



COMUNE DI GENOVA

**Unità di progetto Piano
Urbano della Mobilità e Trasporti**

email: uppmt@comune.genova.it

Integration and regulatory structures in public transport

GENOA'S CASE STUDY PROPOSAL

GENOA, MAY 2003

1) General information on the case study

“Brief description of the case studies”

- General statistics on the case study:

Brief description of the metropolitan city of Genoa

The city lies mainly on a 30 km long and narrow coastal plain extending through few narrow valleys (along rivers of torrential character) into the western steep slopes (reaching 1200 m high) of the Apennine Mountains. The transport system in the city of Genoa is strongly influenced by the complex orography of the region, a narrow territory between the mountain and the sea; therefore the traffic is forced to flow through limited routes across densely populated areas, with just two relevant traffic infrastructures connecting the eastern and the western areas of the city: the “sopraelevata” and the “pedemontana”, respectively built long the coastline and halfway up the hill.

Area size and population:

- The urban core area is only 28 Km² and in this live 284.287 inhabitants
- The agglomeration area has an extension of 239 Km² and in this live 621.780 inhabitants
- The total area has a population of 893.259 inhabitants with a total area of 1.836 Km²

- **Public transport usage**

In the Council area is estimate a total mobility in a day of 1.800.000 trips, with a mobility index of 3 trips/inhabitants. In the follow scheme is represented the total flux of the mobility (public and private) in the total area which include the all agglomeration area.

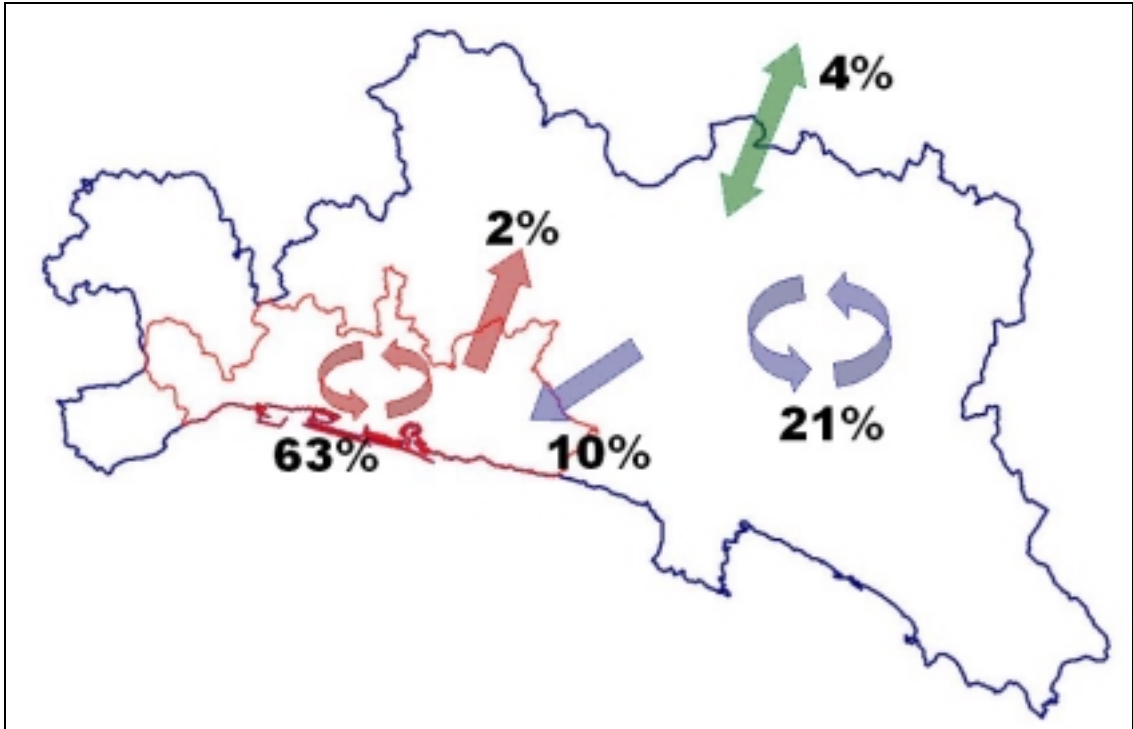


Fig. 1 All trips on the total agglomeration area

The total mobility demand is actually satisfied by: 43% private means (cars and motorcycles), 29% public transports (with a division between transport by bus, 25% and by train, 4%), 4% use either public or private transport and at least 24% move by foot, at least there is also a negligible percentage of cycling use.

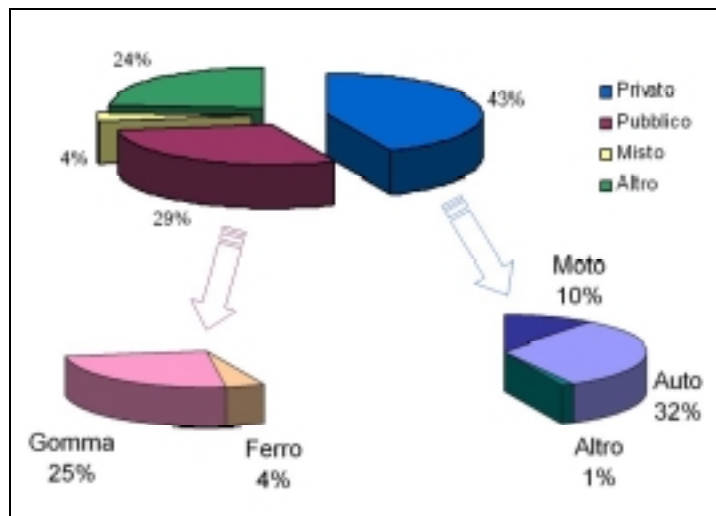


Fig. 2 Modal split in all the area

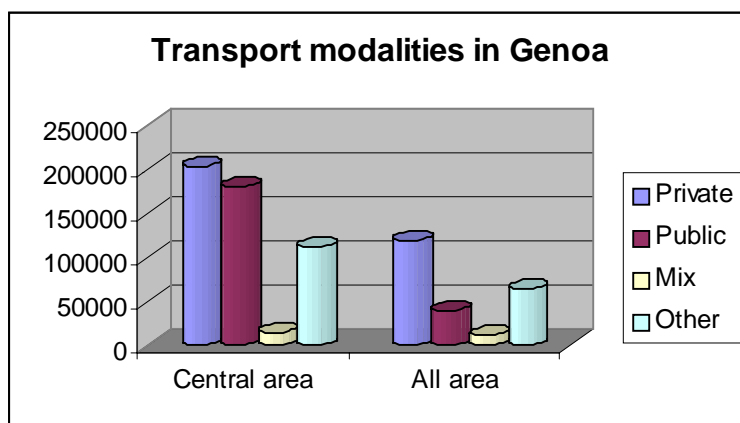


Fig. 3 Modal split distributed in zones.

An analysis about the users of public transports shows 36% of passengers are employees and workers, 26% are pensioners, 16% are students, 9% are housewives and 12% are equally divided for professions and conditions.

The total annual number of public transport passengers (included all the agglomerated area) is 158.000.000. This divided in urban passengers 149 million and extra urban 9 million, the tendency of transported passengers is getting better from 1996 (140.000.000 passengers in all the agglomeration area) to 2001 with an increase in percentage of 2% every year, but in 2002 the extra urban service was separate to the local operator functions, with a creation of a two new urban transit companies: ALI and TIGULLIO. One operate mainly on west side and the other on the east part of the total area has only a ride join to the agglomeration area, while serve like a urban company all zones of east part of all territory.

