



# **INFORMATION TECHNOLOGIES FOR SHIFT TO RAIL**

# D8.1 – Document Management Plan

Due date of deliverable: 31/10/2017

Actual submission date: 16/07/2018

Leader/Responsible of this Deliverable: Stefanos Gogos (UNIFE)

Reviewed: Y

Document status				
Revision	Date	Description		
1	04/07/2017	First issue		
1.1	27/02/2018	Second issue for revised inputs		
1.2	20/03/2018	Third issue for revised inputs		
1.3	29/05/2018	Fourth issue for revised inputs		
1.4	25/06/2018	Fifth issue for review		
2	06/07/2018	Final issue for review		
3	16/07/2018	Final Version After TMC approval and Quality check		

Pre	Project funded from the European Union's Horizon 2020 research and innovation programme			
	Dissemination Level			
PU	Public	Х		
СО	CO Confidential, restricted under conditions set out in Model Grant Agreement			
CI	Classified, information as referred to in Commission Decision 2001/844/EC			

Start date of project: 01/05/2015

Duration: 36 months





# **EXECUTIVE SUMMARY**

IT2Rail has used and produced digital data. This document describes how the existing data and the new data generated from the project will be handled. The Document Management Plan (onwards DMP) is a dynamic document that describes the type of data that was be collected, processed, stored and disseminated. Each Work Package (WP) describes the type of data that it used and generated and how the data is shared and preserved. This document also describes how the general data from the project is shared and archived. The document has been updated along with the IT2Rail project activities when necessary, in an iterative process.





# TABLE OF CONTENTS

Executive Su	ummary	2			
List of Figures4					
List of Tables	S	4			
List of Abbre	viations	6			
1. Introduction	on	7			
2. DATA MA	NAGEMENT AT PROJECT LEVEL	9			
2.1 Data C	Collection & Definition	9			
2.2 Data A	Archiving & Preservation	9			
2.2.1	Data Security & Integrity	9			
2.2.2	Document Archiving	9			
2.2.3	Data Transfer	10			
2.3 File Na	aming Conventions	10			
2.4 IT2Rai	il Archived Data & Shift2Rail	10			
3. DMP of W	P1: Interoperability Framework	11			
3.1 Data S	Sets	11			
3.2 Standa	ards, Metadata and Quality Issues	13			
3.3 Data S	Sharing	13			
3.4 Archiv	ing and Preservation	13			
4. DMP of W	P2: Travel Shopping	14			
4.1 Data T	Jpes	14			
4.2 Standa	ards, Metadata and Quality Issues	16			
4.3 Data S	Sharing	16			
4.4 Archiv	ing and Preservation	17			
4.5 Data N	lanagement Responsibilities	18			
5. DMP of W	P3: Booking & Ticketing	19			
5.1 Data T	Jpes	19			
5.2 Standa	ards, Metadata and Quality Issues	20			
5.3 Data S	Sharing	20			
5.4 Archiv	5.4 Archiving and Preservation20				
5.5 Data N	Anagement Responsibilities	21			
6. DMP of W	P5: Travel Companion	21			
6.1 Data T	6.1 Data Types21				
7. DMP of W	7. DMP of WP6: Business Analytics				
7.1 Data T	Jpes	24			





	7.2 Standards, Metadata and Quality Issues	. 30
	7.3 Data Sharing	. 30
	ITR-6.11	. 31
	7.4 Archiving and Preservation	. 33
	7.5 Data Management Responsibilities	. 36
8.	DMP of WP8: Dissemination	. 39
	8.1 Data Types	. 39
	8.2 Standards, Metadata and Quality Issues	. 40
	8.3 Data Sharing	. 40
	8.4 Archiving and Preservation	. 41
	8.5 Data Management Responsibilities	. 41
9.	Conclusions	. 41

# LIST OF FIGURES

	4. Duclast C	-	7
FIGURE	1. Project (	roanisation	/
i igaio	1.1.10,000.0	'ga loadon	

# LIST OF TABLES

Table 1: Existing Data used in WP1	12
Table 2: Data Generated in WP1	12
Table 3: Data Sharing in WP1	13
Table 4: Archiving and preservation of the data in WP1	13
Table 5: Existing Data used in WP2	14
Table 6: Data Generated in WP2	15
Table 7: Data Sharing in WP2	16
Table 8: Archiving and preservation of the data in WP2	17
Table 9: Data Management Responsibilities in WP2	18
Table 10: Data Generated in WP3	19
Table 11: Data Sharing in WP3	20
Table 12: Archiving and preservation of the data in WP3	20
Table 13: Data Management Responsibilities in WP3	21
Table 14: Data Generated or transiting in WP5	21
Table 15: Existing Data used in WP6	27
Table 16: Simulated Data used in WP6	28





Table 17: Data generated in WP6	. 29
Table 18: Sharing of the data in WP6	. 33
Table 19: Archiving and preservation of the data in WP6	. 35
Table 20: Data Management Responsibilities in WP6	. 39
Table 21: Existing Data used in WP8	. 40
Table 22: Data Sharing in WP8	. 41
Table 23: Archiving and preservation of the data in WP8	. 41
Table 24: Data Management Responsibilities in WP8	. 41





# LIST OF ABBREVIATIONS

BA	Business Analytics
СТ	Cooperation Tool
D2D:	Door-to-Door
DMP	Document Management Plan
IP:	Innovation Programme
ISO	International Organisation for Standardisation
IT2Rail	Information technologies for Shift2Rail
KPI	Key Performance Indicator
S2R	Shift2Rail
TC	Travel Companion
TD	Technology Demonstrator
TT	Trip Tracker
WP:	Work Package





# **1. INTRODUCTION**

The present Document Management Plan (onwards DMP) details what data the project will generate, whether and how it will be exploited or made accessible for verification and re-use, and how will be curated and preserved. This document should be considered in combination with:

- Articles 9.1, 9.2, 9.3 and attachment 1 of the Consortium Agreement;
- Section 3 (Articles 23, 24, 25, 26, 27, 28, 29, 30 and 31) of the Grant Agreement No. 636078.

The DMP is organised per Work Package (WP) in order to concretely describe the contribution of each WP to the final outcome as well as the spin-off potential of each activity.

In order to understand the data that the project will generate, a brief overview of the project is given below:

IT2Rail is a first step towards achieving the objectives of the long term Shift2Rail Programme. More specifically the 4<sup>th</sup> Innovation Programme (IP4) focusing on "IT Solutions for Attractive Railway Services". The overall aim is to provide a new seamless travel experience giving access to a complete multimodal travel offer which connects the first and last mile to long distance journeys by:

- Transforming global travel interactions into a fully integrated and customised experience;
- Providing a door-to-door (D2D) multi modal travel experience, through services distributed by multiple providers;
- Helping operators to adapt their level of service, better to satisfy customer expectations and optimise their own operations.

