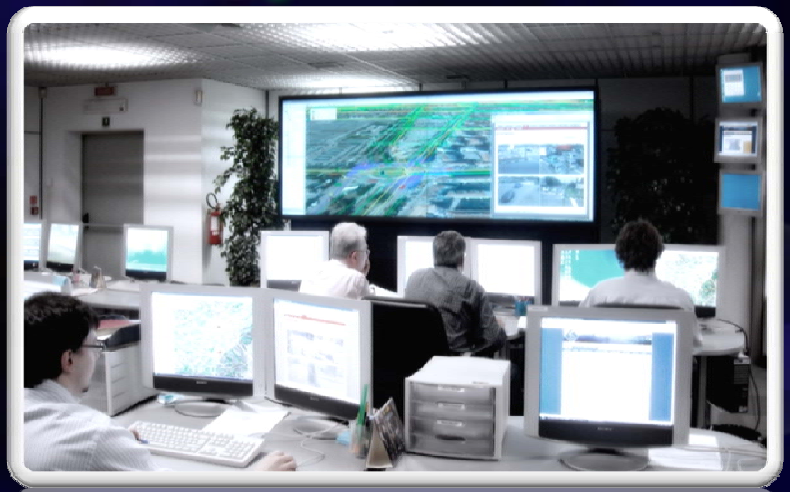
5T

Telematic Technologies Transport Traffic Torino



Mission

5T designs, develops and manages

ITS solutions,
improving individual and collective mobility
on a regional scale

With the aims of

improving traffic flows and safety
reducing environmental pollution caused by traffic
improving efficiency and quality of public transport
providing real-time information services to travellers

History

1992

Public/private Consortium within
the European project “Quartet”
(Torino, Birmingham, Athens, Stuttgart)

2000

Conversion of the project Consortium into the Consortium company 5T s.c.r.l.
(ATM, AEM, FIAT, CSST, Mizar)

