

Overcoming institutional barriers to improved public transport: the example of the PDU (urban mobility scheme) in France

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1. SYNOPSIS

Analysis of recent reforms and actions which aim to correct institutional dysfunction which limits growth of public transport in the Paris Metropolitan area.

2. ABSTRACT

In the transport sector, application of existing or foreseeable technical solutions (focused on better motors or vehicles) could at best offset part of the increase in energy usage, resulting from rapidly increasing transport of goods and persons. On the other hand, reduced energy consumption could be achieved through social and political transformations. 1) Demand for transport services can be reduced through city planning and land use policies. 2) Energy intensity of transport can be reduced through modal shift towards rail and water freight, and public mass transit.

Nevertheless, these 2 solutions are confronted by opposing forces: 1) economic interests of the automobile and road industries, individual home builders, suburban shopping centres, etc; 2) social models that portray use of automobiles as a sign of (as well as key to) social or economic success. These forces constitute a solid and coherent nexus. Thus, overcoming these barriers requires strong government action.

An analysis is made of how the French "Plans de Déplacements Urbains" (PDU, Urban Mobility Schemes) constitute an innovative solution that integrates a multi-modal approach into transport planning. The impact of the PDU, in the context of existing decision mechanisms and financial tools is analysed. It is shown that these mechanisms, which have not been reformed, are still largely dispersed and compartmentalised.

Analysis is made of the difficulties and obstacles that the PDU tool will encounter, in the strongly compartmentalised institutional environment in France. The specific case of the Paris region is studied.

3. INTRODUCTION

The Paris Metropolitan Area, with almost 11 million inhabitants, is the most populous of the French administrative "*régions*". In the last two decades, the Metropolitan area has experienced both an increase in the number of trips and a modification of their structure.

The private car has absorbed the totality of the increase in mobility¹ in the region since 1976. While walking trips have remained constant at 12 million per day, motorised trips have grown from 17,5 millions in 1976 to 24 millions in 1997, a rise of 37% in 20 years. The annual growth in automobile traffic has been 2% in Paris and 5% in the Metropolitan area, essentially because of the boom in trips between suburbs. In 1997, the automobile represented 68% of motorised trips (against 55,2% in 1976), while public mass transit represented 28,2% (against 33,7% in 1976). This evolution results from urban expansion and from the modification of individual behaviour.

In the face of this inescapable growth in mobility, the question is how to avoid the "automobilisation" of the city.

Public transportation constitutes one lever to achieve sustainable mobility, but it could not be expected to face the challenge alone, given the attraction exercised by the private car. The public mass transit grid (metro and railroad) in Paris and adjacent communes assures relatively rapid radial journeys between Paris and the suburbs, whether they be close in or distant. But the most rapidly growing sector of transport services serves suburb to suburb trips, notably in the "*grande couronne*", where buses are not very competitive with the private car².

This paper will treat the institutional problems in controlling the growth of automobile traffic, and in particular the recent reforms that aim at correcting the deficiencies of the pre-existing administrative structure responsible for urban transport in the Paris Metropolitan area.

4. PUBLIC TRANSPORTATION IN THE PARIS METROPOLITAN AREA: THE HISTORICAL INSTITUTIONAL CONTEXT

The Paris Metropolitan Area has always been a special case in the French administrative structure. This is notably true for the organisation of urban public transportation. The institutional context, Organising Authority, status of operators, relationships between Organising Authority and operators, are all aspects in which Paris differs from common law applicable outside the Paris region.

The particular organisation of the Paris Metropolitan region constitutes a complex system in which multiple actors intervene. Authority for public transport in the Metropolitan Area, referred to as "*Ile de France*", is divided between four levels of administration:

- the central government, in particular the Ministries responsible for Infrastructure and Transport (*Ministère de l'Équipement, du Transport et du Logement*), for the Economy and Finance, for Land Use Planning (*Ministère de l'Aménagement du Territoire*);
- the *Ile de France* region. At the regional level, authority is divided between an elected "*Conseil Régional*" that governs the regional public service, and a "*Préfet de Région*" appointed by the French central government;
- 8 administrative subdivisions called "*départements*". Each *département* has an elected "*Conseil Général*" that runs specific local services, and a central government appointed "*Préfet*";
- over 1200 municipalities. The city of Paris is by far the largest, with close to 3 million habitants. Note that Paris is both a municipality and a *département*. Municipalities can create inter-communal structures.