Even though the scope of IT2Rail is reduced in comparison to IP4, the work is organised around the six Technology Demonstrators (TDs) that can be found in IP4 and are essentially equivalent to the Work Packages 1-6 shown in Figure 1.







• WP1 will provide IT2Rail functional applications with a 'web of transportation data' abstraction of the distributed resources they need to operate. The abstraction is constructed by using semantic web technology open standards.

- WP2 will:
  - Establish the architecture for managing and aggregating distributed travel shopping data and distributed journey planning expertise;
  - Create the basis for a one-stop shop for co-modally marketed transport products and services whose combinations can answer to door-to-door mobility queries;
  - Allow for the presentation of transport service attributes and facilities answering to Customer preferences in connection with carbon footprint and 'reduced mobility' needs;
  - Interface with WP1 to overcome interoperability obstacles, so protecting the Customer from the fragmentation of messaging and codification standards which make travel shopping so difficult and risky in today's fragmented travel marketplace.

• WP3 will extend the interoperability between modes, operators and systems by providing travellers with the possibility to book and pay in a 'one-click' action, complete multimodal door-todoor travel journeys and to validate their travel entitlements across heterogeneous transport systems. It also includes ticketing activities.

• WP4 will monitor irregularities in transport and respond to such anomalies in on-line mode, including suggestions of alternative solutions.

• WP5 will develop the key concepts of unique Traveller identifier, smart device and virtualised data store to bolster attractiveness of the Rail transport ecosystem. An allencompassing user front end offering access to a wealth of multimodal services and products will promote a new door-to-door traveling experience.

• WP6 will focus on leveraging social, mobile, structured and unstructured data to obtain valuable, actionable insights that allows rail operators, product/service providers, Traveller/Transport Enterprises to make better decisions in order to increase quality of service and revenues, to better adapt their level of service to the passenger demand and to optimise their operations in order to bring and retain more people on the train-urban mobility.





# 2. DATA MANAGEMENT AT PROJECT LEVEL

### 2.1 DATA COLLECTION & DEFINITION

The responsibility to define and describe all non-generic data sets specific to an individual work package shall be with the WP leader.

The WP leaders shall formally review and update the data sets related to their WP.

All modifications/additions to the data sets shall be provided to the IT2Rail Coordinator (UNIFE) for inclusion in the DMP.

#### 2.2 DATA ARCHIVING & PRESERVATION

At the formal project closure, all the data material that has been collated or generated within the project and registered on the Cooperation Tool (CT) shall be copied and transferred to a digital archive.

This archive shall reside in the UNIFE premises located in Brussels, Belgium.

UNIFE provides an archive facility with structured systems for document query, retrieval and long-term preservation.

#### 2.2.1 Data Security & Integrity

The IT2Rail project will be subject to the same levels of data security as applied to normal operations within UNIFE.

UNIFE relies upon its information and the systems that manage it to carry out its business operations; hence protecting information is paramount in supporting UNIFE activities in meeting both its objectives and regulatory obligations.

Maintaining the security of information manages the risks more effectively resulting in the prevention of operational activities interruption.

Without the correct protection measures, there is a risk of vulnerability to those who are intent on harming or who wish to control or steal assets.

All data types that are uploaded to the CT shall not be encrypted, irrespective of whether these data items have been identified for future archiving or not.

#### 2.2.2 Document Archiving

The document structure and type definition will be preserved as defined in the document breakdown structure and work package groupings specified for the CT.

At the time of document creation (uploading to CT) the document will be "flagged" as a candidate data set for future archiving.

The process of archiving will be based on a data extract performed within 12 weeks of the formal closure of the IT2Rail project.





### 2.2.3 Data Transfer

The data transfer mechanism between the CT and the data archive repository shall be performed as a single transaction.

The physical means of data transfer shall be jointly reviewed between the Project Coordinator (UNIFE) and the CT system provider.

#### 2.3 FILE NAMING CONVENTIONS

All files irrespective of the data type shall be named in accordance with the following document Code structure:

The identification code contains the six following sections:

#### [Project] - [Domain] - [Type] - [Owner] - [Number] - [Version]

Where:

- [Project] is ITR for all IT2Rail documents;
- [Domain] is the relevant domain in the Cooperation Tool (WP, Task or project body);
- [Type] is one letter defining the document category;
- [Owner] is the trigram of the deliverable leader organisation;
- [Number] is an order number allocated by the Cooperation Tool when the document is first created;
- [Version] is the incremental version number, automatically incremented at each upload.

Example shown below:

Project	Domain	Type	Owner	Number	Version
Code	(3-5 char.)	(1 letter)	(3 letters)	(3 digits)	
ITR	WP2	D	UNI	001	01

#### 2.4 IT2RAIL ARCHIVED DATA & SHIFT2RAIL

The specific IT2Rail deliverables and all other related generated data are fundamentally linked to the future planned Shift2Rail project activity.

The data requirements of this DMP have been developed with the objective of providing data structures that are uniform, intelligible and not subject to possible future ambiguous interpretation.





It is anticipated that the synergetic parallel working between the two projects will be further enhanced by having data available prior to the conclusion of the IT2Rail project that is of a defined format in accordance with this DMP.

Data shall be specifically selected for archiving based on the criteria that it will be likely to be useful for future Shift2Rail activities.

During the life of IT2Rail data extraction from the CT will be supported.

# 3. DMP OF WP1: INTEROPERABILITY FRAMEWORK

### 3.1 DATA SETS

Existing data used in this WP include the following data sets:

Code	Description of Dataset/Digital Output	Units and Format	Size	Provided by
ITR-1.1	Wikidata knowledge graph <sup>1</sup>	rdf, accessed via sparql endpoint	unlimited	Wikidata (online)
ITR-1.2	DBpedia knowledge graph <sup>2</sup>	rdf, accessed via sparql endpoint	unlimited	Dbpedia (online)
ITR-1.3	SNCF Rail Stations	CSV	422 KB	SNCF
ITR-1.4	SNCF Routes	XML	29 KB	SNCF
ITR-1.5	AMS Stations	XML	30 KB	Oltis Group
ITR-1.6	AMS Connections	XML	3.2 MB	Oltis Group
ITR-1.7	VBB Stops, Routes, Services	GTFS	54.5 MB (compressed)	HaCon
ITR-1.8	TMB (Madrid) Stops, Routes, Services	GTFS	23.3 MB (compressed)	INDRA

