Intelligent Transport Systems for fostering sustainable mobility in urban areas

Urban Transport Conference

Brussels, 17th of September 2012

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Contributing to Policy Goals

Policy challenges

Urbanisation

» 2030: 60% of population in cities

Demographic Change

» 65+ generation will nearly double by 2030

Climate Change and Resource Scarcity

» Urban transport responsible for about a quarter of CO2 emissions from transport

Behavioral Change

» Car usage instead of car ownership

» Home delivery of consumer goods

Safety

» 69% of road accidents occur in cities

Estimated potential contributions of ITS to policy goals

Intelligent Transport Systems and Services

for safer, smarter and cleaner mobility

» 30% reduction in fatalities

» 30% reduction in seriously injured persons

» 15% reduction of congestion

» 20% improvements in energy-efficiency *

Most benefits concern urban mobility

** estimates from iMobility Forum for ITS potential contributions (2011-2020) assuming strong implementation efforts*

Examples for Intelligent Transport Services for Urban Mobility

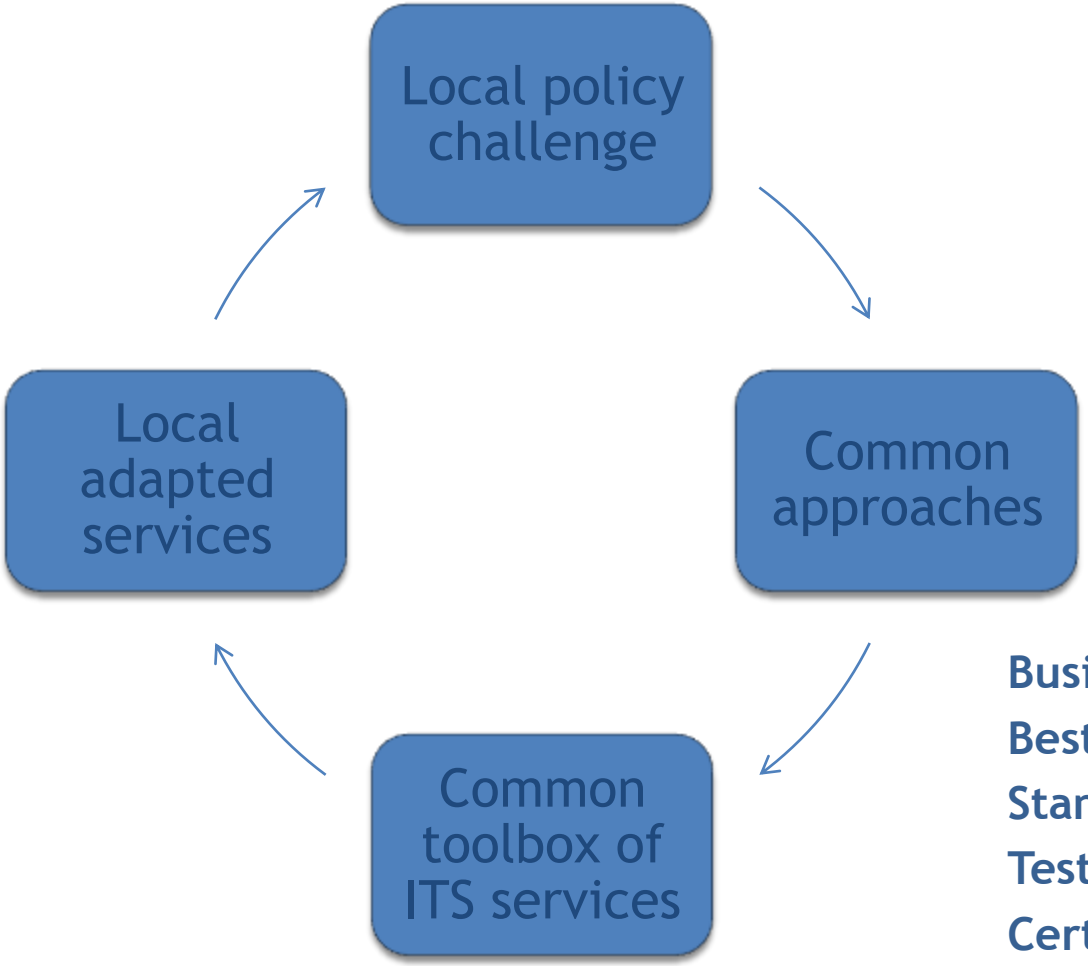
Cooperative Systems

Travel Assistant

Parking Assistant

Smart Logistics

ERTICO initiative: ITS for Urban Mobility



Business models
Best practice
Standards
Testing
Certification

4 examples of current ERTICO projects developing ITS solutions for urban mobility with co-funding by the European Union

