



INTEGRATION AND REGULATORY STRUCTURES IN PUBLIC TRANSPORT

CASE STUDY – PARIS-ILE DE FRANCE

Paris, June 2003

1- GENERAL INFORMATION ON THE CASE STUDY

A/ General statistics on the case study

- Area size and population

Total area : 12,000 km²

Built-up area : 2,500 km²

Surface of Paris-city : 105 km²

Population : 10.9 million, divided between 2.1 million in Paris-city, 4 million in the inner ring of suburbs, and 4 million in the outer ring of suburbs

- Public transport supply and patronage (figures for 2002)

	Heavy rail	Metro	Tramway	Bus	Total
Trips (million)	3 240	1 283	52	1 230	5 805
Passengers-km (million)	14 278	6 184	136	4 029	24 627
Places-km (billion)	97.9	24.7	0.4	18.6	141.6

- Modal split

In the whole region: 29% of motorised trips are made by public transport

In Paris-city: 62%

In the suburban areas: 15%

B/ Actors involved in public transport

- General organisational form

The organisation of all public transport networks of the Paris-Ile de France region is a responsibility of Syndicat des Transports d'Ile-de-France (STIF), which is a public body bringing together the French government, the regional council and the 8 “départements” (counties) making up the region (including the city of Paris, which is both a municipality and a county). Transport services are operated by more than 80 companies chosen and authorised by STIF, two of them public monopolies (RATP and SNCF), the other ones private companies. Companies have endless rights for the operation of their services, and they receive subsidies from STIF, which sets the level of fares. STIF is linked to RATP and SNCF through service contracts, which define the quantity and quality of services which the two companies have to provide, and the public funds which they will be granted by STIF in exchange for that.

- Operators involved in the integration

➤ Régie Autonome des Transports Parisiens (RATP)

RATP is a state-owned company that was created in 1948. It has a monopoly on all the routes which it was granted by the legislator in 1948, and endless rights to operate the routes which it was granted by STIF since 1949. RATP hires some 40,000 employees.

Mode	Lines	Length of network (km)	Stations	Rolling stock	Places-km (billion)	Passengers (million)
Metro	16	211	380	2 954	24.8	1 247.1
Heavy rail	2	115	67	1 056	18.7	403.8
Tramway	2	20	34	99	0.4	35.8
Bus	317	3 388	7 499	4 364	9.6	899

➤ *Société Nationale des Chemins de Fer Français (SNCF)*

SNCF is the state-owned company in charge of operating the French railways. It has a monopoly to operate all services of the national rail network, which include most of the railway routes used for suburban and regional services in the Ile-de-France region. Its departments operating services in Ile-de-France employ some 20,000 people.

Mode	Lines	Length of network (km)	Stations	Rolling stock	Places-km (billion)	Passengers (million)
Heavy rail	5 RER lines + tens of suburban routes	1 286	380	3 905	78.8	560

➤ *Private bus companies*

The OPTILE federation brings together some 80 bus companies which operate regular bus services in the outer ring of suburbs. These services are awarded for an illimited period of time by STIF, which can take them back but has to compensate the company for the loss of revenues. The companies in OPTILE have some 7,500 employees.

Mode	Lines	Length of network (km)	Stations	Rolling stock	Places-km (billion)	Passengers (million)
Private bus routes	928	15 916	19 791	3 940	175.6	262

- Organising authority

STIF is the authority responsible for all public transport systems in the Paris-Ile-de-France region. STIF's missions include :

- . approval of all regular services and choice of operating companies (usually, the companies propose, some time in co-operation with local authorities, some new services to STIF, which checks that they are well integrated into the network and calculates the financial impact of these new services on the cost of operations)
- . follow up of all the projects of new infrastructures
- . definition of fare policy and setting of fares for all public transport systems in the region
- . co-ordination of the activities of the transport companies (information, interchanges, etc.)
- . improvement of the quality of services through dedicated investments
- . financial balance of public transport operations (STIF compensates about 2/3 of the whole cost of public transport systems)
- . surveys about the future needs of mobility

STIF is managed by a board of 34 directors: 17 of them represent the French national government, 5 of them the Ile-de-France Region, 5 the City of Paris, and 7 the 7 other counties. It is chaired by the representative of the government in the region ("Préfet").

A committee of public transport users and partners was created in 2001. It brings together representatives of municipalities, of passengers, of trade unions and of economic sector. It is consulted by STIF on several topics including the fare policy.

STIF has some 120 employees, and among them:

- . 25 persons working on the supply of transport services
- . 20 persons working on new infrastructures
- . 10 persons working on fare policies
- . 10 persons working on mobility and other surveys

- . 4 persons working on contractual and legal issues
- . 4 persons working on electronic ticketing systems
- . 3 persons working on communication issues

- Other actors involved

➤ *National government* : the French national government is deeply involved in the organisation of public transport systems in the Ile-de-France region, since 1) the government has the majority in STIF's board of directors, 2) the government is the shareholder of the two main transport companies (RATP and SNCF), 3) it contributes half of the total public subsidies granted to STIF and 4) it is still responsible for the definition of the urban mobility plan for the Ile-de-France region. The ministries of transport and finance are more especially involved. The regional department of the ministry of transport is also a very close partner of STIF, since it prepares the urban mobility plan for the region.

It should be noted that this situation is about to change since the new government elected in 2002 has announced its wish to withdraw from STIF as of 2005 so as to let local authorities be the only members of STIF.

➤ *Local authorities members of STIF*

The Region and the Counties have some competencies related to public transport. The Region is for example responsible for the regional master plan, which sets the objectives of development of the region for 25 years, including in terms of transport infrastructures and urban development. The Region also gives subsidies to operating companies to help them invest into clean and accessible vehicles. The Counties have a responsibility for social policies (handicapped people and students).

➤ *Municipalities*

The 1,280 municipalities of the Ile-de-France region all have some competences interfering with public transport although they are not members of STIF (at the exception of the city of Paris). They are responsible for the local urban development plan, for the regulation of parking policies on their territories, for street management, and they can grant subsidies to operating companies which run services on their territories, in addition to the compensations granted by STIF for the integrated fare system. In the future, it will be possible for some local authorities to become organising authorities for local services under the supervision of STIF, which will remain responsible for the fare policy and the co-ordination at the regional level of the transport systems.

➤ *User groups*

Several user groups exist in the region. Most of them are represented in a regional federation, which is a member of the committee of transport users and partners that was created in 2001 and whose secretariat is managed by STIF.

C/ Evaluation of this framework

The regulatory framework of public transport operations in Ile-de-France has been very successful in the setting up of one of the largest integrated public transport systems in the world. 11 million people can travel on the networks operated by more than 80 different transport companies with the same ticket. This has been possible thanks to the existence of STIF, which has been responsible for the co-ordination of the provision of transport systems

in the region for more than 40 years, and for the implementation of an integrated fare system which provides some very attractive tickets.

Since it was created in 1959, STIF's mission was mostly to ensure that the transport services proposed at the initiative of transport companies were well integrated with each other and to pay compensations for the cost of the integrated fare system and of reduced fares for special categories of passengers. Companies, and more especially the competent and powerful RATP were responsible for the detailed network management (proposal of new services, schedule, itineraries, etc.).