All the statistics reported about the mobility in the metropolitan area are taken by the "Origin destination study referred to the territory of the Province and Genoa Council, last edition 30.07.2002)

Almost 39% of trips on public transport are systematic (about 108.000), while 32% are occasional; the remaining 29% has different characteristics.

In all considered area public transports are used mainly for work, for business movements and for study, in the next scheme there are the relative proportions.

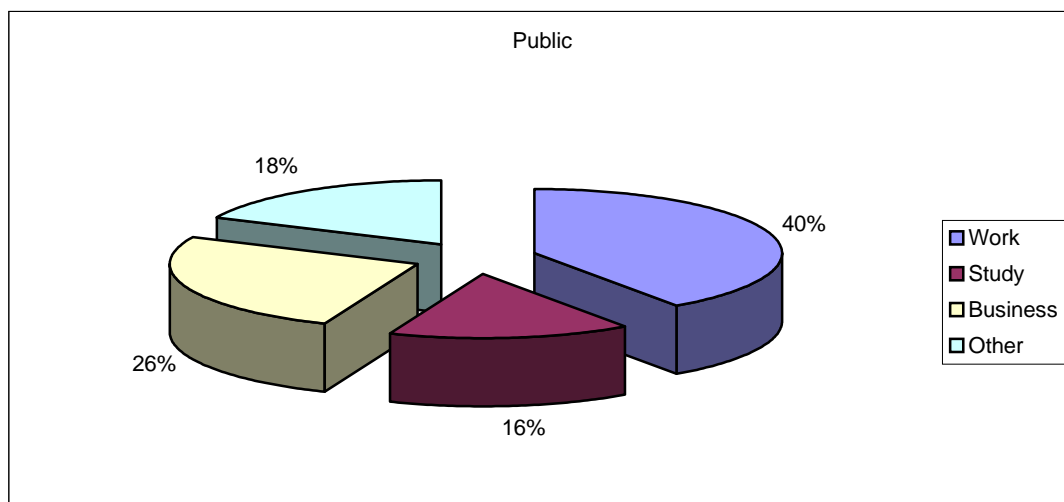
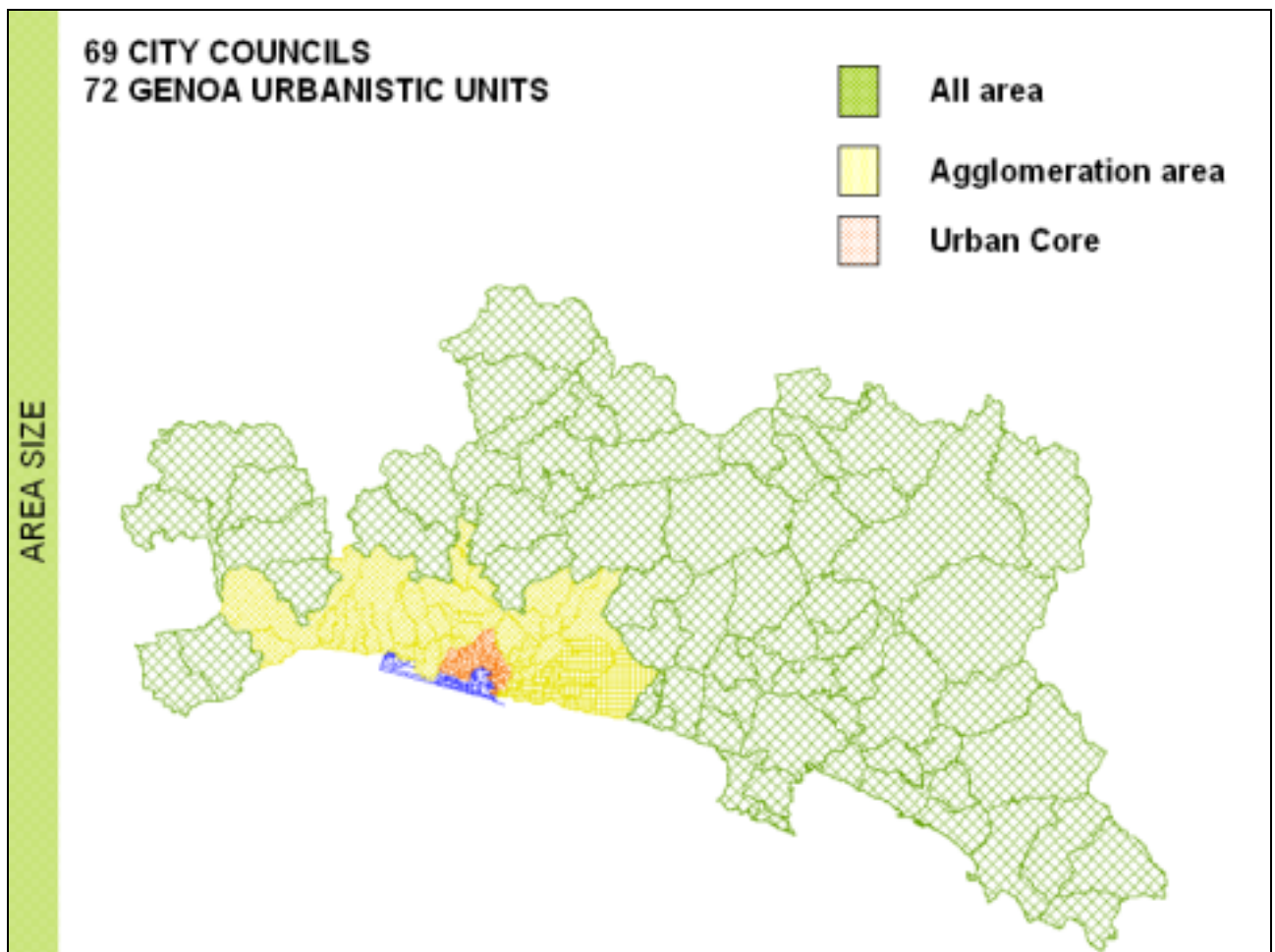


