

Transit Preferential Treatment: A Public Policy-Making Perspective

by

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Master of Science in Transportation

at the

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## **Abstract**

Buses and in general at-grade public transportation remain the most important component of transit services in all the urban areas, whether they are feeder to a heavy rail system or an independent network. However, the steady increase in travel demand, essentially private automobile, has results in a growing level of congestion, affecting both cars and public transportation.

In response, cities like Curitiba and Zurich moved in the late 70's towards the implementation of preferential treatment. To do that, they introduced innovative policies in order to give the full priority to transit. Preferential treatment is a broad definition that combines all the means to insure that priority is given to transit (queue jump, traffic signal priority, exclusive lane, tramways...). The main concerns about Zurich and Curitiba are that they both achieved their implementation through particular policy-making processes; moreover the generalization of these types of policies has been very limited.

The objectives of this thesis are to apply the three models from the agenda-building theory (Mobilization, Inside Access and Outside Initiative) to the context of public transportation to understand how innovative policy-making can be introduced and if the presence of a policy entrepreneur is necessary and sufficient.

Using 11 cities in Europe and America that have implemented preferential treatment as case studies, the thesis identified elements necessary to address the public reaction, the institutional fragmentation and the decision-makers' positions. The research shows the necessity of public consultations and comprehensive planning exercises to convince the different stakeholders. Moreover, it points out the benefits of initiatives such as benchmarking or national legislation.

Eventually, the thesis concludes that the policy-making theory can be expanded in acknowledging a combination of models to describe the preferential treatment's implementation process. On the other hand, the context of public transportation has evolved enough (concentration of decision powers and increasing public support) so that transit agencies can move towards implementation in focusing on stakeholder management strategies instead of relying on a policy entrepreneur.

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# Table of Contents

<b>Abstract</b>	<b>2</b>
<b>Table of Contents</b>	<b>3</b>
<b>List of Tables, Figures, Maps and Pictures</b>	<b>7</b>
<i>Tables</i>	7
<i>Figures</i>	7
<i>Maps</i>	8
<i>Pictures</i>	8
<b>Acknowledgement</b>	<b>9</b>
<b>Biographical Note</b>	<b>9</b>
<b>Chapter 1: Introduction</b>	<b>10</b>
1.1. <i>Preferential Treatment</i>	10
1.1.1. Definition	10
1.1.2. Why Does Preferential Treatment Matter?	10
1.2. <i>Curitiba and Zurich Experiences</i>	12
1.2.1. Transit Innovations	12
1.2.2. Brazilian Entrepreneur or Swiss Democracy?	12
1.3. <i>How Can Other Cities Benefits?</i>	13
1.4. <i>Outlines</i>	14
1.5. <i>References</i>	14
<b>Chapter 2: Preferential Treatment: A Transit Review</b>	<b>15</b>
2.1. <i>What Is Preferential Treatment?</i>	15
2.1.1. Definition	15
2.1.2. Operational improvements	15
2.1.3. Bus Rapid Transit (BRT)	18
2.1.4. Light Rail Transit (LRT)	19
2.1.5. Aerial and Underground Networks	20
2.2. <i>Why Is Preferential Treatment Desirable?</i>	20
2.2.1. Not Longer, Faster!	20
2.2.2. The Urban Cycle of Degradation	22
2.3. <i>Preferential Treatment's Challenges</i>	24
2.3.1. Technology	24
2.3.2. Institutions	24
2.3.3. Other Issues	26
2.4. <i>Curitiba's and Zurich's Success Stories</i>	27
2.4.1. Curitiba	27
2.4.2. Zurich	27
2.4.3. Challenges	27
2.5. <i>References</i>	28
<b>Chapter 3: Policy-Making, a Literature Review</b>	<b>29</b>
3.1. <i>Introduction</i>	29

3.2.	<i>Rational Choice Models</i>	29
3.2.1.	Decision-Making Concept	29
3.2.2.	Rational Behavior	29
3.2.3.	Limits Of The Model	30
3.3.	<i>Incremental Models</i>	30
3.3.1.	Failure Of The Rational Models	30
3.3.2.	Successive Limited Comparison Model	30
3.4.	<i>Focusing On The Agenda-Building</i>	31
3.4.1.	Definitions	32
3.4.2.	Actors	33
3.4.3.	Focusing Events and Policy Windows	35
3.5.	<i>Agenda-Building Models</i>	36
3.5.1.	Economics Approaches	36
3.5.2.	Organizational Approach	36
3.5.3.	Issue Career	37
3.6.	<i>References</i>	41
<b>Chapter 4:</b>	<b>Problems and Methodology</b>	<b>43</b>
4.1.	<i>Problems: Car drivers: a major stakeholder</i>	43
4.2.	<i>Hypotheses</i>	43
4.2.1.	Where The Literature Leaves Us	43
4.2.2.	Hypotheses	44
4.3.	<i>Methodology</i>	45
4.3.1.	The Case Studies	45
4.3.2.	The Agenda-Building Framework	46
4.3.3.	Data Collections	48
4.3.4.	Interviews	48
4.4.	<i>References</i>	50
<b>Chapter 5:</b>	<b>Mobilization Model: Case Studies</b>	<b>51</b>
5.1.	<i>Strasbourg, France</i>	51
5.1.1.	Preferential Treatment Description and Historic	51
5.1.2.	Initial Model	52
5.1.3.	Mobilization Model	52
5.1.4.	Organizational Approach	53
5.2.	<i>Lyon, France</i>	54
5.2.1.	Preferential Treatment Description and Historic	54
5.2.2.	1990: The Failure of the Inside access model	55
5.2.3.	1995: The Mobilization Model	56
5.2.4.	Organizational Approach	58
5.3.	<i>Curitiba, Brazil</i>	59
5.3.1.	Preferential Treatment Description and Historic	59
5.3.2.	Initial Model	61
5.3.3.	Mobilization Model	61
5.3.4.	Organizational Approach	62
5.4.	<i>Bogotá, Colombia</i>	63
5.4.1.	Preferential Treatment Description and Historic	63
5.4.2.	The Subway Project	64

5.4.3.	Mobilization Model _____	64
5.4.4.	Organizational Approach _____	67
5.5.	<i>References</i> _____	68
<b>Chapter 6:</b>	<b>Inside Access Models: Case Studies _____</b>	<b>70</b>
6.1.	<i>London, United Kingdom</i> _____	70
6.1.1.	Preferential Treatment Description and Historic _____	70
6.1.2.	Mobilization Model 1964-1986 _____	71
6.1.3.	Inside Access Model 1992-... _____	72
6.2.	<i>Manchester, United Kingdom</i> _____	73
6.2.1.	Preferential Treatment Description and Historic _____	73
6.2.2.	Inside Access Model _____	74
6.3.	<i>Dublin, Eire</i> _____	76
6.3.1.	Preferential Treatment Description and Historic _____	76
6.3.2.	Inside Access Model _____	77
6.4.	<i>Honolulu, USA</i> _____	79
6.4.1.	Preferential Treatment Description and Historic _____	79
6.4.2.	Inside Access Model _____	79
6.5.	<i>Portland, USA</i> _____	81
6.5.1.	Preferential Treatment Description and Historic _____	81
6.5.2.	Inside Access Model _____	82
6.6.	<i>Ottawa, Canada</i> _____	84
6.6.1.	Preferential Treatment Description and Historic _____	84
6.6.2.	Initial Model _____	85
6.7.	<i>References</i> _____	87
<b>Chapter 7:</b>	<b>Outside Initiative Models: Case Studies _____</b>	<b>89</b>
7.1.	<i>Zurich, Switzerland</i> _____	89
7.1.1.	Preferential Treatment Description and Historic _____	89
7.1.2.	Initial Model _____	90
7.2.	<i>References</i> _____	92
<b>Chapter 8:</b>	<b>Analysis _____</b>	<b>93</b>
8.1.	<i>Hypotheses</i> _____	93
8.1.1.	Hypothesis 1 _____	93
8.1.2.	Hypotheses 2 _____	93
8.1.3.	Hypothesis 3 _____	94
8.1.4.	Hypothesis 4 _____	94
8.1.5.	Hypothesis 5 _____	94
8.1.6.	Hypothesis 6 _____	95
8.2.	<i>Stakeholders</i> _____	95
8.2.1.	Public Transportation Agencies _____	95
8.2.2.	Authorities _____	96
8.2.3.	Decision-Makers _____	97
8.2.4.	Public _____	98
8.3.	<i>Public Consultations</i> _____	98
8.4.	<i>Planning</i> _____	99
8.4.1.	Previous Transportation Planning _____	99

8.4.2.	Transportation Planning or City Planning?	100
8.4.3.	Planning Actors	101
8.5.	<i>The French National Policies</i>	102
8.5.1.	Legislative Background	102
8.5.2.	A National Policy to Support Local Authorities	104
8.5.3.	Towards a Generalization of Preferential Treatment	106
8.6.	<i>Other National Policies</i>	106
8.6.1.	The Irish Initiative	106
8.6.2.	The British National Context	107
8.7.	<i>Benchmarking</i>	107
8.7.1.	Experiences From Other Cities	107
8.7.2.	The FTA and the E.U.	108
8.8.	<i>Funding</i>	108
8.8.1.	An Omnipresent Constraint	108
8.8.2.	The FTA and the E.U.	109
8.9.	<i>Triggers, Focusing Events and Policy Windows</i>	110
8.9.1.	Triggers	110
8.9.2.	Focusing Events	110
8.9.3.	Policy Windows	111
8.10.	<i>Developing Countries: The Cases of Curitiba and Bogotá</i>	111
8.11.	<i>References</i>	112
<b>Chapter 9:</b>	<b>Conclusion</b>	<b>114</b>
9.1.	<i>Why the Mobilization Model is not the Dominant Model</i>	114
9.2.	<i>Theoretical Issues</i>	114
9.2.1.	A Mobilization Model but Without a Policy Entrepreneur?	114
9.2.2.	Mixing Mobilization and Inside Access Models	114
9.3.	<i>Practical Issues</i>	115
9.3.1.	Transportation: a growing concern for the citizens	115
9.3.2.	Towards an integration of transportation issues	116
9.4.	<i>Further Research</i>	117
9.4.1.	The Absence of Outside Initiative Case Studies	117
9.4.2.	Inside Access Entrepreneurs?	117
9.4.3.	The American Exceptionalism	117
9.4.4.	Quantifying The Policy	118
9.4.5.	Agenda-Building Models For Other Topics	118
9.5.	<i>References</i>	118
<b>Acronyms</b>		<b>119</b>