<sup>&</sup>lt;sup>1</sup> https://www.wikidata.org/wiki/Wikidata:Main\_Page

<sup>&</sup>lt;sup>2</sup> https://wiki.dbpedia.org/about





ITR-1.9	TMB (Barcelona) Stops, Routes, Services	GTFS	5.5 MB (compressed)	INDRA
ITR-1.10	VAO Stops, Routes, Services	GTFS	67.3 MB (compressed)	HaCon

Table 1: Existing Data used in WP1

Data generated by this WP include the following data sets:

Code	Description of Dataset/Digital Output	Units and Format	Size	Ownership
ITR-1.11	Barcelona Network Statistics	XML	273 KB	Indra
ITR-1.12	Madrid Cercanias Network Statistics	XML	436 KB	Indra
ITR-1.13	Madrid Bus Network Statistics	XML	8.2 MB	Indra
ITR-1.14	Madrid Metro Ligero Network Statistics	XML	97 KB	Indra
ITR-1.15	Madrid Metro Network Statistics	XML	507 KB	Indra
ITR-1.16	Berlin Network Statistics	XML	921 KB	HaCon
ITR-1.17	AMS Network Statistivs	XML	19 KB	Oltis Group
ITR-1.18	IndraRail Network Statistics	XML	9 KB	Indra
ITR-1.19	VAO (Wien) Network Statistics	XML	3.8 KB	HaCon
ITR-1.20	SNCF Network Statistics	XML	7.4 KB	SNCF
ITR-1.21	Trenitalia Network Statistics	XML	6 KB	Trenitalia
ITR-1.22	It2Rail semantic graph	RDF	1.6 M triples,	It2Rail (online)
ITR-1.23	It2Rail ontology	OWL	11 K statements	It2Rail (online)

 Table 2: Data Generated in WP1





### **3.2 STANDARDS, METADATA AND QUALITY ISSUES**

The data will be organised in databases and documented in a standardised way that will be decipherable by all the participants of the WP1.

# 3.3 DATA SHARING

Code	Data sharing
ITR-1.11 to	Network statistics data sets on SVN repository at
ITR-1.21	https://svn.ws.dei.polimi.it/IT2Rail-deib/XSDschemas/NetworkStatistics
ITR-1.22	It2Rail semantic graph accessible at SPARQL access point at http://accessmanagementdemo.cloud:70/graphdb-workbench-free/sparql
ITR-1.23	It2Rail ontology accessible at https://it2rail.ivi.fraunhofer.de/webprotege/
ITR-1.23	It2Rail ontology accessible at https://it2rail.ivi.fraunhofer.de/webprotege/

#### Table 3: Data Sharing in WP1

## **3.4 ARCHIVING AND PRESERVATION**

Code	Archiving and preservation		
ITR-1.11 to	Network statistics data sets on SVN repository at		
ITR-1.21	https://svn.ws.dei.polimi.it/IT2Rail-deib/XSDschemas/NetworkStatistics		
ITR-1.22	It2Rail semantic graph accessible at SPARQL access point at http://accessmanagementdemo.cloud:70/graphdb-workbench-free/sparql		
ITR-1.23	It2Rail ontology accessible at https://it2rail.ivi.fraunhofer.de/webprotege/		
Table 4: Archiving and preservation of the data in WP1			





# 4. DMP OF WP2: TRAVEL SHOPPING

#### 4.1 DATA TYPES

Existing data used in this WP include the following data types:

Code	Description of Dataset/Digital Output	Units and Format	Size	Ownership
ITR-2.1	Feeds for Indra's Urban TSP with the planning data of the urban transit in Madrid (CRTM)	GTFS	NR	CRTM (Consorcio Regional de Transportes de Madrid)
ITR-2.2	Feeds for Indra's Urban TSP with the planning data of the urban transit in Barcelona (TMB)	GTFS	NR	TMB (Transports Metropolitans de Barcelona)

#### Table 5: Existing Data used in WP2

Data generated in this WP include the following types:

Code	Description of Dataset/Digital Output		Units and Format	Size	Ownership	
	Rail Itineraries b	etween an origin	and a destination:			
ITR- 2.3		origin destination date duration numTransfers price departureTime arrivalTime	date duration travelEpisodeld trainCode departureStation destinationStation	JSON	NR	IT2Rail
	Output	travelEpisodes	departureTime			





	arrivalTime			
	Train availability to find an available <b>Seat</b> in a <b>Train</b> from an <b>Origin Station</b> to a <b>destination Station</b> at a specific <b>date</b> .			
ITR- 2.4	ResponseCodeResponseDescriptionTrainCodeClassCodePriceCoachCodeSeatCodeDepartureTimeArrivalTime	JSON	NR	IT2Rail
ITR- 2.5	OutputContractIdLock Inventory info to lock/book a seat in a Train from an Origin Station to a destination Station at a specific date.ResponseCode ResponseDescription SeatId PurchaseCodeOutputBookingCode	JSON	NR	IT2Rail
ITR- 2.6	GetRoutes information for Madrid travel episodes: <ul> <li>Itineraries</li> <li>Legs</li> <li>Steps</li> </ul>	JSON	NR	IT2Rail
ITR- 2.7	Network Reference Resources	Amadeus ad hoc format	NR	IT2Rail
ITR- 2.8	Itinerary offers	XML	NR	IT2Rail

Table 6: Data Generated in WP2





# 4.2 STANDARDS, METADATA AND QUALITY ISSUES

The data will be organised in databases and documented in a standardised way that will be decipherable by all the participants of the WP2.

### 4.3 DATA SHARING

Code	Data sharing
ITR-2.1	Data has been obtained from the open data portal of the CRTM ( <u>http://data-crtm.opendata.arcgis.com/</u> ) containing the GTFS files for Metro, Buses, Coach, Tram and Train in Madrid, and this information is imported in the Indra's Urban TSP.
ITR-2.2	Data has been obtained from TMB containing the GTFS files for Metro, Buses, Coach, Tram and Train in Barcelona, and this information is imported in the Indra's Urban TSP. Indra has received authorization of TMB to use them specifically for project purposes.
IT2-2.3	Data retrieved through a REST endpoint on Indra's server
IT2-2.4	Data retrieved through a REST endpoint on Indra's server
IT2-2.5	Data retrieved through a REST endpoint on Indra's server
IT2-2.6	Data retrieved through a REST endpoint on Indra's server
IT2-2.7	Data retrieved from the Networkgraph manager (WP1) through a XML endpoint
IT2-2.8	Data retrieved dynamically from the Shopping Broker (WP1) through a XML endpoint

