RegioneEmilia-Romagna lepidaspa

Local Public Transport, Mobility and Integrated Cycle Department

REFORM

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LepidaSpA
An in-house providing company for digital innovation

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16 May 2018 | Nicosia, Cyprus

LepidaSpA: an in-house providing company for digital innovation

LepidaSpA:

- is **100% public** and Regione Emilia-Romagna is the majority shareholder;
- Was created on the 01/08/2017 and is **operating since 2008**;
- Has a **social capital of 65.526.000,00 euro**;
- Has **436 shareholders** (public bodies of different kinds).

LepidaSpA is the operational tool, promoted by Regione Emilia-Romagna, for the **design, construction and operation of ICT** infrastructures and telematic services that exploit ICT infrastructures, for shareholders and for entities connected to the Lepida Network.

The merger process with CUP2000 has begun.

Projects related to mobility and transportation

LepidaSpA's Research & Development team is working on four projects related to mobility and transportation:

- **WifER**: installation, operation and maintenance of public WiFi access points on regional trains
- **Regional stored-value contactless smartcard** for public transportation: supporting Regione Emilia-Romagna through the design and implementation of a clearing system for integrated ticketing
- **Mobile ticketing app** with NFC validation
- **Regional real time Travel Planner**: design, implementation and operation of a system for the collection of infomobility data for feeding travel planning systems

2014-2020

ERDF-ROP AXIS 4: INTELLIGENT TRANSPORT SYSTEMS

POR-FESR AXIS 4

ACTION 1

Regional Real-Time Travel Planner

Budget: € 300.000

ACTION 2

On-board contactless card payment system for e-ticketing

Budget: € 3 mln

ACTION 3

Improvement of **accessibility** and **security** through **PIDS** (passenger information display systems) and **video surveillance** at local railway stops

Budget: € 1.5 mln

ACTION 4

Installation of **on-board PIDS** on buses, development of **NFC mobile ticketing**, facilitation of modal split interchange

Budget: € 5.4 mln

ACTION 5

purchase of 70 low carbon footprint buses

Budget: € 13 mln

POR-FESR 2014-2020 AXIS 4

ACTION 1

REGIONAL REAL-TIME TRAVEL PLANNER

Background

The Travel Planner project relies on the GIM (*Informed Mobility Management)* infrastructure.

Overview of the GIM project:

- 11 partners (regions and local administrations)
- Installation of 1066 AVM (Automated Vehicle Monitoring devices)
- 180 passenger information displays at bus stops
- 55 road information displays
- Implementation of a regional-level *integrated public transport operations center* (COIM)
- Budget: € 6.5 mln

AVM devices

Overview of AVM system architecture

- On-board AVMs use GPS localisation
- AVMs communicate the bus position to the company's servers through cellular connectivity
- The companies use the information for business intelligence, delay estimates, public information displays
- The companies relay the operations center (COIM)

COIM: integrated public transport operations center

The COIM:

- collects planned and real time information from the companies' data feeds
- Provides an integrated view of information at regional level
- Provides reporting features for data analysis and statistical documentation
- Helps the **decision making** process
- **Provides interfaces for reusing planned and real time data**

The case for live transit data

In 2011 Google Maps began providing real time information via its Transit feature, other companies followed soon.

Research has shown that providing real time information is beneficial in:

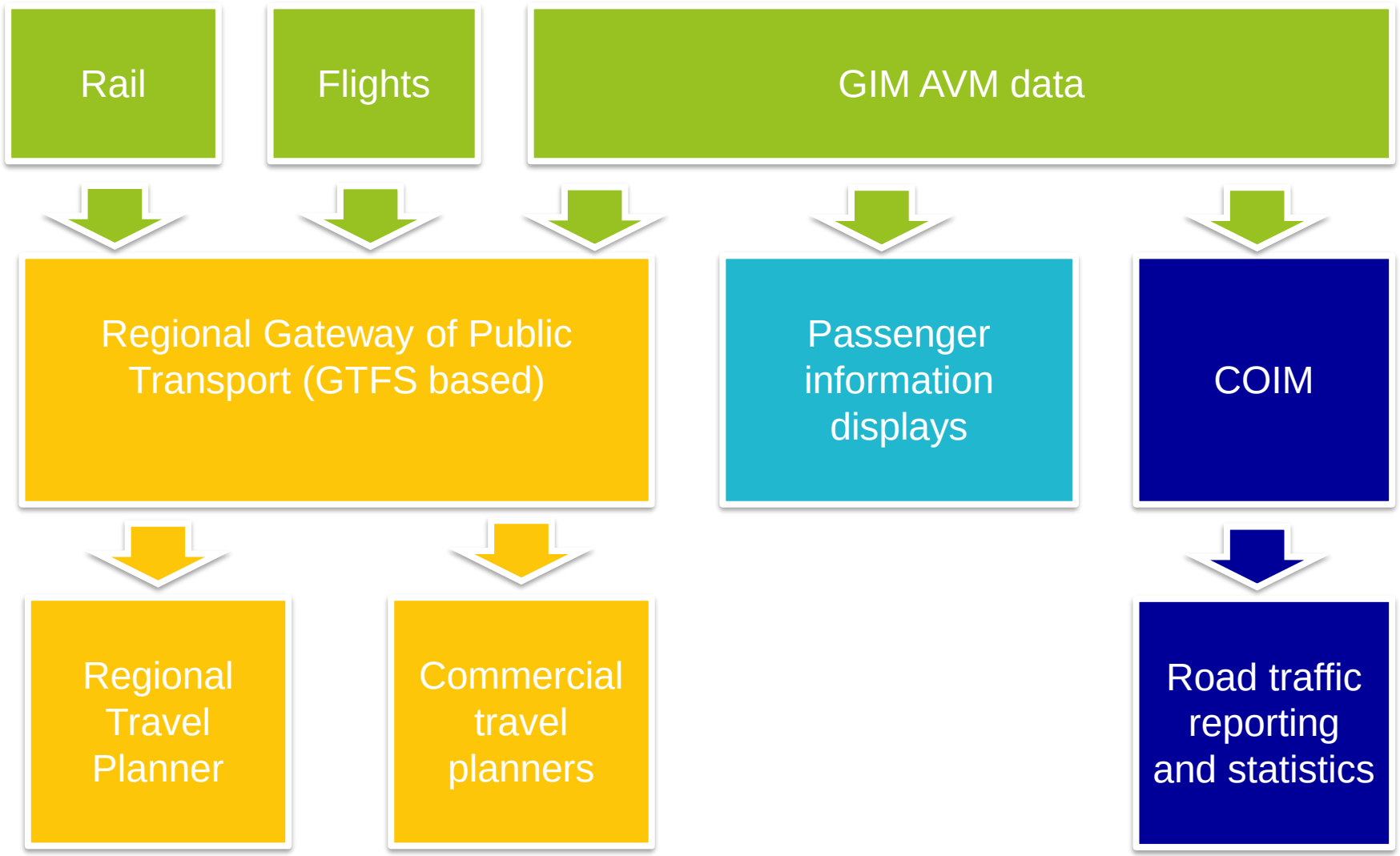
- making public transport more attractive to passengers;
- Improving reliability, which is especially relevant for those who rely on public transport for work;
- Improving the number of passengers

Users demand for **high quality information services** on public transport.

The next step

- The “modern” approach to live transit data involves the production of massive amounts of delay estimates.
- Thus the need to implement a **specialised gateway** for managing **real time data** provided by the GIM infrastructure on a larger scale.
- The new infrastructure should integrate **multiple data sources**:
    - GIM **AVM** data (road traffic)
    - **Railway** traffic data
    - **Flight** data

Travel Planner architecture



A new model of data governance

The first goal of this project is to better define the role of the Region in the infomobility ecosystem.

The **Region** should stand as a body capable of:

- **Defining policies** for the sharing and integration of data
- Involving the data providers
- Encouraging the development of tools for data collection

The **transit agencies** have a deep knowledge of the transport network and its operation and they should stand as bodies capable of:

- Provide high quality data at high frequency and availability

LepidaSpA designs and implements the tools for data collection, promoting the standardisation, publishing and monitoring the supply of data.

Challenges

- Improving the **governance** of data
- Providing citizens, institutions, developers with **reliable** and **complete** data
- Fostering **innovation** by providing the foundation for creative new developments

POR-FESR AXIS 4

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NFC Mobile Ticketing

LepidaSpA is working with **TPER** (the transit agency operating public transport service in Bologna and Ferrara) towards the integration of all the regional public transport operators into a single app.

The app will be part of the Mi Muovo fare integration project.

Stored-value contactless smartcard goals

The main goals of the project are:

- Make it **easier** for all passengers to buy tickets
- Ensuring the availability of tickets, especially during **off business hours**
- Ensuring the availability of **less requested types of tickets**

Clearing system

- Store-value cards will be sold by the transport agencies
- The card will be **usable in the whole region**
- Periodically the agencies will provide **validation data** to LepidaSpA
- The clearing system being developed by Lepida will output the information needed for the clearing process

Thank you

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Project smedia