Fig.4 Aims of trips

- **Maps of the area**

- *All area*

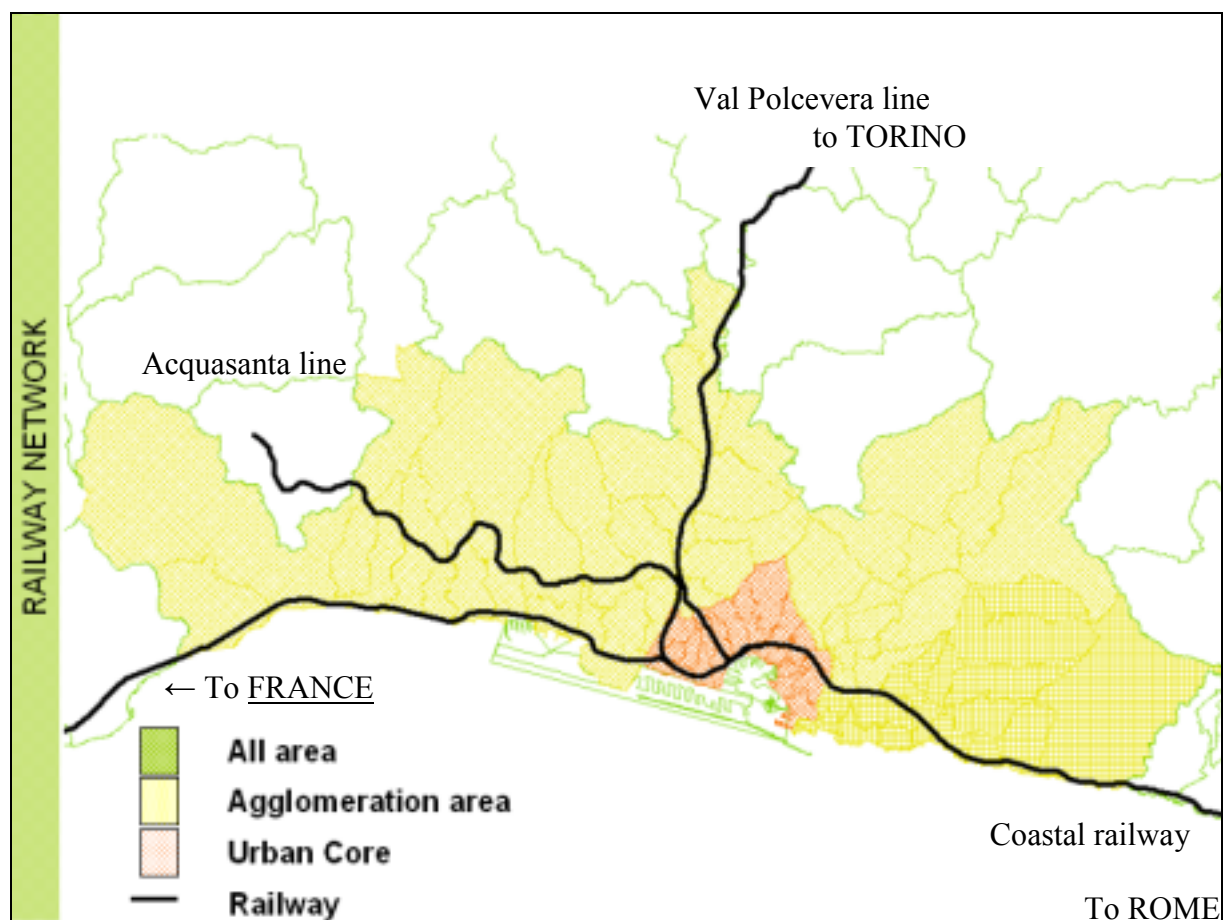
Here we represent in four different maps all area interested in the integration study, in the first map is define the extremes borders of all the area. This area coincides with the jurisdiction's Province area.



Map 1 Area size

Railway network

Here is represented the map with the railway network, there are three important lines cross all the area considered. One line is the coastal railway used like a surface metro with a station more or less 3 km from one to another, in this case long distance trips and metropolitan functions coexisting in the same line. The other two railway lines link the centre area of town with on one hand a residential, commercial and small industry area called “Val Polcevera”, near the river Polcevera, on the other hand the Acquasanta line is a poor urbanised zone with no particular needs for a frequent link with the centre.

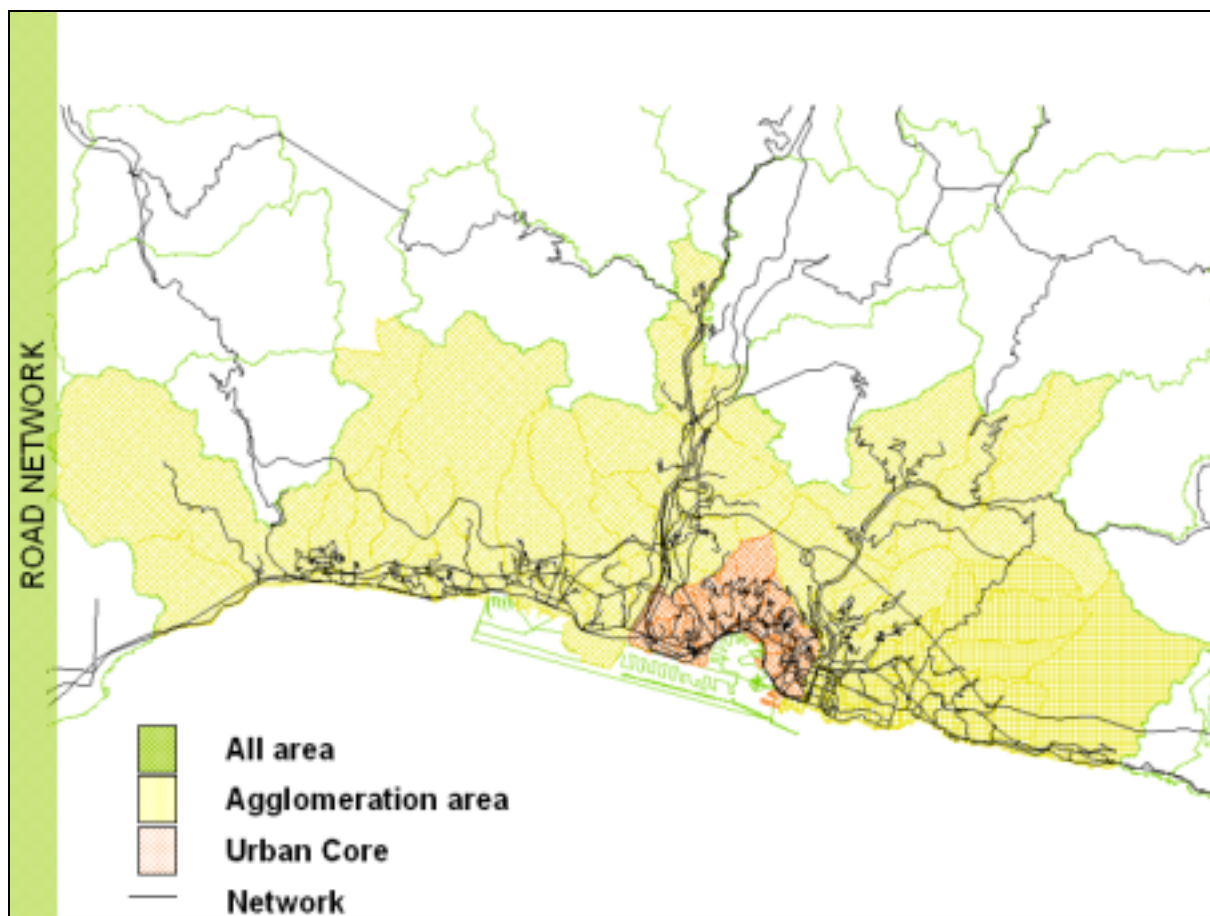


Map 2 Railway network

Road network

The road network present two principal way one is the four-lane motorway A4 cross all the provincial area from east to west. This way serves all the area not only for long distance trips from one province to another (especially from the national border line of France) but in particular assure the link between all the parts of Genoa Council. This double function of motorway origin a high level of congestion of private, public and goods transport fluxes.