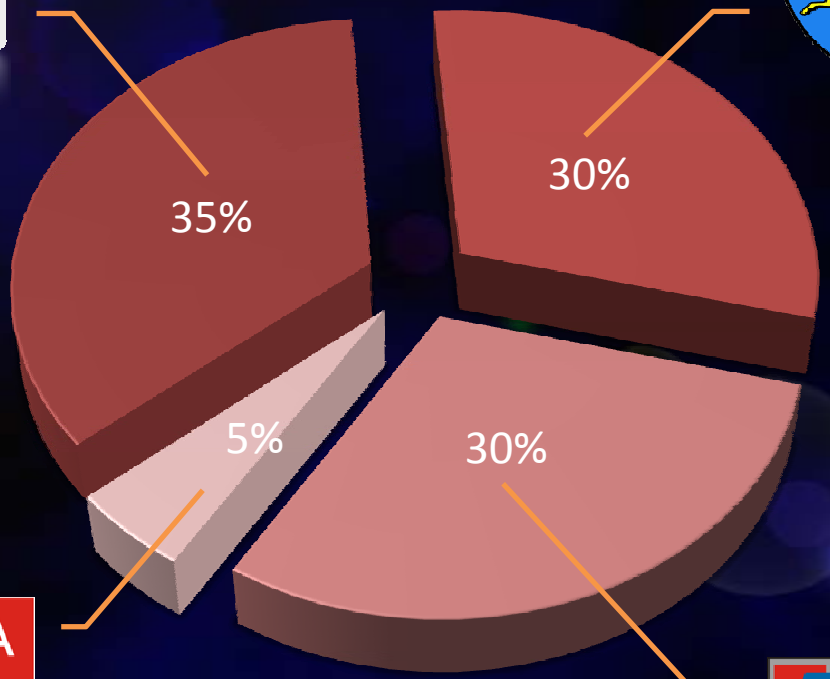
2006

Traffic Operation Centre
for Torino 2006 Winter Olympic Games

2008

5T became a company totally owned by local public bodies

Shareholders



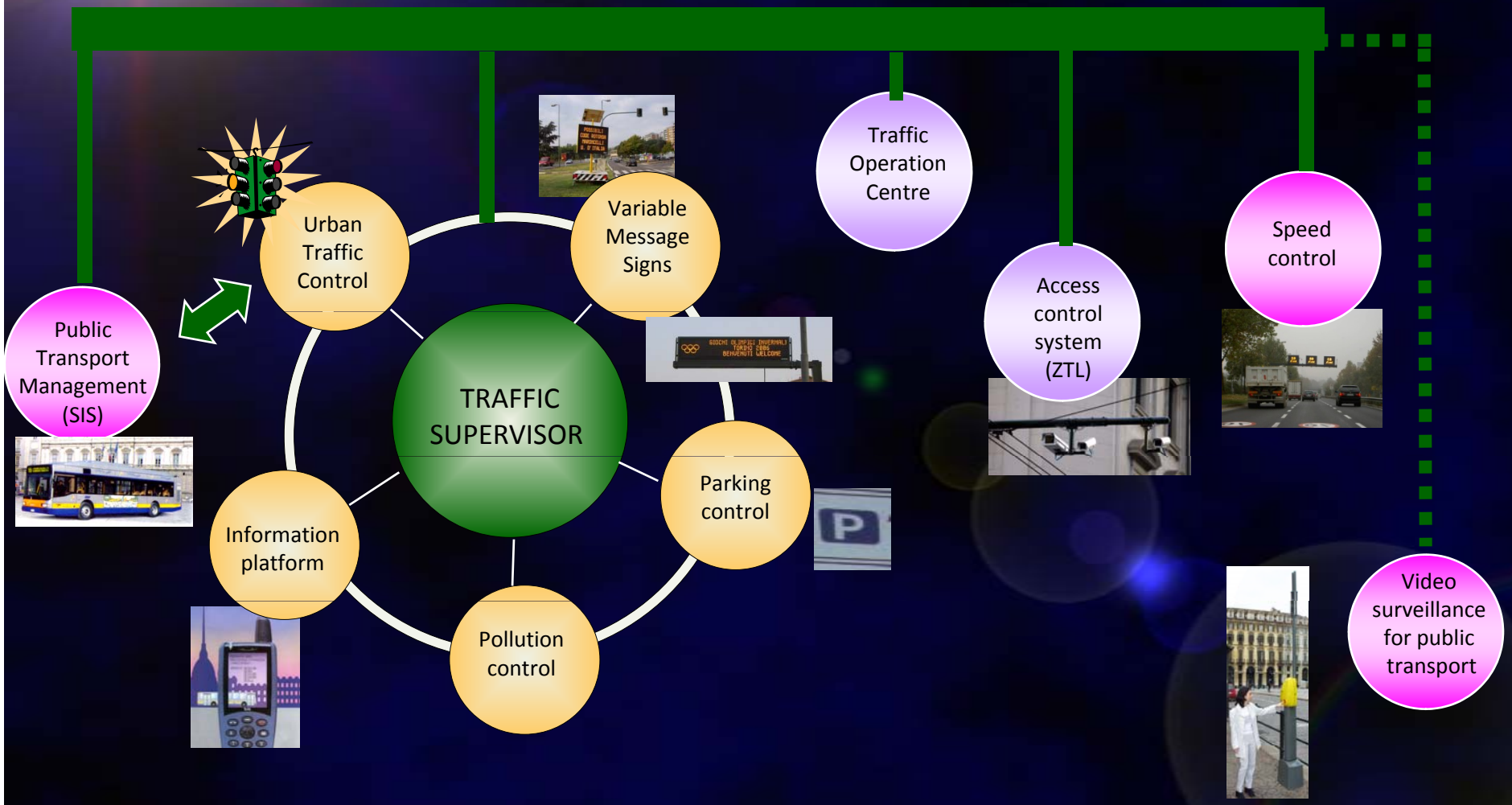
GRUPPO TORINESE TRASPORTI

CITTA`DI TORINO

PROVINCIA DI TORINO

REGIONE PIEMONTE

Integrated ITS systems managed in the metropolitan area



Traffic Control

330 (of 600) controlled intersections with dynamic regulation of traffic-light cycles

3000 inductive loops
25 above-ground sensors
71 cameras
2 speed control systems

1 TOWN SUPERVISOR

Supervisor

Gathers info from all
the 5T system sensors
(cooperative monitoring)

