IL PROGETTO SUPERHUB:
Big Data per la Pianificazione Sostenibile della Mobilità nelle Smart Cities del Futuro

Rome, Italy
October 17, 2013
SUPERHUB: AN EU PROJECT (FP7)

SUstainable and PERsuasive Human Users moBility in future cities.

A new ecosystem of urban and metropolitan mobility services.

1. Provide a centralized solution for multi-modality, integrating real-time information coming from heterogeneous mobility services.

2. Build an open source platform that will enable the creation of a new ecosystem for mobility solutions.

3. Increase the adoption of public transport and more sustainable mobility habits.

4. Engage citizens to be part of the solution.

5. Promote the setting and monitoring of urban mobility policies.
SUPERHUB: MAIN FEATURES

Web App

Mobile App

Policy Framework
SUPERHUB: MAIN FEATURES

**Web App**

Welcome to SUPERHUB!

Join SUPERHUB

**Mobile App**

Policy Framework

Big Data

- Decrease the frequency of road accidents
- Reduce congestion frequency
- Reduce emissions
- Increase public transport usage
- Improve road safety
- Enhance traffic management
- Promote sustainable transport modes

Policy Evaluation SUPERHUB

- Description
- Value
- Objective
- Success
- Evolution

- Decrease the frequency of road accidents
  - Courtesy of accidents: 3, 5, 100%
- Environmental
  - Courtesy of the reduction in emissions
  - Courtesy of periods with low traffic, obtained from CCTV data
  - Courtesy of periods with heavy traffic, obtained from road networks
SUPERHUB: MAIN FEATURES

- Web App
- Mobile App
- Policy Framework

- Mobility Data
- Statistical Data
- City Data
- Situational Data
SUPERHUB: MAIN FEATURES

- **Web App**
  - Welcome to SUPERHUB!
  - The Project
  - Join SUPERHUB

- **Mobile App**
  - My Profile
  - Utility

- **Policy Framework**

**BIG DATA**

- **Mobility Data**
  - Public Transport
  - Car/Bike Sharing
  - Car Pooling

- **Statistical Data**
  - Demographic
  - Car Emissions

- **City Data**
  - City Maps
  - POIs
  - Parks Info

- **Situational Data**
  - Disruptive Events
  - Weather
  - Traffic / Mobility
SUPERHUB: MAIN FEATURES

Policy Framework

Mobility Data
- Traffic / Mobility
- Disruptive Events
- Weather
- Traffic / Mobility

Statistical Data
- Public Transport
- Car/Bike Sharing
- Car Pooling
- Demographic
- Car Emissions

City Data
- City Maps
- POIs
- Parks Info

Situational Data
- From GPS Users’ Data
- From Social Networks Data
- From Cellular Networks Data

Web App

Mobile App
SUPERHUB: MAIN FEATURES

Policy Framework

Web App

From GPS Users’ Data

5GB per day

4,000,000 records per h

Mobile App

From Social Networks Data

1MB per s

Mobility Data

From Cellular Networks Data

Public Transport

Car/Bike Sharing

Car Pooling

Demographic

Car Emissions

City Maps

POIs

Parks Info

Disruptive Events

Weather

Traffic / Mobility
DESCRIBING FLOWS ON SUBWAY STATIONS:
(Big Snow Event - 11 February 2013)

People counting based on Vodafone Network measurements

More than usual underground users

+21% vs 25 Feb 2013
+15% vs 18 Feb 2013
+5% vs 04 Feb 2013

Cadorna Underground Station
DESKIBING POINTS OF INTEREST:
(Football match, Milan vs Barcelona - 20 Feb 2013)

People Count: 9.000 (3G Vodafone)
(75.000 total spectators)

Match Start

Milan, First Goal Opportunity

Milan 1 / Barca 0

Milan 2 / Barca 0

Users Flow on Milan Stadium
TRAFFIC PREDICTION:
(Milan, 15 May 2013 - 18.00)
TRAFFIC PREDICTION:
(Milan, 15 May 2013 - 19.00)
TRAFFIC PREDICTION:
(Milan, 15 May 2013 - 20.30)
THANK YOU FOR THE ATTENTION

superhub-project.eu

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