## List of Tables, Figures, Maps and Pictures

### Tables

Table 1:	Institutions involved in preferential treatment	25
Table 2:	Cities' Population and Area	45
Table 3:	Summary of the people interviewed	48
Table 4:	Strasbourg's Preferential Treatment	51
Table 5:	Lyon's Preferential Treatment	55
Table 6:	PDU Objectives in terms of modal share	57
Table 7:	Curitiba's Preferential Treatment	60
Table 8:	Bogotá's Preferential Treatment	63
Table 9:	Results from the Referendums	66
Table 10:	London's Preferential Treatment	70
Table 11:	Manchester's Preferential Treatment	73
Table 12:	Dublin's Preferential Treatment	76
Table 13:	Hawaii's Preferential Treatment	79
Table 14:	Portland's Preferential Treatment	82
Table 15:	Ottawa's Preferential Treatment	84
Table 16:	Zurich's Preferential Treatment	89
Table 17:	Case Studies' Models Summary	93
Table 18:	Percentage of Positive Answers to the question: "To improve traffic conditions, should we limit car use?"	97
Table 19:	Types of Public Consultations Held in the Case Studies	98
Table 20:	Type of Planning Led in the Case Studies	100
Table 21:	Organs Responsible for the Planning	101
Table 22:	Percentage of Positive Answers to the question: "Will we succeed to limit car use in cities by the year 2010?"	106
Table 23:	Percentage of Positive Answers to the question: "Transportation and traffic, a growing problem?"	116
Table 24:	Percentage of Positive Answers to the question: "Cars in cities have more disadvantages than benefits?"	116

### Figures

Figure 1:	Volume Distribution Among Transit Modes	11
Figure 2:	The vicious cycle of urban decline	12
Figure 3:	Queue Jump	16
Figure 4:	Traffic Signal Priority	17
Figure 5:	Curb Extension	17
Figure 6:	Boarding Island	18
Figure 7:	Exclusive Right-of-Way	19
Figure 8:	Semi-Exclusive Right-of-Way	20
Figure 9:	Non-Exclusive Right-of-Way (Mixed Traffic)	20
Figure 10:	Relation between infrastructure and modal share	21

Figure 11: Relation between speeds and modal share	22
Figure 12: The vicious cycle of urban decline	23
Figure 13: Issue Creation	32
Figure 14: Methodology Scheme	47
Figure 15: Referendum on Car Use	66
Figure 16: The Different Stage of Transmilenio	68
Figure 17: Bus Lane in London	71
Figure 18: The Region Plan	86
Figure 19: Case Studies in the Gamut of Models	115

## **Maps**

Map 1: Strasbourg, France	51
Map 2: Lyon, France	54
Map 3: Curitiba, Brazil	59
Map 4: Transmilenio in Bogotá, Colombia	63
Map 5: London, United Kingdom	70
Map 6: Manchester, United Kingdom	73
Map 7: Dublin, Eire	76
Map 8: Hawaii, USA	79
Map 9: Portland, USA	81
Map 10: Ottawa, Canada	84
Map 11: Zurich, Switzerland	89

## **Pictures**

Picture 1: MetroBus, Washington	15
Picture 2: TCL, Lyon	15
Picture 3: Inside fare collection, Boston	16
Picture 4: Proof of payment, Lyon	16
Picture 5: Bus at a Tube Station	60
Picture 6: Trinary Road System	60



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# Chapter 1: Introduction

## 1.1. Preferential Treatment

### 1.1.1. Definition

Preferential treatment is a broad definition that combines all the means to insure that priority is given to transit. It includes a wide range of measures: from the queue jump to exclusive right-of-ways and from Bus Rapid Transit to Light Rail Transit.

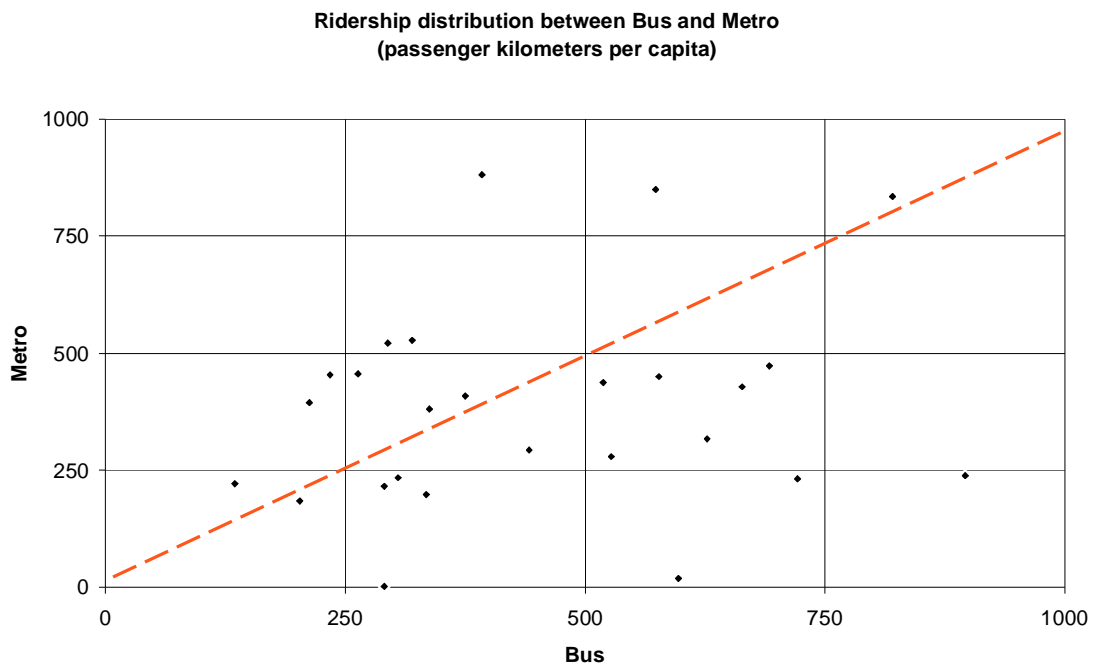
### 1.1.2. Why Does Preferential Treatment Matter?

*When heavy rail is not an option...*

Due to the high capital investments needed, most of the cities cannot rely on heavy rail infrastructure to provide public transportation services. Hence, at-grade transit is in many cases the backbone of the public transportation networks. However, unlike subways or elevated lines, buses and LRT strongly suffer from the car-created congestion. The reliability and the commercial speed decrease dramatically, lowering the attractiveness of public transportation in those cities.

*When heavy rail is an option...*

In large cities, when one wants to deal with public urban transportation, it is often found that subway is the only robust alternative. Indeed, heavy rail transit system, through a higher capital investment, brings more capacity and is much more appealing! So why should one focus on at-grade transit systems? Figure 1 represents the distribution of traffic volume (passenger-kilometers per capita) between bus and metro, in major metropolitan areas that are served by a heavy rail system. 15 of the 26 cities represented (58%) are located under the first bisector; meaning their bus system carries more ridership than their heavy rail system. Cities located above the first bisector still relies on the bus system, illustrating that a metro system cannot be self-sufficient in term of networks. A short outlook points out the fact that metros are limited to corridors and must rely on at-grade transit for a feeder system to extend service to broader areas.



*Figure 1: Volume Distribution Among Transit Modes<sup>1</sup>*

### *Preferential Treatment and the Degradation cycle*

At-grade transit may be the main component of public transportation in the vast majority of metropolitan areas in the world; it is also the most exposed to car congestion. The steady decline in public transportation could be summarized by the simple following figure (figure 2):

---

<sup>1</sup> Source: UITP Millennium Cities Database. The following cities have been used: Brussels, Lyon, Marseille, Paris, Frankfurt, Hamburg, Munich, Athens, Milan, Amsterdam, Oslo, Barcelona, Madrid, Stockholm, Glasgow, London, Newcastle, Montreal, Toronto, Vancouver, Atlanta, Chicago, Los Angeles, New York, San Francisco, Washington

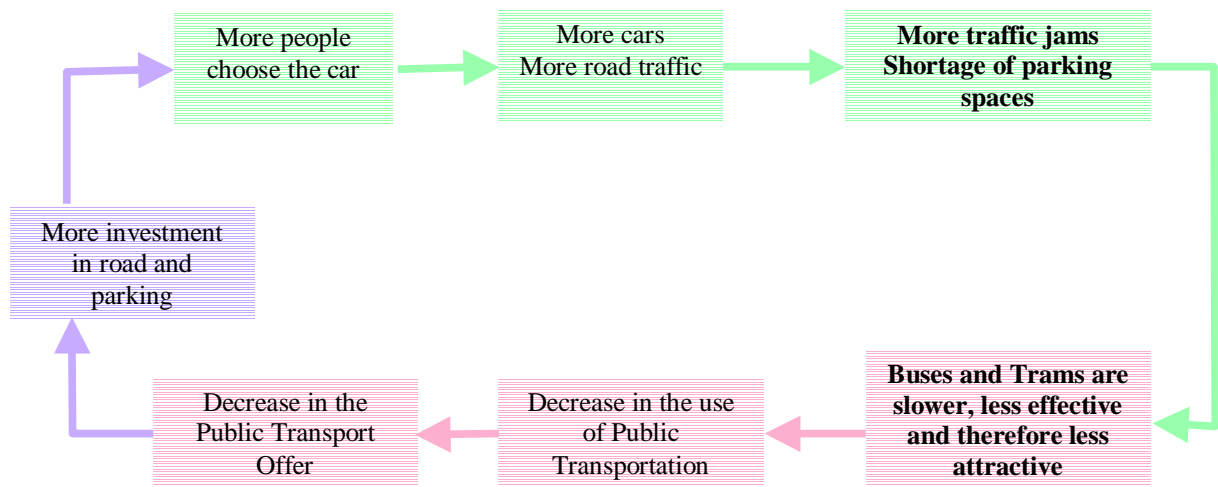


Figure 2: *The vicious cycle of urban decline*<sup>2</sup>

Therefore, to keep an attractive transit system (with or without heavy rail), it is important to limit the car traffic impacts on public transportation. In this context, **preferential treatment gives the opportunity to challenge the car domination in the city** and to insure attractiveness of public transportation.

