Public-private partnership in building public transport lines with right of way in France: a new start?

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Summary:

At the end of the eighties, several French conurbations considered calling on private companies to construct public transport lines with right of way[1].

Some ten years after the signature of the first statutory contracts, and faced with a growing number of public transport projects in French conurbations, we feel it necessary to take stock of how these contracts have weathered and how other French conurbations intend to construct their metros, LRTs and bus lines with right of way.

Therefore this study recounts the organisation of promoters and the financing of public transport with right of way in sixteen French conurbations with populations from 125,000 to 1,150,000.

It appears that the great majority of French conurbations no longer commit themselves to public-private partnerships and conurbations such as Toulouse or Rouen have reversed their choice regarding the statutory contracts that they had granted for a first line.

Growing numbers of public partners are asked to finance projects, leading to financing of certain projects by more than five such bodies. This is particularly the case of projects for bus lines with right of way for which the part remaining to be financed by the public transport authority is less than 60%.

[1] In France, a public transport line with right of way is one having strong priorities: metro, LRT, guided road vehicles, and bus on dedicated lanes.

1 Context

At the end of the eighties, several French conurbations considered calling on private companies to construct public transport lines with right of way.

The reasons given for this choice were generally related to insufficient resources belonging to the public transport authorities, the flexibility of private management, guaranteed lead-times and the agreement by private statutory companies to take on risks.

Thus several private statutory contracts came into being, at Toulouse for an automatic metro (known as the VAL), and at Rouen and Grenoble for LRT lines.

Approximately ten years after signing the first contracts, and faced with an increasing number of public transport projects in French conurbations, we feel it necessary to take stock of how these statutory contracts have weathered and on the way other French conurbations intend to undertake the construction of their metros, LRTs, and bus lines with right of way.

We have therefore questioned public transport authorities on the organisation of the contracting body and the financial engineering linked to the construction of a public transport system with right of way.

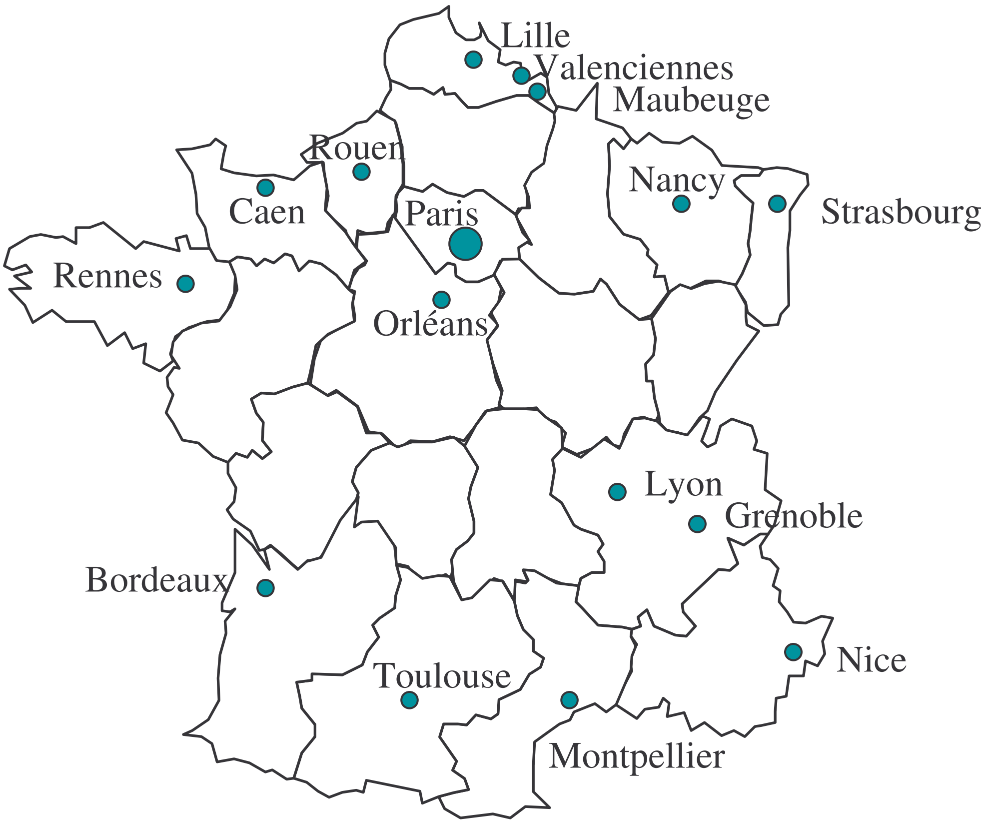
A questionnaire was sent to 18 public transport authorities, concerning 29 projects.