However, the situation is progressively changing, under several factors:

- the signing of contracts between STIF and the public companies RATP and SNCF in 2000 is turning STIF into a real organising authority in charge of the definition of the amount of services which the companies must provide;
- the need to deepen the integration of services has led to a stronger involvement of STIF so as to co-ordinate the activities of the transport companies. This is illustrated with the example of the Navigo contactless smartcard, which was first developed by RATP, but whose implementation was supervised by STIF so as to ensure that all companies adopt the same technology and that the schedule and the modalities of implementation can be co-ordinated for the whole region;
- the soon to come withdrawal of the national government from STIF and the greater involvement of local authorities in the organising authority means that STIF will have a stronger political legitimacy to define services and to act as an organising authority in the future;
- the possible introduction of competitive mechanisms under European pressure in the future, and, at the same time, the new possibility for RATP to operate services outside the Ile-de-France region (since 2000) means that the political authorities won't be able to rely on RATP for planning of the networks in the future as much as they did in the past, when the company was a kind of *de facto* organising authority.

2- THE WAY TOWARDS INTEGRATION

2.1 Situation before integration

The setting up of an integrated public transport network in the Paris-Ile de France region has been progressive and is still not complete, as is shown in the following section. It is therefore difficult to compare the situation *before* and *after* integration, as if integration had happened at once. It is, however, possible to mention the main characteristics of public transport systems before integration started.

- operation of services

Integration of the different transport systems and of transport companies into one single network has improved and simplified in a determinant way the provision of transport services. For example, the decision to integrate the heavy rail systems operated by RATP and SNCF into one single RER network has had a major impact on the attractiveness of this transport mode, which carries millions of passengers at a high speed across the metropolitan area every day.

Before integration, passengers coming from the southern suburbs and going to the northern suburbs had to change train at Gare du Nord station. With the decision to provide an integrated service in spite of the presence of two different transport companies, passengers now stay in the same train and don't even notice that the operator has changed. The same phenomenon occurred with the integration of western and eastern suburban trains operated partly by RATP and partly by SNCF.

This integration has also been materialised in the building of interchange stations where different transport companies operate different services, such as Chatelet les Halles or La Defense multimodal interchange stations.

- fare structure

Before fare integration, passengers had to buy a new ticket every time they changed transport operator, and even every time they changed from one transport vehicle to the other within the same company. STIF used to approve the fare levels, which were different for each company.

- pertinent territory

Before the extension of the territory of integration of public transport systems to the whole Ile-de-France region (1991), many persons living in the suburban territories of the Paris metropolitan area could not have access to the integrated network although they had to travel in the urban area for their daily trips.

- integration with other modes of transport

Before the first park and ride facilities were built, it was difficult for car drivers to leave their vehicles close to railway stations, which was a major impediment to attract people living within non walking distance from railway stations.

For bicycles, before the launch of the policy aimed at fostering intermodality between cycling and public transport, it was not easy to leave one's bike close to metro and railway stations, and it was not allowed to take one's bike in public transport systems.

2.2 Transition towards integration

The different steps of integration have been undertaken with one main objective : to increase the attractiveness of public transport systems through easy-to-use and cheap services. The

motto of STIF since more than 40 years has been “simplification” as far as fares are concerned, and provision of adequate, high quality, transport services connecting the different parts of the metropolitan area.

Key dates of integration of public transport systems in the Paris Ile de France region:

- 1948: a law creates both Office Regional des Transports Parisiens (ORTP), a public agency bringing together the national government and the counties and responsible for the co-ordination of transport systems, and RATP, the state-owned company in charge of operating public transport in the Paris urban area (merger of the former company responsible for metro CMP, and of the company responsible for bus services STCRP);
- 1949: a national regulation defines the rules of co-ordination between rail and bus services that organising authorities must implement;
- 1958: draft development plan of the new business district of La Défense, in the western suburb of Paris, with high quality public transport connections with Paris (45 years later, 150,000 people work in La Défense);
- 1959: setting up of STP (the former name of STIF) in replacement of OTRP, responsible for implementing the co-ordination of public transport systems in application of the regulation of 1949;
- 1964: the regional master plan (“schéma directeur”) is adopted. It proposes to build five new towns so as to curb the chaotic urban sprawling of the Paris urban area, and to provide heavy rail services between Paris and each of these new towns;
- 1968: creation of the “metro-autobus tickets”, sold by 10, that can be used on metro or bus services of RATP alike;
- 1969: harmonisation of fare structures for regional railways operated by RATP and SNCF at the occasion of the creation of the first RER regional railway;
- 1970: inauguration of the RER station of La Défense business district;
- 1971: creation of the Transport Tax (“Versement de transport”), paid by all organisations with more than 9 employees so as to fund public transport systems in Ile-de-France;
- 1971: creation of weekly work passes giving access to SNCF regional rail services and RATP rail, metro and bus services. These passes don’t contain fare reductions, they simply enable passengers to buy one combined ticket instead of two;
- 1972: decision to provide interchanges between future RER A and B heavy rail routes in the centre of Paris;

- 1975: creation of Carte Orange, a multimodal zonal monthly pass accepted by all transport companies (RATP, SNCF and private bus companies) and enabling an unlimited number of trips. The territory of the urban area is divided into 5 concentric zones;
- 1976: creation of a yearly zonal pass of Carte Orange (price = 10.8 x monthly pass)
- 1977: inauguration of the tunnel connecting the western and eastern suburban railway networks – the new RER line A - at a major interchange in the very centre of Paris (Chatelet-Les Halles);
- 1979: inauguration in the centre of Paris of a tunnel connecting the south-eastern with the south-eastern railway networks of SNCF (RER line C);
- 1981: inauguration of a tunnel connecting the southern and northern suburban railway networks at Chatelet-Les Halles station (RER line B);
- 1982: a law makes it mandatory for employers to reimburse half the price of the season passes used by their employees for their trips to work;
- 1982: creation of a weekly season pass of Carte Orange;
- 1984: the yearly season pass becomes “Carte Integrale”. The objective is to increase its sales, which remain quite low (10,000) in comparison to the monthly Carte Orange (1.5 million users). It can now be paid on a monthly basis and is replaced in case of loss or theft. The price goes down from 10.8 to 10.5 times the monthly pass;
- 1985: creation of a daily pass of Carte Orange;
- 1991: the territory of STIF is extended so as to cover the whole administrative territory of the Ile-de-France region (10.6 million inhabitants) and not only to the Paris urban area. The season passes can now be used in the whole region, which is divided into 8 concentric zones;
- 1995: inauguration of a new tunnel in the centre of Paris connecting the northern and South-Eastern railway networks of SNCF (RER line D);
- 1995: harmonisation of single tickets used for heavy rail, metro and bus inside Paris. All bus trips inside Paris only need one single ticket;
- 1998: creation of the Carte Imagine’R, a yearly zonal pass for pupils and students of less than 26 years accepted by all transport companies and enabling travel on all zones during week-ends and holidays;
- 1999: inauguration of a new tunnel in Paris connecting the north-eastern suburban railway networks of SNCF with the western part of Paris (RER line E);
- 1999: all trips on bus routes only need one ticket whatever the distance travelled;
- 2001: launch of the electronic contactless smartcard for the yearly passes;

2002: setting up of an association bringing together all the transport companies of the region and in charge of co-ordinating the provision of multi-modal information to passengers with the support of STIF (AMIVIF);

2003: harmonisation of the single ticket used on all transport companies in the region (“Ticket T”);

2003: setting up of a regional centre of information about accessibility to people with reduced mobility of all public transport systems in the Ile-de-France region

Process of integration

The process of integration was progressive and public authorities were largely responsible for the success encountered.