## 1.2. **Curitiba and Zurich Experiences**

### 1.2.1. **Transit Innovations**

Curitiba and Zurich are among the first cities to have questioned the sustainability of a city developed around cars. In the 1970's, their transportation policy innovations were to give priority to transit. Curitiba implemented a cheap and efficient high-capacity bus network; Zurich revived its tramway system built before the WWII. Since, Curitiba has become one of the wealthiest cities in Brazil and Zurich has preserved its urban attractiveness.

### 1.2.2. **Brazilian Entrepreneur or Swiss Democracy?**

The main concerns about Zurich and Curitiba are that they both achieved their implementation through particular policy-making processes. Indeed, during the 1970's, the dictatorship in Brazil allowed Curitiba's mayor to push for an aggressive

---

<sup>2</sup> Source: Based on Better Mobility in Urban Areas, International Association for Public Transport, 2001

implementation, which eventually convinced the citizen. On the other hand, Swiss democratic model allowed the citizens to direct legislative process according to their wishes through referendum. Therefore, the citizens refused to accommodate more car capacity but pushed for reviving the public transportation.

### **1.3. How Can Other Cities Benefits?**

The importance of at-grade transit and the benefits that preferential treatment accrues should have convinced worldwide transportation decision-makers. Moreover, preferential treatment has been successfully implemented in few other cities in both developed and developing countries. Technical barriers that can compromise the implementation are quite limited, as the technology is nowadays widely available and affordable. But is the technology the only factor? The following article (Urban Transportation Monitor, 1992) relates an interesting anecdote: the attempt to implement Bus Rapid Transit in Manhattan by importing Curitiba's transit system.

#### ***Bus Tube Reduces Travel Time***

Comparable to an above Ground Subway

*A new concept in urban bus transport – the bus tube- was successfully tested in New York City recently.*

*The bus tube is comparable to an above ground subway; passengers pay as they enter the protected tube station. The tube station platform and the bus doors are at the same elevation. When the bus pulls alongside the tube, the bus operator open the bus and tube doors using a radio signal, and the passengers walk directly onto the bus fully utilizing both front and rear doors. The bus driver does not interrupt service to collect fares or hand out transfers thus speeding up travel time. [...]*

*The bus tube was developed by the Brazilian city of Curitiba, and testing it was a cooperative venture involving Curitiba, the New York City Department of Transportation, New York City Transit Authority, the Port Authority of New York and New Jersey, and an international non-profit organization called the Mega-Cities Project, dedicated to finding low-cost innovative solutions to improve urban life.*

***The system reduces travel time and provides more convenient bus service for passengers.** The reduced dwell time required by buses at the tube station results in increased roadway capacity which benefits motorists as well as bus riders.*

*The bus tube was tested for six weeks from April 20 to May 29, 1992. Passengers had a positive reaction to the bus tube. Gerard Schoffian, assistant commissioner of the New York City Department of Transportation said that **"the tube raised the profile of bus travel in New York City. Their physical presence demonstrated the importance of transit and how attractive and convenient it can be."***

A decade after, one can still argue why the system was not permanently implement after such a successful test. **Implementation of preferential treatment is not and cannot be summarized as a technical aspect.** Policies supporting this initiative are crucial for cities that envisages implementing preferential treatment. Hence, the need to study policy-making processes for other cities to benefit.

#### **1.4. Outlines**

To address the issue of preferential treatment as a public policy-making process, the thesis will first define in chapter 2 the technological aspects of preferential treatment. In chapter 3, the thesis will come back on the policy-making theory with an extensive literature review Afterwards, the problems and methodology theory will be set out in chapter 4. Chapters 5, 6 and 7 are dedicated to the case studies, each one of them looking at a specific type of agenda-building model. The thesis will focus back on the hypotheses in the light of the case studies in chapter 8. At the same time it will give the main findings of the research. Eventually, the thesis will bring some conclusions to the research in the last chapter.

#### **1.5. References**

*Urban Transportation Monitor, 1992: Article in "The Urban Transportation Monitor", 07/10/92*

## Chapter 2: Preferential Treatment: A Transit Review

### 2.1. What Is Preferential Treatment?

#### 2.1.1. Definition

Preferential treatment is a broad definition that gathers all the means insuring that priority is given to transit. It includes a wide range of measures: from the queue jump to the Light Rail Transit. It can be divided technically three categories:

- Operational improvements
- Bus Rapid Transit
- Light Rail Transit

#### 2.1.2. Operational improvements

Operation improvements are characterized by no capital investments (or very limited) in the transit infrastructure.

#### *Bus Design*

The bus design is critical for transit service. It is part of preferential treatment as it has impacts on boarding and unboarding times. The following pictures (pictures 1 and 2) show different systems used by transit agencies. Washington's buses only load by the front door and unload by the back door to allow payment control by the driver. However, many people used the front door to go down, interfering with boarding customers. In Lyon, low floor buses opens two sets of doors, allowing a fast load/unload and a short dwelling time.



Picture 1: MetroBus, Washington



Picture 2: TCL, Lyon

### *Fare Collection*

The fare collection has also a significant impact on the level-of-service by extending or reducing dwelling times. Money collectors can be located inside the vehicle under the driver's control (Picture 3). Another alternative developed by operators is the use of proof of payment (Picture 4), with which service is paid outside the vehicle and can be controlled (most of the time on random bases) later on board by entitled officers.



*Picture 3: Inside fare collection, Boston*

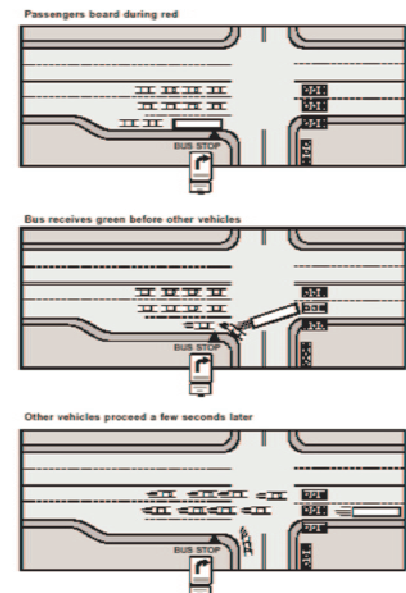


*Picture 4: Proof of payment, Lyon*

### *Bus Queue Jump*

The bus queue jump allows avoiding long queue of vehicles at signalized intersections. The bus uses the right-turn lane without the requirement to turn right. At the green light, it moves ahead the queue.

Two necessary conditions have to be met: the right turn lane must be long enough and not obstructed by the queue; then the traffic signal system must give a green time priority for the bus to bypass the cars.



*Figure 3: Queue Jump<sup>3</sup>*

---

<sup>3</sup> Transit Capacity and Quality of Service Manual, Part 2: Bus Transit Capacity



### Bus Signal Priority

When a bus reaches a signalized intersection, the signal can give the priority and allow the bus to follow seamlessly. There are two different categories of traffic control system:

1. The passive system: pre-timed modifications of the signal system that can be adjusted manually.
2. The active system: the signal adjusts itself automatically after sensing the arrival of the bus.

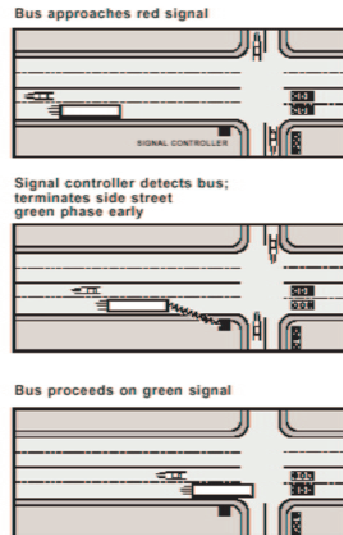


Figure 4: Traffic Signal Priority<sup>4</sup>

Signal priority allows a delay control and can significantly improve the schedule adherence. However, transit sake may imply a larger delay for others users.

