility to the station manager to collect more detailed information than required for the strict compliance with the requirements, on the basis of the harmonized model. In particular the following could be proposed: possibility to couple the tool to a GIS, possibility to enrich the content with pictures, possibility to structure the data so as to enable the development of in-station journey planners. Proposals are expected from the contractor on that point. Proposals shall always take in consideration the model developed in WP1.

ways as stipulated in the referred article (I.8). This applies without any prejudice to the use by the Commission itself.

Deliverables:
- Source code of the application(s) and application(s)
- Documentation
- Operations manual

All deliverables for WP3 must be submitted no later than 8 months after the entry into force of the contract. The contractor and the Commission may decide to change this deadline at the kick-off meeting: the contractor must duly justify any change of the deadline; the change has to be approved by the Commission.

After receiving the Commission's comments, the contractor has 20 days to make necessary adaptions to the deliverables, thereby addressing all the Commission's comments.

WP4. Development of a specific public database and website

WP 4.1 Development of a central database for the TRIP-function

This WP will consist in the development of a database that will store the information provided by the station managers.

For the TRIP function a central database shall be set up to store the data made available by the station managers. This database shall fit into the TAP TSI architecture as it is defined in the technical document B.60. Alternatively a direct upload via email or file transfer shall be provided. The interface shall respect the external interface of the tool developed in WP 3.

The European Railway Agency will manage and use the central database on the basis of article I.8 of the service contract – please see point 3.3.2 below.

Deliverables:
- Source code of the application and application
- Documentation
- Operations manual

All deliverables for WP4.1 must be submitted in no later than 10 months after entry into force of the contract. The contractor and the Commission may decide to change this deadline at the kick-off meeting: the contractor must duly justify any change of the deadline; the change has to be approved by the Commission.
After receiving the Commission's comments, the contractor has 20 days to make necessary adaptions to the deliverable, thereby addressing all the Commission's comments.

WP 4.2 Development of a website

This WP will consist in the development of a website that will make use of the information delivered by station managers.

The website needs to be accessible (respect of the Web rules about accessibility - W3C) and it needs to be compatible with different operating systems and Internet browsers (Windows, Unix, Mac OS X, …). The maximum number of concurrent users will be 250.

In the basic proposal, the website will provide information in the form of tabular lists of station characteristics.

Options will be proposed for providing a more detailed level of information if available:

- Provision of a visual representation of a station (map, drawings),
- Provision of additional content (pictures)
- Provision of an in-station route planner, enabling to plan routes between the different places of a station.

The European Railway Agency will host and use the website on the basis of article I.8 of the service contract – please see point 3.3.2 below.

Deliverables:
- Source code of the application and application
- Documentation
- Operations manual

All deliverables for WP4.2 must be submitted no later than 13 months after entry into force of the contract. The contractor may postpone the deadline by one month, bearing in mind that the Commission must still have at least 10 days to comment on the deliverables. The contractor must duly justify any change of the deadline; the change has to be approved by the Commission.

After receiving the Commission's comments, the contractor has 20 days to make necessary adaptions to the deliverable, thereby addressing all the Commission's comments.

All deliverables have to be delivered and approved in 15 months since the entry into force of the contract.

WPs 3 and 4

The contractor will make available a test system for the applications to be developed under these WPs which can be accessed on a regular basis during normal working hours.

The European Commission authorizes the European Railway Agency to access the system on its behalf on the basis of article I.8 of the service contract – please see point 3.3.2 below.

9.   Annex 2: Final report - model on accessibility of EU railway stations - *Issued by Bilbomática S.A.*

MOV01_Final_Repo
rt_1.0.pdf