



CIVITAS FORUM 2016
CIVITAS ANNUAL CONFERENCE | 28-30 SEPTEMBER | GDYNIA



ITS and Smart Mobility in practice: the “on-field” experience of the city of Arezzo

S.Gini, G.Ambrosino (MemEx, IT)

CIVITAS FORUM 2016
GDYNIA, 28-30 September 2016



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Urban Mobility Governance: Main Trends

- **Sustainable Urban Mobility Planning-SUMP**
- **ITS and ICT infrastructures**
- **Qualification and diversification of PT services**
- **Ridesharing schemes (*bike/car sharing, car pooling, etc.*)**
- **Urban logistics services (*last mile distribution, UCC, etc.*)**
- **Electric recharge point**
- **Coordination/cooperation among the involved actors**
- **Integration of different modalities and service interoperability**
- **Data integration, info and booking services,..**
- **Emerging MaaS approach**




One Approach or Model doesn't fit all cities ...
Specially in the case of small and medium historic towns

In any case “Smart Mobility” is based on an efficient and extended (Flexible) Public Transport services

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Main PT ITS and Support measures




**BRT-
Priority
Corridor**


**CONTROL OF SERVICE
RELIABILITY AND QUALITY**



Integration




Interoperability




Accessibility

**AVM, Ticketing and User Info Systems within an
contract/organization/operation framework**



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Integrated transport and mobility services

- Journey times
- Public transport arrival times
- Timetables and routes
- Congestion
- Disruption
- Delays
- Incidents
- Road works
- Events
- Air quality
- Parking spaces
- Mobility options
- Trip scheduling
- Bike availability
- Car pool
- Car share

Sensors, FCD, Loops, Video, CCTV, Social media

Incidents Congestion Air Quality Capacity

Monitor

Mobility Analytics Platform

Open Data

Financial Transactions

Public Transport Payments Parking Off/on street payments Toll/RUC payments



Enforcement Processing

- Urban Traffic Control
- Managed Motorways
- Low emission zones
- Access control
- VMS and diversions
- Network management
- Demand management
- Variable toll
- Car Parking
- Bike hire
- Car share
- Demand Responsive

Business Case Policy KPIs Governance

**Mobility Offer
Fragmented in
terms of
ticket, info,
market,
accessibility
and
coordination
Not able to
provide
integrated
solutions**

- **AVM, e-Ticketing/Smart Card and User information** systems are the base for any smart mobility approach
- **PT technological** scenario is the **fundamental** backbone for data provider, system interoperability and services integration
- Usually, **in Europe**, these systems are **set up by PTO/PTA**
- **PTA and PTO** should paly a key role in MaaS approach

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New mobility services

**The ride sharing model is not new !!
DRT applications are active since the 1996 !!!**

XEROX

- Ride sharing services surely are **alternative to car ownership !!**
- Seen as **“substitutive” rather than complementary** vs PT services (specially in small-medium urban areas)
- **Confirmed by the role of car manufactures** (Daimler, BMW)
- **Bus is the first form of sharing cover up 80% of Urban PT services**

2020 CIVITAS FOR SMARTER CITIES
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Arezzo: a typical Italian small/medium town

South-East Tuscany, 80.000 inhab
 Historic Centre with large pedestrian zone
 Car trips are up 70/80%,
 Parking system plays a key role
 Poor attractiveness of Public Transport
 Relevant touristic flows
 Freight distribution impacts are relevant

ITS in operation:
 E-ticketing, AVM, Access Control, VMS, PMS,
 Traffic sensors, on-road parking system, on-road user information

Bike sharing, electric free floating car sharing,
 electric vans sharing, e recharging points

**Political sensibility for green solutions...
risk of “Political simplicity”**

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Main Mobility Measures (SUMP)