### Curb Extension

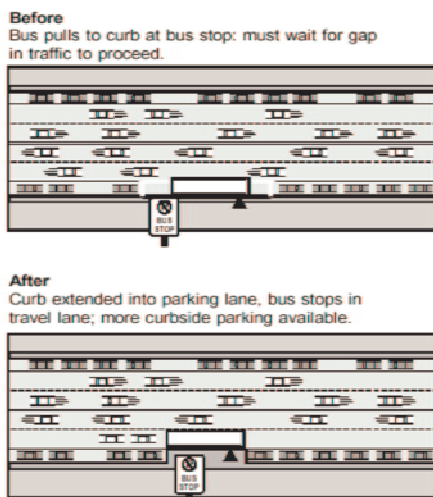


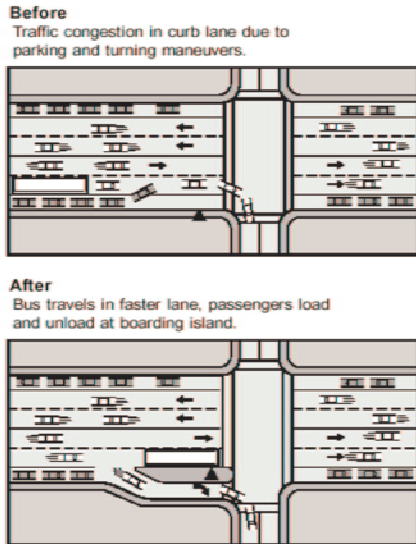
Figure 5: Curb Extension<sup>5</sup>

In lanes with intense traffic, the bus encounters delay in trying to reinsert in the traffic lane. With a curb extension, the bus avoids to pull to the curb to stop.

The main disadvantage remains the need of two lanes in the bus direction in order to avoid complete disruption of the car flow.

<sup>4</sup> Transit Capacity and Quality of Service Manual, Part 2: Bus Transit Capacity

## Boarding Island



The boarding island uses the same principle as the curb extension. In this case, a special attention must be brought to the safety of travelers.

Figure 6: Boarding Island<sup>6</sup>

### 2.1.3. Bus Rapid Transit (BRT)

The Bus Rapid Transit is considered as a preferential treatment with substantial infrastructure improvements and with most of the operational improvements described above included. Bus Rapid Transit often runs on exclusive lanes or an adequate infrastructure separating them from the automobile traffic. BRT dwell times can easily reach the rail transit ones and the solution can result in high speed and high utilization rates. Bi- or tri-articulated bus can carry up to 270 passengers. There are three types of dedicated lanes for BRT.

#### *No use of the adjacent lane*

The bus lane may be used in contraflow and is physically channelized. The alternative allows speeds of 70 km/h and bus traffic of 70 buses/h. To give an order of comparison the average frequency in a mixed traffic is 60 bus/h.

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<sup>5</sup> Transit Capacity and Quality of Service Manual, Part 2: Bus Transit Capacity

<sup>6</sup> Transit Capacity and Quality of Service Manual, Part 2: Bus Transit Capacity

### *Partial use of the adjacent lane*

Depending on the use of the other traffic, right-turn can be prohibited or not. Frequencies are close to 100 bus/h.

### *Full use of the adjacent lane*

In this case, the right-turn is prohibited and some authorized vehicle can run on the busways. A frequency of 180 bus/h can be expected if the law (e.g. to avoid parking on the lane) is strictly enforced.

#### **2.1.4. Light Rail Transit (LRT)**

Defined by the Transportation Research Board (TRB, 1994), the Light Rail Transit is a rail mode:

*"characterized by its ability to operate single cars or short trains along exclusive rights-of-way at ground level, on aerial structures, in subways, or occasionally in streets" [along with vehicular traffic].*

The main difference with heavy rail system remains the electric system (voltage and source). Indeed, LRT uses overhead cables whereas heavy rail uses a third rail.

The LRT was known under the name of "tramway" when it was build in the first part of the XX<sup>th</sup> century. According to the International Association for Public Transportation (UITP), LRT remains the modern term. However, the word "tramway" is still used in France and will be used indifferently later.



*Figure 7: Exclusive Right-of-Way<sup>7</sup>*

In the alternative above (figure 7), the alignment uses a full grade separation with car traffic. Safety and commercial speed are here privileged in avoiding any conflict with the car flow.

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<sup>7</sup> Source: TCRP Report 17, "Integration of Light Rail Transit into City Streets." Chapter 2: System Safety and Operating Experience

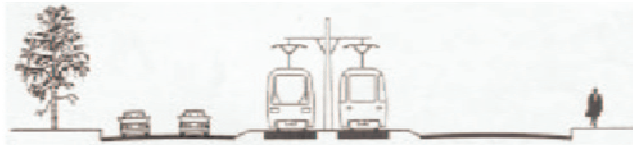


Figure 8: *Semi-Exclusive Right-of-Way*<sup>8</sup>

In figure 8, the alignments use limited grade crossing. The conflicts are limited to these zones; in the other zones the LRT operates as fully separated.



Figure 9: *Non-Exclusive Right-of-Way (Mixed Traffic)*<sup>9</sup>

The last type of LRT (figure 9) runs on non-exclusive alignments. The transit flow is mixed with car and pedestrian flows. The operating speed is therefore lower but transit services reach high-density areas like CBD and develop a friendlier environment.

### 2.1.5. Aerial and Underground Networks

Many metropolitan areas own aerial or underground networks. One could also include them as the ultimate preferential treatment. However, it will not be considered in the definition of preferential treatment because the implementation issues are different: sharing right-of-ways with the traffic and financial burden/construction disruptions.

## 2.2. *Why Is Preferential Treatment Desirable?*

### 2.2.1. Not Longer, Faster!

Transportation demand is strongly driven by the value of time. The International Association for Public Transport (UITP, 2001), using the Millennium Cities Database, made clear that the most competitive public transportation networks, i.e. with the highest modal share, are the one offering the highest commercial speed.

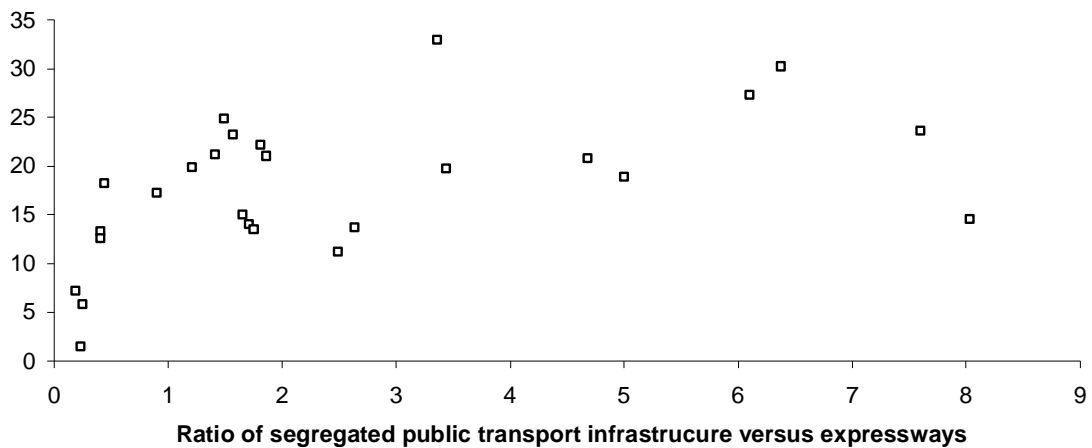
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<sup>8</sup> Source: Ibid

<sup>9</sup> Source: Ibid

Their results have been adapted by focusing only on the 26 cities in Europe and America in the Millennium Cities Database that have implemented preferential treatment (bus exclusive lanes, tramway or LRT). In figure 10 the transit modal share is hardly correlated to the ratio between public transportation and highway infrastructures.

**Percentage of motorized public modes over all trips**



*Figure 10: Relation between infrastructure and modal share<sup>10</sup>*

On the other hand, figure 11 shows a much higher correlation between the ratio of public transportation speed over automobile speed and modal share. This simple study underlines the fact that **building is not a guaranty for high transit ridership but giving the priority is!**

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<sup>10</sup> Source: Millennium Cities Database, UITP, 2001

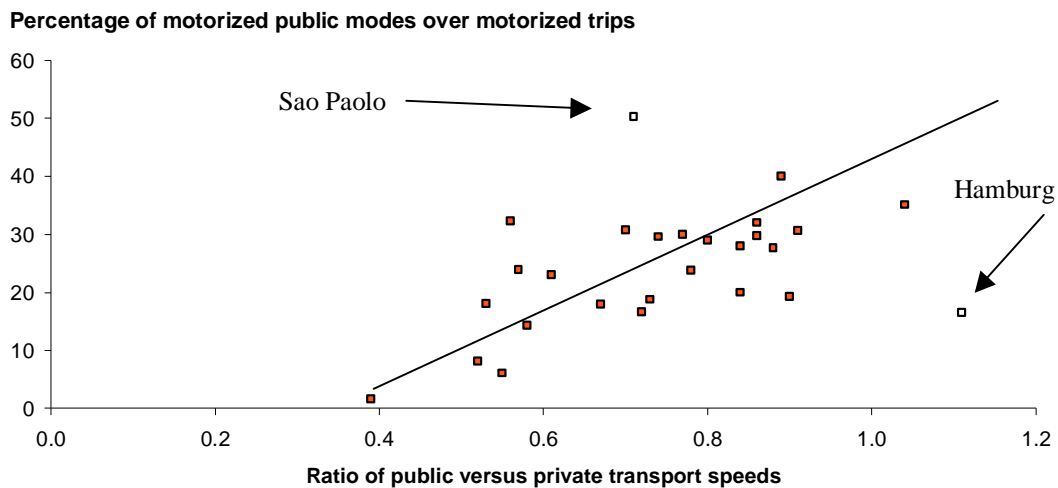


Figure 11: Relation between speeds and modal share<sup>11</sup>

### 2.2.2. The Urban Cycle of Degradation

Earlier, we saw that slower transit implies less ridership, but the relations between transit and the urban environment are much more complex. Indeed, low ridership often leads to lower service, starting the more general decline of public transportation. The several dimensions of car traffic impacts on the urban transportation are more broadly illustrated on figure 12: land use, employment and environment.

