



**Towards a Future Internet PPP:  
2<sup>nd</sup> Usage Area workshop**

**Brussels, 21 - 22 June 2010**

## PROPOSED SCENARIO

- ✓ Urban mobility assistance system, including support for:
  - People, using private and public transport, parking and any other services
  - Carriers and logistic operators, during their usual activity in the city
  - Utilities and other services companies
  - Administration and public transport operators

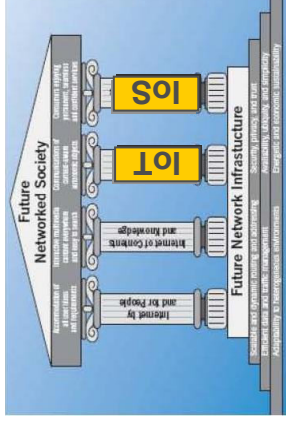
### ✓ Why this scenario ?

- Most people lives in cities
- Urban pollution is mostly caused by transport
- Outcoming electric vehicle usage
- Growing importance of e-commerce, home delivery and last mile logistics
- Urban tTourism and commerce is a challenging scenario for FI paradigm
- Good telecom infrastructure
- Availability of mobile and web-enabled devices



## INNOVATIVE INTERNET FUNCTIONALITY & TECHNOLOGIES

- ✓ *FI pillars: IoT, IoS*
- ✓ *Technologies*
  - *Acquiring data from real world:*
    - *Context awareness techniques*
    - *Location services*
    - *Identification techniques and identity management*
    - *Wireless sensor networks technologies*
  - *Getting and sharing information:*
    - *Information interoperability*
    - *Data aggregation and data mining*
    - *Real time distributed data/event processing*
    - *Social web technologies*
  - *Anywhere, anytime, any path:*
    - *Mobility management*
    - *Communication interoperability*
    - *QoS communication*
    - *Service architecture*
  - *In a secure and trustful way:*
    - *Security by design and by default (AAA, secure payment, user privacy)*



## CORE PLATFORM FUNCTIONALITIES

### ✓ Common

- *Effective data mining techniques*
- *Context management*
- *Service creation, discovery and composition (also for mobile devices)*
- *Real time distributed data/event processing*
- *Wireless Sensor Networks technologies (for massive spread data acquisition)*
- *Accurate indoor and outdoor positioning*
- *Mobility Management (service roaming, session continuity)*
- *QoS communication*
- *Social web technologies*
- *Identification techniques (RFID, QR-codes...) and identity management*
- *User privacy, Secure payment*
- *AAA (authentication, authorization and accounting)*

## CORE PLATFORM FUNCTIONALITIES

- ✓ *Transport, Mobility & Logistics specific*
  - *Personalized, context-aware service creation & provision platform*
  - *Open interface specification for heterogeneous transport and traffic data source integration*
  - *Transport-oriented semantics*
  - *Urban area geographical information (GIS)*
  - *Route planning engines & algorithms*
  - *Traffic modelling, simulation & prediction tools for real time urban planning*
  - *Mobility patterns analyzing tools*
  - *Cooperative systems (V2X)*



## EXPERIMENTATION ENVIRONMENT

- ✓ *Transport Infrastructure and related information*
  - *Transport & logistics infrastructures available*
  - *Multimodal public transport network, with the possibility to access to transport information systems and related services*
  - *Public parking information*
  - *Real time traffic information (legacy systems)*
  - *Public works information*
  - *Environmental information*
- ✓ *Technologic infrastructure*
  - *Global communication network coverage available*
  - *Massive sensor deployment (wireless/ cameras)*
  - *High integration of heterogeneous devices and applications*
  - *Basic service creation & provision architecture*
  - *Interaction through regular devices (mobile phone, PDA, watch...)*



- ✓ *Social & Other Issues*
  - *Engagement of non-technical users*
  - *Active participation of stakeholders*
  - *Groups with special needs should be considered*



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