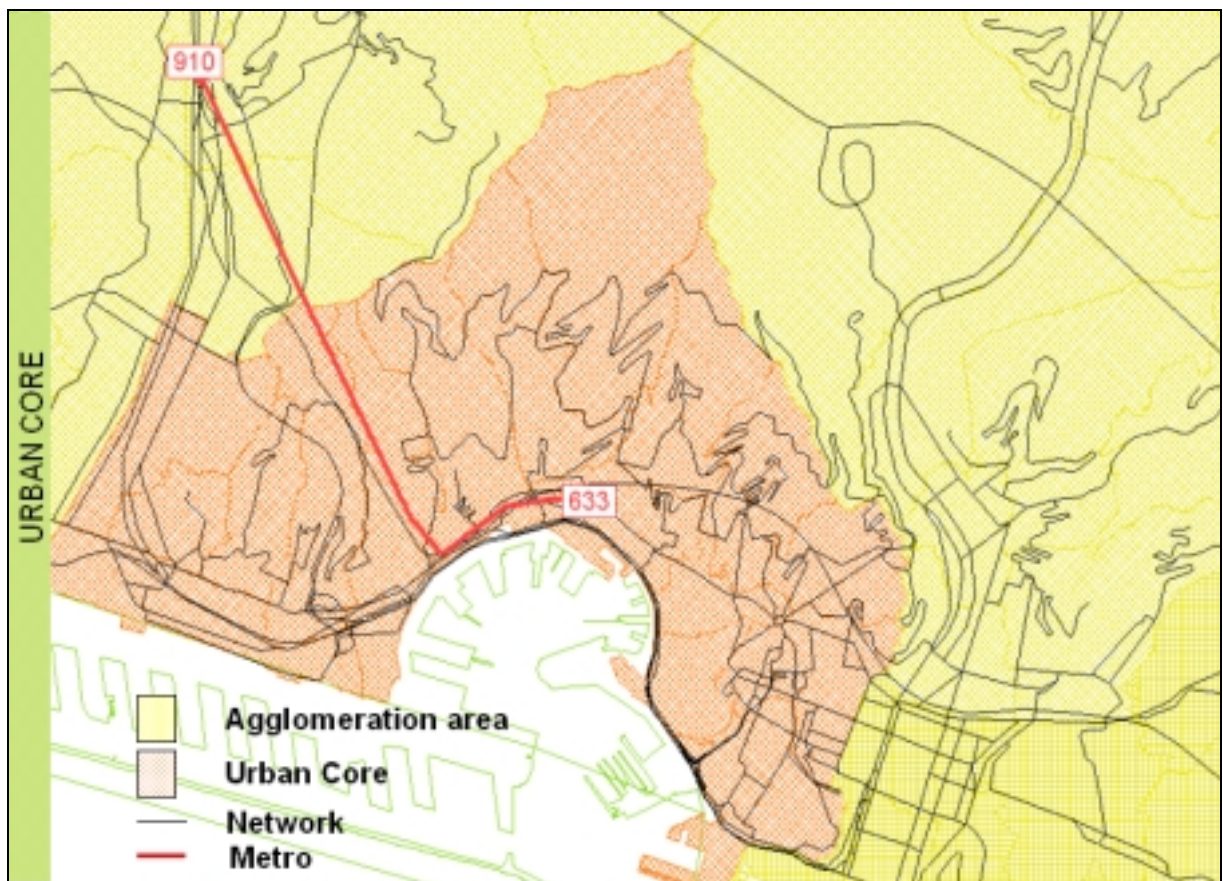
The other way is the state road which go through all parts of the Province and Council, especially in the urban central core the traffic is forced to flow through limited routes across densely populated areas, with only two relevant traffic infrastructures: the “sopraelevata” (from the east to the west) and the “pedemontana” (from the centre to the north), respectively built long the coastline and halfway up the hill.



Map 3 Road network

The urban core

The central part of the city is densely populated area characterised by a big Historical Centre with a thick net of narrow streets, moreover is the seat of the Ancient Harbour which was restyled along the years around the new aquarium and the exposition centre of “Porto antico”. In this map is clearly redefined the metro service, actually the metro link a part of Val Polcevera valley with the centre. Is now running the extension of the metro line which will reach De Ferrari square and Caricamento by the end of 2004 (near the Porto Antico Area), is also estimate the metro line will reach the railway station of Brignole by the end of 2007, actually council of Genoa is looking for a financiers to continue the line to the local football stadium, the end of all project is foreseen in 2010.



Map 4 **Urban core**



Map.5 Project of Enlargement of Metro line

The actors involved

General organizational form of the public transport system

In the urban core area and in the agglomeration area the public transport system is furnished by local operator AMT, this company whose property is completely public satisfy the local needs for public transport under the regulation and planning of local Council of Genoa. There is a office dedicated to analyse, plan and regulate private and public transport in all the urban area of Genoa under the responsibility of Genoa's Council. The remaining area is under the responsibility of Province di Genova, which is in charge of all planning and ruling public and private transport in this extended area.

Genoa is going thought a complete reformulation of public transport, with the creation of a local agency, which will be responsible for planning and ruling all the public transport system. The parts involved are discussing how can be joined the actual function in plan, study, rule and control either public or private transport of Genoa's Council and Province

under a private Agency. Actually the most difficult problem to resolve is the financial and organizational problem of public transport, because the local operator AMT is facing a big financial crisis.

OPERATORS INVOLVED IN THE INTEGRATION OF PUBLIC TRANSPORT

AMT Azienda Municipale Trasporti S.p.A.

AMT is the local operator responsible for the furniture of public transport in the urban area of Genova. It's a private company but the council have the propriety of 100% of its stocks. Local council guides and define transport policies and is also directly engaged in the organization and regulation of all activities of public transport

The total length of the served network is 913 Km, in details:

900 Km	on roads
6 Km	on rail
7 Km	on funicular

The service is organised in 130 lines with 2.509 stops and 259 terminuses. To assure the service are utilised 916 vehicles, with a medium age of means corresponding to 10,3 years old, with a medium commercial speed of 15 Km/h. The transport attract 153,4 million of passengers for year with a daily average of 420.000 passengers.

Amt also manage the metro service, the elevator system and the funicular lines. The metro has a length of 6 kilometres and uses 8 metropolitan vehicles, the elevator system is composed by 9 plant and serve the more high sites of urban core city, at least in the urban centre of Genoa are located three funicular lines which link the centre to the hills. In proportion this last three means of public transport attract only a little part of total passengers but provide a better service especially for high residential zones. Amt also has an innovative public service on demand called "Drinbus". This innovative service functions in three areas (Pegli, Multedo, Quinto e Quartiere Azzurro) can be book at a call centre, specifying where and when the needed trip starts and finish. The urban metro is expanding its route, and is scheduled it will arrive to De Ferrari square in the middle of 2004, in 2007 it is expected reach Brignole Station, actually our council is looking for a private financier for extend the actual metro line to the east side of the city crossing all the core centre of the city.

ALI Autolinee Liguri Provincia di Genova S.p.A.

ALI is a recent private company who was borne on 1st August of 2002 from the separation of urban e extra urban service granted in the extended area of Genoa. We know that the Ali produces 4.704.000 kilometres for years, and the company transports about 3.000.000 of passengers for year. Ali uses 120 means to cover principally the west side of total area of province of Genoa, it produces an extra urban service with a medium commercial velocity of 25 Km/h to serve all the zones of west part of the province, reaching especially those areas with a low inhabitants density. We have not too much statistics about this new local enterprise because of the new constitution.

