



Città di Bolzano
Stadt Bozen



Advanced traveler information services for improving the way citizens, tourists and companies plan to leave and/or reach the city of Bolzano

Bolzano, Final Event, 24/06/2014



The reason why (1/3)

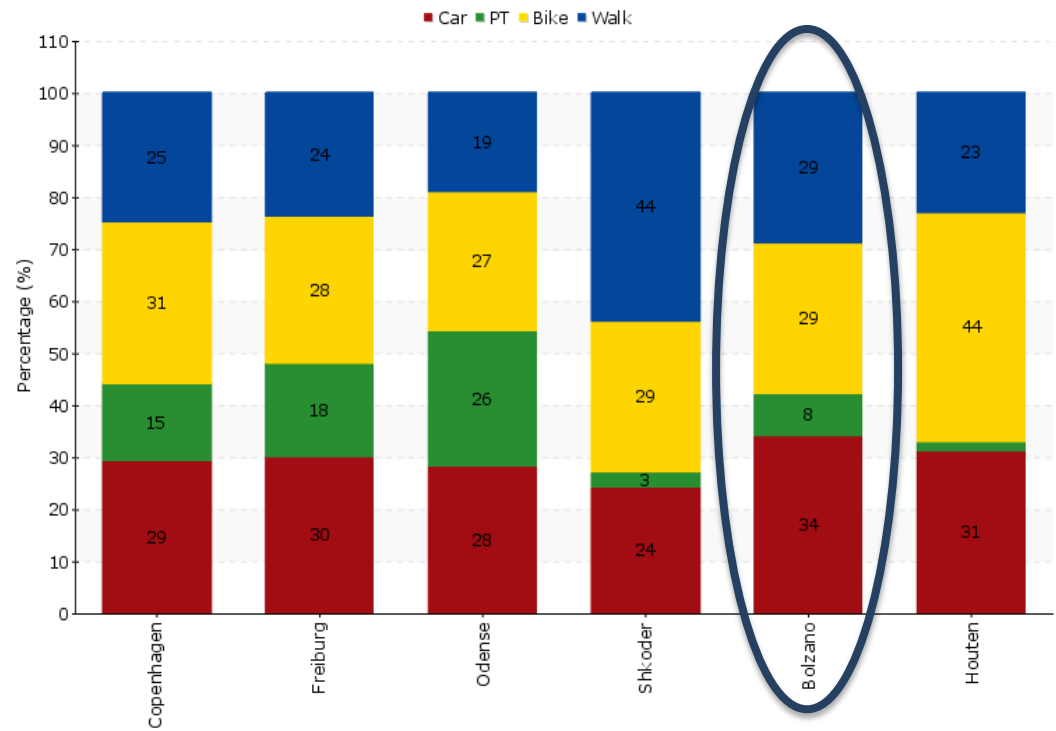
- An alpine environment which naturally limits the **infrastructure capability**.
- A very **high demand** caused by transit flows of people and goods through the Brenner Pass and which is seasonally influenced by tourism.



The reason why (2/3)

High **sustainable mobility culture** in the city, created thanks to several “green” measures introduced in the years by the municipality.

But what happens when the equilibrium is altered?



The reason why (3/3)

Heavy congestion phenomena, in particular during mobility demands peaks from external centroids.



The introduction of **accurate ATIS** is in the condition to increase the stability of a transportation system and reduce the effects of these perturbations.