The choice of conurbations and projects was made according to the following criteria:

- above all, the projects in progress or for which works were scheduled within a relatively short time.
- in spite of everything, certain lines already in service, but most particularly lines that had been contracted to a private operating company. These are the Rouen LRT, line A of the Toulouse metro, and line 2 of the Grenoble LRT.

16 authorities answered with respect to 24 projects.

2 Sixteen conurbations questioned with populations from 125,000 to 1,150,000



Lyon	1,150,000 inhabitants	Valenciennes	335,000 inhabitants
Lille	1,080,000 inhabitants	Rennes	330,000 inhabitants
Bordeaux	635,000 inhabitants	Montpellier	285,000 inhabitants
Toulouse	630,000 inhabitants	Nancy	265,000 inhabitants
Strasbourg	430,000 inhabitants	Orléans	250,000 inhabitants
Rouen	390,000 inhabitants	Caen	195,000 inhabitants
Grenoble	380,000 inhabitants	Maubeuge	130,000 inhabitants
Nice	345,000 inhabitants	Saint Denis de la Réunion	125,000 inhabitants

3 The political organisation of public transport management in France

The organisation of public transport in France is handed over to a political structure known as the public transport organising authority.

Initially, the responsibility for public transport belongs to the municipality, but it can be delegated to a structure grouping several municipalities and even to local authorities of differing ranks (e.g., municipalities + "Départements"[2]). Furthermore, this structure may have responsibility only for public transport, or other responsibilities, such as town-planning, roads, economic development, etc.

The responsibility for public transport covers the urban transport area, which, according to the conurbation, can include from one to ninety municipalities. The "transport levy" is raised from this area by way of a tax on companies which pays for the operation of public transport.

The policies pursued by public transport organising authorities in France can therefore differ greatly according to the conurbation.

In the sixteen cases that concern us, we therefore have:

3.1 Nine organising authorities incorporated in inter-local authorities having responsibilities other than public transport:

- The Bordeaux Urban Community (27 municipalities), Nancy (20 municipalities), and Strasbourg (27 municipalities).
- Districts of Montpellier (15 municipalities), Rennes (33 municipalities) and Rouen (33 municipalities).
- The Community of the municipalities of Orléans (20 municipalities) and Saint Denis La Réunion (3 municipalities).
- The inter-local authority syndicate of Maubeuge (26 municipalities).

The financial participation of the different municipalities therefore depends directly on taxation and does not rely on an annual vote of the different municipalities.

3.2 Five organising authorities have the sole responsibility for urban public transport:

- This is exercised by syndicates including the "département" and the municipalities or an inter-local authority structure:
  - ➜ Lyon: Département + urban community (55 municipalities)
  - ➜ Grenoble: Département + urban community (24 municipalities)
  - ➜ Caen: Département + 19 municipalities including Caen
  - ➜ Toulouse: Département + Toulouse plus a syndicate grouping peripheral municipalities (52 municipalities).
- In a syndicate of 65 municipalities at Valenciennes.

In those cases, the financial participation of each of the local authorities is subject to an annual vote.

[2] The "Département" in France is equivalent to the British County.

3.3 Lastly, two special cases:

Lille shares the responsibility for transport with the urban community (87 municipalities) and an operating syndicate grouping the urban community and the département.