Preferential treatment represents an opportunity to break the cycle and therefore revives public transportation. Its main action is to break the relationship between car traffic and transit by giving a protection to public transportation from the consequences of an increase in car use. Thus, transit can remain competitive and attractive through a better level-of-service (higher commercial speed, schedule adherence, high frequency...).

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<sup>11</sup> Source: Millennium Cities Database, UITP, 2001. Coefficient of Correlation: 0.467, Coefficient of Correlation Without Sao Paulo and Hamburg: 0.599

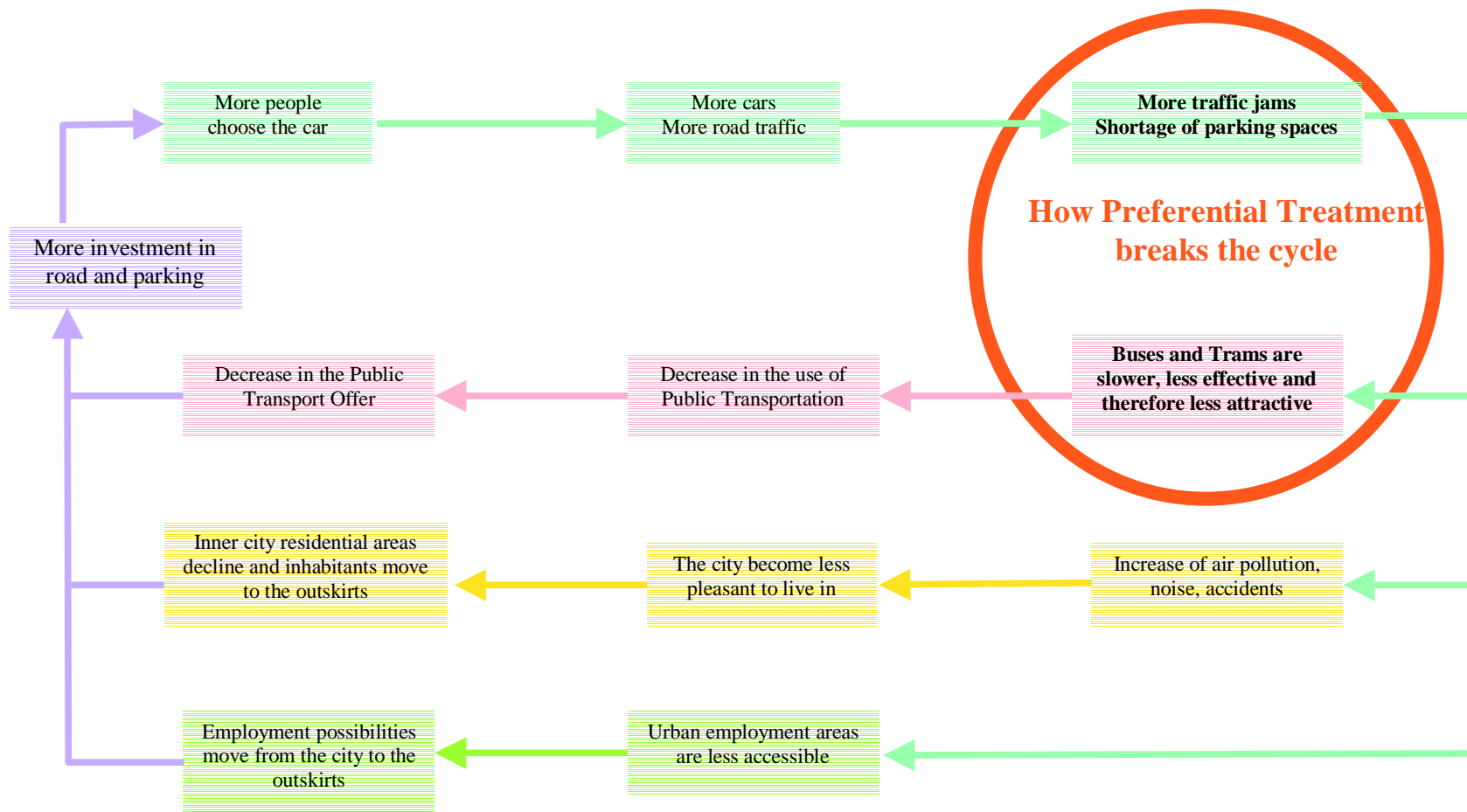


Figure 12: The vicious cycle of urban decline<sup>12</sup>

<sup>12</sup> Source: Better Mobility in Urban Areas, International Association for Public Transport, 2001

## **2.3. Preferential Treatment's Challenges**

### **2.3.1. Technology**

Preferential treatment must rely on different aspects of technology to insure that priority is physically given to transit. Nevertheless, the different technological components are nowadays widely available and affordable. **Fare collections and street designs** do not require a state-of-the-art technology: the implementations in Quito and Curitiba only required minimal technology (paper proof-of-payment, tube stations). Moreover, smart-cards can provide useful tools in implementing an efficient network. **Vehicle technology** (rubber or steel) is not an issue anymore, it is more related to transit attractiveness towards users, but has little influence on preferential treatment (high-capacity bus in Curitiba can carry more persons than some LRT systems). **Traffic priority** was a challenge two decades ago (when Zurich chose to implement preferential treatment, they had to develop the whole traffic signaling technology); today technologies such as Global Positioning System (GPS), Automated Vehicle Location (AVL), network algorithms and computers' capabilities are widely developed for limited costs.

### **2.3.2. Institutions**

Institutions differ in every countries and it would be impossible to enumerate on them all. However, there are commonalities between each city in the way of addressing transportation issues. We can define the major actors at four geographical levels of power: local, metropolitan, regional and national (table 1).



<b>Components of Preferential Treatment</b>	<b>Institutions Involved</b>
<b>Bus Design</b>	Transit Authority
<b>Fare Collection</b>	Transit Authority
<b>Bus Queue Jump</b>	Transit Authority Traffic Department, Local Public Work Department, Local
<b>Bus Signal Priority</b>	Transit Authority Traffic Department, Local
<b>Curb Extension</b>	Transit Authority Public Work Department, Local
<b>Boarding Island</b>	Transit Authority Public Work Department, Local
<b>BRT and LRT</b>	Transit Authority Traffic Department, Local Public Work Department, Local Planning Authority Metropolitan Authority Regional Government National Government

*Table 1: Institutions involved in preferential treatment*

The first six components are the competencies of local authorities because they are operational improvements at a discrete level (intersections, bus stops, route sections...). BRT and LRT are system-wide improvements, and thus involve many more institutions because different cities or municipalities are likely to be served by a corridor or a network and institutions in each city are involved. On the other hand, there often is a metropolitan government above several local jurisdictions (the Metropolitan Planning Organization in the USA or the "Communauté Urbaine" in France). Generally, higher regional authorities (the State Department of Transportation in the USA or the Region in France) are also concerned because the system impacts regionally. Eventually, the cost of infrastructures

is bringing at the table national authorities, such as the Federal Transit Authority or the Ministry of Transportation.

The real challenges for preferential treatment are the management of all the stakeholders stated above, as conflicting interests are likely to arise opposition to the implementation of preferential treatment:

- The Traffic Department may not want to restrict cars in an already saturated network
- The Public Works Department may not want to redesign streets that could impacts on its management
- The Metropolitan Authority could hold conflicting interests within its members
- Reaching a financial agreement among the stakeholders could create potential conflicts...

### **2.3.3. Other Issues**

In addition to institutional and technological issues, preferential treatment also faces several issues that regular public transportation faces everyday. We can identify two: Transportation and Integration, Transportation and Sustainability.

First, for public transportation to be really attractive, the integration of services (fares, traveler information, infrastructure) is crucial. It is all the more true for preferential treatment since the cooperation of many agencies is required. On the other hand, preferential treatment is raising the question of urban quality of life. Preferential treatment and public transportation are related to broader issues such as the land use patterns and environmental policies (urban air pollution and climate change). In principle, many transportation policy-makers could be in favor of preferential treatment for at-grade transit, given the benefits that accrue. However, questioning the car usage in cities remains highly controversial. In particular, preferential treatment highlights the need to orient city development around sustainable modes (transit and non-motorized modes), instead of trying to match car demands.

## **2.4. Curitiba's and Zurich's Success Stories**

Transit preferential treatment has been crystallized by two examples of implementation in the 1970's. Indeed, Curitiba and Zurich were among the first cities to implement full priority for transit, and nowadays the developments of these cities are quoted as references by the public transportation world.

### **2.4.1. Curitiba**

The system in Curitiba is considered in the USA as what public transportation should be. The implementation of a high-capacity bus network, not only efficient but also profitable has pushed the U.S. Government to envision BRT as a potential solution to tackle growing mobility concerns with limited funds. Actually, in the 1990's U.S. Federal Transit Administration members visited by the city of Curitiba and came back enthusiastic about what can be achieved with a bus system. In consequent, they launched BRT pilot projects to revive public transportation in several cities.

### **2.4.2. Zurich**

Zurich influence is much stronger in Europe, as Zurich was until the 70's a normal European city, developed on the same patterns and facing the same transportation issues. The will of the Swiss to limit cars in their city and to redirect massive funds dedicated to road capacity to enhance the public transportation system have put Zurich on a pedestal as a model to follow on transportation and environment issues. Moreover, public transportation integration has successfully raised the level-of-service.

### **2.4.3. Challenges**

Nevertheless, Zurich and Curitiba may appear as successes in terms of preferential treatment and more broadly in terms or urban quality of life, but most of the transportation professionals acknowledge the peculiarities of those cities. Indeed, in the 1970's Curitiba was a fast growing city in a developing country. Moreover, an entrepreneur called Lerner took benefits from the Brazilian dictatorship to impose his policy innovation to the city. On the other hand, Zurich example appears as singular as

Swiss policy-making is in Europe. Citizens go to vote almost every weekend to decide the orientation of the city's, the canton's and the country's policies.