Concerning fare integration, the fact that STIF, the public transport authority, has always been responsible for setting fare levels in accordance with the laws which created it has helped the authority to implement its policy of progressive integration. Indeed, the companies have never had any capacity to oppose the decisions of STIF, which represent the political will. Although the process has been more complicated when it has come to the integration of fares of the private bus companies, the example of what had been achieved with the public companies was a strong incentive.

Concerning integration with land use projects, such as La Defense or the new towns (see below), the fact that such major projects were carried out by public development companies depending on the national government, which also happens to be the shareholder of RATP and SNCF transport companies, and which has the majority of power within STIF’s board of directors, has been a strong facilitator.

Concerning integration of information, the fact that STIF is an organising authority with no or very little contact with passengers, has not helped the authority to have a marketing strategy. It was always considered that the relationships with passengers were under the sole responsibility of companies, which could therefore have the communication policy of their choice. But things are beginning to change and STIF has for example pushed for companies to join to provide integrated information about trips (journey planner) on the internet and on the telephone.

Concerning integration with other modes of transport, the policy of promotion of park and ride by STIF can be explained by the fact that STIF inherited at the end of the 1960’s some large park and ride facilities which had been built by the national government in the context of major civil works programmes involving extension of metro lines. STIF therefore became responsible for the management of these facilities and also started to build new ones. Progressively, STIF reached the decision not to build and manage these facilities itself any more but to give local authorities and transport operators subsidies so as to help them build such new facilities. In exchange for these subsidies, STIF imposed some requirements to the managers of the facilities, such as opening hours or the maximum price that can be charged for car parking. This long-term and steady policy has led to the current 110,000 parking lots available for car drivers close to metro or heavy rail stations. This result has been possible thanks to the fact that STIF has a special resource at his disposal under the form of half of the total amount of road traffic fines paid by car drivers in the Ile-de-France region. This revenue

reached €80m in 2002 and is entirely devoted by STIF to investments of upgrading of quality of service of public transport systems. Concerning integration with bicycles, it was first an initiative of RATP to promote intermodality between bicycle and public transport and to build bike racks at metro stations. STIF, which first had no policy in favour of this intermodality, had to adapt to this initiative of the public company, and therefore adopted a policy of promotion of this intermodality through subsidies to transport companies and local authorities.

2.3 Description of the current situation of integration

2.3.1 Information integration

There is no real integration of information to passengers at present. Each transport company is responsible for the information towards its customers, and is free to say what it wants in its communication. Each company has its own maps of the networks and information services, which sometimes provide information about other companies' networks, but not always. The heavy systems (heavy rail, metro and tramway) are usually mentioned in the maps of all companies since they attract most of the traffic, but information about bus services is not always available.

The creation in 2002 of an association bringing all the operators together for the provision of multi-modal information (AMIVIF) should help improve the situation soon for the information on the internet and by telephone. A website devised jointly by all public transport companies with the support of STIF (www.transport-idf.com) has been launched recently so as to provide passengers with accurate multi-modal information involving all transport networks of the region.

STIF is mostly involved in institutional communication (decisions of its board of directors, new projects of investment, fare policy), and also funds some specific information campaigns (for example for the introduction of the new integrated single "ticket T" in 2003). A new law of 2000 says that transport authorities are responsible for the provision of multi-modal information, which should lead to a stronger involvement of STIF in the future.

2.3.2 Ticket and fare integration

STIF is in charge of the fare policy. STIF decides the creation of new fare products and sets the level of fares. Companies cannot sell tickets at other prices than those decided by STIF (legal obligation).

The way tickets look is decided by STIF in co-operation with the companies. Tickets are sold by companies in 1,450 retail outlets in the region, but only RATP and SNCF can sell integrated season passes, even though these tickets can be used on private bus networks.

A difference should be made between single tickets and season passes. Season passes (daily, weekly, monthly, yearly, for students) are fully integrated tickets. This means that they can be used on all transport modes (heavy rail, metro, tramway and bus) and transport companies of the zones for which they have been purchased. Contrary to this, single tickets are not fully integrated, but simply harmonised. The single ticket for buses, metros, tramways, and heavy rail in Paris ("Ticket T") is unique and can be bought from any of the 80 operating companies since 1st January 2003. However, the single ticket enables only interchange between heavy

rail and metro, or between metro lines. It is not possible at the moment to change buses, or to take a bus after a metro with the same ticket.

Riverboat services, taxis and long distance public transport services are not integrated in the fare system.

STIF co-ordinated the ticketing systems, and supervised the introduction of the electronic contactless Navigo smartcard since 2001 in co-operation with the transport companies. STIF is responsible for deciding the steps of this introduction, and brings subsidies to help companies buy the validating machines. After the yearly passes which have all been turned to electronic contactless technology, it has been decided that monthly passes will use this technique as of 2004. No decision has been made by STIF for single tickets so far. As a result, validating machines have to read both magnetic and electronic tickets.

Current fare structure : the Ile-de-France region is divided into 8 concentric fare zones (see map in annex). All passes are devised for a given number of zones. Season passes account for two thirds of all trips.

Price structure (€)

	Price for city centre (zones 1-2)	Price for whole region (zones 1-8)
Single trip ticket	1.30	18.00
Ten-tickets book	9.60	144.00
Daily pass	5.00	17.95
Weekly pass	13.75	38.65
Monthly pass	46.05	128.00
Yearly pass	467.28	1 298.77
Yearly pass for students	242.10	742.50

2.3.3 Network integration

As already mentioned, STIF authorises all regular public transport services provided in the Ile-de-France region. The legal documents creating STIF say that he has to ensure that all new services are co-ordinated with the existing ones. The detailed timetable of routes are managed by companies themselves. The biggest transport companies have departments for the planning of services, but in the end, it is STIF which decides if the services can be operated or not.

Concerning new transport infrastructures, STIF approves the projects from the early phases and ensures that the future infrastructures provide good integration with existing ones.

At the operational stage, there is no real mechanism enabling to ensure good integration between services. Nothing obliges the buses from one operator to wait for the trains of another company, or even from the same company. However, things are moving in the right direction. STIF is responsible for the interchange committees which have been set up in the context of the urban mobility plan, and which aim to improve the quality of interchanges for passengers. Some contracts of improvement of interchanges are signed between STIF, the transport companies, and the local authorities. STIF brings subsidies to companies and local

authorities to improve the provision of information, to build park and ride and bike and ride facilities, to improve accessibility to people with reduced mobility, etc.

It should also be noted that private bus companies receive compensations from STIF which are based on the number of passengers which they carry. This is a strong incentive for them to plan and operate their services in a way that will maximise the number of passengers.

