

Viability analysis on the harmonization of common data type categories for the road and public transport network

HARMONY



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POLITÉCNICA

With the support of: 

Coordinator: **INDRA**

Starting date: **1/11/2015**

Duration: **36 months**

Action: **Study with pilot**

Location: **Madrid (Atlantic Corridor)**

www.harmony-project.com



Co-financed by the European Union
Connecting Europe Facility



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HARMONY OBJECTIVES

*"HARMONY address the **compatibility, interoperability and continuity of ITS solutions** across EU by developing standards and harmonising Multimodal Information Systems and Services (MISS)"*

The four main objectives of HARMONY are to:

- Contribute to **accelerate the deployment** of Multimodal Information Services in Madrid
- Ease and automate the **exchange of information** among different actors and systems.
- Contribute to the **standardization** of data set, interfaces, control systems...
- Provide **feedback and guidelines** to other European cities and regions to propose new business models.

STAKEHOLDERS PLATFORM

The stakeholders platform is an open group of **traffic and transport experts** interested in the project activities. This group:

- Establishes a **working liaison** between the different parties of the transport domain involved
- Represent an effective channel to **disseminate and promote** project results, creating awareness of the action
- Creates an **open dialogue** with a view of creating realistic strategies between research, industry and administration

1st STAKEHOLDERS PLATFORM MEETING

MADRID, 18th May 2017



1st STAKEHOLDERS PLATFORM WORKSHOP

MADRID, End of 2017



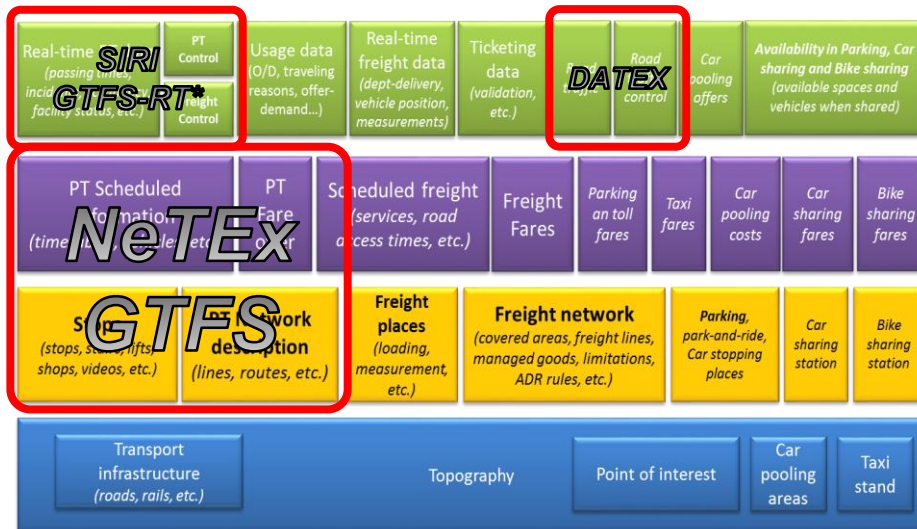


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STANDARDISATION STUDY

HARMONY promote and provide with tools to foster the use of **standards proposed by the European Commission** and European standardization groups:

- **DATEXII** for the exchange of information between different control centers.
- **NETEX** beyond the widely extended de-facto standard GTFS, for the static data of the public transport
- **SIRI** as the preferable interface for the real-time public transport information



DEMONSTRATION



3 Multimodal Information Services are deployed in **Madrid**:

Public Transport Management



Mechanisms to **collect** data from different public transport operators and to **share** it with other operators and traffic authorities following European standards

Urban traffic monitoring



Integration of traffic information with **public transport** information improving the monitoring capacities and the performance of the public transport

Real-time transit information



Provision of real-time **transit information** to the citizens, as well as a **data input interface** for the traveler to provide information



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PILOT: Multimodal Information Service in the North of Madrid

Incremental 4 phase deployment:

1

Static data of public transport

NETEX/GTFS

- Network topology
- Scheduled services
- Route information

2

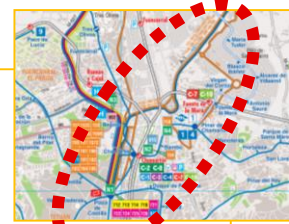
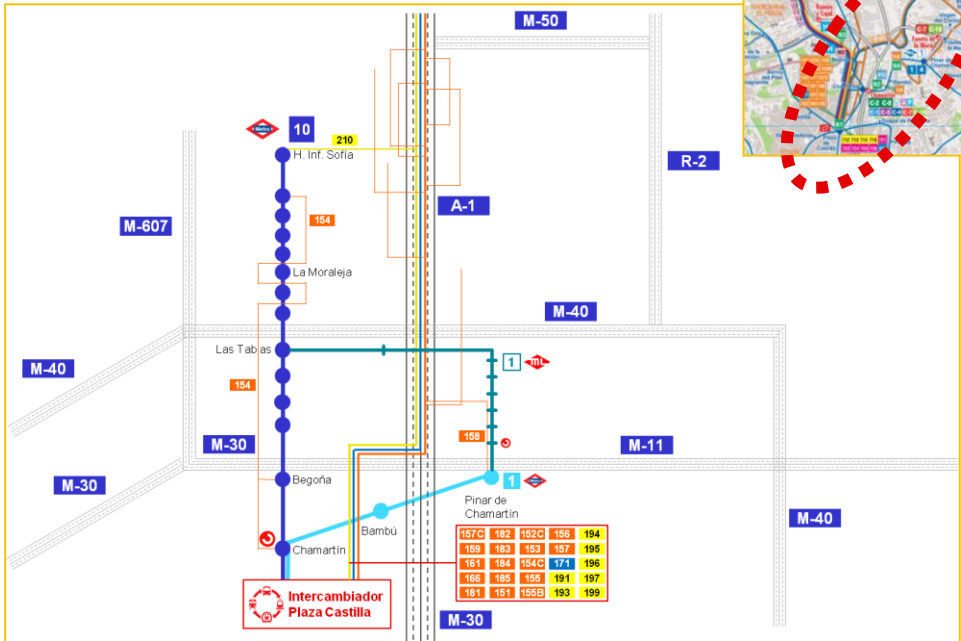
Dynamic data of public transport

GTFS-RT

- Trip updates
- Service alerts
- Vehicle positioning

SIRI

- Stop Monitoring Service
- General Messaging Service
- Estimated Timetable Service
- Vehicle Monitoring Service
- Situation Exchange Service



Transport data

Bus lines

157C	182	152C	156	194
159	183	153	157	195
161	184	154C	171	196
166	185	155	191	197
181	151	155B	193	199

Metro lines

10 1 1

Railway lines

C4 C10

Public Roads

A1 M-607 M40

3

DATEX II

Traffic incidents

- Traffic congestion
- Accident
- Adverse weather conditions
- Roadworks/Narrowed lane
- Lane closed
- Sport events

4

OPEN DATA

Citizen information

- Service Incidents
- Route incidents
- Traffic incidents
- Service validation