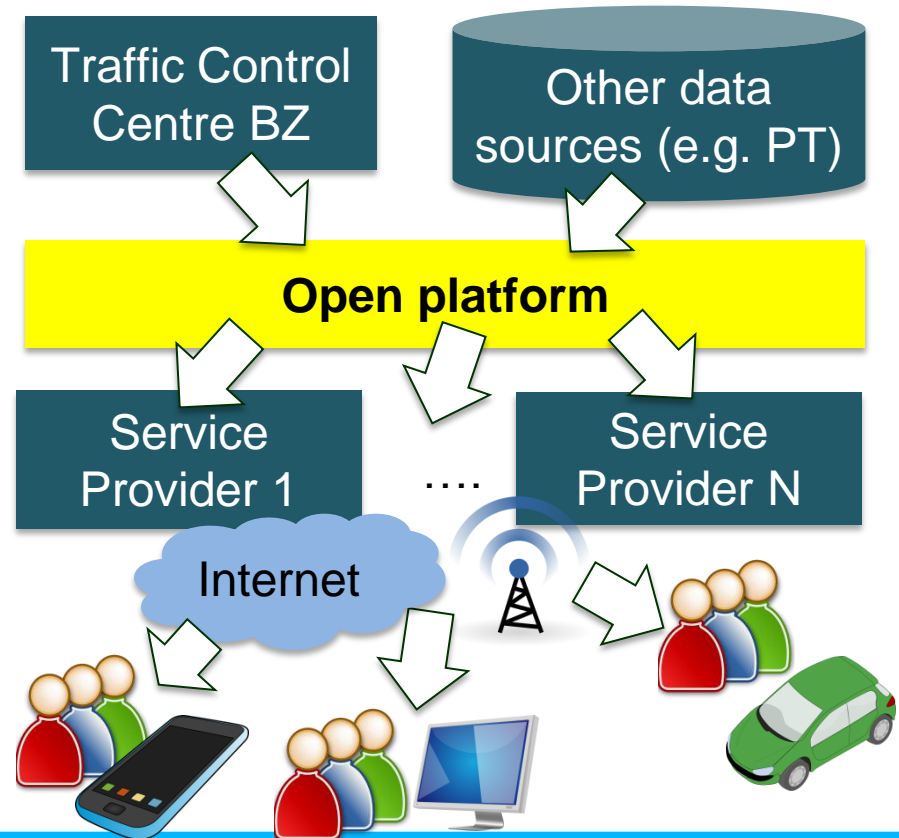
Ref: Bifulco et al.: "The Role of Uncertainty in ATIS Applications", Applications of Soft Computing, Vol.52, 2009, pp.230-239

The project

Development of a **B2B open platform** that can foster the multiplication of ATIS by local service providers.

Data providers can concentrate only on delivering fresh and consistent data.

Service providers will cover the last mile with the end-users, and potentially cover all communication channels and trip phases.



The project

Real-time parking availability in city areas

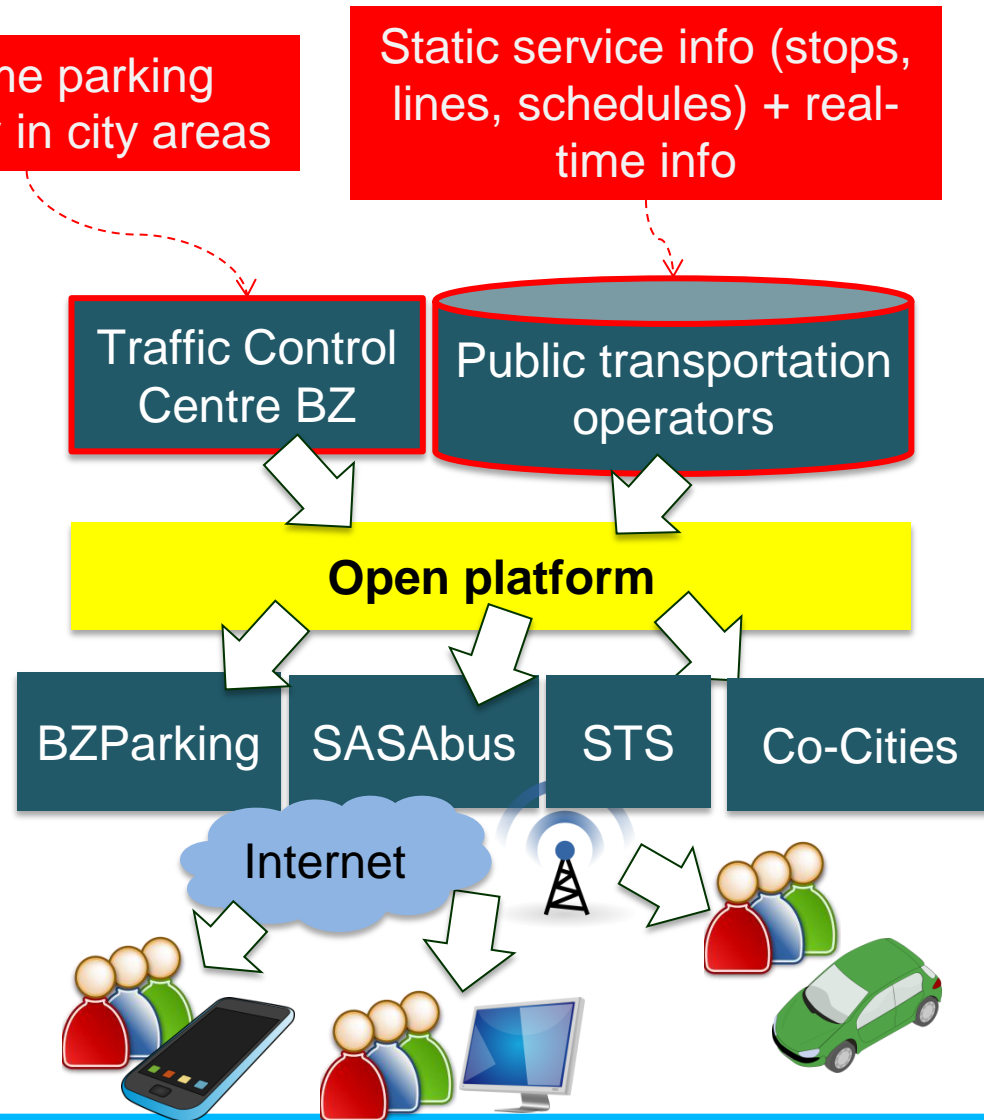
Static service info (stops, lines, schedules) + real-time info