Estimates what could be the “user equilibrium” point in the specific situation

Sends to all subsystems the strategies to be actuated for traffic control and pollution reduction (cooperative control)

GTT Public Transport Monitoring

1300 urban + 300 extra-urban vehicles
with real-time positioning
8 tram lines with priority at intersections
98 bus lines
3000 bus stops with real-time arrival info

4000 position/minute

GTT AVM System

GSM/GPRS

1.300 GPS-equipped vehicles

Public transport control room

5T control room

Stops

Priority

SMS

Information on the road

25 above-road VMS
18 movable VMS
20 parking info VMS
19 extra-urban displays
35 limited traffic area displays*

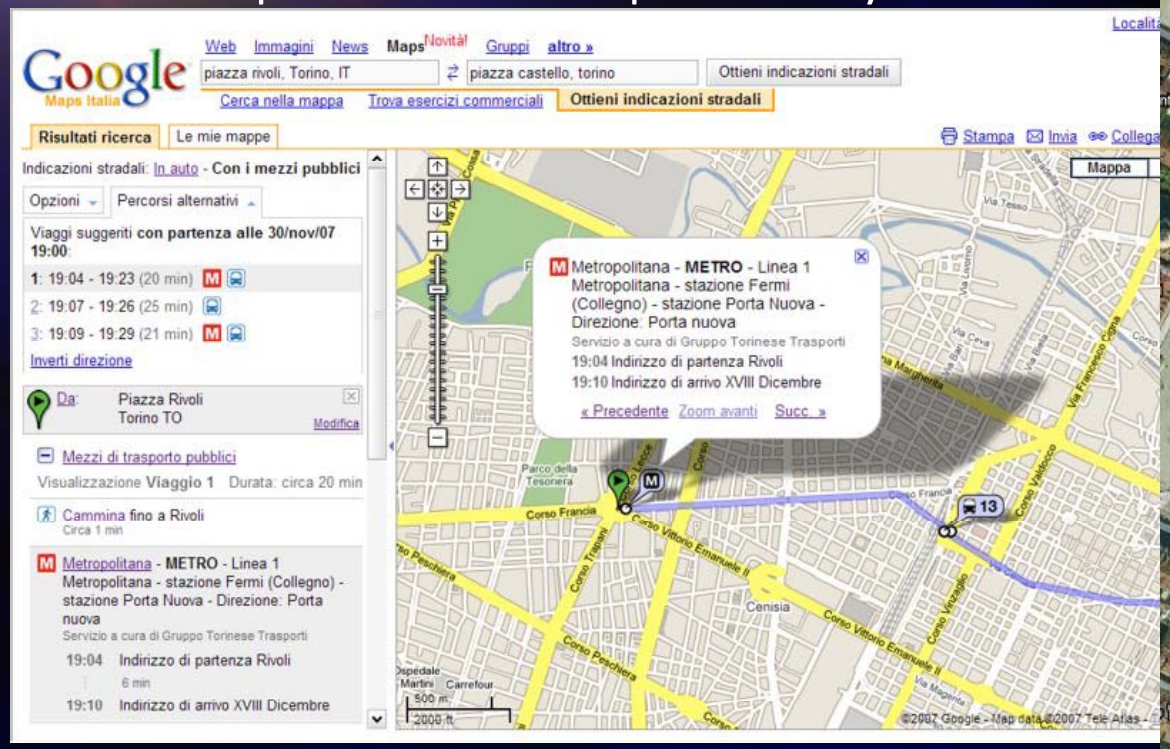
*Forthcoming installation

Public Transport information services

80.000 sms/month
200.000 travel planning/month
317 bus stop displays
450 on-board displays
38 multimedia displays on buses

Google Transit

Since 2007 Google Transit integrates GTT public transport information provided by 5T



In June 2011 was launched Google Live Transit, a new service providing real-time public transport information. Google Live Transit is currently available in 6 towns worldwide, in Europe Torino and Madrid