2.3.4 Wider integration

➤ *Integration of public transport with other modes of transport*

The integration with *private cars* has been a key objective of STIF through its active policy of development of park and ride facilities since the 1970's. STIF gives subsidies to local authorities and transport companies wishing to build park and ride facilities close to heavy rail stations and owns itself some large such facilities. As a result, 110,000 lots are provided today to car drivers.

The integration of public transport with *bicycles* is more recent, but some efforts have been made over the past years. First, racks for bikes at train stations are being multiplied with the financial help of STIF. The number of bikes that can be parked has jumped from 1,000 in 1997 to more than 6,000 in 2002. Secondly, all heavy rail services now accept for free bicycles outside rush hours during the week, and all the time during the week-ends. Lastly, the city of Paris has started a new programme of building of protected bus lanes large enough to be allowed for bikes as well (4.50 m). These new lanes, which have received subsidies from STIF, already make up more than 40 km.

Some recent and still limited initiatives have been launched so as to promote integration between public transport and *car rental*. Holders of yearly passes now have special price reductions to rent cars. The objective is to enable public transport users to have an easy access to car rental when they really need a car, and thus to renounce owning one.

For the moment, there is no integration with *taxis* and with *car-sharing* schemes.

There are two cases as far as *trips to school* are concerned : in the urban areas, there are no specific school services, and pupils and students take the mainstream public transport services with the yearly pass for pupils and students. In the rural areas remote from the centre of the metropolitan area, pupils have some specific bus services bringing them to their schools. These services are not part of STIF's responsibilities for the moment, and they receive subsidies from local authorities. But this might change in a very near future since a law plans to give to STIF the responsibility for school transport services.

The integration of public transport with *specific transport services for people with reduced mobility* is about to be seriously improved with the setting up in 2003 of a regional centre of information about the accessibility of public transport systems devised and funded by STIF. This agency will provide handicapped people with some accurate information about the level of accessibility of mainstream public transport services, and if necessary, will recommend the people to contact organisations providing door-to-door on demand services.

Bus tours for visitors are authorised by STIF if they belong to the category of regular services (determined itinerary and schedule).

Concerning *long distance trips*, there is no fare integration with local public transport. Airports and long distance stations are well connected to the public transportation network and provide numerous connections with the city of Paris and other parts of the metropolitan area. Most of these services are integrated in the regional fare structure.

➤ *Integration of public transport with other services*

Integrated fare products exist for specific attractions. For example, it is possible to buy an integrated ticket providing trip to Disneyland Paris resort by public transport and entrance to the theme park. This ticket can only be bought from RATP stations. In the same way, STIF creates tickets for specific occasions, like the Football world cup in 1998, or the Athletics championship in Summer 2003.

➤ *Integration of public transport with town planning*

Transportation systems and land use are integrated at the planning stage in the long term regional master plan (“schéma directeur”), which is prepared by the regional council, a member of STIF, in co-operation with the regional agency of the ministry of transport. The master plan sees to it that future urban developments provide good public transport. The following cases are good examples of successful integration between transport and land policies:

- *La Défense* business district was devised at the end of the 1950's as a major business district outside, but close to, Paris city (4km in the west). From the very beginning, it was planned in such a way as to provide good connection by public transport with the centre of Paris, but also with the rest of the region. Today, La Défense has become a major hub of public transport systems (heavy rail suburban routes, RER, metro, tramway and buses), and 85% of the 150,000 employees of the area go working by public transport.
- The master plan of 1965 decided to build five *new towns* outside of Paris so as to curb chaotic urban sprawling. The plan saw to it that each of these new towns can have a direct and fast connection with Paris through RER services.
- *New subcenters in the inner ring of suburbs* : a law of 1964 reorganised the institutional framework of the Paris region by creating some new counties (“departements”) so as to provide better administration to the growing suburban area. The capital cities of these new counties (Bobigny, Créteil) were devised in a way to become some focal points with a concentration of administration, business, cultural and shopping activities. So as to provide good connections with Paris, two metro lines were extended to serve these cities.

In a shorter term perspective, the urban mobility plan sets some guidelines which have to be taken into account by municipalities when they prepare their own land use plans.

➤ *Integration of public transport with environmental policy*

There is a narrow co-ordination between the policies of protection of the quality of the air and of the policies of mobility. The law says that the urban mobility plan prepared in co-ordination with STIF, and the regional plan of air quality, prepared by the regional services of

the ministry of the environment, have to be compatible. Besides, STIF and the regional council grant subsidies to operating companies which invest in clean vehicles.

3- THE CONSEQUENCES OF INTEGRATION

3.1 Quantitative consequences

As far as public transport systems in the Ile-de-France region are concerned, a key finding is that the total number of trips, which stagnated and even decreased between 1945 and 1975 (-12%), suddenly started to rise again in 1975 (+33% between 1975 and 1993). It should be noticed that all statistics mentioned in this chapter stop in 1993 so as to leave apart the impact of major strikes of public transport employees which took place in December 1995, and which led to a fall of public transport patronage by 10%. This fall of patronage in 1995 has had a lasting impact, and patronage reached higher levels than in 1994 only in 1998. Ever since, it should also be noticed that patronage has risen fast (+8% between 1999 and 2002), and faster than the increase of supply of services during the same period.

It is difficult to identify with certainty among the different factors involved in such a phenomenon the one which plays the greater role, but it is certain that some possible reasons can be excluded:

- the increase of public transport patronage between 1975 and 1993 is not linked to an increase of population. The population of the Ile-de-France region increased by 50% between 1949 and 1975, while public transport patronage fell by 12% during the same time. By contrast, between 1975 and 1993, the population only increased by 2%, while traffic was up by 33%.
- the increase of public transport patronage between 1975 and 1993 is not linked to the evolution of car ownership. During this period, indeed, the number of private cars increased by 38%, that is to say much more than the increase of population. More people having access to private transportation, one could expect the patronage of public transport to fall, but exactly the contrary happened.
- the increase of public transport patronage between 1975 and 1993 is not linked to a policy of reduction of public transport fares. Between 1975 and 1993, the average cost of public transport for passengers has increased by 30% more than inflation.
- the increase of public transport patronage between 1975 and 1993 is not linked to a favorable evolution of public transport fares versus the cost of usage of private cars. Between 1981 and 1993, the cost of private car in real terms has decreased more than the cost of usage of public transport (cost of petrol fell by 35% in real terms, total cost of usage of private car fell by 15%, and the cost of usage of public transport only fell by 10%).