TIGULLIO Trasporti (TPT)

The Tigullio public transports S.p.A. manage urban, suburban and extra urban transport in the area between Recco e Levanto, school transport service, tourist e loan transport. The society manages also the funicular to Montallegro and the paid parking areas in the councils of Moneglia, Rapallo, Sestri levante, Zoagli and Tigullio. It's a private Joint-Stock Company whose shareholders are the Province di Genova, the Provincia of La Spezia, and the councils od Chiavari, Lavagna, Rapallo and Santa Margherita. This operator produce for a year about 6.500.000 kilometres of public transport, with 130 means reaches a commercial velocity of 21 Km/h.

TRENITALIA Spa.

Trenitalia is the national and local operator for public train transport. Trenitalia was founded in 2000 in the process of business reorganization responding to the European directives about the liberalization of the market, with the separation of sector between operator of service and infrastructural administrator.

The society is structured in three divisions, passengers, regional transport and cargo. The regional transport division has signed a contract with the regional Authority to assure a sufficient level of service under the quantity and quality aspect. The actual contract include an obligation to edit a "Service Card" in which are described wrights and duties for passengers and operator and are also included specific sanctions for the unrespect of defined quality standards. Trenitalia covers with its services all the selected area defined in the map n°2, actually is assured a good distribution of public transport service with 65 daily number of ride in the coastal line which cover all the council territory. The other internal line to Acquisanta direct from the centre to a low inhabitant's density zone has in a day 24 rides, there is also another line in the direction of the so called "Val Polcevera" served with 58 daily trips (all this statistics are referred to a week-day). The total number of railway station in the council area is 17; particularly there are 12 stations from Nervi to Voltri (coastal railway), 2 from the centre to Acquisanta (Internal line from the sea to the mountain), 3 from the centre along the Val Polcevera (Internal line from the sea to the mountain).

National government defines a system of regional agreement with each region, after that each region subscribes its own contract with the regional transport division. The actual regional contract between Liguria and regional division will expire. Within 2003 the region has to introduce tender in all market of PT by train.

WATER LINK

There is also a recent project to grant a transport by boat from the west part of council to the centre, this new transport solution is almost a reality and it will start its service as soon as. Here there is a schematic representation of this new mean of transport:



Map 6 **Water link**

Authorities involved:

Actually are involved two public authorities: the council of Genoa and the province of Genoa.

Each public authorities has especial competencies in the area of influence, the council limits its intervention until the local border of council, while the province has Inside the borders of council of Genoa all the operational and regulatory functions about public and private transport, are under the responsibility of two distinct offices: one is the Urban mobility Plan and Transit Unit, manages mainly the mobility planning and the organisation, regulation and control of public transport, the other manages all the aspect about the operative direction an planning of general mobility. Out of the borders the competence in all transport public or private are direct competence of the Province. The province has a more light system of planning, direction and regulation of all mobility in the area of competence, which respond principally to the personal staff of the traffic and mobility alderman.

Genoa is now trying to form a new institution in charge of, planning, regulate and control public transport in all the area of council and province of Genoa joining all the competence of two actual departments. This new institution will called Agenzia and it'll be a private enterprise which is in charge for reorganise public transport preparing the best condition to challenge a tender in public transport.

All the Province and Council area are subject to the Region, which is responsible for the long term planning and financing of public and private transport.

This paragraph describes the level of the public transport integration actually existing in the Genoa area, considering different point of view:

- **The information integration**
- **Ticket and fare integration**
- **Network integration**

The information to the users

- *Maps and routes*

Paper: the road – book reports and the geographical information related to the PT routes are included in the maps are delivered to all inhabitants of the area. Moreover the operator distributes an information leaflet describing the lines and the paths present on the urban territory.

At the extra-urban level the TPT reports a scheme of the lines on the timetable, while for the lines managed by ALI there is a small book with the simplifying description of the routes, this support is available to all clients.

Web: the AMT web site contains a cartographic system where the user can calculate the required journey and consult the path for each line, for each day.

The Tigullio web site reports a map showing the area reached by its PT and the main routes.

Finally the ALI company has no web site yet.

- *Timetable and frequency*

Paper: AMT distributes a brochure reporting the lines and the timetable within the urban territory. It doesn't describe the railway service because it is managed by Trenitalia that has a separate timetable.

The TPT produces something similar to the AMT brochure; ALI distributes single information sheets and has also a complete pamphlet with all the frequencies and timetables.

Web: details on the timetable and frequency are available both on the AMT and on the TPT web site. The region is preparing a computer support on the web-based technology that allows all people to know the schedules of all the operators in the entire region. This new application furnishes an efficient and always available database to all public transport's users.

- *Fares*

Paper: the same brochure reporting the timetable contains the information related to the fares. This approach is by AMT as well as by Tigullio. There is no information related to the fares from ALI.

Web: AMT and TPT reports on their web sites the information related to the fares.

Information availability

At the stops:

In the urban area: ranging road at the bus stops indicates the passing lines, the frequency, the first and last journey, the information telephone number, the nearest place where to buy tickets. 2484 poles are present on the urban territory. 20, in the city centre, are variable message signs and report the waiting time for the next bus besides information to the users. This system is based on a GPS installed on the main 15 urban lines.

Ali has about 200 strategic bus stops where information on the timetable, the selling point and the fares are reported.

Instead TPT reports at the bus stops only the timetable.

On Board: Amt uses vehicles on the urban lines have a variable message sign indicating the number and the terminal. Some vehicles (49 already functioning and 85 under installation) have on board an info system indicating the next stop. Moreover the fares and the rules for the passengers are showed on all buses. Sometimes leaflet inside the buses are used to inform the passengers about variations on the paths, strike, but only AMT utilises this mean of information to crate a better relationship with the users.

In the box office: AMT has 6 box offices where it is possible to have the timetable, the map, the paths and the rules to use the public transport, there is a great number resellers spread in all the council territory. TPT has 5 box offices an

By phone: Amt has a special number for the info to the users, complaint, denunciations and so on, from Monday to Friday from 8.00 to 18.00. Concerning the TPT a free number for the information exists.

Also ALI has a number dedicated to the information to the users. The service last until 9 p.m., later there is the operator for the company in charge of giving the required information.

Other information systems: The existing variable message signs installed in the city are also used to give very relevant information to the citizens, this service is directly update by the transport and mobility operational centre, which monitors all the traffic conditions.

15 kiosks are positioned in the strategic and interchanging points, such as the airport, the fair area and in the main stops.

AMT co-operates with the local media to face the most urgent issue concerning the mobility and transport field, besides of to have a direct debate with the users.

Actually there aren't agreements to create integration at information level.

THE FARES

Ticketing system:

The current ticket integration regards exclusively the urban area and involves AMT and TRENITALIA: this type of integration allows the user to use the urban TP (comprehending buses, metro, funiculars and elevators) and railway network.

AMT has also a integrate ticket which can be stick to the train ticket. This ticket is used by those passengers who reach by train the Council of Genoa from anywhere in the Region,

AMT and ALI hasn't any example of integrated ticketing, there are only some examples of fare integration.

Also in extra-urban transport there is a kind of integration at this level but only in a few days and only for a particular trips. AMT and TPT has not a particular integrated ticketing system, each company uses their own tickets but (only in weekends and for a certain ride) clients can use the same AMT ticket for all trip.