ITS / GIS open standards:

GIS: ref. is open source
FreeGIS.net architecture

ITS: ref. is harmonization
work of eMOTION, In-Time
and Co-Cities projects

Open data licensing
approach: CC-3.0-BY-SA for
PT data, towards CC0 for
parking data



The applications

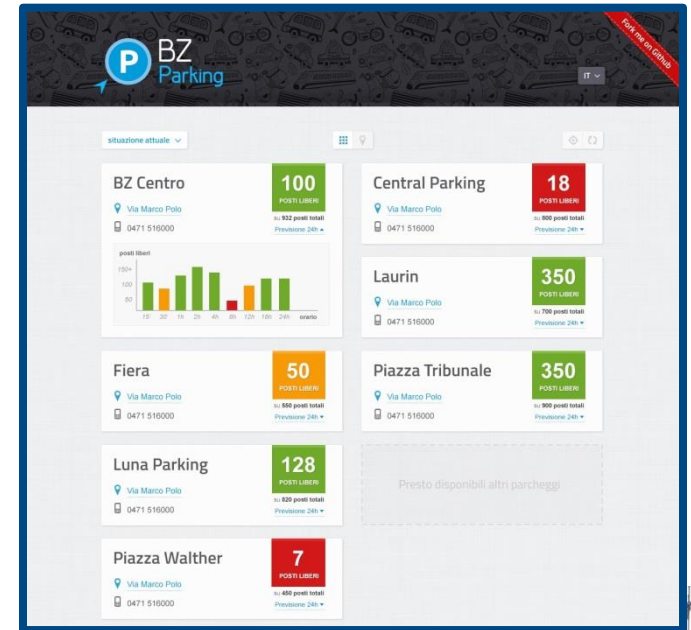
Application	Target User	Ref. Use Case
BZParking	Motorized (occasional) drivers	Drivers aiming to reach Bolzano city centre by car
SASAbus	PT users	Travellers wanting to move in the city by bus (e.g. last mile through P&R)
South Tyrol Suggests	Tourists	Travellers who want to visit Bolzano
Co-Cities	Foreign travellers	Travellers who come to Bolzano from outside South Tyrol

BZParking BZ Parking

Open source HTML5 application – parking.bz.it

First release: basic GUI

Second release: will include **parking prediction information** as well



Availability of real-time parking information even outside the urban / inter-urban area of Bolzano.

Field Operational Test

Applications officially launched in October 2013, available for free.



Pretty high interest during the launch phase, services use then slowly decreased...