Table 7: Data Sharing in WP2





# 4.4 ARCHIVING AND PRESERVATION

Code	Archiving and preservation			
ITR-2.1	Data stored on Indra' server			
ITR-2.2	Data stored on Indra' server			
ITR-2.3	Data stored on Indra' server			
ITR-2.4	Data stored on Indra' server			
ITR-2.5	Data stored on Indra' server			
ITR-2.6	Data stored on Indra' server			
ITR-2.7	Network Reference Resources are stored within Amadeus server. This data is stored until the associated validity date is reached or until the Network Reference Resources are refreshed with new data			
ITR-2.8	Itinerary offers details are stored within Amadeus server. This data is used by the booking process (WP3) and its storage is temporary (1 week maximum)			
Table 8: Archiving and preservation of the data in WP2				





# 4.5 DATA MANAGEMENT RESPONSIBILITIES

Code	Name of Responsible	Description
ITR-2.1	Leyre Merle Javier Saralegui Verónica González Pérez	The data managers verify the availability of the repositories storing data.
ITR-2.2	Leyre Merle Javier Saralegui Verónica González Pérez	The data managers verify the availability of the repositories storing data.
ITR-2.3	Leyre Merle Javier Saralegui Verónica González Pérez	The data managers verify the availability of the repositories storing data.
ITR-2.4	Leyre Merle Javier Saralegui Verónica González Pérez	The data managers verify the availability of the repositories storing data.
ITR-2.5	Leyre Merle Javier Saralegui Verónica González Pérez	The data managers verify the availability of the repositories storing data.
ITR-2.6	Leyre Merle Javier Saralegui Verónica González Pérez	The data managers verify the availability of the repositories storing data.
ITR-2.7	Amadeus	Amadeus maintains Network Reference Resources data up-to-date
ITR-2.8	Amadeus	Amadeus is in charge of the storage of the itinerary offers details

 Table 9: Data Management Responsibilities in WP2





# 5. DMP OF WP3: BOOKING & TICKETING

# 5.1 DATA TYPES

No existing data types were used in this WP. Data generated in this WP include the following types:

Code	Description of Dataset/Digital Output		Units and Format	Size	Ownership	
	GetBooking with Seat on a Train f	the booking inform from A to B on a Da	nation of a ate.			
ITR-3.1	Output	bookingCode status trainCode origin destination date departureTime arrivalTime duration price coachCode seatCode classCode classCode passengerName passengerId numStops serviceList	name code description price	JSON	NR	IT2R
ITR-3.2	IssueToken with the Payload information of the token           ResponseCode           ResponseDescription           Output         Payload		JSON	NR	IT2R	
ITR-3.3	Booking data		XML	NR	IT2Rail	
ITR-3.4	Confirmed booking data		XML	NR	IT2Rail	

 Table 10: Data Generated in WP3





#### 5.2 STANDARDS, METADATA AND QUALITY ISSUES

The data will be organised in databases and documented in a standardised way that will be decipherable by all the participants of the WP3.

### 5.3 DATA SHARING

Code	Data sharing
IT2-3.1	Data retrieved through a REST endpoint on Indra's server
IT2-3.2	Data retrieved through a REST endpoint on Indra's server
IT2-3.3	Data retrieved dynamically from the Booking Broker (WP1) through a XML endpoint
IT2-3.4	Data retrieved dynamically from the Issuance Broker (WP1) through a XML endpoint

Table 11: Data Sharing in WP3

### 5.4 ARCHIVING AND PRESERVATION

Code	Archiving and preservation
ITR-3.1	Data stored on Indra' server
ITR-3.2	Data stored on Indra' server
ITR-3.3	Booking and confirmed booking details are stored within Amadeus server. This data is used by the booking and issuance orchestration and its storage is temporary (1 week maximum)

 Table 12: Archiving and preservation of the data in WP3





#### 5.5 DATA MANAGEMENT RESPONSIBILITIES

Code	Name of Responsible	Description
ITR-3.1	Leyre Merle Javier Saralegui Verónica González Pérez	The data managers verify the availability of the repositories storing data.
ITR-3.2	Leyre Merle Javier Saralegui Verónica González Pérez	The data managers verify the availability of the repositories storing data.
ITR-3.3	Amadeus	Amadeus is in charge of the collection of this data
ITR-3.4	Amadeus	Amadeus is in charge of the collection of this data

 Table 13: Data Management Responsibilities in WP3

# 6. DMP OF WP5: TRAVEL COMPANION

### 6.1 DATA TYPES

There is no pre-existing data at WP5 level, all data is either generated by the user (account creation, preferences, credit cards...) or received from other modules of the IT2Rail project (booked offers, etc...).

There is no data base at WP5 level; all data are stored on Indra's server. APIs allow to receive/send the data.

Data generated or transiting through the TC Personal Application, and TC Cloud, in this WP include the following types:

Code	Description of Dataset/Digital Output	Units and Format	Size	Ownership
ITR-5.1	User Identity data: • Login • Password • UserIdtoken	JSON	NR	IT2Rail

#### Table 14: Data Generated or transiting in WP5





	User Preferences data:			
ITR-5.1	<ul> <li>Preferred means of transportation</li> <li>Preferred carrier</li> <li>Loyalty/Reduction/Payment card</li> <li>PRM type</li> <li>Class</li> <li>Seat</li> <li>Trip Tracker Behavior</li> </ul>	JSON	NR	IT2Rail
ITR-5.1	Entitlement data (allows the access of users to the Travel Companion database): UserIdToken User name Media Type Issue Date Departure Time Departure Arrival Token Id Payload State Trip Units	JSON	NR	IT2Rail
ITR-5.1	Token data (Tokens data allows the access of users to the Travel Companion database): Result Code Result Description Token Id Payload State Trip Units	JSON	NR	IT2Rail
ITR-5.1	<ul> <li>Booking data (allows accessing the information of the Booking Offer Item in the Travel Companion Cloud Wallet):</li> <li>Context (retailer, Travel Shopper, Device Info)</li> <li>Passenger (Functionnal Id, Code, Personal Info, Preference)</li> <li>Stop Place (location)</li> <li>Travel Episode Endpoint (location)</li> </ul>	JSON	NR	IT2Rail





	<ul> <li>Travel Solution (departure, arrival)</li> <li>Travel Episode:         <ul> <li>Departure</li> <li>Arrival</li> <li>Mileage</li> <li>Transportation Service (departure, arrival, Service Provider, Accessibility, Emission, Route Link, Reference, Equipment, Customer FeedBack, Operating Partner Info, Validating Partner Info, Validating Partner Info, Validating Partner Info).</li> </ul> </li> <li>Booking:         <ul> <li>Booking Status</li> <li>Booking Provider</li> <li>Booking Status</li> <li>Booking Status</li> <li>Booking Status</li> <li>Booking Provider</li> <li>Booking Status</li> <li>Booking Status</li> <li>Booking Provider</li> <li>Booking Status</li> <li>Booking Provider</li> <li>Booking Status</li> <li>Booking Provider</li> </ul> </li> </ul>			
ITR-5.1	Payment data (contains data related to payment means, and access to payment means): User Id Token Credit card Id Card Display Name Card Number Card Validity End Month Card Validity End Year Card CVV Credit Card Type Id	JSON	NR	IT2Rail