Exclusively for students who live in an extra-urban place (Cerano) is sell a special sticker to integrate in one ticketing form three services of three operators: Trenitalia, AMT and ALI, respectively train, urban and extra-urban transport.

All current tickets are all paper based. Before the end of the year TPT will launce a new multi service ticketing system, which include not only the function of payment of ticket but also other intelligent functions. This new technology is based on the chip system card.

The fares system:

Considering the urban area, the current fare is 1 €. This ticket gives to the user 90 minutes on the PT network and 1 possibility on the urban railway. A specific agreement (here attached) sets the way used by the two companies to redistribute the incomes. All the other kind of tickets and pass are completely integrated. This integration in ticketing and fare between train and urban PT is running from 1994.

Outside the urban area exist only some cases of fare integration: between AMT and ALI has an example of fare integration witch allows all the passengers who use extra-urban transport to extend their trip to urban PT network with only an ALI ticket (one extra-urban ride + a time ticket for urban PT). There is only facilitation for people coming to Genoa by train: if an user has a railway round-trip ticket for Genoa, he can buy a daily bus ticket at a discharged price equal to 1,50 €.

Exist also a kind of fare integration between bicycle and train, with a special ticket is allowed transport a cycle in almost all the regional train.

Despite the current level of integration is quite low, the Municipality of Genoa is moving towards a wider integration: for example a sea connection from the western zone of the city to the central area is foreseen.

In the contract of service signed by AMT there is a particular article, which oblige urban bus operator AMT to subscribe fare agreement with the other operators which serve the province area (art. 8 of the contract of service between AMT and the council)

Levels of fare

AMT

Integrated ticket Amt/Trenitalia 90'	90 minutes on bus and 1 trip on Trenitalia in the Council	€ 1,00
Carnet 10 tickets Amt/Trenitalia 90'	For each ticket 90 minutes on bus and 1 trip on Trenitalia in the Council	€ 9,50
Suburban ticket	One ride on the suburban lines specified on the ticket (*)	€ 0,50

ALI

Tariff	Single ride	Integrated ticket with AMT
1	0.70	1.25
2	0.85	1.45
3	1.00	1.60
4	1.20	1.80
5	1.65	2.20
6	2.00	2.55
7	2.55	3.15
8	3.10	3.65

TIGULLIO

Single ride

Code Tariff	Km	Price
A	0 to 4	€ 0.80
B	4,1 to 8	€ 1.00
C	8,1 to 12	€ 1.10
D	12,1 to 16	€ 1.30
E	16,1 to 24	€ 1.50
F	24,1 to 32	€ 1.80
G	32,1 to 40	€ 2.00
H	40,1 to 50	€ 2.50
I	50,1 to 60	€ 3.00

Carnet

Type	Km	Price
11 rides A	0 to 4	€ 8.00
11 rides B	4,1 to 8	€ 10.00

Time ticket

90 minuti

€ 1.30

Mechanism of redistribution of fares between participating companies/authorities.

The fares are completely managed by the operators. So each company can define its own policy of integration in fare or ticketing.

Copy of the documents according to which the integration is organised:

The “convenzione AMT/FS” is important because it defines how the two services can join in a unique ticket and fare system. Especially, Art. 6 defines how the all revenues are divided between the AMT and Trenitalia: 8% of monthly revenues up to approx. 52.000.000 , after this income AMT recognizes monthly 18% of further incomes. Actually Trenitalia is revising the extremes of the agreement.

Trenitalia leaves to AMT the following services: print tickets, distribution of tickets, collect revenues, all these functions are rewarded with a 8% of total distribution and administrative costs in charge of AMT. (for better analysis see the agreement attached)

NETWORK INTEGRATION

In order to define the current situation in a way as clear as possible, we try to outline the level of the network integration with respect to the following sets:

1. TP urban (AMT) – TP urban (AMT)
2. TP urban (AMT) – extra-urban (ALI & TPT)
3. TP urban (AMT) – extra-urban railway
4. TP urban (railway) - TP urban (AMT)
5. Extra-urban railway – extra-urban (ALI & TPT)

Paths and interchanging zones:

1. TP urban (AMT) – TP urban (AMT)
Actually only an operator manages the service and therefore there is no particular problems concerning this issue.
2. TP urban (AMT) – extra-urban (ALI & TPT)
The terminals for the extra urban lines are positioned in a strategic place of the city and within the urban territory the paths coincide with the main urban ones.
3. TP urban (AMT) – extra-urban railway
This type of interchanging is quite good: in fact the two main railway stations are connected with the PT network very well and also the peripheral stations have at least one connection with the central area.
4. TP urban (railway) - TP urban (AMT)
In this case the previous considerations are true.
5. Extra-urban railway – extra-urban (ALI & TPT)
The data about this level of integration are not available.

Timetables:

1. TP urban (AMT) – TP urban (AMT)
In the urban centre and in all the Council's territory timetables have a good frequency and grant the continuity of service of all the public transport.
 2. TP urban (AMT) – extra-urban (ALI & TPT)
Good integration between the urban public transports and the extra-urban lines characterised by a more isolated rides, there are silent agreements to define and adjust timetables of PT that link the urban core with the periphery. In daytime trip's frequencies allows a good connection between the urban and interurban PT, in the first or last part of the day the timetable's connection between the two services is essential. An important function has also the customer, who point out incidental troubles in timetables connections.
 3. TP urban (AMT) – extra-urban railway
The connection between these PT are very good, especially because the two main railway stations collects the main part of extra urban railway are perfectly connected with all council area.
 4. TP urban (railway) - TP urban (AMT)
The two transport systems, one by train the other by bus (metro, funicular and elevators) are interconnected and work together like a one only net. Train timetables are fixed for the whole year so, extra-urban public transport pay attention to create a good net of interchanges between the two modalities. Therefore wheel transport timetables fit to the train timetables.
 5. Extra-urban railway – extra-urban (ALI & TPT)
The two extra urban transport companies have their terminus or are well connected to the main railway station in Genoa: Brignole and Principe stations, to serve at best all central and residential zones. In this case the extra urban bus transport try to fits at best to the train timetables.
- There is also transport integration between the urban transport and boat transport (Map 6), but actually it hasn't already start to serve the public transport users. This new mean can create a good integration between the actual network of PT and this new way of transport.
 - Another kind of integration only in timetables exists between PT and aero transport. A urban line link the urban centre with the airport from the opening time till the last flight has come.
 - There are no systematic examples of integration between bicycle and other PT
 - Taxi transport has no integration with the others PT, the only integration is related to the parks which are positioned near strategic places like railway stations, hospitals, airport.

Network planning:

In the Council the local operator AMT assures the network planning. The activity of planning and re-organize it will be in charge of a new authority called Agenzia. This new institution will plan and rule the entire PT in the extended area of Genoa's Council and Province (all this area is the so called metropolitan area). The region Liguria from a wider point of view defines the pillars of public and private transport included financings and ruling system. Till now PT operators in charge of urban and extra urban transport organize the network without a real intervention.

Network operability:

The operative network is in charge of the PT operator, which manages the public transport service.

Interchanging zones

Brignole railway station, is a good example of a new integration system, in this case the station was restyled paying attention to the integration between train and the others means of transport, like private car, urban and extra-urban bus. This place also changed in a good place for pedestrians.