## **2.5. References**

*TRB, 1994: Transportation Research Board, Light Rail Transit Committee, Transportation Research Record 1433, Transportation Research Board, National Research Council, Washington D.C. 1994*

## Chapter 3: Policy-Making, a Literature Review

### 3.1. Introduction

Policy-making theory focuses on understanding how decision-makers act to solve society's problems. Several models have been elaborated since the 1950's and this chapter will address three kinds of policy-making models:

- Rational Choice Models
- Incremental Models
- Agenda-Building Models

Whereas the first two kinds of models scrutinize the essence of decision-making (i.e. focused on the decision-makers' behavior and abilities), the last category focuses more on the internal process of decision-making (i.e. on the interaction among the actors).

### 3.2. Rational Choice Models

#### 3.2.1. Decision-Making Concept

Jones (Jones, 1994) summarizes Herbert Simon's concept of decision-making in writing that policy-makers behave on purpose – the Homo Politicus is rational – adopting strategies that can help them achieve their goals. According to Herbert Simon (Simon, 1965), decision-making finds its intrinsic definition in the concepts of facts and values. Decisions link the facts to the values, as a decision-maker notice facts and acts to move towards his values (what he believes is "good"). Studying decision-making processes appears not possible with scientific use, as it is based on the notion of value. However, Simon insists that the real process should take relatively to the values, in order to be scientifically explored.

#### 3.2.2. Rational Behavior

Simon also considers that the rational behavior can be used to explain the link between the means and the end. This model, in order to be realistic, has to include several factors:

- The comparison between alternatives means to achieve efficiency
- The relation between the means and the end

The decisions are expressed as the choices of one of the alternatives. To look at more complex decisions, Simon also defines strategies as a reformulation of a series of decisions. Hence, the task of decision-making is to choose a strategy by:

1. Considering all the possible strategies
2. Defining the potential consequences of these strategies (with respect to the end)
3. Comparing these strategies.

Rationality, according to Simon, is the process of evaluating all the consequences of these alternatives towards the value defined by the decision-makers.

### **3.2.3. Limits Of The Model**

The concept of rationality is bounded and Simon acknowledges the model's limits as decision-makers cannot take into account all the alternatives and cannot evaluate all the consequences of an alternative. This rationality is coupled with individuals' psychology to fill those lacks, which makes difficult the scientific understanding of decision-making.

## **3.3. *Incremental Models***

### **3.3.1. Failure Of The Rational Models**

Lindblom (Lindblom, 1959) points out the different failures of the rational models, exposed by Simon (Simon, 1965). First, the rational model (or root model) can address only small-scale issues. A large problem entails too much complexity for the human capabilities. The rational approach is supposed to look at all important things and it is practically not feasible. On the other hand, the root model is based on the relationship between the means and the end and often problems can face conflicting values that cannot be addressed by rational strategies.

### **3.3.2. Successive Limited Comparison Model**

Cobb and Elder (Cobb and Elder, 1983) broach the incremental model in pointing out that decision-makers face time constraints and incomplete information. Indeed, Lindblom (Lindblom, 1959) suggests that these constraints and limited human capacities result for the policy-maker in acting incrementally. Therefore, Lindblom suggests that decisions are

made incrementally. His model, the successive limited comparison model or branch model, basically reduces the scope of the problem in considering a limited number of policies. He first chooses a limited set of strategies  $\{X_0, \dots, X_N\}$ , – of which he has knowledge of the consequences – and he implements them with a dichotomy method. To achieve a goal  $G$ , a first strategy  $X_0$  will result in  $Y_0$  and create some unexpected consequences, therefore a second strategy  $X_1$  is implemented to correct the side effects of  $Y_0$  and to tend further towards  $G$ . The notion of process relies on trade-offs that the decision-maker is willing to make to move towards the goal  $G$ . Lindblom's conceptions defines a continuous policy-making process, that, contrary to the root model, does not evolves by leaps and bounds, but smoothly.

The main concern about the model is that it does not allowed any policy innovations. In fact, if one follows the incremental logic, there can be only marginal improvements of a situation resulting from a policy. Lindblom argues that non-incremental policies are irrelevant because they bear unpredictable consequences.

### ***3.4. Focusing On The Agenda-Building***

Policy-making as a process is not easily identifiable and we have seen that the literature generally focused on the decision-makers and on the results of public policies. However, the process and the environment that led a decision-maker to act is crucial as it defines which problems to scope. Kingdon (Kingdon, 1995) describes public policy making as a four-step process including:

- Setting the agenda
- Alternatives specification
- Choice from alternatives
- Implementation

Two difficulties arise in public policy analysis. First, literature tends to study successes only; indeed little work has been done on failures. On the other hand, each of the four steps must be considered with attention. Kingdon asserts that success in one of the stage does not guaranty a success in the process, pointing out the complex nature of the process.

### 3.4.1. Definitions

#### *Issues or Problems*

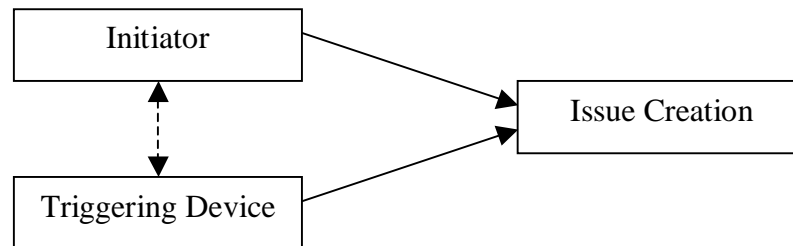
Policy-making process is focused on solving problem or issue. The question "When is there a problem or an issue?" could be reformulated as "When is there a need to act?" The following definition of the term "problem" is given by Kingdon (Kingdon, 1995):

***"a mismatch between the observed condition and one's conception of an ideal state"***

Another definition of an issue is given by Cobb and Elder (Cobb and Elder, 1983):

***"an issue is a conflict between two or more identifiable groups over procedural or substantive matters relating to the distribution of positions or resources"***

Cobb and Elder describe the creation of an issue as an interaction of a triggering device on an initiator:



*Figure 13: Issue Creation<sup>13</sup>*

Henceforth, we will use the terms "issue" and "problem" without distinction. We shall also make a clear distinction between problems and alternatives. According to Kingdon (Kingdon, 1995), alternatives are related to an agenda item and represent a way of the decision-maker to address the problem.

#### *Agenda*

The literature gives various definitions to the term "agenda". However, some consistency can be found across the definitions. Indeed, the nuances in which the definition is declined underline the distinction that exists among the actors. Kingdon (Kingdon, 1995) gives the more general definition as:

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<sup>13</sup> Source: Participation in American Politics, The Dynamics of Agenda-Building, Cobb R.W. and Elder C.D., 1983, p. 85



***"the list of subjects or problems to which government officials, and people outside of government closely associated with those officials, are paying some serious attention at any give time".***

Consequently, he adds that agenda-setting's role is to select subjects among the multitude of problems for potential course of action.

Cobb, Ross and Ross (Cobb, Ross and Ross, 1977) expand the definition by making a distinction between the public agenda and the formal agenda. The public agenda is composed of issues that have been identified by the public and that are of high interests.

To be on the public agenda, an issue must:

- Draw widespread attention or awareness
- Be a concern to a critical number of persons in the society
- Be identified with a government, able to address the issue

The formal agenda is composed of issues that have been considered by the decision-makers for action. By making such a distinction, Cobb, Ross and Ross acknowledge the central relation between these two actors.

Nelson (Nelson, 1984) uses a different vocabulary when she defines the gamut of agendas. She develops the definition given by Cobb and Elder (Cobb and Elder, 1983), who considered the systemic agenda (equivalent to the definition of public agenda given by Cobb, Ross and Ross (Cobb, Ross and Ross, 1977)). Nevertheless, Nelson (Nelson, 1984) differentiates within the systemic agenda, the popular agenda, related to the mass public, and the professional agenda, related to a public already sensitive to the issue and holder of a certain expertise. This new degree of accuracy introduces the various sensibilities that can exist within the public group.

### **3.4.2. Actors**

The definitions have already given an insight about the importance of identifying the different actors when one analyses a public policy. Among the multitude of actors, we would focus on three in particular: the public, the interests groups and the policy entrepreneur. This gamut is generally sufficient to identify the actors of any public policy process.

### *The Public*

A broad definition of the public would be:

***"anyone in society who does not hold direct interests in the issue; i.e. anyone else the decision-maker and the interest groups"***

However in policy-making, the public is divided in categories depending on the level of participation. In defining the mass public, Cobb, Ross and Ross (Cobb, Ross and Ross, 1977) distinguish two different entities. The Attentive Public is generally involved in public policies. A small proportion of the population, it already has an opinion on the issue and is not easily swayed. The General Public is rarely involved in the decision-making process. Whenever an issue reaches its agenda, it is for a very limited time but with an great intensity. The decision-makers are often forced to consider the issue if it is broad enough to involve the general public.

### *Interest Groups*

Generally, the public is not strongly involved in policy-making; instead, interest groups gather individuals whose stakes are potentially threatened in the particular policy. They can include the industry, unions, consumer groups, and political lobbyists. Kingdon (Kingdon, 1995) underlines the role of interest groups in decision-making as supporter of new items on the agenda, and most of all, supporters of solutions for these items.

### *Policy Entrepreneur*

The policy entrepreneur is a central stakeholder of the public policy process. Kingdon (Kingdon, 1995) clarifies the concept of entrepreneur at a federal level. Not necessarily a part of the decision-making body, an entrepreneur is an advocate for a set problem, dedicating his time, resources and reputation. He could be from any or part of any actors of the process: bureaucrats, politician, lobbyist, community activist... However, if Kingdon is not clear about his intention, but he quotes several of his qualities:

- Be legitimate by being representative or by holding a some level of expertise
- Be a negotiator or have strong political ties
- Be obstinate

This definition is easily applicable at all the level of policy-making; the only difference would be in the status of the entrepreneur (local, regional or national).