	Alert and Information messages (allow to receive and display different type of messages to the user):			
	<ul><li>Booked Offer Ids</li><li>Message Id</li></ul>			
ITR-5.1	Message Title     Message Types	JSON	NR	IT2Rail
	<ul> <li>Message Short Text</li> </ul>			
	Message Full Text			
	Message Object			
	MessageAsk For an			
	<ul><li>Alternative</li><li>Message Time</li></ul>			

# 7. DMP OF WP6: BUSINESS ANALYTICS

# 7.1 DATA TYPES

Existing data used in this WP include the following data types:

Code	Description of Dataset/Digital Output	Units and Format	Size	Ownership
			Size: 47.911.381 Byte	
ITR-6.1	Current Weather Data	MongoDB	Record Count: 91.396	OpenWeatherMap
			Record Size:	
			0,5 Kb	
			Size: 20.446.103 Byte	
ITR-6.2	Forecast Weather Data	MongoDB	Record Count: 35.848	OpenWeatherMap
			Record Size:	
			0,6 Kb	





ITR-6.3	Itinerary Offers retrieved from the Mobility Request Manager	MongoDB	Size: 93.723.084 Byte Record Count: 780 Record Size: 117,3 Kb	IT2Rail – WP2
ITR-6.4	TC User Feedbacks regarding Travel Questionnaire	MySQL	Size: 824 Byte Record Count: 249 Record Size: 96 Kb	IT2Rail – WP5
ITR-6.5	ArrivalDelayEvent	MySQL	Size: 256 Byte Record Count: 64 Record Size: 16 Kb	IT2Rail – WP4
ITR-6.6	DepartureDelayEvent	MySQL	Size: 260 Byte Record Count: 63 Record Size: 16 Kb	IT2Rail – WP4
ITR-6.7	ArrivalRulesActivationReque st	MySQL	Size: 98 Byte Record Count:	IT2Rail – WP4





			166	
			Record Size:	
			16 Kb	
ITR-6.8			Size:	
			92 Byte	
	DepartureRulesActivationRe quest	MvSQL	Record Count:	IT2Rail – WP4
			177	
			Record Size:	
			16 Kb	
ITR-6.9			Size:	
			84 Byte	
	RuleDeactivationRequest		Record	
		MySQL	Count:	IT2Rail – WP4
			193	
			Record Size:	
			16 Kb	
ITR-6.10	User feedbacks for sentiment analysis	File	5 MB	LDO-provided data
ITR-6.11	Social Network Messages	MongoDB/Spa rksee	UPC	UPC-filtered Twitter feed
			Size : 704 Kb	
ITR-6 12	Train Station Air Quality Data	MongoDB	Record Count : 9397	CEA-provided
			Record Size:78 b (avg)	data
			Size : 25370 Kb	
ITR-6.13	Travel Data Messages	MongoDB	Record Count : 67233	CEA-provided
			Record Size :386 b (avg)	data





ITR-6.14	Data mining information	PostgreSQL	NR	Polimi-provided data
ITR-6.15	Accesses by BA users to the IT2Rail BA web platform	MongoDB embedded within Sofia2 platform	NR	IT2Rail – WP6
ITR-6.16	Searches by BA users to the IT2Rail BA web platform	MongoDB embedded within Sofia2 platform	NR	IT2Rail – WP6

Table 15: Existing Data used in WP6





Simulated data used in this WP include the following data types:

Code	Description of Dataset/Digital Output	Units and Format	Size	Ownership
			Size: 48.941 Byte	
ITR-6.17	Happenings	MySQL	Record Count : 133	IT2Rail – WP6
			Record Size : 0,4	
ITR-6.18	KPIs concerning Transport Systems	Pentaho	A 50Kbyte file of simulated data	IT2Rail – WP6
ITR-6.19	KPIs concerning Booking & Ticketing of Travel Routes	MongoDB embedded within Sofia2 platform	NR	IT2Rail – WP6
ITR-6.20	KPIs concerning Travellers' Preferences for Transport Systems	MongoDB embedded within Sofia2 platform	NR	IT2Rail – WP6
ITR-6.21	KPIs concerning Preferences of Travellers with Reduced Mobility	MongoDB embedded within Sofia2 platform	NR	IT2Rail – WP6

#### Table 16: Simulated Data used in WP6

Data generated in this WP include the following types:

Code	Description of Dataset/Digital Output	Units and Format	Size	Ownership
ITR-6.22	KPIs based on User Preferences from the TC	MongoDB embedded within Sofia2 platform	NR	IT2Rail-WP6





ITR-6.23	KPIs based on Trip Tracking Alternative Routes	MongoDB embedded within Sofia2 platform	NR	IT2Rail-WP6
ITR-6.24	KPIs based on Trip Tracking Complex Event Processing Messages	MongoDB embedded within Sofia2 platform		IT2Rail-WP6
ITR-6.25	KPIs based on Social Network Messages	NR	IT2Rail-WP6	
ITR-6.26	Calculation of parameters of Train Station Air Quality Data based on Meteorological Data	of Data JSON NR Data		IT2Rail-WP6
ITR-6.27	Calculation of most Informative Term from Travel data messages	JSON	NR	IT2Rail-WP6
ITR-6.28	Calculation of number of co- occurring terms in Travel data messages	JSON	NR	IT2Rail-WP6
ITR-6.29	Calculation of a list of timelines of terms of interest from travel data messages, given a metro line and a time window	JSON	NR	IT2Rail-WP6
ITR-6.30	Calculation of properties of preferred television programs in different contexts	PostgreSQL	NR	IT2Rail-WP6
ITR-6.31	KPIs concerning accesses by BA users to the IT2Rail BA web platform	MongoDB embedded within Sofia2 platform	NR	IT2Rail-WP6
ITR-6.32	KPIs concerning searches by BA users to the IT2Rail BA web platform	MongoDB embedded within Sofia2 platform	NR	IT2Rail-WP6

Table	17:	Data	generated	in	WP6
-------	-----	------	-----------	----	-----



•



# 7.2 STANDARDS, METADATA AND QUALITY ISSUES

The data will be organised in databases and documented in a standardised way that will be decipherable by all the participants of the WP6.