Our council is developing a new infrastructure plan to assure a better interchange in the area council between private mean and PT. With the construction of underground parks near the centre, doing this the council is trying to disincentive car use in the centre. There is also new solution about using seaways to the centre with the prevision of interchange parks to leave car and get boat.

What are the companies involved?

AMT, Trenitalia, TPT, ALI.

What are the decision process concerning these various aspects of network integration?

The decision process isn't simple, because almost all form of integration are difficult to reach and to achieve through a linear process or a round table. In all the integration forms achieved, play a great role the users direct action to stimulate and control the service. The most successful case of integration in Genoa is the fare and ticketing integration in the council area, in this case the two parts realize (under public pressure) an agreement to simplify PT's usage. But the process was long and difficult to achieve.

Other examples of integration are almost all natural and they function without a real and planned decision process. Today Council of Genoa is trying to solve the difficulty walk of the integration in the regulation of PT in the extended area of Province to melt in an only agency all the functions related to the planning and regulation of the local public transport. Within 2003 there will be no more three authorities but only one agency, the number of total operators in the area isn't yet clear but all the authorities and representations are working to put in clear all this elements.

What companies and authorities are involved?

In the case of fare integration are involved only the operators, the authorities had a marginal role in the definition of network integration. The authorities control only the tariff policy and the scheme of network lines.

How is organized the integration process?

The process of integration is natural, and actually there isn't no planned way to integrate all the PT functions.

The council of Genoa, following the national (D.lgs., 422/97) and regional (L. reg. 31/98) normative indications has decided to start a process of reorganization of the service of transport public together with the others two authorities: the province and the region. This process has as final objective that to create a new structure of planning, planning, regulation and control of all net of the local public services.

Copy of the documents according to which the integration is organised.

Copy of the agreement between Trenitalia and AMT

WIDER INTEGRATION

In the actual situation PT has no integration with the other modalities, there is no system, which integrate all modalities in only one mobility system. These objectives of integration will be the principal aim of the future agency for Transport.

Exist only one example of integration between public transport and private transport that from 1999 coordinates these two modalities: a mobility management system try to organize better those critical part of the day with a peak flow of private mobility reorienting the modalities of transport to support PT instead of private means.

Since October 2002 Genoa is experienced a new form of authorities integrations called Consulta. This new institution create a good round table in which take all authorities involved from Council, Province and Region with their aldermen in transports and presidents. In this round table is possible creating a particular.

THE WAY TOWARDS INTEGRATION

Information integration

It's difficult speak of a really integration of information in the metropolitan area of Genova, there are many instruments of information with also good quality for their own but there isn't yet a real form of integration between all the information instruments. Operators have tried in time to create a better relationship with their users with more integrated information but without a real strategy. The only case of good integration in information was the production of a unique book with all kind of information about urban council services, (AMT and Trenitalia) this book started in 1994 but stopped in 2001 when Trenitalia decide to print its own book on sell. This integration in information was borne like an direct consequence of tariff integration but actually doesn't exist yet.

In information was also a good support only one a services European project helped in some way this process of spread more information directly to users, one in particular was the SIMON project: dedicated to monitor all bus trips with a GPS system thought for make possible to forecast the bus passage at the bus stop and inform passengers by mean of notice-board. This is a good system and all authorities and operators want to improve this service to extend this monitoring to all bus system also supported by the mobile phone's function.

Tariff integration

Before the introduction of the tariff integration in urban area passengers try to use only one mean of transport to avoid pay two services: train and bus. So people who lived in the council area used only bus ticket or pass, instead who lived out of council or near the border prefer to pay only train pass or ticket and try to avoid use bus transport. Because Trenitalia had in the council territory many railway stations with its own box offices, Trenitalia, introducing tariff integration with AMT, could low costs decreasing the number of employees at the box office and it increases passengers in the council area. AMT tried with this integration to increase the number of transported passengers above all under public opinion's pressure and under the direct direction of Genoa's Council. So economic and social benefits was the main reasons for this tariff integration. The actual scheme of tariff integration is still operative since 1994 but in this last time Trenitalia is trying to increase its own revenue percentage.

In this case Council had always a particular attention for tariff integration, in the contract between Council of Genoa and AMT at the Art. 8 there is request as a especial task that of tariff integration with extra urban lines (the contract is attached)

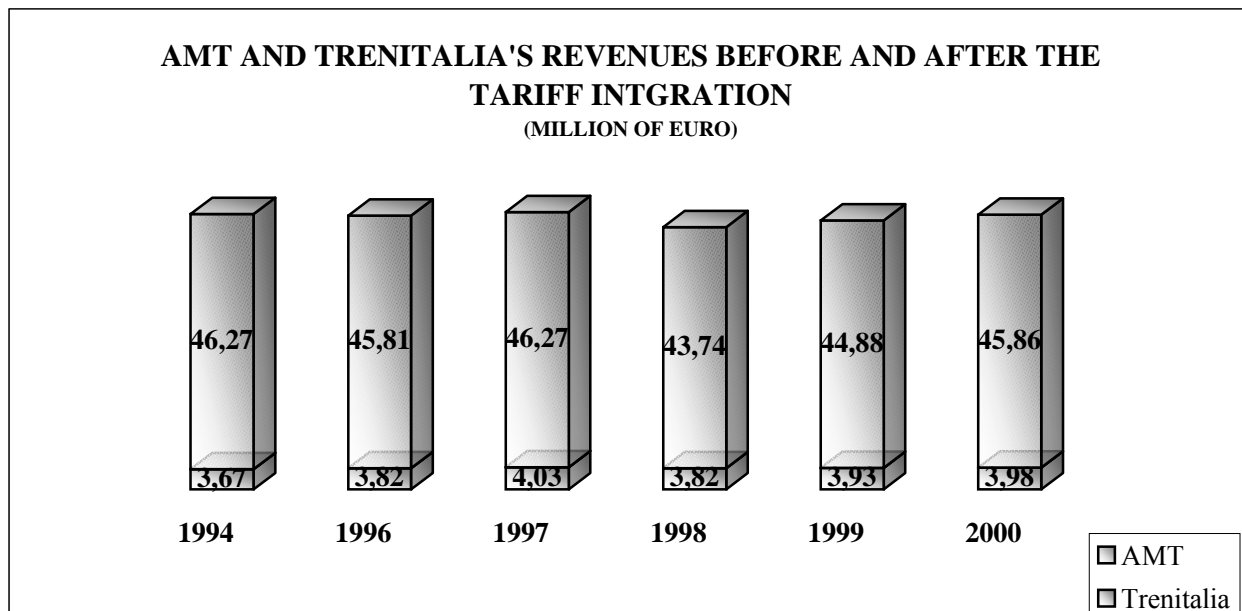
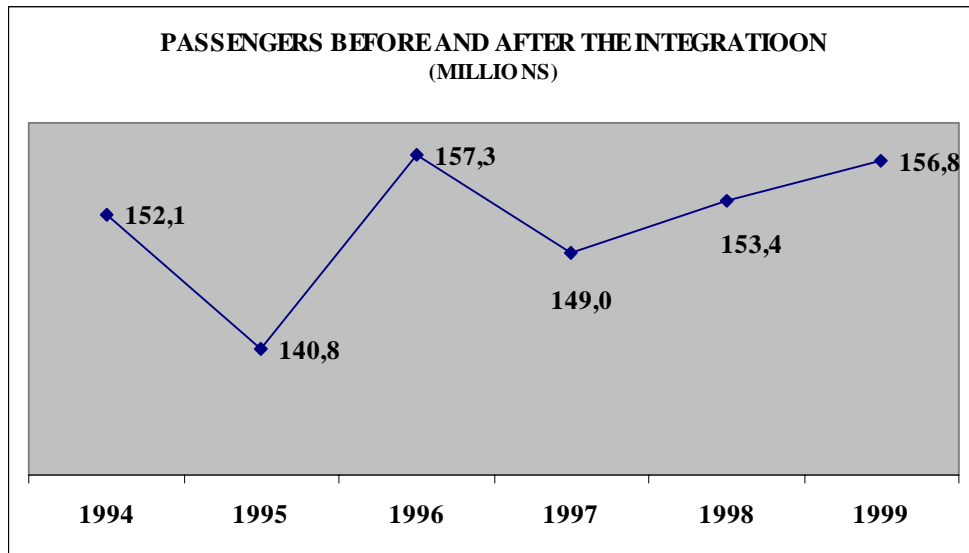
At a more wide level also the region defines the criterions for the tariff integration among the different operators, this integration politics is included in the "Programma dei servizi pubblici locali per il triennio 2002-2004". The region assures in all its territory a coherent tariff level furnishing a tariff gap for all kind of service: urban and extra urban.