Access Control and Limited Traffic Area

35 limited traffic area gates
15.000 transits/day processed by the centre

10% average non-authorised transits

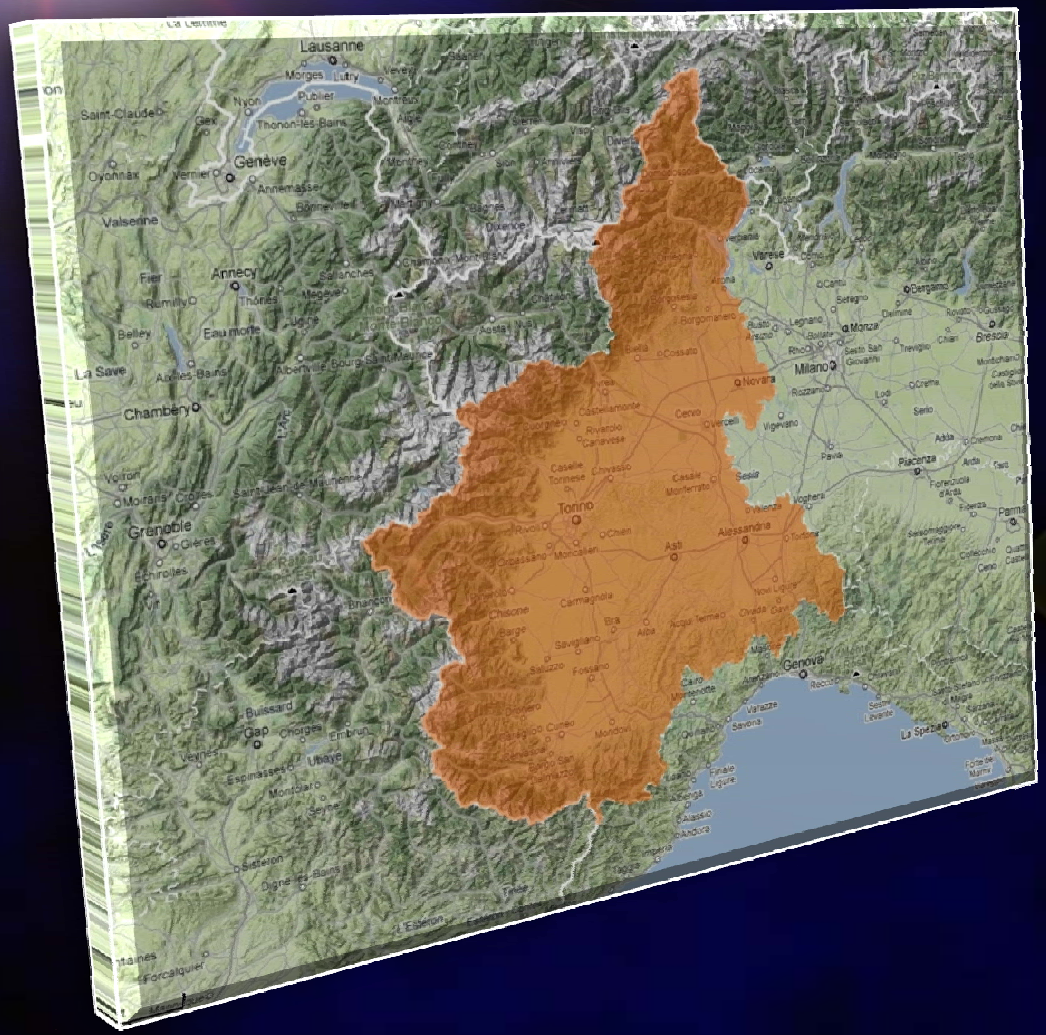
Performance

Travel times home-work:
-17 %

Commercial speed public transport:
+17 %

Air pollution caused by traffic:
-10 %

The Regional extension

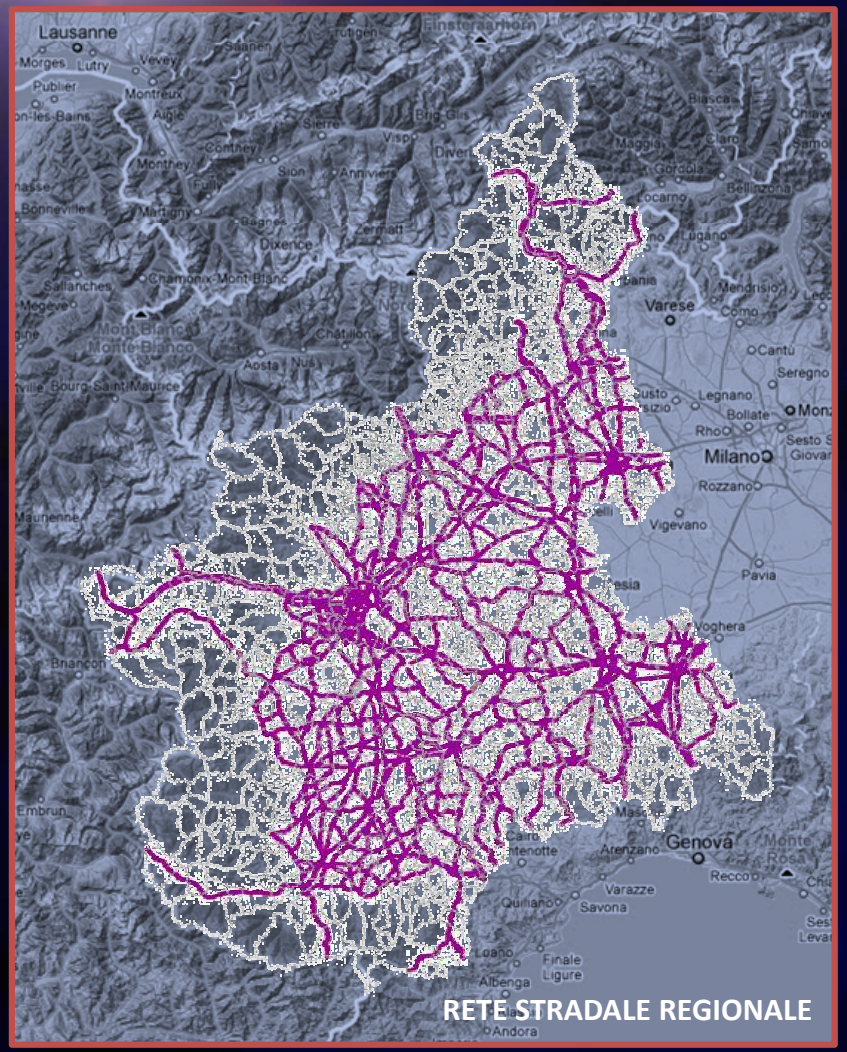


<2000:
Urban area

2006:
TOC Winter Olympic Games

>2010:
Extension to the regional scale

Regional Traffic Operation Centre



Traffic Operation Centre

Traffic monitoring
Information services
Support to PA for transport planning

Real-time data collection
Integration/processing
Traffic Supervision
Information provision
DWH/reporting

Regional Ticketing system

BIP - Biglietto Integrato Piemonte

100 public transport companies
3.400 buses
15.000 bus stops
300 railway stations

1 smart-card
1 Million potential users

Olimpic Winter Game Soči 2014

5T is supporting Tolltech (a NGO group company) in defining system specification for the traffic control centre for next Olimpic winter game Soči 2014.