### 7.3 DATA SHARING

Code	Description	Mode of Data Sharing
ITR-6.1	Current Weather data	OpenWeatherMap data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.2	Weather forecast data	OpenWeatherMap data retrieved through a REST endpoint and published to the public IT2Rail web application
ITR-6.3	Itinerary Offers retrieved from the Mobility Request Manager	WP2 data retrieved dynamically from the Mobility Request Manager through a REST endpoint and saved on a WP6 MongoDB database
ITR-6.4	TC User Feedbacks regarding Travel Questionnaire	WP5 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.5	ArrivalDelayEvent	WP4 simulated train event data created and saved on a WP6 MySQL database for WP4-WP6 integration testing purposes
ITR-6.6	DepartureDelayEvent	WP4 simulated train event data created and saved on a WP6 MySQL database for WP4-WP6 integration testing purposes
ITR-6.7	ArrivalRulesActivationRequest	WP4 Travel Companion Trip Tracking User Preferences retrieved from the WP4 database





		and stored on a WP6 MySQL database for calculation of TT KPIs
ITR-6.8	DepartureRulesActivationRequest	WP4 Travel Companion Trip Tracking User Preferences retrieved from the WP4 database and stored on a WP6 MySQL database for calculation of TT KPIs
ITR-6.9	RuleDeactivationRequest	WP4 Travel Companion Trip Tracking User Preferences retrieved from the WP4 database and stored on a WP6 MySQL database for calculation of TT KPIs
ITR-6.10	User feedbacks for sentiment analysis	No sharing; demo data used for testing purposes
ITR-6.11	Social Network Messages	Data retrieved dynamically through the Twitter API, pre-processed to conform to GDPR regulations (not retrieving any personal information, all the information is anonymised) and saved on a WP6 MongoDB database for further calculation of WP6 KPIs
ITR-6.12	Train Station Air Quality Data	No sharing; demo data used for testing purposes
ITR-6.13	Travel Data Messages	No sharing; demo data used for testing purposes
ITR-6.14	Data mining information	No sharing; demo data used for testing purposes
ITR-6.15	Accesses by BA users to the IT2Rail BA web platform	WP5 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.16	Searches by BA users to the IT2Rail BA web platform	WP5 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.17	Happenings data	Simulated happenings data stored on a WP6 MySQL database and





		retrieved through a REST endpoint by the Travel Companion
ITR-6.18	KPIs for Transport Systems	Simulated transport systems data stored on a WP6 MySQL database and retrieved through a REST endpoint by the Travel Companion stored on a WP6 MySQL database and retrieved through a REST endpoint by the Travel Companion
ITR-6.19	KPIs for Booking & Ticketing	WP3 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.20	KPIs for Preferences of Travellers with Reduced Mobility	WP5 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.21	KPIs on user feedbacks concerning Travel Questionnaire	KPIs calculated on Travel Companion Travel Questionnaire user feedbacks stored on a WP6 MySQL database and retrieved through a REST endpoint by the Travel Companion
ITR-6.22	KPIs for Travellers' Preferences	WP5 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.23	KPIs based on Trip Tracking Alternative Routes	WP4 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.24	KPIs based on Trip Tracking Complex Event Processing Messages	WP4 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.25	KPIs based on Social Network Messages	Information provided throught a RESTFul API viewed on a local IT2RAIL/CEA web application.





ITR-6.26	Calculation of parameters of Train Station Air Quality Data based on Meteorological Data	No sharing; viewed through a REST API on a local IT2Rail/CEA web application.
ITR-6.27	Calculation of most Informative Term from Travel data messages	No sharing; viewed through a REST API on a local IT2Rail/CEA web application.
ITR-6.28	Calculation of number of co- occurring terms in Travel data messages	No sharing; viewed through a REST API on a local IT2Rail/CEA web application.
ITR-6.29	Calculation of a list of timelines of terms of interest from travel data messages, given a metro line and a time window	No sharing; viewed through a REST API on a local IT2Rail/CEA web application.
ITR-6.30	Calculation of properties of preferred television programs in different contexts	WP6 data retrieved through a Java application provided by Polimi. No sharing; the mined rules are the data generated by the application but are invisible to the end user who can only check and acknowledge that application behaviour has changed due to the generated rules.
ITR-6.31	KPIs concerning accesses by BA users to the IT2Rail BA web platform	WP5 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion
ITR-6.32	KPIs concerning searches by BA users to the IT2Rail BA web platform	WP5 data retrieved through a REST endpoint and published to the IT2Rail web application or the mobile Travel Companion

# Table 18: Sharing of the data in WP6

#### 7.4 ARCHIVING AND PRESERVATION

Code	Archiving and preservation	
ITR-6.1	Current Weather data	Data stored within LEONARDO server





ITR-6.2	Weather forecast data	Data stored within LEONARDO server
ITR-6.3	Itinerary Offers retrieved from the Mobility Request Manager	Data stored within LEONARDO server
ITR-6.4	TC User Feedbacks regarding Travel Questionnaire	Data stored within LEONARDO server
ITR-6.5	ArrivalDelayEvent	Data stored within LEONARDO server
ITR-6.6	DepartureDelayEvent	Data stored within LEONARDO server
ITR-6.7	ArrivalRulesActivationRequest	Data stored within LEONARDO server
ITR-6.8	DepartureRulesActivationRequest	Data stored within LEONARDO server
ITR-6.9	RuleDeactivationRequest	Data stored within LEONARDO server
ITR- 6.10	User feedbacks for sentiment analysis	Data stored within LEONARDO server
ITR- 6.11	Social Network Messages	Data stored temporary (1 day) within UPC Server.
ITR- 6.12	Train Station Air Quality Data	Data stored within IT2RAIL/CEA server.
ITR- 6.13	Travel Data Messages	Data stored within IT2RAIL/CEA server.
ITR- 6.14	Data mining information	Data stored within POLIMI server
ITR- 6.15	Accesses by BA users to the IT2Rail BA web platform	Data stored within Sofia2 Platform and LEONARDO server
ITR- 6.16	Searches by BA users to the IT2Rail BA web platform	Data stored within Sofia2 Platform and LEONARDO server
ITR- 6.17	Happenings data	Data stored within LEONARDO server
ITR- 6.18	KPIS for Transport Systems	Data stored within LEONARDO server