The municipality of Nice, which does not have a inter-local authority structure, runs the organising authority alone.

4 The technical structure of the organising authority

Confronted by this diversity in the political structure of the organising authority, the technical structure and thus the capacity of expertise of the public transport organising authority varies greatly among the sixteen conurbations in the sample.

➜ Half of them have light structures with an often easily identifiable financial department:
- fewer than 4 people at Maubeuge, Saint Denis La Réunion and Valenciennes
- 7 to 12 people at Caen, Montpellier, Nancy, Nice, Orléans and Rouen

➜ While the other half has larger departments:
- approximately 20 people at Grenoble and Rennes
- 35 people at Toulouse
- more than 50 at Bordeaux, Lille and Lyon.

The largest departments also tend to be in the largest conurbations. Nonetheless, Rennes and Grenoble have departments with about 20 people and have populations comparable to or less than Nice, Rouen and Valenciennes.

Organising authorities stemming from larger structures, having responsibilities other than public transport, are able to benefit from a certain synergy with more general departments such as administration and finance.

However, this synergy can also exist for structures with only one responsibility, thus Grenoble has personnel who work for the syndicate for public transport and the community of municipalities (finance, information, logistics).

5 The 24 projects

- **5 metro lines or the extension of existing lines, for amounts ranging from 1 to 7 billion French francs.**
- **10 LRT lines or extensions of existing lines for amounts ranging from 1 to 3 billion French francs.**
- **4 lines in guided road mode, for an amount in the region of 1 billion French francs.**
- **5 bus lines with right of way for amounts ranging from 50 to 300 million French francs.**

- ➜ **16 of these projects will be brought into service from 2000 to 2002**
- ➜ **5 projects will be brought into service from 2003 to 2007**
- ➜ **3 lines are currently in service (Lines operated by statutory companies in Toulouse, Rouen and Grenoble).**

6 The promoters of projects are now mostly public

The cities which have already carried out a project in the framework of a statutory contract with a private consortium have all decided to reject this option for future projects. This is the case of Rouen for the TEOR and LISOR projects, Grenoble for its LRT extensions, and Toulouse for the extension of metro lines A and B. Moreover, Toulouse bought back the construction contract for line A at the end of 1997, just ten years after it was signed.
Only Strasbourg still maintains a statutory contract for line B of the LRT system, but the contractor is a semi-public company 78% of whose capital is owned by the local authorities.
Regarding the other conurbations and the projects underway, only Caen plans the construction of its project in the framework of a statutory contract.

6.1 Five projects under statutory contract, including 3 lines in service

- ➜ **Caen, transport with right of way project**
- ➜ **Grenoble, LRT line 2 – in service since 1990 -**
- ➜ **Rouen, metrobus (LRT) – in service since 1994 -**
- ➜ **Toulouse, metro line A (Val) – in service since 1993 -**
- ➜ **Strasbourg, project of LRT line B.**

The answer from Grenoble is very succinct; moreover the statutory contract in the case of LRT line 2 only covers the construction and not the operation of the network. We therefore exclude this answer from further analyses.
The four other statutory contracts that we broach next cover (or covered) project construction **and** operation.

The four statutory contracts have (or had) a term of thirty years, though the statutory contract of Toulouse was bought back by the public transport organising authority on 31st December 1997.

For the cases of Caen, Rouen and Toulouse, the contractor is a wholly private joint stock company, whereas for Strasbourg the contractor is a semi-public company 78% of whose capital is owned by the public authorities.

6.1.1 The reasons invoked by the authorities in favour of choosing a statutory contract

Caen: The desire to entrust the design, construction, pre-financing and management of the project to a third party.
Rouen: Insufficient technical resources and expertise vital for managing the lead-times for bringing into service.
Toulouse: The statutory contractor participates in the risk.

Strasbourg: Administrative flexibility of private management of the project, and guaranteed implementation of construction consistent with the imperatives of operating the future network.