Three main factors can therefore account for the strong increase of public transport patronage after 1975 :

- increase in the supply of public transport services. As has already been mentioned, major new infrastructures (RER heavy rail suburban systems) were built after 1975. These have

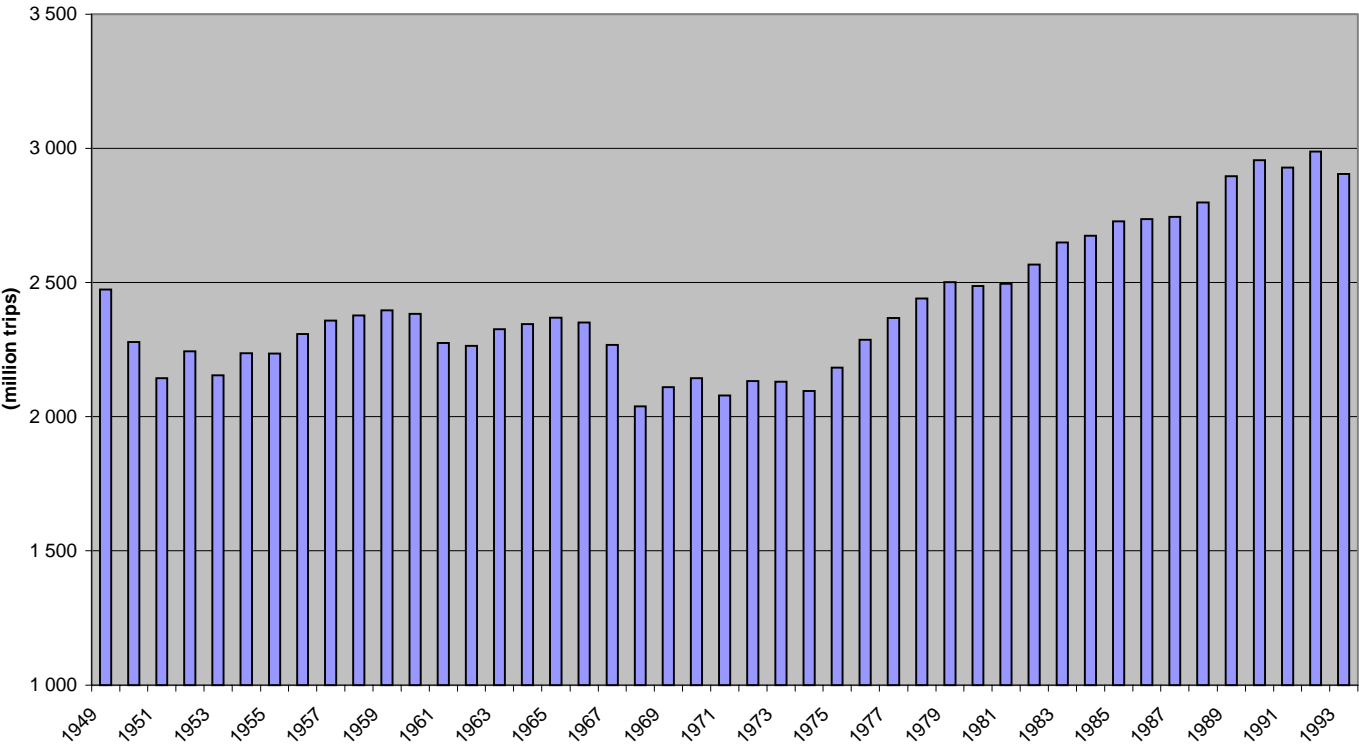
improved in a determinant way the attractiveness of public transport for long distance trips in the suburbs, which have seen the stronger increase of their population during this period. Between 1975 and 1993, the total supply of transport services by RATP and SNCF increased by 66%.

- improved integration of services. It is difficult to quantify integration of services. One of the good indicators is the fast increase in the sale of integrated season tickets (“carte orange”). The possibility to travel easily on various public transport modes operated by different companies has been a strong incentive to foster usage of public transport. Today, two thirds of all passengers use integrated season passes in Paris-Ile de France. One aspect should also be mentioned. Season passes are not only integrated tickets enabling to travel on different transport modes and companies, but they also, and perhaps above all, enable an unlimited number of trips. As a result, the strong increase of patronage can be interpreted not only by the fact that public transport systems attract new passengers, but more certainly by the fact that people who already used to travel on public transport before integrated passes were created, travel even more now. A proof of this is the fact that car traffic has gone on increasing during this period.
- a reduction of alternative modes of transport (walking and cycling), which benefited to private car and also to public transport. For example, the existence of season passes has pushed some people who used to walk for short or medium distances to take the bus instead since this doesn’t cost them more money thanks to their pass.

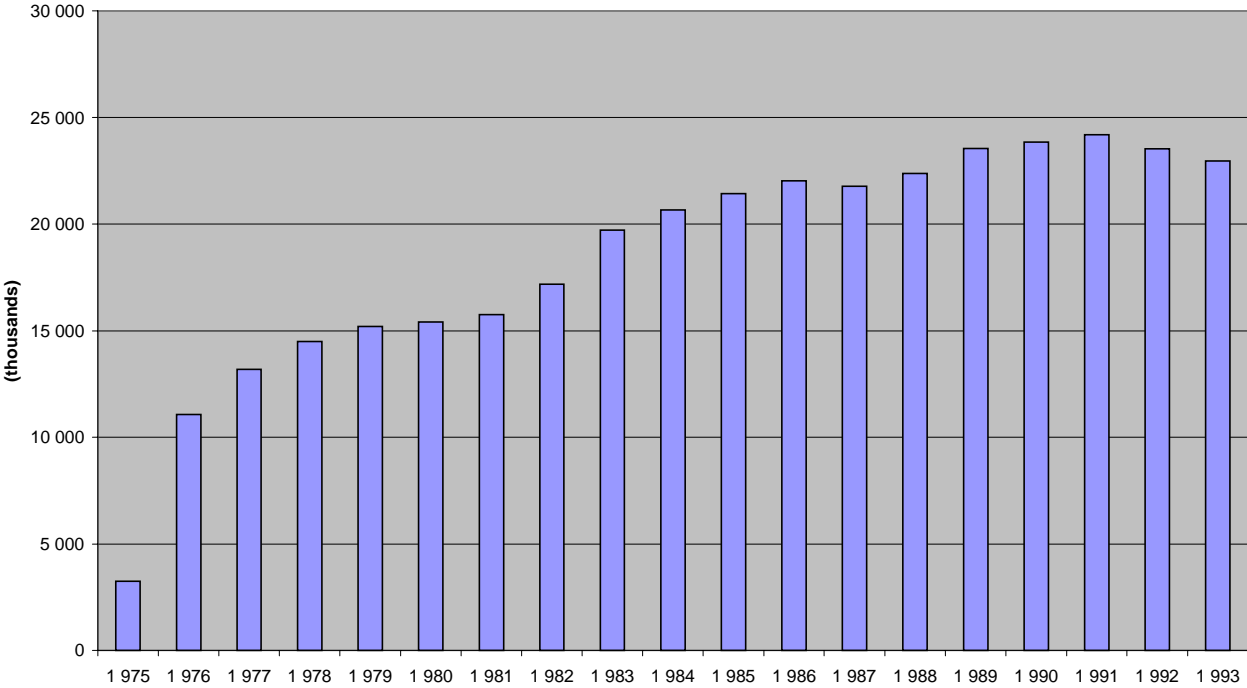
The success of integrated season passes has made it necessary to invent ways of sharing revenues of fares between the companies. This mechanism is carried out yearly on the basis of surveys funded by STIF, which enable to see what share of an integrated ticket is used for each company.

Concerning the integration between public transport and private car, the policy of promotion of park and ride has been very successful, and the 110,000 parking lots close to public transport stations provided to car drivers are heavily used and account for a significant part of the users of these networks.