ITR- 6.19	KPIs for Booking & Ticketing	Data stored within LEONARDO server
ITR- 6.20	KPIs for Preferences of Travellers with Reduced Mobility	Data stored within Sofia2 Platform and LEONARDO server
ITR- 6.21	KPIs on user feedbacks concerning Travel Questionnaire	Data stored within LEONARDO server
ITR- 6.22	KPIs for Travellers' Preferences	Data stored within Sofia2 Platform and LEONARDO server
ITR- 6.23	KPIs based on Trip Tracking Alternative Routes	Data stored within Sofia2 Platform and LEONARDO server
ITR- 6.24	KPIs based on Trip Tracking Complex Event Processing Messages	Data stored within LEONARDO server
ITR- 6.25	KPIs based on Social Network Messages	Data stored anonymised within UPC Server
ITR- 6.26	Calculation of parameters of Train Station Air Quality Data based on Meteorological Data	No preservation. Computed on demand.
ITR- 6.27	Calculation of most Informative Term from Travel data messages	No preservation. Computed on demand.
ITR- 6.28	Calculation of number of co-occurring terms in Travel data messages	No preservation. Computed on demand.
ITR- 6.29	Calculation of a list of timelines of terms of interest from travel data messages, given a metro line and a time window	No preservation. Computed on demand.
ITR- 6.30	Calculation of properties of preferred television programs in different contexts	Data stored within POLIMI server
ITR- 6.31	KPIs concerning accesses by BA users to the IT2Rail BA web platform	Data stored within Sofia2 Platform and LEONARDO server
ITR- 6.32	KPIs concerning searches by BA users to the IT2Rail BA web platform	Data stored within Sofia2 Platform and LEONARDO server

# Table 19: Archiving and preservation of the data in WP6





# 7.5 DATA MANAGEMENT RESPONSIBILITIES

Code	Data Description	Name of Data Manager	Description of Responsabilities
ITR-6.1	Current Weather data	Guido Mariotta	The data managers verify
		Catherine Minciotti	the availability of the repositories storing data
		Massimo Fratini	ropolitino storing data.
ITR-6.2	Weather forecast data	Guido Mariotta	The data managers verify
		Catherine Minciotti	the availability of the repositories storing data.
		Massimo Fratini	ropolitino otomig udd.
ITR-6.3	Itinerary Offers retrieved from the	Guido Mariotta	The data managers verify
	Mobility Request Manager	Catherine Minciotti	the availability of the repositories storing data
		Massimo Fratini	repeatence storing data.
ITR-6.4	TC User Feedbacks regarding	Guido Mariotta	The data managers verify
	Travel Questionnaire	Catherine Minciotti	the availability of the repositories storing data
		Massimo Fratini	
ITR-6.5		Guido Mariotta	The data managers verify
	ArrivalDelayEvent	Catherine Minciotti	repositories storing data.
		Massimo Fratini	
ITR-6.6		Guido Mariotta	The data managers verify
	DepartureDelayEvent	Catherine Minciotti	the availability of the repositories storing data.
		Massimo Fratini	
ITR-6.7		Guido Mariotta	The data managers verify
	ArrivalRulesActivationRequest	Catherine Minciotti	the availability of the repositories storing data.
		Massimo Fratini	
ITR-6.8		Guido Mariotta	The data managers verify
	DepartureRulesActivationRequest	Catherine Minciotti	the availability of the repositories storing data.
		Massimo Fratini	
ITR-6.9	RuleDeactivationRequest	Guido Mariotta	The data managers verify
		Catherine Minciotti	the availability of the repositories storing data.





		Massimo Fratini	
ITR-6.10		Guido Mariotta	The data managers verify
	User feedbacks for sentiment	Catherine Minciotti	the availability of the repositories storing data.
		Massimo Fratini	
ITR-6.11		Jordi Urmeneta	The data managers verify
	Social Network Messages	Carlos Balufo	the availability of the repositories storing data.
		Josep Lluís Larriba	, specific com g and
ITR-6.12		Lorene Allano	The data managers verify
	Train Station Air Quality Data	Jacques-Henri Sublemontier	the availability of the repositories storing data.
		Fred Ngole Mboula	
ITR-6.13		Lorene Allano	The data managers verify
	Travel Data Messages	Jacques-Henri	the availability of the repositories storing data.
		Sublemontier	
		Fred Ngole Mboula	
ITR-6.14		Matteo Rossi	The data managers verify the availability of
	Data mining information	Elisa Quintarelli	repositories storing data
		Letizia Lanca	and muchananaa
			and preferences.
ITR-6.15	Accesses by BA users to the	Habib Deriu	The data managers verify
ITR-6.15	Accesses by BA users to the IT2Rail BA web platform	Habib Deriu Javier Saralegui Sánchez	The data managers verify the availability of the repositories storing data.
ITR-6.15 ITR-6.16	Accesses by BA users to the IT2Rail BA web platform	Habib Deriu Javier Saralegui Sánchez Habib Deriu	The data managers verify the availability of the repositories storing data.
ITR-6.15 ITR-6.16	Accesses by BA users to the IT2Rail BA web platform Searches by BA users to the IT2Rail BA web platform	Habib Deriu Javier Saralegui Sánchez Habib Deriu Javier Saralegui Sánchez	The data managers verify the availability of the repositories storing data. The data managers verify the availability of the repositories storing data.
ITR-6.15 ITR-6.16 ITR-6.17	Accesses by BA users to the IT2Rail BA web platform Searches by BA users to the IT2Rail BA web platform Happenings data	Habib Deriu Javier Saralegui Sánchez Habib Deriu Javier Saralegui Sánchez Guido Mariotta	The data managers verify the availability of the repositories storing data. The data managers verify the availability of the repositories storing data. The data managers verify
ITR-6.15 ITR-6.16 ITR-6.17	Accesses by BA users to the IT2Rail BA web platform Searches by BA users to the IT2Rail BA web platform Happenings data	Habib Deriu Javier Saralegui Sánchez Habib Deriu Javier Saralegui Sánchez Guido Mariotta Catherine Minciotti	The data managers verify the availability of the repositories storing data. The data managers verify the availability of the repositories storing data. The data managers verify the availability of the repositories storing data.
ITR-6.15 ITR-6.16 ITR-6.17	Accesses by BA users to the IT2Rail BA web platform Searches by BA users to the IT2Rail BA web platform Happenings data	Habib Deriu Javier Saralegui Sánchez Habib Deriu Javier Saralegui Sánchez Guido Mariotta Catherine Minciotti Massimo Fratini	The data managers verify the availability of the repositories storing data. The data managers verify the availability of the repositories storing data. The data managers verify the availability of the repositories storing data.
ITR-6.15 ITR-6.16 ITR-6.17 ITR-6.18	Accesses by BA users to the IT2Rail BA web platform Searches by BA users to the IT2Rail BA web platform Happenings data KPIS for Transport Systems	Habib Deriu Javier Saralegui Sánchez Habib Deriu Javier Saralegui Sánchez Guido Mariotta Catherine Minciotti Massimo Fratini Guido Mariotta	<ul> <li>and preferences.</li> <li>The data managers verify the availability of the repositories storing data.</li> <li>The data managers verify the availability of the repositories storing data.</li> <li>The data managers verify the availability of the repositories storing data.</li> <li>The data managers verify the availability of the repositories storing data.</li> </ul>
ITR-6.15 ITR-6.16 ITR-6.17 ITR-6.18	Accesses by BA users to the IT2Rail BA web platform Searches by BA users to the IT2Rail BA web platform Happenings data KPIS for Transport Systems	Habib Deriu Javier Saralegui Sánchez Habib Deriu Javier Saralegui Sánchez Guido Mariotta Catherine Minciotti Massimo Fratini Guido Mariotta Catherine Minciotti	The data managers verify the availability of the repositories storing data. The data managers verify the availability of the repositories storing data. The data managers verify the availability of the repositories storing data. The data managers verify the availability of the repositories storing data.