6.1.2 Only Caen and Rouen have invited competitive tenders.

In both cases there were only two competitors.
Strasbourg and Toulouse signed their statutory contracts by mutual agreement before they were obliged by French law to issue an invitation to tender.

6.1.3 The prerogatives of the promotor which remain with the public authority.

They are almost the same at Toulouse and Rouen, i.e. no prerogative as promoter but every prerogative regarding operation: overall definition of transport and pricing policies and setting the level of the service supplied to the population. These prerogatives can be accompanied with contractual clauses for compensations paid to the contractor.
The prerogatives are stronger at Strasbourg. The public authorities have carried out studies up to and including the preliminary design stage, and obtained a declaration of public utility. It purchased the land and ensured the communication and consultation for the project including during the construction stage.

6.1.4 Nature of the project consortium:

Caen:
The consortium chosen as contractor is composed of two members: SPIE which holds 68% of the capital and Bombardier ANF which holds 32%. No change in the consortium is planned.

Rouen:
Three consortiums have been set up: a construction consortium led by CEGELEC, an operator: TCAR, subsidiary of the CGEA/CGFTE consortium, and a pool of banks led by Paribas.
The influence of each member changes through time according to the progress of the project: construction, intermediate stage of bringing into service, and operating stage with in particular the operator gaining increasing influence.

	Construction stage	Intermediate stage	Operating stage
Operator	20%	42.5%	56%
Constructors	60%	42.5%	34%
Bank pool	20%	15%	10%

Toulouse:
The project consortium was composed of the Caisse des dépôts 25%, Crédit local de France 21%, Transcet 5%, Semvat (network operator) 25%, Matra 19% (constructor of the Val), and financing organisations 5%.

Strasbourg:
The urban community is majority shareholder with 52% of the capital, the Département of Bas Rhin holds 26%, TRANSCET 13%, the Caisse des dépôts 4%, and the lending establishments of the CTS (contractor and network operator) also hold shares (the remaining 5%).

The CTS, which is a semi–public company (a SEM in french), do not completely reflect a changeover to the private sector since 78% of SEM's capital is held by the local authorities.

6.1.5 Commitments of the local authority /contractor

The commitment of the local authority is the same for all, a contribution to the investment and a lump sum contribution towards operation.

The financial contribution paid to the contractor represents nearly 65% of the transport budget at Caen and Rouen.

6.1.6 Risk sharing

Caen: No risk sharing, the contractor takes 100% of the risk, excluding taxes (tax conditions, on signing the contract).

For Rouen, Toulouse and Strasbourg:
➜ ***The risks taken by the statutory company:***
- commercial risk: supply and traffic
- technical risk on the progress of the works
- financial risk on investment and operating costs

6.1.6.1 The risks taken by the main contractor:

- risk of changes of tariffs and supply
- risk of interest rates at Toulouse and Strasbourg
- guarantee of loans at Strasbourg and Rouen

Moreover, the Toulouse contract provided formulas for sharing savings on investment and operation.

6.1.7 Moment of signing the contract

The statutory contract was signed before the preliminary design at Caen and Strasbourg, but in the case of Strasbourg, the public transport organising authority remained overall promoter up to the tender design and the granting of a declaration of public utility.
In the cases of Rouen and Toulouse, the contract was signed after the preliminary design and the even after the granting of a declaration of public utility for Toulouse.

6.1.8 The life of statutory contracts

The statutory contract at Toulouse was bought back less than ten years after its signature for mainly political reasons. Indeed, the elected representatives no longer controlled the public transport supply, especially that of bus transport in municipalities on the outskirts, since all the demands for new services, for example, were examined directly by the statutory company.
The statutory contract at Rouen also suffered from the same problems, and the parties are already at their eleventh additional clause in just eight years.
The statutory contract of Strasbourg alone appears stable, doubtless because the presence of the public authority remains strong, with 78% in the capital of the statutory company.