Thus, authority is divided between:

- the nationally elected authorities, through the central government ministries as well their regional and departmental representatives;
- 3 levels of locally elected governmental authorities (*région, département, commune*) referred to as "*collectivités territoriales*".

The fundamental texts that regulate urban transport in Paris and in France are the following:

- the Decree of 14 November 1949, which organised urban transport nationally;
- the Ordinance of 7 January 1959, which regulates the functioning of the SNCF and RATP in the Paris region (see box below). The Ordinance created the STP (*Syndicat des Transports Parisiens*, or Parisian Transportation Union), assigned the role of Organising Authority (*Autorité Organisatrice*) in the Paris region;
- the Law of orientation on inland transportation of 30 December 1982 (LOTI), which places the responsibility for organising urban public transportation with communes, or groups of communes, through Organising Authorities that choose the operators and finance both investments and operating budgets. Note that the LOTI does not apply to the Paris region.

Because of the particularities of the region - its size, its economic importance, the large number (1281) of communes in the area, the small number and weakness of inter-communal structures- the 1959 Ordinance created the STP as a single regional Organising Authority in which communes and the inter-communal structures have no direct responsibility. Representatives of the "*départements*" and the central government sit on governing board of the STP. Because transportation in the Paris Metropolitan region is considered a question of national

interest, the central government plays a preponderant role in the organisation of urban public transportation, in the planning and financial evaluation of investments, and in the fixing of fares. The central government, through its representatives, controlled the STP (the Paris region Organising Authority). Nevertheless, local government authorities participated in negotiations on investments, and in financing their implementation. Transport enterprises run the system, define the technical aspects of investments, and partially finance the investments.

Box 1. Paris public transport

Two national enterprises play a major role in Paris public transport: the RATP (*Régie Autonome des Transports Parisiens*) operates the Paris Metro, and all Parisian bus lines. Both the Metro and the RATP bus lines extend past the Paris city limits, covering a part of the "*petite couronne*". the SNCF (*Société Nationale des Chemins de Fer*) is the operator of the French national railroads. In the Paris region, it operates 2 distinct networks of commuter rail service: the "*trains de banlieue*" which serve distant suburbs; the RER (*Réseau Express Régional*), which also serves suburbs, and is intermediate between the Metro and the trains, in terms of distance between stations and frequency of trains.

Thus, the organisation of transport in *Ile de France* differs from the rest of the country. In the Paris Metropolitan area, the regional administration intervenes far more than the other regions of France. Furthermore, while the general rule in France is that the Organising Authority delegates management of the transportation system of an agglomeration to a single (usually private) operator, in the Paris Metropolitan area, the Organising Authority delegates urban transportation services, directly or indirectly, to a hundred enterprises, including two national public enterprises, the RATP and the SNCF.

5. A MAJOR REFORM IN 2000

The old STP, composed of the central government, the city of Paris and the 7 other *départments* of the region, was led by the central government. Indeed, its board of directors was composed of an equal number of representatives of the central government and departments, but the *Préfet de la Région* (appointed by the central government) presided the board, and had the deciding voice in case of tie votes. The *Conseil Régional* was not represented in the STP, although the region is in principle competent in the definition and execution of regional policy on traffic and transportation of persons, and pays a significant share of transportation investments: 70% of new infrastructures and 50% to 100% of related equipment. Thus, while the *Région* financed investments, it had no direct decision-making power.

This non-delegation to local authorities of competence with respect to transportation stems from institutional and financial considerations. In fact, one of the roles of the STP was to guarantee the financial equilibrium of the transportation system. The region did not participate in the financing of operating deficits, the central government being by far the largest contributor. Furthermore, two national enterprises, the RATP and the SNCF assure the bulk of transportation in the Paris Metropolitan area. This confers a particular role to the central government.