Pilot
Intelligent Travel Management

Pilot
Smart Connected Electro Mobility

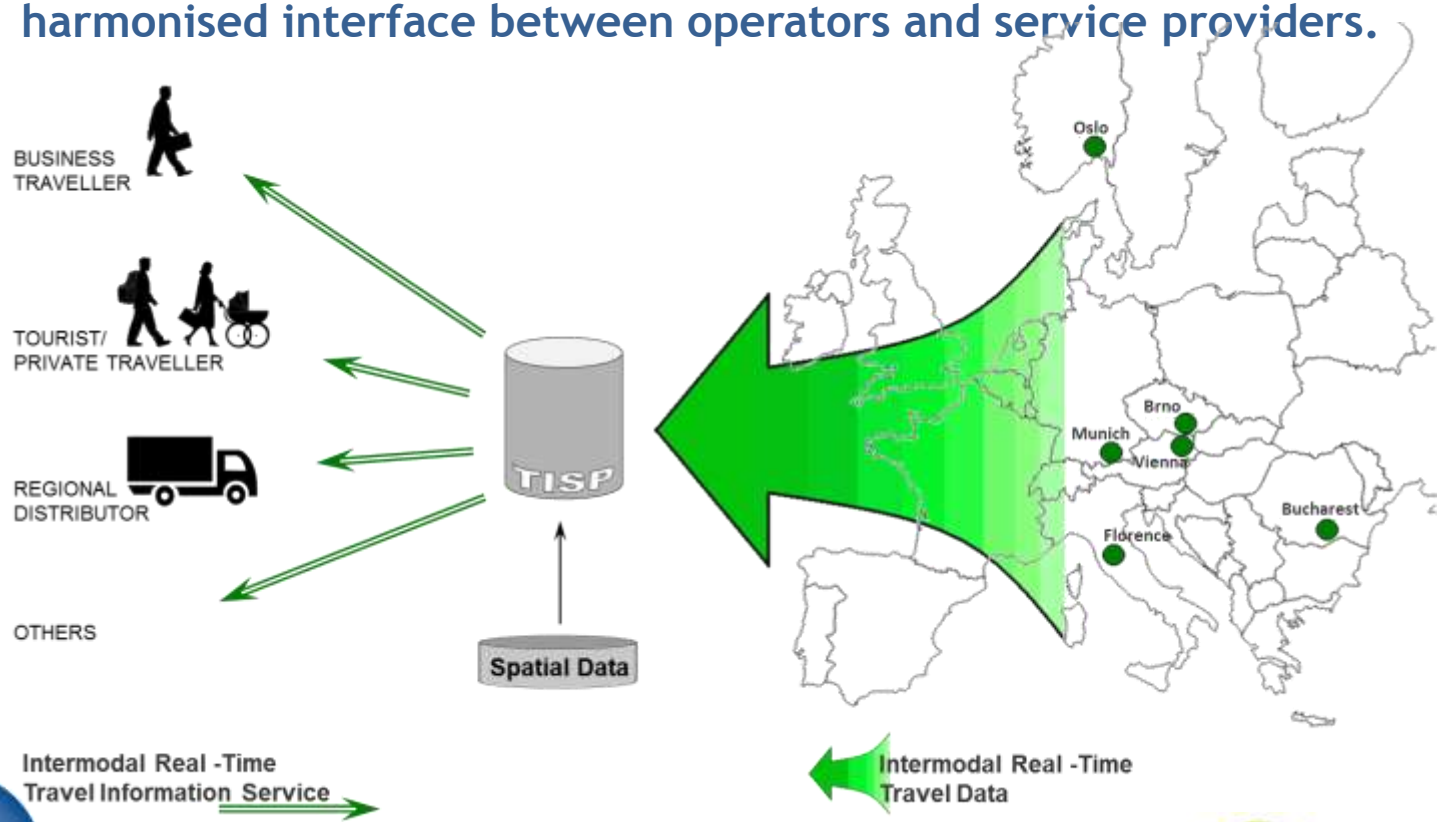
Pilot
Urban Freight Energy Efficiency Services

Test
Vehicle 2 Infrastructure Communication Services

European wide multimodal Traveller Information - In-Time

Goal:

Implementation of a pan-European multimodal Real-Time Travel Information System through the implementation of a standardised harmonised interface between operators and service providers.