6.2 Eighteen projects under public promoters

6.2.1 Six organising authorities take on the role of promoter directly: Bordeaux, Grenoble, Lille, Lyon, Nancy, et Rouen, as well as Rennes, but only for bus lines with right of way projects.

Apart from Lille, they all call on (or intend to) external assistance to the promoter, mostly for tasks such as monitoring planning, technical expertise, legal expertise, etc.

6.2.2 Seven other organising authorities have chosen to delegate their responsibility as promoter: Maubeuge, Montpellier, Orléans, Rennes for the metro (Val), Saint Denis de la Réunion, Toulouse and Valenciennes.

The assignee is always a semi-public company (mostly public capital), except for Orléans, where there are two co-assignees: a semi-public company and a private company.
Generally, the mission of assignee is complete, in conformity with article 3 of the law on public promoters.

Nice has not yet decided on the organisation of the promoter for the construction of its projects.

6.3 Project operating conditions

All the networks incorporate the operation of the project into the overall operation of the network.

The term of the operating contracts is for 30 years for the networks contracted, and from 5 to 7 years for the others, except for Orléans for which the contract lasted a little longer than 10 years.

Lastly, Rouen has not yet taken the decision concerning the operation of the TEOR guided road mode project. Operation by the statutory company or in another way is still under discussion.

7 Project financing

7.1 Subsidies granted by third parties

7.1.1 Participation of Europe, subsidies from FEDER

Europe can subsidise projects in the framework of requalifying public spaces.
Three projects benefit from subsidies for an amount of approximately 6% at Maubeuge and Rouen (on the TEOR and LISOR projects), and 20% for the bus line with right of way of Saint Denis de la Réunion.

7.1.2 State participation:

The participation of the French State stems directly from a circular on State aid for public transport dating from the end of 1994 and setting the rate of subsidies according to the type of project:

Type of project	Amount of subsidy in % of subsidisable expenditure	Subsidy ceiling in francs in 1994/km
Metros	20%	FF50 M
LRTs	30%	FF25 M
Guided modes	35%	FF15 M
Bus lines with right of way	40%	FF7 M

The "lighter" the project, the higher the subsidy in percentage.
Furthermore, the State only grants its contribution to the part of the project which it designates as subsidisable expenditure. The following in particular are excluded from subsidies: rolling stock, land acquisition, the promoter's operating expenses, urban developments of a qualitative nature.
Lastly, the subsidy cannot exceed a ceiling per kilometre.
All these reasons explain why State subsidies are not the same for every project when they are taken into account with the real cost of the projects.

Nonetheless, the aims of the circular can be seen to have taken effect:
From 17% to 20% for metros subsidised before the circular, and from 7% to 13% for the most recent projects.
From 15% to 22% for LRTs and guided modes.
From 22% to 30% for bus lines with right of way.

7.1.3 Regional participation

The Region[3] is involved in only four conurbations: Caen, Rouen and Strasbourg.
Its participation is from 3% to 4%, except in Rouen for the TEOR and LISOR projects where it should reach 13%.
Nice hopes to obtain a grouped participation from the Region and the Département of an amount from 14% to 20%
Bordeaux and Nancy have made requests to their respective Regions.

7.1.4 Participation of the Département

Four Départements participate in financing projects in the form of a specific subsidy at Montpellier, Nice, Rouen, and Strasbourg. Their participation varies from 3% to 13%.
Mention should be made of the four semi-public syndicates in which the Département participates as a local authority, though this does not appear in the budget specifically allocated to the project.
Regarding Lille, although the Département participates in the semi-public operating company, it is not possible to say that it participates in financing projects in Lille.
Thus eight conurbations do not benefit from subsidies from their Départements.
Nancy and Bordeaux are, however, seeking subsidies from their Départements.

7.1.5 Municipal participation

Requests for subsidies from municipalities are made by four conurbations, in addition, for some of them, to their participation in the budget of the organising authority: in Lyon for the LRT, Maubeuge for bus line with right of way, Rennes for the Val and bus line with right of

[3] The « Région » in France is equivalent to the german Länder.

way, and at Rouen for the TEOR and LISOR projects. Their participation varies from 5% and 11%.