In order to clarify the responsibilities of the different actors in the management and financing of Parisian transport, a major reform was undertaken in the year 2000, by the law on *Solidarité et Renouvellement Urbain* (Solidarity and Urban Renewal, 13 December 2000, referred to as the SRU law). The SRU law renamed the old STP as the *Syndicat des Transports d'Ile de France* (STIF).

As a consequence of the SRU law of, the *Ile de France* region's representatives now sit on the board of directors of STIF. The numerical balance between the central government and local authorities is maintained, as well as the pre-eminence of the central government. This should ensure more coherence between investment and operations in transportation policy, and better integration of transportation policy into regional development planning, which is a domain of competence of regional authorities.

6. THE PDU

The PDU, *Plan de Déplacements Urbains*, (Master Plan for Urban Mobility) is a document that is elaborated through a wide (and lengthy) process of public discussion with all stake holders in public transport. It fixes the overall objectives of transport policy, but in general does not enter into the detail of investment plans.

The obligation for urban areas to create PDUs stems from the LOTI Law of Orientation on Inland Transportation of 1982. Since this law not applicable to the Paris region, the elaboration of a PDU was not imposed on the Paris region. The law on Air Quality and the Rational Use of Energy of December 1996 put an end to this exception: under this law, a PDU must be written for the region, under the aegis of the *Préfet de Région*³, or more precisely, the Regional Direction of Equipment which is under his authority. Note that outside of the Paris region, it is the elected officials of communes (or inter-communal structures) who write PDUs, through their Organising Authority.

Furthermore, the law on Air Quality and the Rational Use of Energy has strengthened the dispositions relative to the PDU. By virtue this law,

"The PDU aims to guarantee a sustainable balance between, on the one hand, needs concerning mobility and access, and, on the other hand, protection of the environment and public health. ... Its orientations focus on the diminution of automobile traffic, the development of public transportation, and development of non polluting means of travel."

The PDU, henceforth obligatory for all urban transportation zones in agglomerations of more of 100 000 inhabitants, aims at the improvement of air quality. Thus, it is an instrument to fight against air pollution due to transportation. The PDU of the Paris Metropolitan area was submitted to public inquiry during the summer of 2000, and was promulgated by a decree on 15 December 2000, valid for a period of 5 years.

The Paris PDU focuses on: the diminution of automotive traffic; the development of public transportation and of low pollution means of transportation; the sharing of roadways between different modes of transport; the organisation of parking; the transportation and the delivery of goods; encouraging the use of public transportation or ride sharing for the personnel of enterprises.

The PDU of the Paris Metropolitan area treats exclusively the organisation of transport, whereas there had long been a tendency to mix discussion of transportation policy and planning of public investments. Whereas this latter logic was adopted during the post war period when it was necessary to make up for lost time, it had become inadequate with changing circumstances. Thus, the PDU of the Paris Metropolitan area has not put into question the long term plans fixed by the 1994 Master Plan, nor does it interfere with medium term planning for major road and transportation infrastructure, negotiated between the central government and the Region within the framework of the *Contrat de Plan*⁴. Discussion has centred on questions that determine the efficiency of the transportation system: quality of public transportation services; use of public space for transport; parking; goods deliveries in town.

On the regional level, the *Préfet de région* (a representative of the central government) manages the PDU. He plays an important role in the organisation of public transportation in the region and in the management of traffic in Paris. But the *départements* and communes also manage part of the road system, and communes have autonomous power with respect to parking. Furthermore, the large national enterprises, the SNCF and the RATP, are central partners. Given the multiplicity of actors, most of whom are largely autonomous, the challenge of the PDU is to fix a coherent framework for their action.

Three major objectives are put forward in the PDU: decrease automobile traffic; increase the modal share of public transportation; and favour walking and bicycling.

The PDU notes the dysfunction of the regional transportation system with respect to the objectives of the law on Air Quality. The PDU puts forward principles for the organisation of regional transport, aiming at guaranteeing the economic functioning of the agglomeration while respecting the objectives of the law on Air Quality. Among these principles are:

- to increase the attractiveness of public transportation (safety, quality of service, accessibility, information, breadth and frequency of service...);
- to better take into account the impact of travel in the course of the writing of city planning documents or in the conception of development operations.