- Incentive to active modalities (pedestrian, bike lanes, bike station, etc.)
- PT services restructuring based on some priority and dedicated corridors (BHLS-LAM)
- Incentives (rules, etc.) to the eco friendly vehicles (people and goods) electric/Hybrid/CNG
- Measures for the good distribution in connection with the parking systems (van sharing)
- Integration parking areas and PT corridors by
 - bike sharing, bike station
 - free floating car sharing
- LEZ and Parking Enforcement measures
- User information pre trip e on trip (apps on smart phone, info at bus stop shelter etc.)
- Incentive measures for PT services

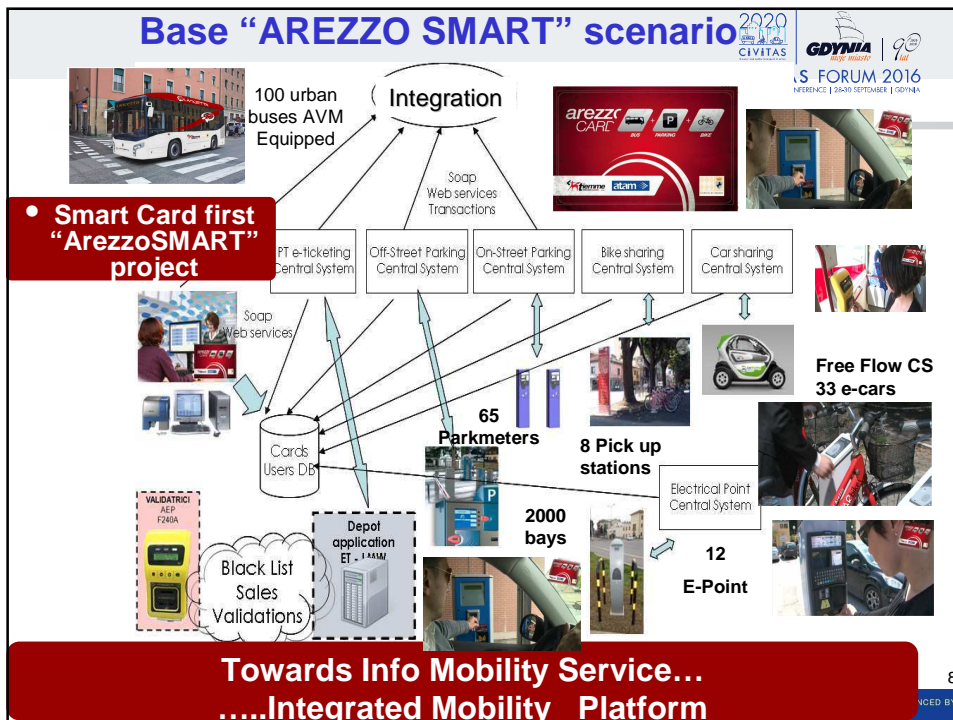


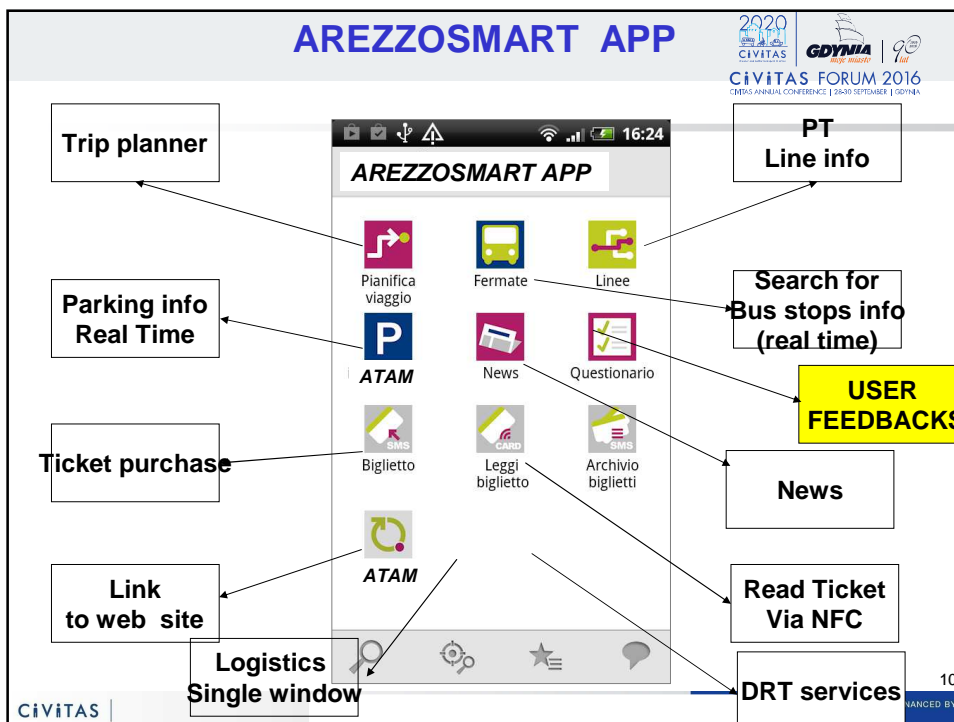
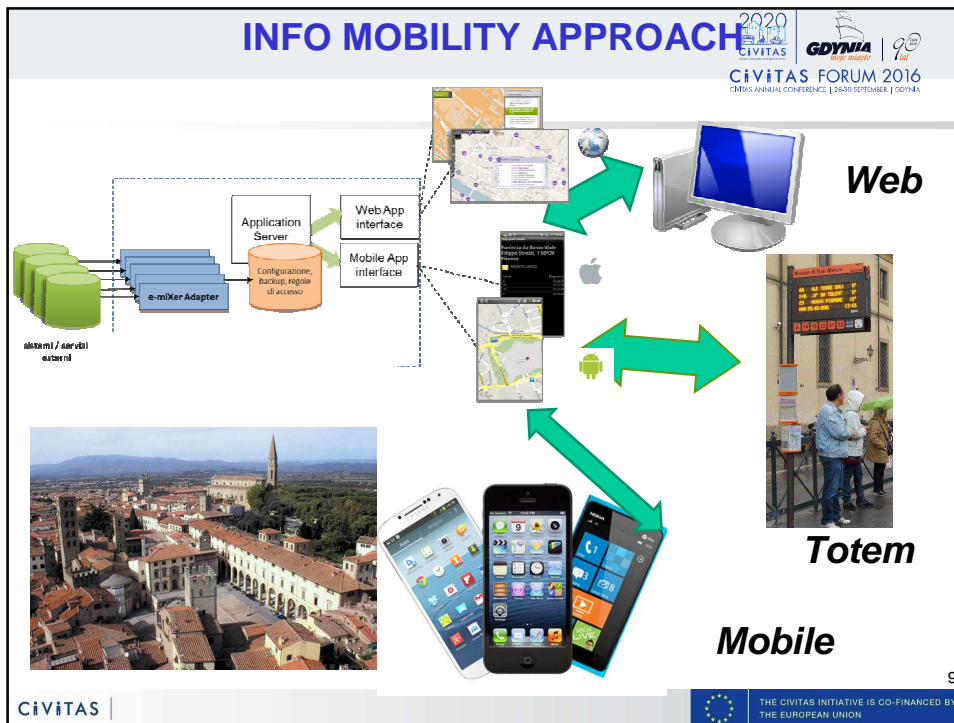
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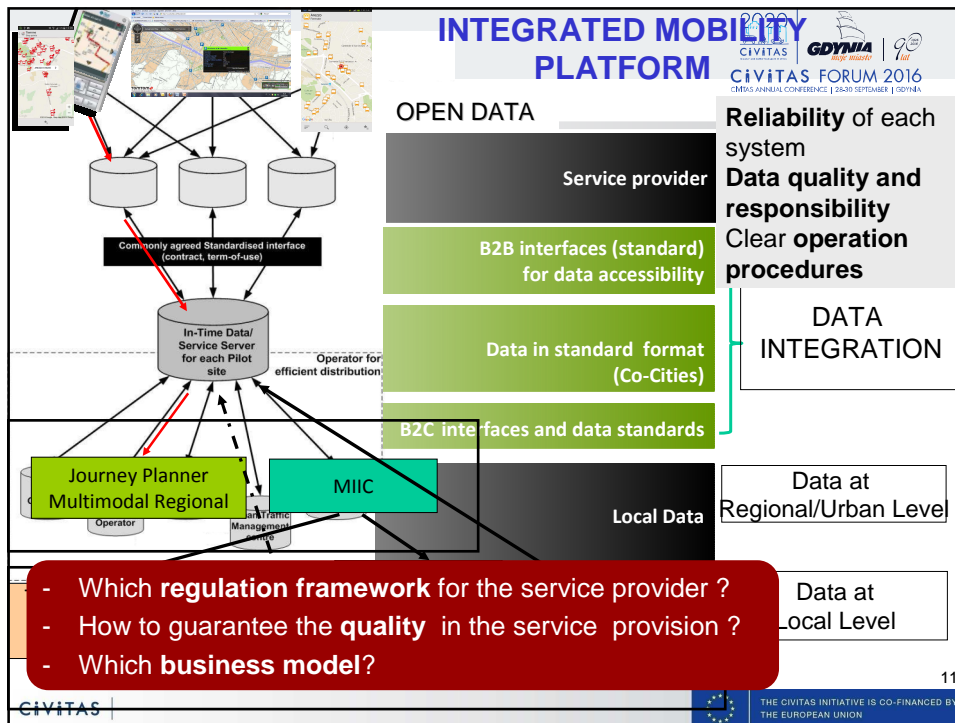