7.1.6 Part remaining to be financed by the public transport organising authority.

This part is often higher than 70% and even reaches 80%.
Certain nonetheless have multiple financing, and the part remaining to be financed by the transport organising authority in this case is much lower; this is particularly the case for five bus line with right of way projects, for which this part ranges from 55% to 60%, and can be close to 35% for a project.

7.2 The financing plan of the transport organising authority

As seen previously, the part remaining to be financed by the organising authority varies greatly according to the project.
These variations are even greater when a distinction is made for self-financing, i.e. funds stemming directly from the transport organising authority's budget and raising loans.

7.2.1 Raising loans

The share of loans varies from 20% to 80% of the amount of projects, and is almost nil in the case of the LISOR bus project at Rouen.
It ranges from 20% to 35% at Bordeaux, Caen, Maubeuge, Rouen (TEOR project), and Saint Denis de la Réunion.
It ranges from 40% to less than 60% at Montpellier, Orléans, Rennes (Val), Strasbourg, Toulouse (line B), and Valenciennes.
It reaches more than 60% for six other projects, with a maximum of 80% for line 2 of the Lille metro, given that there is no self-financing.

7.2.2 Self-financing, or the use of the public transport organising authority's own capital

The share taken by self-financing can be nil. It reaches 62% for the Bordeaux project, as the Bordeaux Urban Community constituted a savings fund (37% of the project) for its construction.
Half of the projects on which information was given fall between a range of self-financing from 20% to 35%.
Three projects nonetheless have no self-financing, with two of these needing to rely heavily on loans, whereas this requirement is less for the third as it benefits from considerable subsidies.

7.3 The contribution of companies to financing public transport

Private and public companies participate in financing public transport via the “transport levy” which is a tax on the company's payroll applied within the area covered by urban transport.

The rate of the “transport levy” depends on the size of the city and the magnitude of the investment projects, thus a conurbation can increase the rate of the “transport levy” when it makes a considerable investment in transport. However, the rate cannot exceed 1.75%, or 1.80% in certain special cases.

Each local authority uses this participation for public transport; it is not directly allocated to a project but is incorporated in the transport authority's budget.

7.3.1 The subject of this study: the public transport organising authority:

Nearly all the organising authorities increase the “transport levy” when constructing a public transport project with right of way, raising it to a rate of 1.75%, and even 1.80% at Lille and Saint Denis La Réunion.

Only Lyon has not increased its “transport levy”, leaving it at 1.63%.

Maubeuge and Nancy maintain the “transport levy” at 1.4% while it is 1.5% at Nice, for bus lines with right of way or guided road mode.

The increase often occurs from two to five years before the line is brought into service; while Bordeaux and Nice only apply an increase from the start-up of the service.

The increase is brutal in ten conurbations (e.g., rise from 1 to 1.75% in one go at Rennes, Rouen and Orléans) while it is raised gradually 2 to 5 years in 5 other conurbations.

Conclusion

Ten years after the signature of private statutory contracts at Toulouse and then Rouen, not only have the great majority of French conurbations stopped calling on private companies to finance and construct their public transport projects, but Toulouse and Rouen have reversed their choice for new projects.

Nonetheless, the conurbations are seeking new forms of finance and call increasingly on other local authorities (municipalities, Département, Region, Europe), in addition to the State, to finance their projects.

Generally, bus line with right of way projects benefit from subsidies from several partners, and the subsidised part of the project is at least 40%.

Lastly, companies participate in infrastructures via the “transport levy” which is a tax on the payroll. This tax is nearly always increased to its maximum when constructing a public transport project.