Recommended measures can be differentiated according to zones of the Paris agglomeration:

- in the central zones, it is recommended that more public space be allocated to public transportation and to non-polluting modes of travel (bicycle and walking). A hierarchical organisation of transport systems is also recommended, based on a main bus system composed of a hundred of lines, with improved levels of performance and quality of service;
- outside the central zone, where the bulk of urban development is taking place (spreading of urbanised zones, shopping centres, industrial and commercial activity), the PDU recommends:
the strengthening of the centrality of urban poles through transport policies at the level of "living zones" (*bassins de vie*).
the creation of transport services adapted to low density zones and to the major generators of traffic located at a distance from major transportation infrastructure;
avoiding urban sprawl by encouraging urbanisation in areas benefiting from public transport services;
- at the neighbourhood level recommendations to local government focus on:
use of public space more favourable to cyclists and pedestrians, and the installation of bicycle paths and equipment favouring travel by bicycle;
the development of the "zones 30" (areas where the speed limit is 30 km/hr) in order to decrease the negative effects of automobile traffic and to improve safety;
policies on parking that discourage automobile use.

The PDU has numerical objectives to be attained in 5 years:

- a 3% decrease in automobile traffic, expressed in vehicle kilometres. This objective is differentiated according to zones of the agglomeration and their level of public transportation service: diminution of 5% for trips within the Paris city centre and the "*petite couronne*", and 2% for trips within the "*grande couronne*" or between the "*petite couronne*" and the "*grande couronne*";
- a 2% increase in public transportation use (measured in trips);
- a 10% increase in walking for school-home trips and trips of less than 1 km;
- doubling the number of bicycle trips.

The evolution of city planning practices and transportation, in a context where environmental preoccupations have become strong, makes necessary a strong link between transportation planning and town planning. The PDU has to respect the terms of the *Schéma Directeur d'aménagement de d'urbanisme de la Région Ile de France* (SDRIF, the Master Plan for development and city planning for the Paris region). This planning document defines zones open to urbanisation, and reserves necessary rights of way for future transportation infrastructures, up till year 2015.

The *Contrat de Plan Etat-Région*, agreed upon in March 2000, is a planning document that defines the major works, which will be carried out in the course of the period 2000-2006. Written in parallel to the PDU, one might say that the spirit of the PDU was carried over to the *Contrat Plan*. Indeed, the latter is a break with the past logic of development completely centred on the Paris city centre. In the transportation domain, public authorities have abandoned a conception of transportation based on radial trips, in favour of a scheme based on tangential trips. Responding to a rapid and profound evolution of mobility in the Paris Metropolitan area, the *Contrat de Plan* plans for the building of tangential services, that will ultimately connect the major newly developed cities of the "*grande couronne*", at a distance of twenty km from the capital. Furthermore, over a 10 year period, existing elements of a tramway will be extended, so as to become a second ring closer in to Paris.

The SRU law provides for *Schémas de Cohérence Territoriale* (SCOT, Plans for territorial cohesion). These replace the older *Schémas Directeurs*, and must be much more precise in the domain of urban mobility. In particular, they will have to fix objectives for public transportation service, and to specify the means to favour the development of urbanisation in priority in zones served by public transportation. The SCOT of the Paris region will have to be compatible with the PDU.

Local city planning, organised at the municipal level, will have to respect the PDU, the PDL (*Plans de Déplacement Locaux*, Local Mobility plans), and the SCOT, in particular with respect to norms for parking places planned for during the construction of housing and offices.

On the other hand, the law does not require the compatibility between the SCOT and PDL. Nevertheless, it seems probable that the *Préfets de Départements*, who must approve these texts, will oversee their compatibility with the SCOT.

7. SOME OBSTACLES REMAIN

It is of course much too early to evaluate the impact of the reforms that went into effect in the year 2000. These reforms aimed at correcting some of the institutional obstacles to development of public transport. Nevertheless, the global approach (inter-modality, integration of tariffs, execution of a policy on mobility including all the modes...) continues to meet major obstacles.