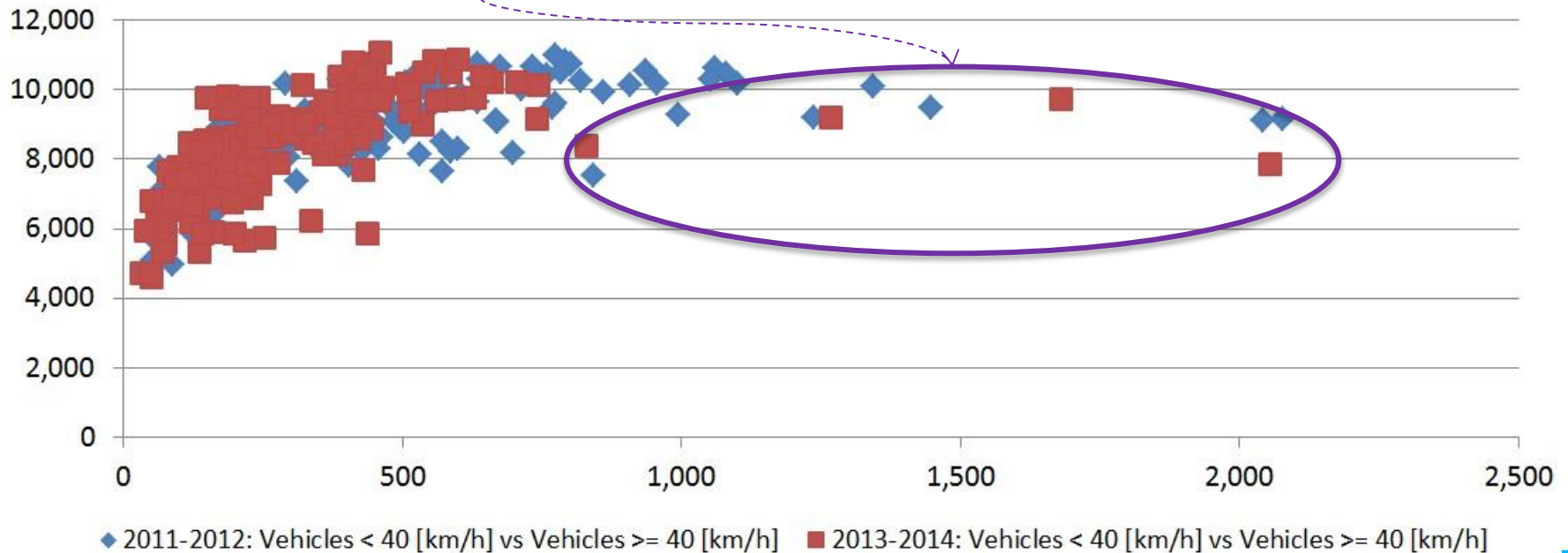
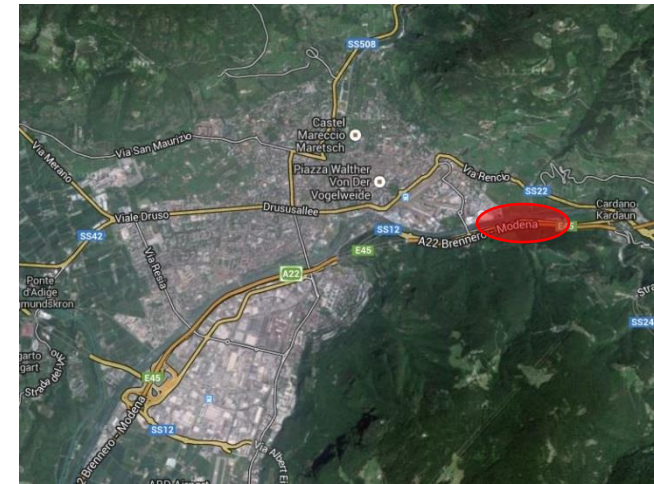
Need to build a **critical mass**, and to establish a relationship of **trust** with local travelers... not an easy and simple process!



Real-time information **type** determines the modalities of services use

ATIS preliminary impacts

As expected, ATIS can reduce the situations of stop&go traffic situations and positively influence local mobility demand

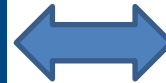


What comes next?



Deployment of demonstrative architecture, development of local ATIS market, definition of new business models

Further R&D activities on open platform and mobility services



Towards a “**production**” environment with real business cases and large scale impacts on local mobility environment



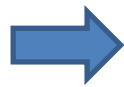
www.integreen-life.bz.it



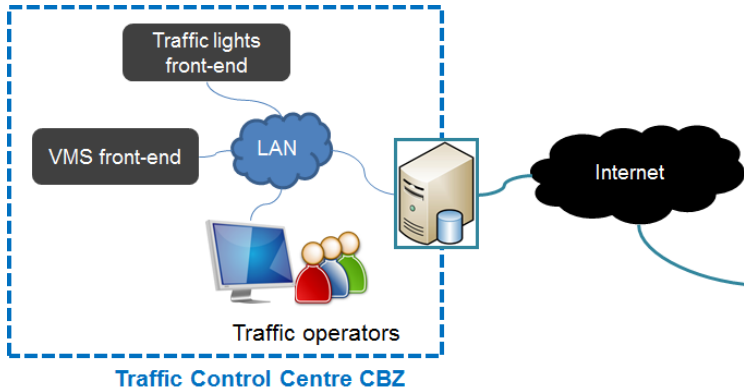
Data Providers / Service Providers / Users... who will pay?