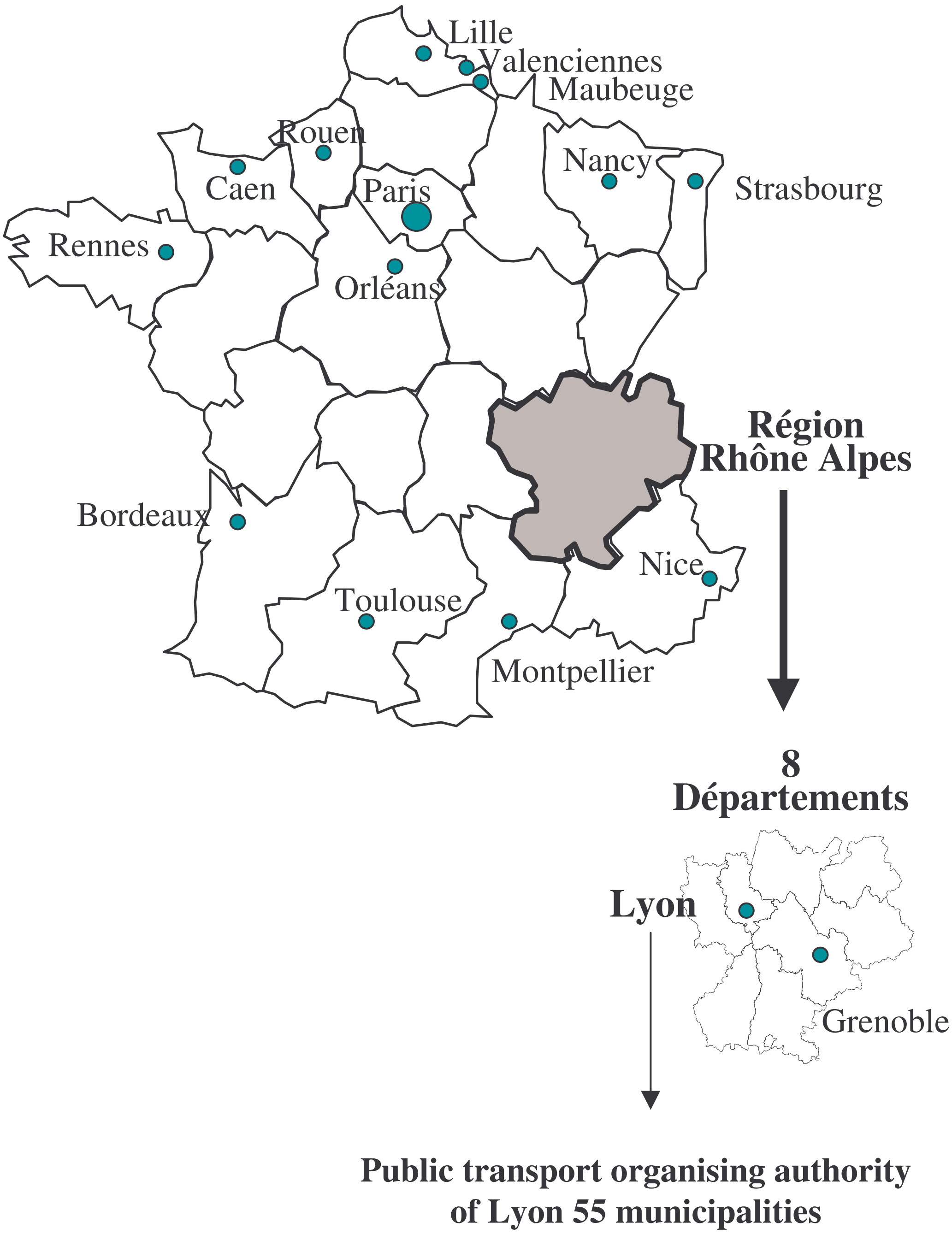
Appendix 1: list of projects surveyed

	Project name	Start-up of works	Date of bringing into service	length in km	Number of stations	Number of trainsets
Bordeaux	LRT network	2000	2003 stage 1, 2006 stage 2	43.4 km	84	70
Caen	Right of way project	March 2000	first half 2002	15.5 km	34	24
Grenoble	LRT extensions line B Europole	1998	1999 then 2001	1.2km	3	5
	LRT line 1	1985	1987	9 km	21	20
	LRT line 2	1988	1990	6 km	14	15
Lille	Extension of line 1a and construction of line 2	1990	May 1994, March 1995, August 1999, November 2000	20 km	26	60
Lyon	LRT	February 99	December 2000	18.7 km stage 1	39	41
	Extension of metro line B	March 1995	December 2000	2.4 km	3	0
Maubeuge	Sambre bus right of way 2001	end 2000	stage 1 in 2002	10.2 km	16	
Montpel-lier	First LRT line	2nd half 1997	September 2000	15.2 km	28	28
Nancy	3 tyred LRT lines	spring 1999 (first line)	end 2000 first stage, 2002 end 1st line	11 km	25	18
Nice	Tyred LRT Les Planes Roquebillière	end 2001 start 2002	start 2004	8.5 km	not decided	28
	Bus with right of way Le Port, Adminstrative Centre	end 2001 start 2002	start 2004	11.6 km	not decided	Bus fleet
Orléans	LRT line 1	July 1998	September 2000	18.5 km		
Rennes	First line of VAL, JF Kennedy/La Poterie	6/1/97	November 2001	8.6 km in operation	15	16
	Bus with right of way E/O	2nd half 1998	end 2000	4.5 km		
Rouen	Metrobus ligne 1	1991	17/12/94	15.4 km	31	28
	TEOR, Rouen east-west transport, partially guided road mode	September 1999	end 2000	26.2 km	44	35
	LISOR: fast south-west link, bus with right of way on part of layout	autumn 1999	December 2000	4.5 km including 500 m with right of way - 2 lanes	18	8
Saint Denis La Réunion	PT with right of way for bus at St Denis	4th quarter 1998	4th quarter 2000	5.25 km	13	none
Strasbourg	LRT line B	July 1998	November 2000	12.2 km	24	27
Toulouse	Val line A	01/89	26/06/93	10 km	15	29
	Extension line A	1st half 2001	October 2004	2.2 km	3	7
	Val line B	1st half 2001	August 2007	15 km	20	42
Valencien-nes	Transvilles LRT	2000	2002 (stage 1)	11 km	21	17

Appendix : French administrative levels