In order to modify roadways so as to create bus lanes or protected corridors, several *départements* and communes must agree on a plan. This is because Mayors have some power over roads, and changes must be taken into account in local town planning documents. Local government authorities are therefore called upon to create inter-urban local committees (of which twenty have begun their work), major roadway committees (fifteen have already been constituted), or committees of urban poles (forty are in the process of creation).

Most of recommendations of the PDU must be carried out by local authorities: *départements* and municipalities in particular. Management of traffic (outside of Paris and the major roadways of the *petite couronne*) depend on them. They must execute works to favour pedestrians and cyclists. Through the territorial coherence plans and local city planning, parking and city planning depend on local authorities. It is also at the local level that contradictions between lofty ideals and special interests must be resolved. Nevertheless, communes are not involved in the organisation of public transportation.

The mobilisation of local authorities was spotty during the writing of the PDU, perhaps because they feared that this new process would be a source of constraints on their power. The PDU has avoided this trap, by not taking overly detailed decisions that might have been impractical at the local level. Thus, the PDU leaves to local government (in the context of inter-communal structures) the responsibility for the local dispositions of the PDU. Indeed, in the Paris Metropolitan area, the PDU will be completed and made more precise by several *Plans de Déplacement Local*. These plans are written at the initiative of inter-communal organisms.

Some inter-communal organisms have already been constituted to this end, notably in newly developed cities. But inter-communality is not a natural reflex in the Paris Metropolitan area, particularly in the dense zone. Nonetheless, a movement is beginning, with the recent creation of several inter-communal organisms. This process will in large part determine the success in meeting the objectives of the PDU.

The PDU has not always gone as far in its intentions as some would have wished. In some cases, recommended measures necessitated new technologies, or lengthy dialogue incompatible with the time constraints of the PDU.

It also appeared that the removal of regulatory or institutional rigidities was a pre-condition for the execution of some proposals. Thus, the PDU calls for further reflection on the regulatory and institutional framework, particularly with respect to parking, to taking into account mobility in city planning documents, and with respect to the organisation of transportation, where the regulatory and judicial framework appears insufficient for the objectives of the PDU.

The regulatory framework of the organisation of transportation fixed by the decree of 1949 must be revised. This text institutes a system of "grand fathering" for bus companies: the creation of new bus lines is the object of unilateral administrative authorisations, of unlimited duration, that are inscribed into the "service plan of transportation" by the Organising Authority. The inscription in the plan of transportation confers an unwritten monopoly on the operation of a line, which is based on historically acquired rights. This system leads to many local prohibitions for the creation of local bus lines. Thus, creation of a new line that crosses the line of a

competitor may be prohibited. Restrictions that weigh on new operators entering the market are less and less tolerated by government regulatory agencies, and by the most dynamic operators, who feel that they are penalised. Nevertheless, since rights to traffic cannot be taken away from existing operators, local authorities are led to protect their interests. The PDU has called for the creation of a task force to adapt the system derived from the decree of 1949, notably by giving a role to local authorities.

Will the generous ideas of the PDU be translated into practice? One can be sceptical, given the lack of enforcement mechanisms, and the reticence of competent authorities (notably the prefecture of police) to enforce respect of existing regulations. What higher authority will be able to impose the application of these measures? Some of them necessitate modifications in legislation, and one can count on the action of various lobbies to slow down anything contrary to their interests.

The process proposed by the PDU implicates institutions acting at departmental, regional, or communal level, as well as market economic actors. Its chances of success will depend on the capacity of these actors to concretise the PDU's orientations, within a decentralised operational structure.

8. END NOTES

¹ The term "mobility" is used in this paper as a translation of the French term *mobilité*, which is a statistical and legal notion which includes all personal trips outside the home, whatever their purpose. The term thus covers both walking trips and mechanised trips. Note that mechanised trips include both trips in bicycles or in motorised vehicles. In this paper, which is focused on institutional issues, we have chosen to ignore the trip length parameter.

² Geographically, the cities which border Paris are called the "*petite couronne*", or first ring. More outlying cities constitute the "*grande couronne*", or second ring.

³ A civil servant appointed by the central government.

⁴ This is an overall planning document, in the form of a contract between the central government and each region.