Patronage RATP+SNCF (1949-1993)



Sale of integrated season passes



3.2 Qualitative consequences

The improvement of integration has led to an increase of the number of people using several modes of transport and several transport companies during their trips. Although we don't have simple statistics about this reality, it is obvious that the fast development of integrated season passes, which now make up for two thirds of all tickets used, has been an incentive for people to switch easily from one mode to the other.

A consequence is that interchange stations play a key role in the mobility chain of passengers, and that there is a strong need of improvement of their quality.

A positive consequence is that passengers now have the feeling that they have an integrated, easy to use, public transport network at their disposal, independent from the more than 80 companies which operate it. The negative consequence that goes with it is that passengers sometimes find it hard to know who is really responsible for what. It is very difficult for passengers to understand that the southern part of RER line B is operated by RATP and that the northern part is operated by SNCF. Therefore they don't know who they should complain by when they are not satisfied, and they don't understand why they have to change train when there is a disruption or a strike of one of the two companies.

The absence of integrated information is also a negative aspect. The quality of information provided can vary a lot from one company to the other and there are no minimum standards.

Concerning operators, integration has led to the understanding that no company can act alone and has to co-operate, whether it is for sharing revenues of integrated tickets, or for the organisation of interchange stations. In some cases, this co-operation is easy, but in others it requires strong involvement of the transport authority because of the difficulty of the issues at stake. For example, the introduction of electronic ticketing for all the public transport systems has been successful thanks to the leadership of STIF, which played a key role for the adoption of the technical standards, for the definition of the process of implementation, and for the adoption of the visual aspects of the cards.

4- WISHES, PLANS AND BARRIERS FOR FURTHER INTEGRATION

4.1 Planned integrative features

Main projects that could still improve integration in public transport systems in Ile-de-France in the future are as follows:

- development of integrated tickets for park & ride and public transport: the current success of park and ride facilities would still be stronger thanks to an integrated fare system.
- setting up of a high quality, priority bus network for the whole region, with common communication patterns independent from operating companies. This project, called “Mobilien”, has been defined in the context of the Urban Mobility Plan adopted in 2000. It aims to create a real “surface underground” with characteristics close to those of tramways (high commercial speed, lines structuring the mobility needs, high amplitude of services and high frequencies, high quality rolling stock and high level of accessibility). The 150 Mobilien lines serving the whole territory of the region, and more especially suburban areas with insufficient public transport supply at the moment, will make public transport more attractive and easy to use. The definition of common standards of communication (design of vehicles and stops) for all transport companies involved is a difficult issue.
- improvement of interchanges with better access for pedestrians, cyclists, taxis, etc.. In the context of the Urban Mobility Plan, 150 major interchange stations will be improved through a close co-operation of the different actors involved (local authorities, transport companies) under the supervision of STIF.
- development by the public transport authority of a common information policy and setting up of a single centre for the treatment of complaints. This objective of the transport authority will mean that transport companies agree to renounce part of their competencies, which will certainly not be easy to achieve.
- better co-ordination between public transport and taxis. Taxis are organised by a special department of the Ministry of Interior, and are therefore not co-ordinated with public transport systems which are organised by STIF.

4.2 Fears for disintegration

The legal framework of public transport organisation in Ile-de-France and the current developments towards a stronger and more involved public transport authority (STIF) will certainly lead to a higher level of integration of public transport systems in the future.

Fears for disintegration sometimes expressed by companies like RATP in the context of a possible future introduction of competitive mechanisms don't seem pertinent since they mix two different concepts : integrated network and integrated company. The current situation, in which more than 80 different transport companies make up an integrated transport network thanks to integrated services and fare system, is the best illustration that the existence of an integrated network can be achieved even with several transport companies.

5- LESSONS AND TRANSFERABILITY

Ile-de-France is a good example of a public transport network with a high level of integration on a wide territory (12,000 km²) and with a large number of transport operating companies (more than 80). The growing patronage of public transport systems since 1975 is a good illustration of the impact of integration on the attractiveness of public transport.

This high level of integration was achieved thanks to a variety of factors :

- in a perhaps paradoxical way, the presence of several operating companies (at least two of them, RATP and SNCF, playing a key role in the central part of the metropolitan area) has been rather a chance for integration, since it was clear very early that there was a need to provide passengers with integrated tickets between the companies. The two companies, which were both public and in no way competing with each other, accepted this necessity very easily;
- integration has been progressive. For fares, it took 25 years after the creation of integrated season passes to create a single ticket accepted on all transport companies ("Ticket T" in 2003). The positive results of the first steps achieved have been a strong incentive to go on with the process of integration;
- the legal framework, which gives the public transport authority (STIF) a real administrative power, the legal capacity to impose its decisions on transport companies (fare policy, investments, authorisation of lines, compensation for deficits, etc.), and lastly the financial independence to bear the consequences of these decisions thanks to its own resources (revenue of the Transport Tax, a tax paid by employers of more than 9 people, which amounted to €2.3bn in 2002, subsidies of its members, and revenues of road traffic fines paid by car drivers);
- integration didn't cause losses of revenues to companies since STIF for example always compensated for the price reductions which it imposed on them. However it is clear that companies can be more reluctant to integrate their services when this means to renouncing part of their identity, as illustrated by the difficulties encountered to integrate information to passengers.

The fact that the two main transport companies (RATP and SNCF) are state-owned enterprises has certainly played a positive role in the integration of public transport services at the beginning (example of two RER heavy rail suburban routes that are operated jointly by the two companies). But now that all companies, even the private, accept the need for a high level of integration of services, it is the duty of STIF to act accordingly so as to keep on increasing the level of integration.

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Contact for further information:

Stéphane Lecler

Responsible for international affairs

STIF

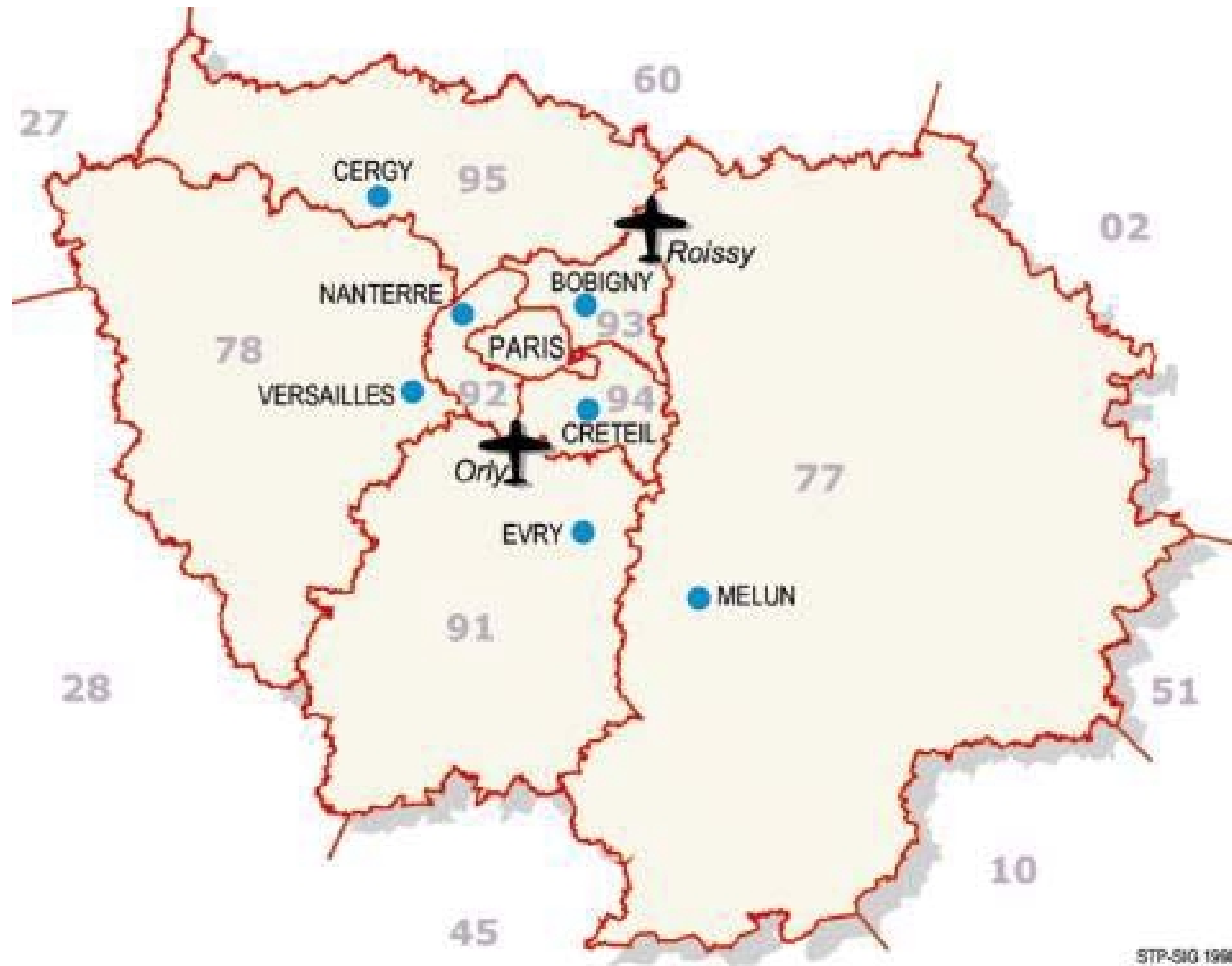
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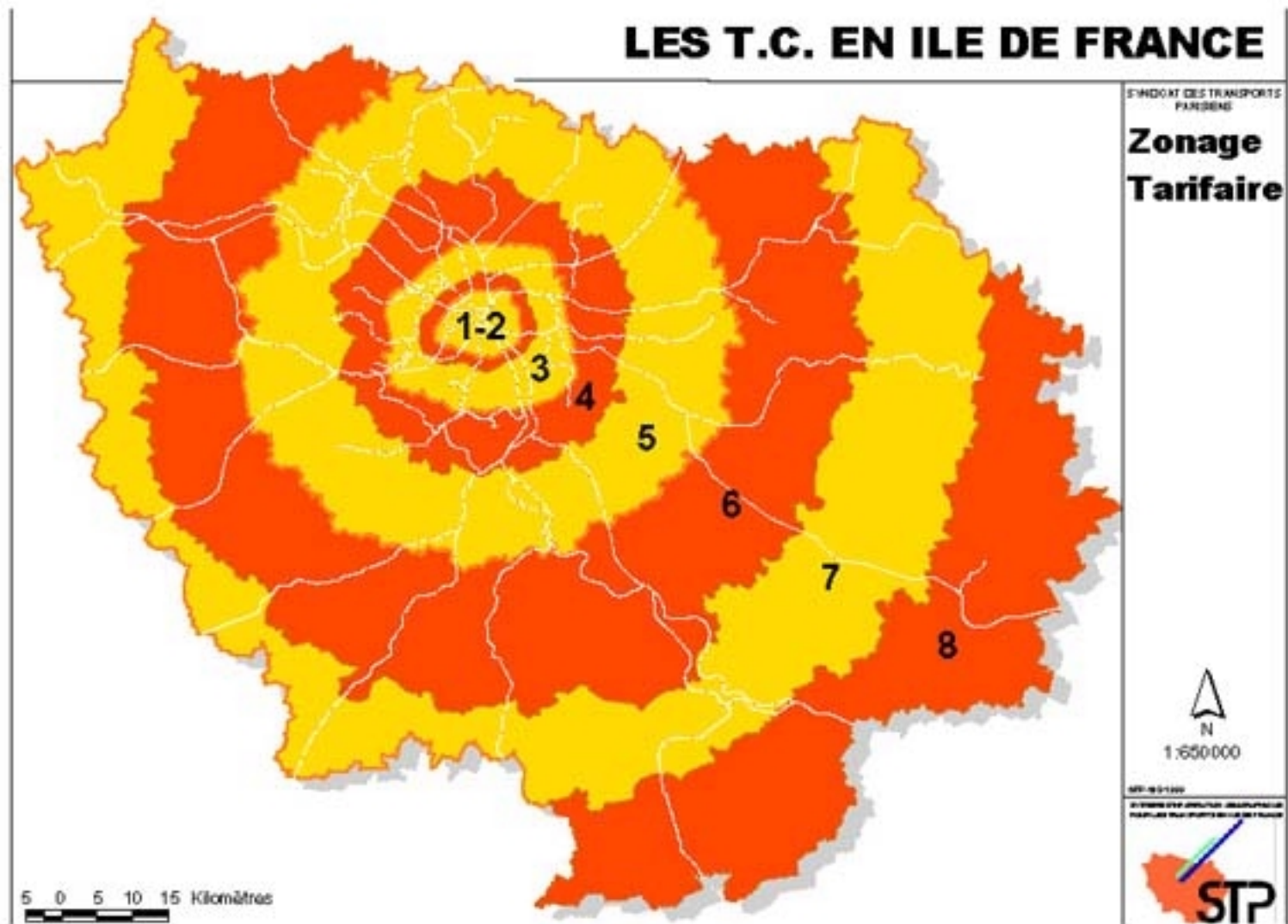
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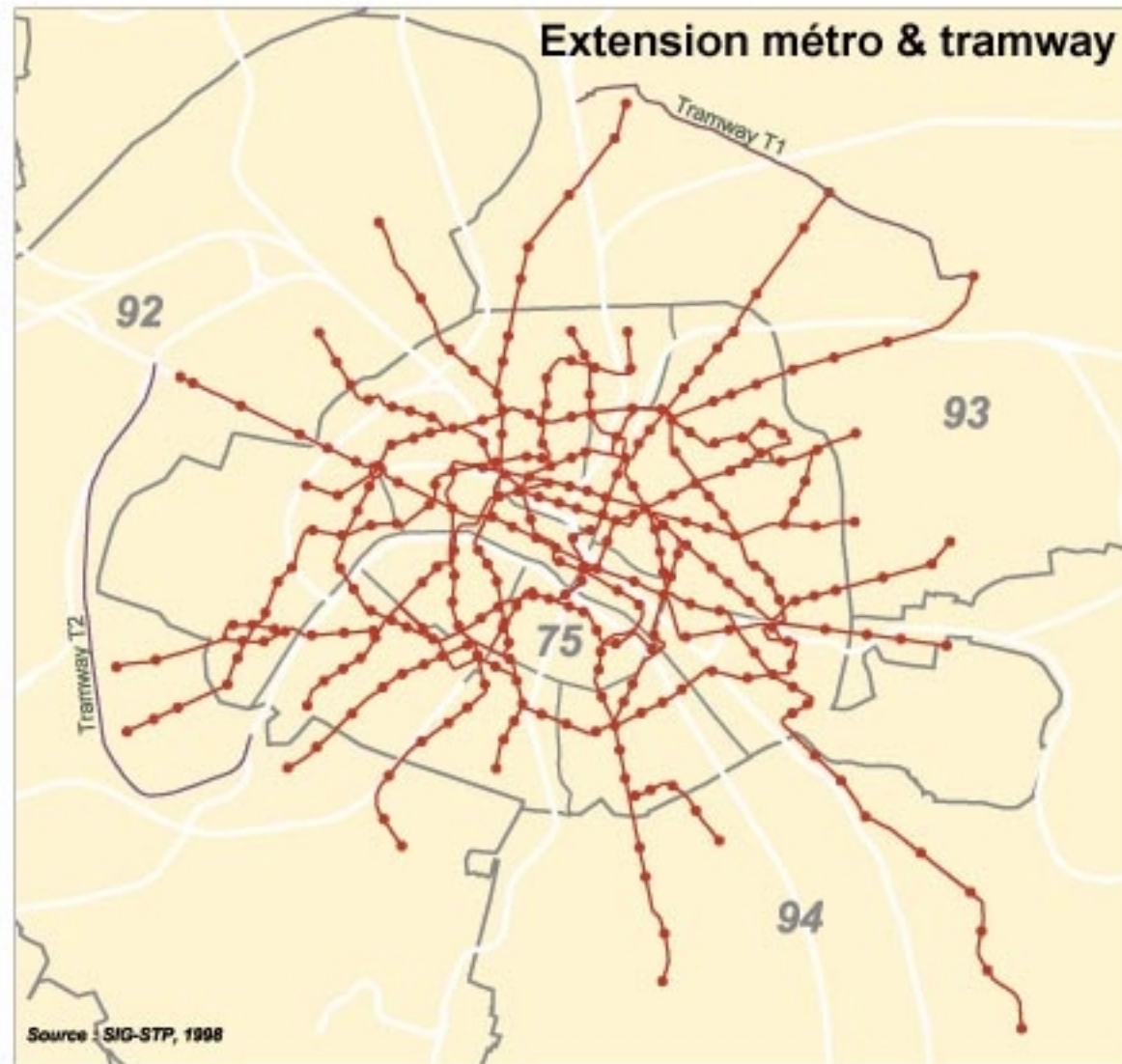
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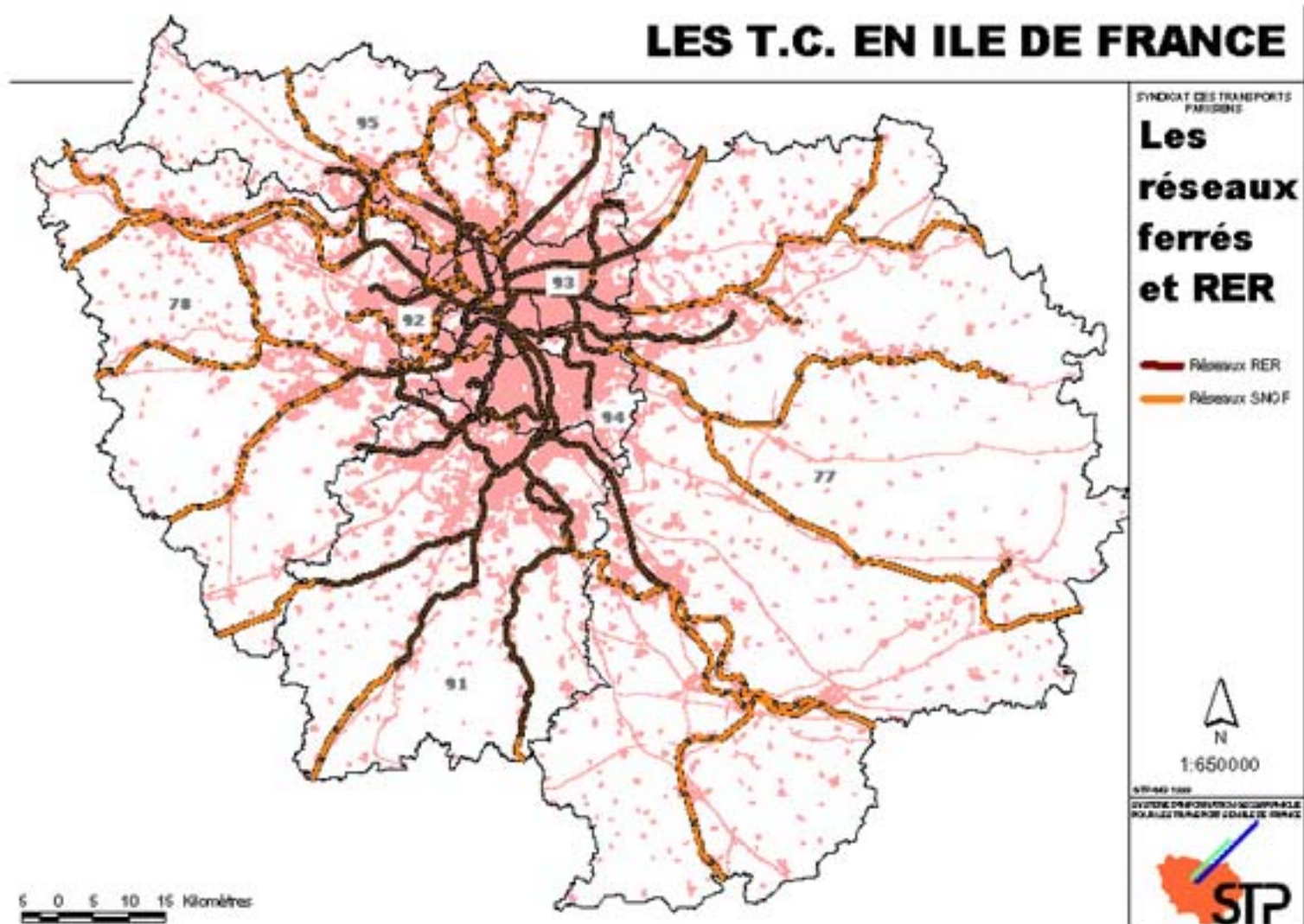
Annexes

- Annex 1: Map of the administrative structure of the Ile-de-France region
- Annex 2: Map of fare structure
- Annex 3: Map of metro and tramway systems
- Annex 4: Map of RER and suburban railway systems
- Annex 5: Map of bus networks
- Annex 6: Map of park and ride facilities











■ Rodeau - Tramway - TCSP
■ Tangentielles
■ Lignes de métro
■ Desserte des pôles
■ Grands pôles intermodaux
■ Liaisons interrégionales

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