Olimpic Winter Game Soči 2014

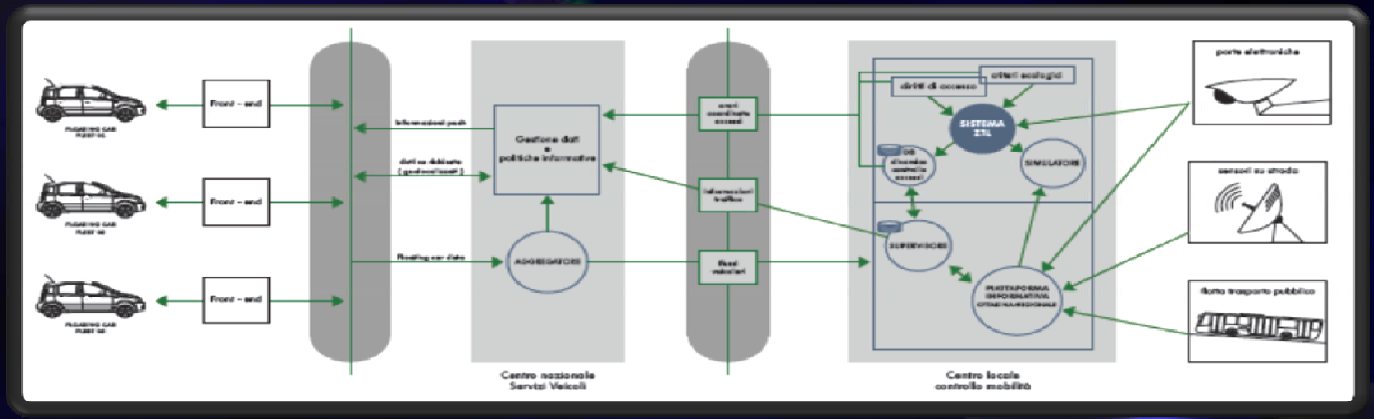
Task No.	Task	Responsible party	Deliverables
7	Upload all necessary documents to the FTP site	Tolltec	Relavant documents
8	Review key documents (estimated at no more than 300 pages)	5T	Relavant documents
9	Create glossary limited to the terms from the point of view of the Traffic Control Center	5T	No more than 50 terms
11	Develop and submit a preliminary version of the FIRST DRAFT high-level FUNCTIONAL & PHYSICAL System Architectures from the point of view of the TCC	5T	Functional diagrams in PowerPoint (reduced level of detail and completeness)
12	Develop high-level FUNCTIONAL & PHYSICAL System Architectures with information flows (**complete FIRST DRAFT**) from the point of view of the TCC	5T	Functional diagrams; information flow diagrams; description document (10-20 pages including diagrams)
13	Provide comments on FIRST DRAFT FUNCTIONAL & PHYSICAL System Architectures	Tolltec	List of comments
14	High-level FUNCTIONAL & PHYSICAL System Architecture with information flows (**FINAL DRAFT**) from the point of view of the TCC	5T	Functional diagrams; information flow diagrams; description document (10-20 pages including diagrams)
17	**Deliver the final FUNCTIONAL & PHYSICAL System Architectures from the point of view of the TCC**	5T	Final FUNCTIONAL & PHYSICAL System Architectures

PROJECT

S.I.MO.NE

...smart traffic management

Enhance the capabilities of the local Traffic Control Rooms with real-time traffic data generated by equipped fleets (floating car data)



Progetto Opportunità delle Regioni in Europa

Programma Enti Locali Innovazione di Sistema

(capofila)

Comune di Genova

Comune di Bologna

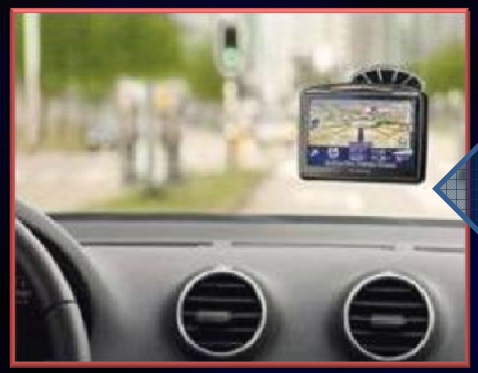
Provincia di Firenze

Provincia di Cagliari

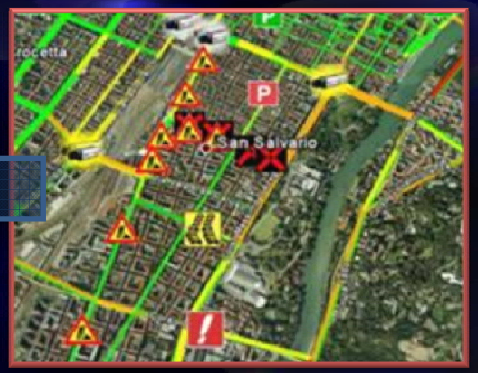
Real-time information

The regional TOC developed by 5T follows the paradigm of **"open platform"**, able to exchange data and information with **private platforms**, in order to enable the growth of enhanced information services for travellers

Raw data



Enhanced information



Partnerships

TTS ITALIA Italian ITS Association

NAVTEQ

Google

Club Italia ContactLess Users Board CLUB ITALIA

movincom sharing the future

infoblu autostrade per l'italia

tomtom

seatPG PAGINE GIALLE

NEXA

CCISS VIAGGIARE INFORMATI