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Base "AREZZO SMART" scenario







ArezzoSmart: Considerations

ITS component

- * The set of ITS systems should be based on a strong organization structure, efficient operation procedures
- * Need of standard interfaces and system performances monitoring
- * Necessary of data certification procedures and contract prescriptions/rules
- * Clear responsibility for the clearing, marketing, open data management
- * Need an ITS plan as part of the Sustainable Urban Mobility Plan

From PTA

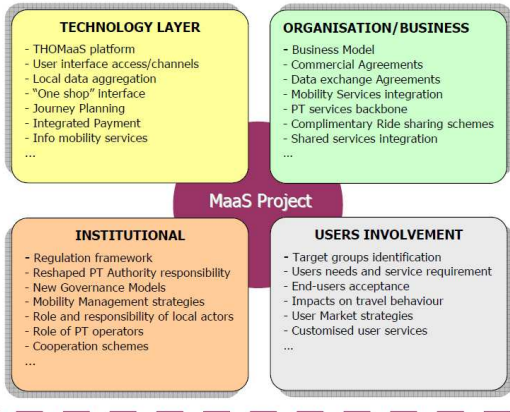
- * Guideline for feasibility study of ITS system and awareness of the complexity
- * Guideline for procurement and methodology for bids evaluation and contracting. Identify the right competence
- * Training courses targeted to “ITS, organization and operation”
- * Which common data and level of integration is necessary ?
- * Which level of coordination among the different operators ?

SMARTAREZZO towards MaaS concept ?

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AREZZOSMART Towards MaaS



- MaaS is a "process" to be realized gradually on current systems/services
- The risk: New "acronym" to hid "unsolved" challenges: organization, operation and costs
- Cooperation among Authorities /Operators
- Role of ICT/system providers not secondary!!

- **PTA and PTO must drive MaaS initiative**
- **Which MaaS for European SM Towns?**

Thank you!

Saverio Gini
 Giorgio Ambrosino
 MemEx, Italy
 giorgio.ambrosino@memexitaly.it



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