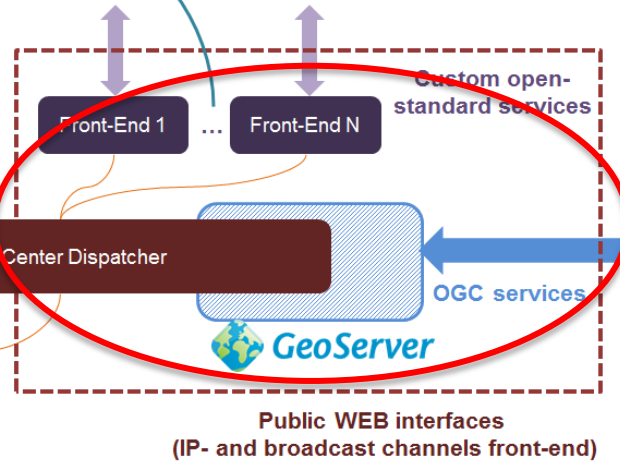
www.mobility.bz.it



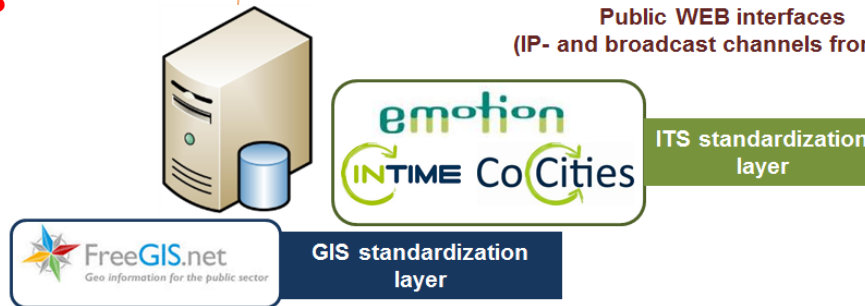
Increase the amount and accuracy of measured and elaborated information: **traffic / air pollution**

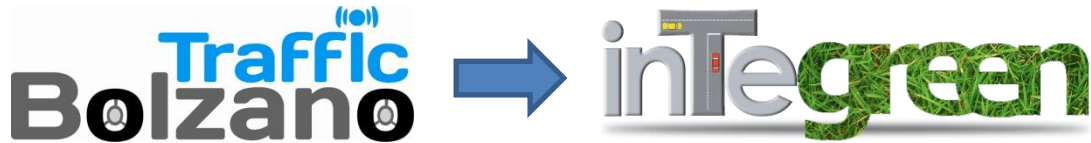


Other Traffic Control Centres



Service Providers (& other interested parties)

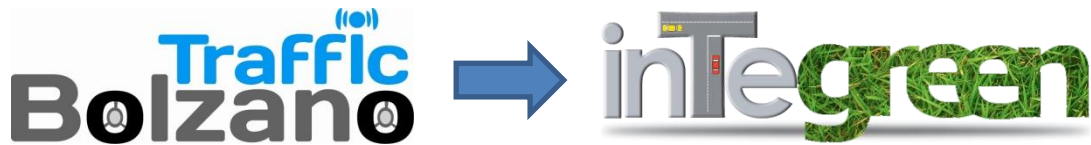




A set of «official» applications directly managed by the Municipality of Bolzano

- **BZ Parking:** real-time parking availability
- **BZ Traffic:** real-time traffic conditions in the city
- **BZ Bus:** real-time positions of buses in Bolzano (as in Merano – check bus.meran.eu)
- **BZ Analytics:** real-time evaluation of measurements and elaborations computed at the central open data platform (for traffic operators only)





Enhancement of third-parties services (1/2)

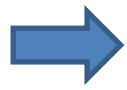
peer.tv: a new TV channel mainly dedicated for tourists.

Imagine if you could bring RTTI in the rooms of our guests, all over South Tyrol...