European wide multimodal Traveller Information - In-Time

Results:

- The commonly agreed interface definition for B2B data/service exchange is available for free (In-Time package)
- The In-Time interface definition is currently in the standardisation process (CEN / TC278)
- The service is implemented in the partner cities/regions Greater Vienna Region (AT), Southern Moravia (incl. Brno, CZ), Toscani Region (incl. Florence, IT), Bavaria (incl. Munich, GE), Oslo, Bucharest.
- Additionally the In-Time service is going to be implemented in Reading (UK), Bilbao (ES), Prague (CZ)
- The system was used for implementations in the Viajeo cities Sao Paolo (BRA) and Bejing (China)

Smart connected electro mobility - smartCEM

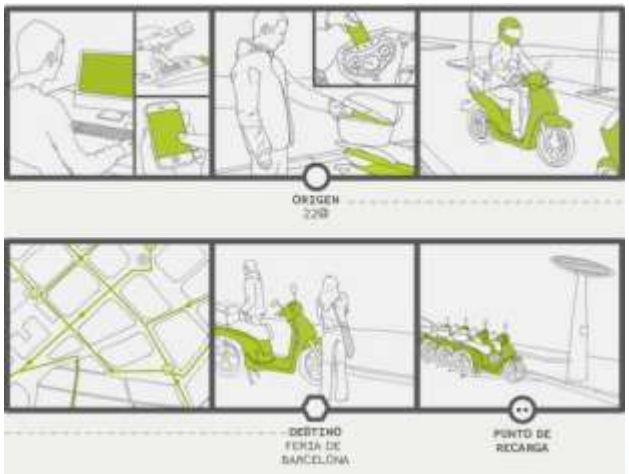
Goals:

» Increase user acceptance of electrical vehicles by 15%

» Evaluate energy efficiency benefits during 1 year of real-life operation

» Ensure sustainable after-project life in Barcelona, Newcastle, San Seb. & Turin

EV optimised eco driving, navigation, trip planning, charging station and car sharing management



Smart connected electro mobility - smartCEM

Current status (duration December 2014):

- Architecture under finalisation
  - Evaluation framework under development
    - Deployment being planned for 100+ electrical vehicles and 500+ charging spots
      - Pilot operation to start mid 2013

Urban freight energy efficiency pilot - FREILOT

Goals:

- » Evaluate energy efficiency benefits during 1 year of real-life operation
  - » Ensure sustainable after-project life in Bilbao, Helmond, Krakow and Lyon
    - » Expand services to additional fleets

Eco driving / Acceleration & speed limiter

Energy efficient intersection control

Delivery Space Booking

Urban freight energy efficiency pilot - FREILOT

Current status (project ends Sept 2012):

- Proven energy savings of 13% on equipped roads
  - Commercialised first cooperative road side unit in Europe
  - First European city operating cooperative service in daily life
    - Expansion: Fleet operator from 5 to 15; Vehicle from 29 to 87
    - Fire brigade and bus fleet incorporated in the operation

Assessment of cooperative systems - DRIVE-C2X

Goals:

DRIVE-C2X provides and evaluate cooperative mobility functions to provide safety and traffic flow related services

Services improving safety

e.g.

- » Road works warning
- » Car breakdown warning
- » Approaching emergency vehicle
- » Emergency electronic brake lights
- » Motorcycle Approaching Indication
- » In-vehicle signage / Speed Limit

Services improving traffic flow

- » Green light optimal speed advisory

Services improving Safety and Traffic Flow

- » Traffic jam ahead warning

Assessment of cooperative systems - DRIVE-C2X

Current status:

- DRIVE-C2X developed an open platform providing Cooperative Mobility functions according to the European standards
  - Harmonized implementation approach
- DRIVE-C2X verified the capability to deploy this platform on different kind of roadside infrastructure and verified the interoperability between Vehicles and Infrastructure
  - Interoperable implementation approach
- DRIVE-2X will carry out an impact assessment of the Cooperative Mobility functions

19th **ITS World Congress**
Vienna, Austria
22 to 26 October **2012**

smarter on the way

The ITS World Congress in Vienna will address these issues at

Ministerial Round Table
(22 October 2012)

and

“ITS for Urban Mobility” day
(24 October 2012)

Thank you