Region in all this integration process had a marginal function; also the province doesn't develop a central part in this process. Only the operators and Council of Genoa creates the correct synergies to introduce this new system.

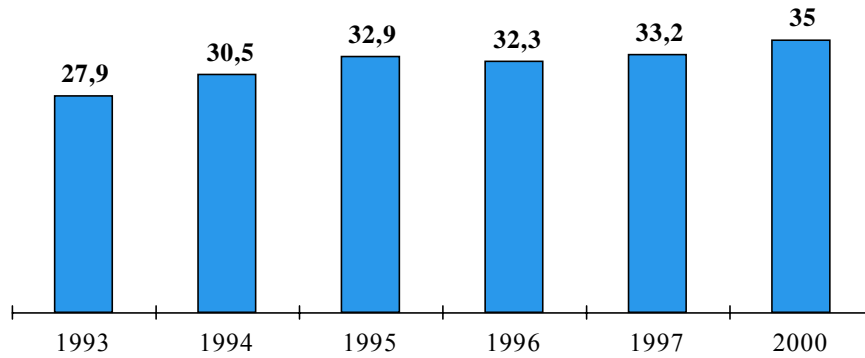
THE CONSEQUENCES OF INTEGRATION

Quantitative implications

Here are represented some statistics about the transition period between 1994 and 1996. In 1995 was launched the urban integrated tariff in all council area.



TRAFFIC REVENUES/COSTS
(%)



Qualitative implications

Tariff/ticketing integration

The tariff integration in urban area assured a growing interest in PT, so that all citizens perceive better the PT's network in general.

Passenger's interest for tariffa and ticketing integration		
	Very interesting (%)	very + quite interesting (%)
TOTAL	38	64
• PONENTE	68	88
• POLCEVERA	59	85
• CENTRO	34	59
• BISAGNO	25	51
• LEVANTE	20	49
• FUORI GENOVA	37	78

WISHES, PLANS AND BARRIERS FOR FURTHER INTEGRATION, FEARS FOR DESINTEGRATION

Planned integrative features

The creation of a public transport agency is the most important integration action in the short period. This new actor will play an important function of coordination and integration of all public and private transport means in only one authority. The agency will superintend to all metropolitan area (Council and province area) waiting for a decision of region.

The process of an agency's constitution was difficult but now are decided the private form of the authority and the main functions: re-organize public transport and prepare the better scenario to the future tender, scheduled by national (422/97) and regional laws (31/98). Other aspects are already in discussion, like the property of means, the number of operators, the creation of a public enterprise for the maintenances. The creation of the agency is a hard work because there are some political division not only into the Council, but also between the Council and Province (both left party) with Region (right party)

The improvement of monitoring system installed in half fleet can be improved to all vehicles, to grant a continuous client's information about wait time for a transport. The most important problem is financial, because AMT is crossing a difficult period with poor financial resources for innovation. Clients, operator and authority are agreed on the utility of the project, but miss funds.

The definition a unique information data base along all the region to simplify the long and short distance trips. This system is under the responsibility of the region which has the responsibility for plan and rule PT in all regional area.

The national normative scheduled within the end of this year the opening of PT's market to tender. Also this important rule create the right situation for the develop of a new conscience in plan, organize and control public transport service.

Which measures could not be (yet) implemented and why?

There are some important measures, which are considered important, but not yet realisable:

- To develop an integrated informative system that allows all citizens to choose the more appropriate transport or modalities according to the real needs and of the location of the movement. This system must be accessible to everybody and easy to consult.

The main difficult is join in only one reality all the transport functions actually divided in different offices and with different authorities and operators

- To develop a control and regulation system of public and private transport in all its elements to govern in an effective and efficient way metropolitan mobility. With a clear and defined scheme it will possible utilize flexible and dynamic instruments like incentives, penalty, prohibitions and conditionings of the traffic in a integrate way. All interventions in transports are so linked to a specific objective.

In this case there is a great difficulty in reply function in different institutions with a scarce result for a lack of integration in internal function

- To define good interchange zones between urban and extra urban networks, integrating perfectly all the actual public and private transports with the complete future metro line.
- To improve the road infrastructures in the peripheral zones and to conclude the projects of reorganization of the flows of traffic in the central zone of the city with the construction of the tunnel under urban core centre.
- To create interchanges zones that allows a good modal split not only in bus, train and metro but also with the other means like bicycles, cars and boat.

In this case there are great urbanistic problems and not always the better project for transport can fit to the orography and to the global citizen's exigencies.

Fears for desintegration

Political elements can weaken the actual extent of integration and act negatively on the future definition of a new PT integrated system. Politicians have to satisfy many urgent necessities and normally try to avoid great project with a long term projection. Also financial aspects have an important influence on the feasibility of integration programs.

An example of this is what is happening: Genoa has to respect financial obligation and has the prohibition to start a loan and consequently pay the AMT's debt. This situation create great problem one the one hand, but on the other create the ideal situation (together with the new legal scenario of tender) to reform all the public transport system. Sometimes bureaucracy is a limitation to a more wide integration in all the authorities functions, and it can isolate each functional part, blocking the positive network effect. The infrastructures represent another important problem in Genoa, the narrow places and the scarce organization of space can create bad conditions for good network integration.

LESSONS: SUCCESSES, FAILURES AND TRANSFERABILITY

Our case study evidence that in the case of fare integration we have achieved a good integration level but still incomplete: all extra urban bus a train have only a partial integration with the Genoa's transport network. In ticketing we are already use the paper support and actually there are only project to introduce new smart card supports.

In information we have many solutions and many innovative supports but there is already a real will of integrate in only one all the information.

In the case of network integration we have achieved a good extent of public service in the council area and also in the extra urban area but also in this case there isn't any explicit plan or agreement to create integration's objectives.

In the wider integration scheme the integrations problems of are more evident. In all the area exist examples in integration between modalities and transport managing but this is recent an only in this last time try to define a global project for all mobility. A recent

example of integration is the creation of a Unit for Urban mobility Plan and Transit, this new unit try to coordinate all the functions and activities under a unique objective and direction.