ITR-6.19	6.19 KPIs for Booking & Ticketing Habib Deriu		The data managers verify
		Javier Saralegui Sánchez	the availability of the repositories storing data.
ITR-6.20	KPIs for Preferences of Travellers	Habib Deriu	The data managers verify
	with Reduced Mobility	Javier Saralegui Sánchez	the availability of the repositories storing data.
ITR-6.21	KPIs on user feedbacks	Guido Mariotta	The data managers verify
	concerning Travel Questionnaire	Catherine Minciotti	repositories storing data.
		Massimo Fratini	
ITR-6.22	KPIs for Travellers' Preferences	Habib Deriu	The data managers verify
		Javier Saralegui Sánchez	repositories storing data.
ITR-6.23	KPIs based on Trin Tracking	Habib Deriu	The data managers verify
	Alternative Routes	Javier Saralegui Sánchez	the availability of the repositories storing data.
ITR-6.24	KPIs based on Trip Tracking	Guido Mariotta	The data managers verify
	Complex Event Processing	Catherine Minciotti	the availability of the repositories storing data.
	Messages	Massimo Fratini	
ITR-6.25	KPIs based on Social Network	Jordi Urmeneta	The data managers verify
	Messages	Carlos Balufo	repositories storing data.
		Josep Lluís Larriba	
ITR-6.26	Colordation of non-motors of Train	Lorene Allano	No computations saved.
	Station Air Quality Data based on	Jacques-Henri Sublemontier	
	Meteorological Data	Fred Ngole Mboula	
ITR-6.27		Lorene Allano	No computations saved.
	Calculation of most Informative	Jacques-Henri Sublemontier	
	i erm from i ravel data messages	Fred Ngole Mboula	
ITR-6.28	Calculation of number of co- occurring terms in Travel data messages	Lorene Allano	No computations saved.





		Jacques-Henri Sublemontier	
		Fred Ngole Mboula	
ITR-6.29		Lorene Allano	No computations saved.
	Calculation of a list of timelines of terms of interest from travel data	Jacques-Henri Sublemontier	
	a time window	Fred Ngole Mboula	
ITR-6.30	Calculation of properties of preferred television programs in different contexts	Matteo Rossi Elisa Quintarelli Letizia Tanca	The data managers verify the availability of repositories storing data and contextual preferences.
ITR-6.31	KPIs concerning accesses by BA users to the IT2Rail BA web platform	Habib Deriu Javier Saralegui Sánchez	The data managers verify the availability of the repositories storing data.
ITR-6.32	KPIs concerning searches by BA users to the IT2Rail BA web platform	Habib Deriu Javier Saralegui Sánchez	The data managers verify the availability of the repositories storing data.

#### Table 20: Data Management Responsibilities in WP6

# 8. DMP OF WP8: DISSEMINATION

# 8.1 DATA TYPES

Existing data used in this WP include the following data types:

Code	Description of Dataset/Digital Output	Units and Format	Size	Ownership
ITR-8.1	Images: Images and logos from partners participating in the project.	.eps, .ai, .png, .jpeg	Variable	The owner gives permission to UNIFE to use images for dissemination purposes of IT2Rail.





ITR-8.2	Database of Advisory Board: This database contains data such as name, e-mail, company, telephone and field of expertise of the partners participating in the Advisory Board.	.xls, .doc	<ul><li>≈ 14 people in the contact list</li></ul>	The data will be kept in the UNIFE and UITP servers and is also included in deliverable D8.9.
ITR-8.3	Database of End Users Expert Group: This database contains data such as name, e-mail, company, telephone and field of expertise of the partners participating in the Expert Group.	.xls, .doc	<ul> <li>≈ 15 people in the contact list</li> </ul>	The data will be kept in the UNIFE and UITP servers and is also included in deliverable D8.8.
ITR-8.4	Database of Ethical Privacy and Security Expert Group: This database contains data such as name, e-mail, company, telephone and field of expertise of the partners participating in the Expert Group.	.xls, .doc	≈ 5 people in the contact list	The data will be kept in the UNIFE and UITP servers and is also included in deliverable D8.8.

#### Table 21: Existing Data used in WP8

Please consult the UITP's Privacy Policy (http://www.uitp.org/privacy-policy) to find out more about how UITP handles personal data.

# 8.2 STANDARDS, METADATA AND QUALITY ISSUES

The pictures and logos are stored in common formats: vector image formats and picture compression standards.

#### 8.3 DATA SHARING

Code	Data sharing
ITR-8.1	The data will not be shared but some of the image database will be used for dissemination purposes and therefore will become public.
ITR-8.2	This data is confidential and only the consortium partners will have access to it.
ITR-8.3	This data is confidential and only the consortium partners will have access to it.





ITR-8.4	This data is confidential and only the consortium partners will have access to it.

#### **8.4 ARCHIVING AND PRESERVATION**

Code	Archiving and preservation
ITR-8.1	Data will be stored on the UNIFE server which is regularly backed up.
ITR-8.2, 8.3 and 8.4	Data will be stored on the UITP server which is regularly backed up.

 Table 23: Archiving and preservation of the data in WP8

#### **8.5 DATA MANAGEMENT RESPONSIBILITIES**

Code	Name of Responsible	Description
ITR-8.1	Stefanos Gogos (UNIFE)	Update and maintenance of the data
ITR-8.2, 8.3 and 8.4	Cristina Hernandez (UITP, Project manager)	Update and maintenance of the data related to the project

 Table 24: Data Management Responsibilities in WP8

# 9. CONCLUSIONS

The purpose of the Data Management Plan is to support the data management life cycle for all data that will be collected, processed or generated by the IT2Rail project. The DMP is expected to be updated after the final review, to fine-tune it to the data generated and the uses identified by the consortium since not all data or potential uses might be considered before then.