### **3.4.3. Focusing Events and Policy Windows**

Obviously, they are many more issues than spots on the decision-maker's agenda. Thus, the issue and supporters must rely on opportunities to get on the policy entrepreneur's agenda, then on the formal agenda.

#### *Focusing Events*

In general, focus events crystallize a problem, that is to say bring it back on people top list of concerns. Problems are revealed to the public, the policy entrepreneur or the decision-maker by several ways: indicators, events or feedbacks. First the problem could appear through indicators showing a need for improvement. It can also confirm or evaluate the gravity of a problem. Then, feedbacks on current policies could bring to people's attention the inefficiencies as things stand at present. Finally, events may arise a problem among the multitude. Dramatic events, like a crisis or a disaster are, of course, catching the eyes, but also benchmarks like elections or the appointment of a new team. We will define focusing events as revelators of an issue, including indicators, feedbacks or events.

Nelson (Nelson, 1984) also raises the notion of trigger in the organizational approach (equivalent to focus events). According to Nelson, there is also the need for a focusing event in order to catch the eyes of a political official. She mentioned disasters, dissatisfaction, breakthroughs in technology, as well as organization events such as nomination or advancement. This definition is to be related to the political official's point of view as described later in the organizational approach.

#### *Budget, a Particular Focusing Event*

Budget is an important focusing event in the public policy process. Kingdon (Kingdon, 1995) reminds us that budget cannot only be an inhibitor when it is limited (many issues are not considered due to the lack of funds), but also a catalyst when funds are made available. Indeed, money that needs to be spent can push political officials to look for

some problems to solve. We should pay a particular attention to budget because financing is a central question in transportation issues.

### *Policy Windows*

Kingdon (Kingdon, 1995) defines policy windows as a period of time when an entrepreneur is able to raise its issue on the formal agenda and most of the time its solution. Policy windows are short and infrequent. However, some are predictable like annual budgets, and some remain unpredictable. Kingdon explains that a change in administration is the most obvious policy window, when new decision-makers are considering a new agenda.

## **3.5. Agenda-Building Models**

Nelson (Nelson, 1984) analyzes agenda setting as hypotheses developed by school of thoughts rather than theories, the hypotheses being focused on a specific item of the process. She identifies three main streams: the organization approach, the issue career and cycle, and the economic growth.

### **3.5.1. Economics Approaches**

The economics approaches rely on studies of public spending at a macroscopic level. Nelson (Nelson, 1984) explains that public choice theorists emphasize on the expansion of the government budget through majoritarian vote with logrolling. These approaches do not consider how particular issues reach the government agenda; therefore they will not be further expanded.

### **3.5.2. Organizational Approach**

The organizational approach focuses on the decision-making process at the level of the political official. Indeed, Nelson (Nelson, 1984) describes the four steps in which the decision-maker agenda is set:

- **Issue Recognition:** an issue is revealed and considered for a potential government action
- **Issue Adoption:** the decision-maker chooses to act or not

- **Setting Priorities:** the decision-maker ranks his new issue on the top of the agenda
- **Issue Maintenance:** the decision-maker pressures the governing body in order to implement a solution, may it be for the first time or periodically when a maintenance of the issue is needed

### 3.5.3. Issue Career

The issue career, as Nelson (Nelson, 1984) describes it, relies mainly on the work of Cobb, Ross and Ross (Cobb, Ross and Ross, 1977). Indeed, they define three models for agenda setting, based on the nature of the initiator of the process. The first one, the **outside initiative model**, describes how a group, isolated from the decision-makers, manages to put an issue on the formal agenda. In the second one, the **mobilization model**, the decision-maker himself initiates the issue, but need to reach the public agenda for implementation. Eventually, the **inside access model** takes into account the will of a group with privileged access to the decision-makers in setting its issue on the formal agenda.

The three models are summarized on the table through five steps:

- Initiation
- Specification
- Expansion
- Strategies (of expansion)
- Entrance

	<b>Outside Initiative</b>	<b>Mobilization</b>	<b>Inside Access</b>
<b>Definition</b>	A non-governmental group initiates the issue that reaches first the public agenda, then the formal agenda.	Political leaders initiate the issue. Although being on the formal agenda, it is not on a public agenda and leaders need to gather constituency for the implementation.	The issue is bore by a group with relatively easy access to the decision-makers. The initiator seeks to reach the formal agenda by pressuring the decision-makers without reaching the public agenda.
<b>Initiation</b>	A group, which is not related to the decision-maker, and thus has little access to the formal agenda, formulates the issue.	The issue is set on the formal agenda by the current government when it defines the issue as a priority, being sure that action will be taken.	The initiation and the specification are done at the same time. The group not only address an issue to the decision-maker, but it also submits concrete solutions to scope the issue.
<b>Specification</b>	The initiator group formulates its issue into demands. The problem can be specified in several demands that answer the concern of the initial group.	The entrepreneur specifies his concerns in order to clarify his will towards the public.	

	<b>Outside Initiative</b>	<b>Mobilization</b>	<b>Inside Access</b>
<b>Expansion</b>	<p>To reach the decision-maker, the initiator group expands its issue to others groups, most of the time in linking it to other existing issues. Two different groups are concerned:</p> <ul style="list-style-type: none"> <li>• Identification groups, the first to be mobilized because they own strong interests in the issue</li> <li>• Attention groups, less involved directly by the issue, but concerned in general by public policies. Likely to spread the issue to the attentive public.</li> </ul>	<p>The entrepreneur needs to gather support in the public in order to achieve implementation. Expansion to other groups is therefore crucial. Gathering support must start first by creating a debate among the key actors. Attentive public will rapidly be involved; however, the initiator must manage the response of opposition groups.</p>	<p>Not seeking to reach the public agenda, the initial group pays attention to control the expansion to a limited number of groups, including the identification group and some attentive groups. The goal is to create enough pressure so that the decision-makers consider the issue as well as the proposed policy. However, the expansion must not draw the attention of opposition groups and other groups that may divert the policy.</p>

	<b>Outside Initiative</b>	<b>Mobilization</b>	<b>Inside Access</b>
<b>Strategies</b>	<p>There is competition with other issues and with opposition forces. Thus, the issue can be aimed at the mass public directly or can be channeled through interest groups. A strategy could be to link the issue with a rallying symbol in the society</p> <p>Strategies depend mainly on the issue itself and the resources from the initial group.</p>	<p>Strategies are also depending here on the issue itself as well as the resources and maneuverability of the initiator. A common strategy is to underline a change from the past, pointing out the movement.</p>	<p>Expansion strategies are essentially based on negotiations among the different groups in order to reach a consensus, supporting the issue.</p>
<b>Entrance</b>	<p>Entrance is the movement from the public agenda to the formal agenda. It could be achieved through:</p> <ul style="list-style-type: none"> <li>• Institutional sanctions</li> <li>• Direct access</li> <li>• Negotiations with interests groups</li> </ul>	<p>First, the entrance is the movement from the formal agenda to the public agenda. On the other hand, it is also a movement to the local formal agenda, where the issue will be implemented.</p>	<p>Entrance is defined by the issue attaining the formal agenda. It could be achieved through negotiations but rarely with external factors.</p>



### *Initiator and Policy Entrepreneur*

There could be some confusion in what Cobb, Ross and Ross (Cobb, Ross and Ross, 1977) call the initiator and the policy entrepreneur defined by Kingdon (Kingdon, 1995). The role of the initiator is really limited to arise the issue from the multitude of society's problems. The policy entrepreneur role is to support the issue. It often happens (specially in the mobilization model) that the same person plays the two roles, hence the confusion.

### *Triggers, Policy Windows and Focusing Events*

There could also be some confusion over the notions of trigger, policy window and focusing event. The main difference between the three notions is that they appear at different stages of the process. The trigger is related to the issue and the initiator; it basically reveals the issue to the initiator. On the other hand, focusing event are more associated with the issue emergence in people's minds. Eventually, the major difference between a focusing event and a policy window is that policy windows are specifically oriented to the formal agenda and closely related to the entrepreneur. Although, decision-makers could peruse a problem, they may not consider it for action.

## **3.6. References**

*Cobb and Elder, 1983: Participation in American Politics, The Dynamics of Agenda-Building, Cobb R.W. and Elder C.D., 1983*

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## Chapter 4: Problems and Methodology

### 4.1. *Problems: Car drivers: a major stakeholder*

Transportation is not a major public concern. Indeed, it is rarely on the top of the public agenda like education or health. Nevertheless, it is a major component of our daily lives: going to work, moving goods, access to leisure... In the context of growing travel demand, the private cars have become more and more present in the way of achieving such mobility and the automobile is now the dominant mode of transportation in the vast majority of metropolitan areas around the world. This has resulted in growing saturation levels of congestion that impact negatively on both the automobiles and the surface transit. Policy-makers are generally unwilling to confront this very critical part of our lives, convinced that they could jeopardize their political careers by even questioning the sustainability of auto-dependency.

### 4.2. *Hypotheses*

#### 4.2.1. Where The Literature Leaves Us

The rational and incremental models are descriptive; indeed they try to understand the acts of decision-makers. Nevertheless, they have limited explanation power to analyze policy-making process, as it involved a multitude of actors other than the decision-makers themselves. On the other hand, the agenda-building literature offers an alternative to consider the process as a whole by describing the different stages and relationships.