About : 20 Régions
100 Départements
200 Public transport organising authorities
36 000 Municipalities

For example :



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EDUCATIONAL BACKGROUND

1983 - 1986	Engineering degree from France's **"École Nationale d'Ingénieur des Travaux Publics de l'État"** (civil engineering), with a major in: **Local Public Services and Transportation Facilities**.

PROFESSIONAL EXPERIENCE

July 1995 - Present:

Expert in public transportation issues with the Center for the study of infrastructure networks, transportation, planning and public-sector development projects (**CERTU**).

Assessment of public transportation services operating on dedicated right of way : development of a **methodological guide**, specific efforts focused on the **indicators**, the **planning/transportation interactions** and the **economic side of the equation**.

Intermodality: research program in coordination **with Lausanne's Federal Polytechnic School** on the use of several modes during a daily activity program.

Occasional expert evaluations, training courses for engineering schools, university of Lyon, p**articipation at various symposia**

End of 1989 - June 1995:

On assignment with the **SYTRAL**, the **empowered organizing authority for all public transportation services offered** in Lyon area.

Enhancement of the surface transportation network, by means of external productivity measures aimed at improving service **regularity**, **commercial operating speed**, **level of comfort while waiting** and the **image** of the entire public transportation system.

Interfacing with the actors involved in providing the **metropolitan area's transportation services**: centralized route management, parking, police…

1986 - 1989:

Project manager at the "**CETE de l'Est**" technical research unit.

Transportation studies conducted for **regional authorities**.

Member of **national working groups** under the guidance of the "CETUR" (one of the CERTU's forerunners) in the areas of parking policy and non-urban public transportation services.