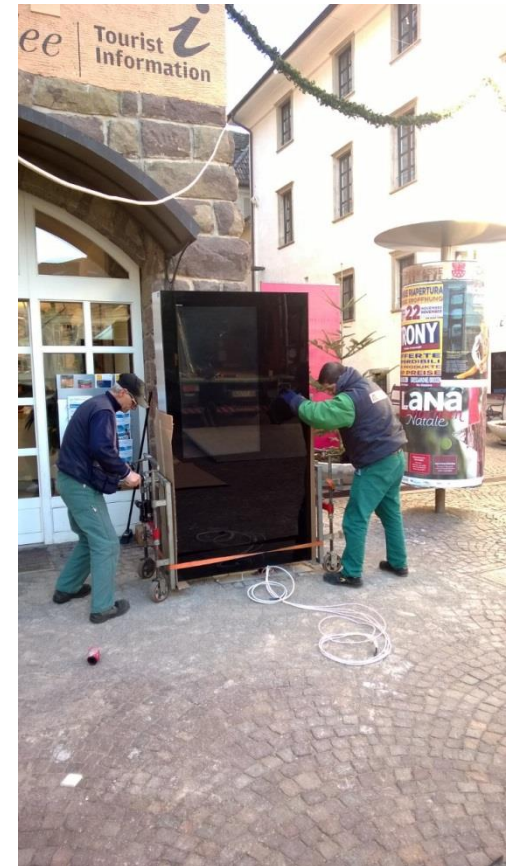
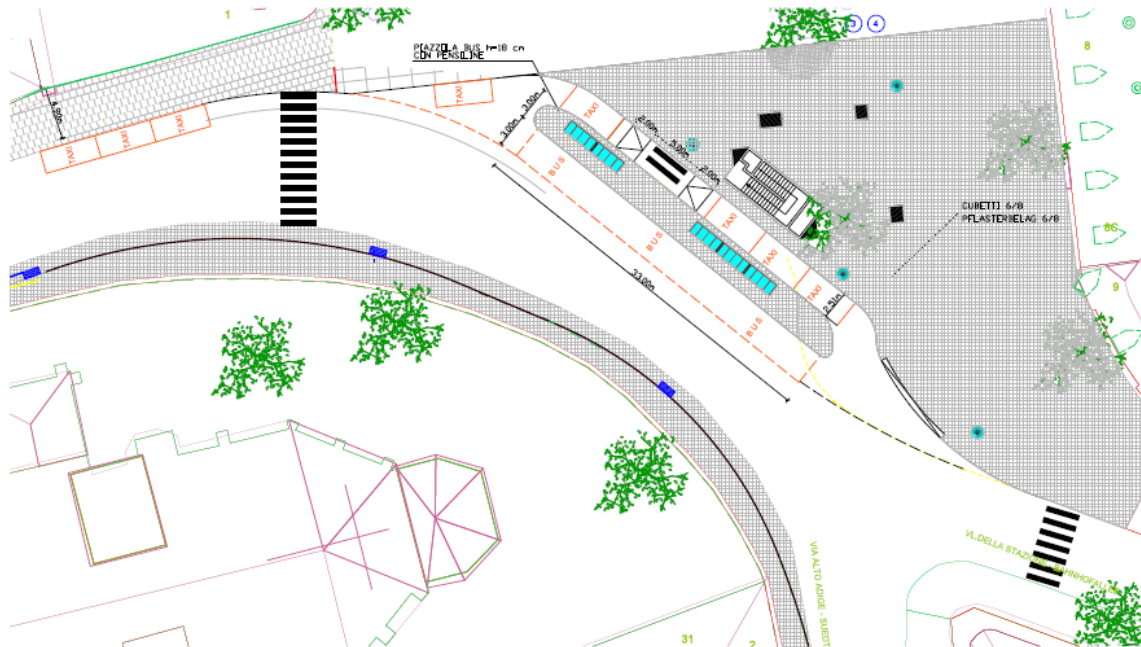
peer.tv

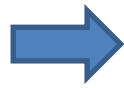
Source: www.peer.biz



Enhancement of third-parties services (1/2)

New generation of **digital signage totems**: a way for tourists to get in touch with local ATIS





Towards cooperative «mobility-as-a-service»

- **First service generation:** provision of RTTI users
- **Second service generation:** possibility for a traveller also to book and pay for integrated mobility «packages»
- Two enabling factors:
 - ❑ Increasing acceptance and decreasing barriers of **vehicle-sharing schemes**
 - ❑ **Cooperative technologies (V2X)**



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Thanks for your attention!

Roberto Cavaliere

TIS innovation park

Free Software & Open Technologies

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