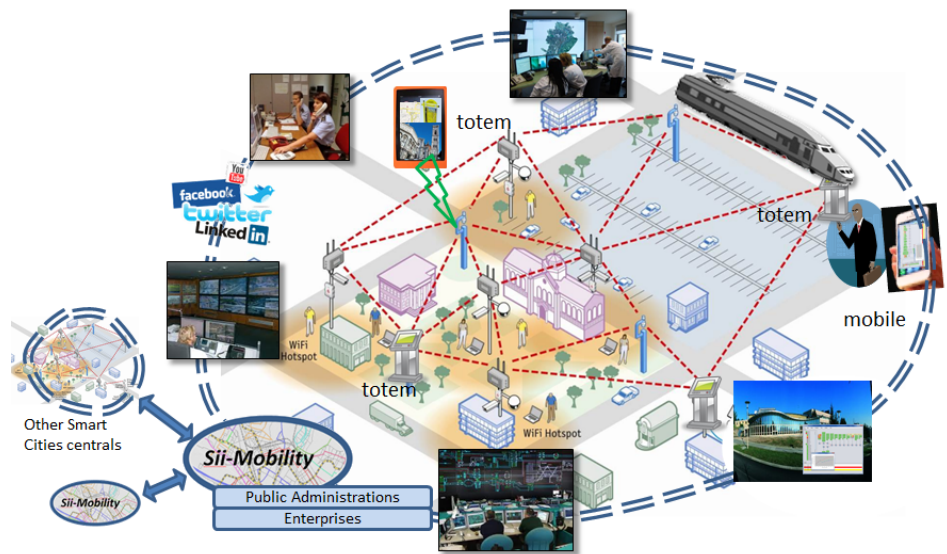


Support of Integrated Interoperability for Services to Citizens and Public Administration
Smart City: Transport and Terrestrial Mobility
<http://www.disit.dinfo.unifi.it/siimobility.html>

Terrestrial transportation systems become more and more affected by congestion situations due to situations which cannot be easily foreseen. The local transportation system features high social costs related to the citizens' uneasiness with respect to the available mobility solutions due to **scarce interoperability and intelligence** among: management and monitoring transport systems; services for mobility; services and systems for goods transportation; ordinances and public services (such as hospital, centres, museums, ...); private transport, rail transport, car parks, and the people that moves, because the limited capacity of the system to incorporate and react to changes in the city and citizens.

Other open problems: determining the flow of people on the move, the collection of environmental data and flow of citizens with low-cost and mobile systems, the proximity to use citizens as sensors to measure the quality of services and their satisfaction, the supply of *connect drive services*, the ability to provide information for distance and trajectory contextualised to local social policies, the dynamic management of the geometry of the entrance areas, personalized management of access policies.



Sii-Mobility aims to solve:

- ✓ **Guidance solutions Connected (connect drive, smart drive or walk):** customized services, traffic control, sending messages on board, get on board the vehicle customized controls and info;
- ✓ **Platform of participation and awareness:** to receive information from the citizen, the citizen as intelligent sensor, but also to inform and educate citizens through totem, mobile applications, web applications, etc.
- ✓ **personalized management of access policies:** incentive and deterrence policies of the vehicle use, mobility Credits, flows monitoring;
- ✓ **interoperability and integration of management systems,** contribution to standards, testing and data validation, data reconciliation, etc..;
- ✓ **integration of methods of payment and identification:** pay-per-use policies, user behaviour monitoring;
- ✓ **dynamic management of the LTZ boundaries:** Changes in the boundaries of the restricted areas (pollution, congestion, ...), dynamic pricing for vehicles category;
- ✓ **management of a shared network for data exchange:** Data Reliability and responsibilities separation, Interfacing and open

Tuscany is the first region in Italy for its size and complexity of public transport in terms of transport and infrastructure. **The first application and trial** is mainly taking place in the areas of Tuscany region, supporting the mobility of millions of travellers, millions of Km of public transportation services, thousands of busses, hundreds of municipalities, thousands of data sets, etc.

data;

- ✓ real-time monitoring of supply and demand of public transport: integration and data processing solutions.

Sii-Mobility objectives are:

- ✓ the reduction of social costs of mobility
- ✓ to simplify the use of mobility systems
- ✓ developing working solutions and application, with testing methods
- ✓ to contribute to standardisation organs, and establishing relationships with other smart cities' management systems

Public Administrations. Sii-Mobility consists in a federated/integrated interoperable solution aimed at enabling a wide range of specific applications for private services to citizen and commercial services to SME.

The **Sii-Mobility** project is going to work on enabling technologies for smart city and mobility, to integrate and produce the **SII, Support of Integrated Interoperability service and framework**: big data system for decision support, monitoring interface, ticketing, etc., and support for Data Analytics and Intelligence based on data collected from local data station, from Public Administration, from social media, participative portals, and crowd sourcing, etc. This module also includes the ability to accept the submission (from public administration and SMEs) of additional specific algorithms that can produce new services for applications, to other Smart City control center, to national transport platform.



Additional technical elements developed in Sii-Mobility are: *data mining and aggregation modules, sensors and actuators, vehicular kits, participative platform for final users, mobiles applications, API for exploiting the framework, totem and applications for infomobility and innovative smart city application exploiting the Sii-Mobility data framework and tool.*

The **Sii-Mobility** project is coherent to Horizon 2020 program of the European Commission, Challenges for the Society, Smart Transport, green and integrated transport, ITS. Sii-Mobility partners include industry leader in the sector, several PMI, excellent research institutions, and established agreement with public administrations. Sii-Mobility is connected with the national Technological Cluster on Transport and the Tuscany District on Train and transport technologies.

Profile: Smart City Project of about 22 Meuro of costs

Technical-scientific coordinator:
Paolo Nesi, UNFI
e-mail: paolo.nesi@unifi.it

Main Partners: ECM; Swarco Mizar; Università di Firenze; Inveni In20; Geoin; QuestIT; Softec; T.I.M.E.; LiberoLogico; MIDRA; ATAF; Tiemme; CTT Nord; BUSITALIA; A.T.A.M.; Sistemi Software Integrati; CHP; Effective Knowledge; eWings; Argos Engineering; Elfi; Calamai & Agresti; KKT; Project; Negentis.