Agenda-building approach remains very generalist on describing public policy-making. Kingdon (Kingdon, 1995) is the only one to look at transportation policy-making, though at a federal level. Nevertheless, agenda-building models allow us to consider two approaches: **the organizational approach**, focused on the political officials' point of view and **the issue career**, focused on the issue itself. The issue career can be described using three models of agenda-setting. We have also gained some elements to identify these three models through the methodology developed by Cobb, Ross and Ross (Cobb, Ross and Ross, 1977).

Moreover, they enounce three hypotheses on the predominance of each model that can help us to formulate some hypotheses:

1. "The more egalitarian a society, the more likely that the outside initiative pattern will predominate"
2. "The greater the concentration of wealth and status in a society, the more likely the inside initiative pattern will predominate"
3. "The more hierarchical a society, the more likely the mobilization pattern will predominate"

#### **4.2.2. Hypotheses**

We have seen that a large number of institutions are involved in the implementation of preferential treatment. Also confronting car drivers remains a controversial aspect for political officials. According to Cobb, Ross and Ross (Cobb, Ross and Ross, 1977) hypotheses suggest that the mobilization will predominate because of the number of interests. In consequence, we want to test the following hypotheses:

1. *The implementation will rise an important opposition from the public and the stakeholders*
2. *A policy entrepreneur in the decision-making body is necessary and sufficient to implement preferential treatment*
3. *There would be a mobilization scheme (that might follow other models) in the public policy-making process to achieve the preferential treatment implementation*
4. *Inside access model, alone, cannot have significant impacts on implementations*
5. *Outside initiative model remains rare*
6. *Transportation authorities' roles are limited to providing their planning and technical expertise during the process*

### 4.3. Methodology

#### 4.3.1. The Case Studies

To test the hypothesis, we will look at case studies of cities that have implemented preferential treatment. General information on the 11 cities are presented in table 2.

<b>City</b>	<b>Population</b>	<b>Area (km<sup>2</sup>)</b>
<b>Strasbourg</b>	451,000	306
<b>Lyon</b>	1,152,000	486
<b>London</b>	7,007,000	1,579
<b>Manchester</b>	2,578,000	1,272
<b>Dublin</b>	953,000	593
<b>Honolulu</b>	718,000	3,987
<b>Portland</b>	529,121	348
<b>Ottawa</b>	972,000	323
<b>Zurich</b>	785,000	625
<b>Curitiba</b>	1,600,000	432
<b>Bogotá</b>	5,569,000	1,730

*Table 2: Cities' Population and Area*

- Curitiba, Ottawa, Portland and Zurich have been selected, as they have implemented their policies quite early and are often seen as references in terms of preferential treatment.
- Strasbourg and Lyon are interesting cases because they were implemented along the elaboration of a national French policy, which ultimately built a framework for the generalization of preferential treatment.
- London and Manchester have been able to implement their systems using local dynamism, as central governments in the UK were quite inexistent.
- Dublin is offering an insight about the involvements of the Irish government as well as European funds in order to define broad urban policies.
- Eventually, Honolulu, which is the only city that has not yet physically implemented preferential treatment but has gone through all the policy process, stands for a typical America middle-size city with growing congestion and very poor public transportation.

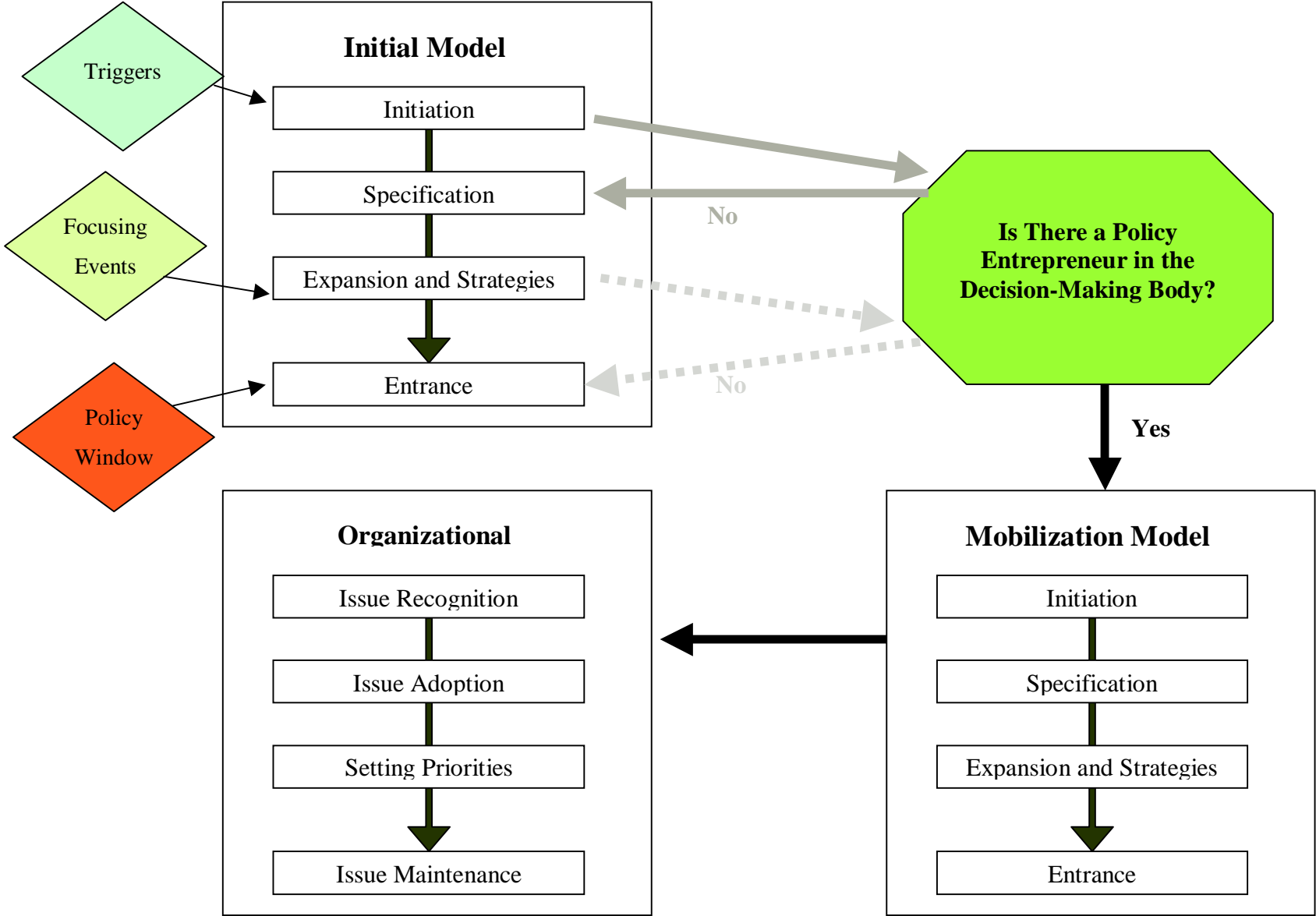
### 4.3.2. The Agenda-Building Framework

The analysis of each case study will be conducted using the agenda-building models. We will try to identify three phases that are described in figure 14:

1. The initial model
2. The mobilization model
3. The organization approach

In phase one, we want to find out what is the model that predominates in the agenda setting. We will test the central hypothesis – *a policy entrepreneur in the decision-making sphere is necessary and sufficient to implement preferential treatment* – twice in the initial model: first at the initiation then at the expansion level. The validation of our hypothesis will lead to phase two where we analyze the mobilization model. In phases one and two, we will document the different steps (initiation, specification, expansions, strategies, entrances) suggested by the issue career model. In case of refutation of the main hypothesis, we will consider that only one model predominated and we will try to analyze the reasons that allow an exclusive inside access or outside initiative model. Eventually, the phase three (following an eventual phase two) will be focused on the entrepreneur decision-maker.

Figure 14: Methodology Scheme



### 4.3.3. Data Collections

Data for the case studies have been collected from different sources.

1. General information on the network infrastructures is mainly coming from Jane's Database and from UITP's statistics.
2. Some WebPages (personal, authorities...) lists and describes briefly some events, sometimes providing maps. Also, public transportation papers give such overviews.
3. For cities that had an early implementation, the literature gives details on the decision-making processes. (Curitiba, Ottawa, Zurich)
4. For all the cities, case studies databases, such as ELTIS (European Local Transport Information Service), come back on the main events during the process. Also, documents from UITP (working papers, congress reports) also provide good references on the processes.
5. Eventually, the more accurate source of information has been the interviews of people directly involved in the decision-making process.

### 4.3.4. Interviews

The interviews represent the backbone of the case studies' chapters. The people interviewed and their position are described in the following table (table 3):

<b>City</b>	<b>Person Interviewed</b>	<b>Position</b>
<b>Strasbourg</b>	Marc Pesenti	Head of Mobility Department, Communauté Urbaine de Strasbourg
<b>Lyon</b>	Bruno Faivre-d'Arcier	Professor, Université Lyon II – Laboratoire d'Economie des Transports
<b>London</b>	Kevin Gardner	Head of the Bus Priority Unit, TfL
<b>Manchester</b>	Roger Hall Tony Young	Former Deputy Director General, GMPTE Former Senior Planner, GMPTE
<b>Dublin</b>	Derry O'Leary John Henry	Strategic Planning Manager, Dublin Bus Director – Chief Executive, DTO
<b>Honolulu</b>	Paul Stefens	Public Transit Division Chief, Department of Transportation Services
<b>Portland</b>	Joe Fox	Former Civil Engineering Manager, Tri-Met
<b>Ottawa</b>	John Bonsall	Former Director of Transportation Planning, RMOC
<b>Zurich</b>		None
<b>Curitiba</b>		None
<b>Bogotá</b>		None

*Table 3: Summary of the people interviewed*



Finding the right person to interview mainly occurred through personal and/or professional networking. Having spent the summer 2002 interning at the UITP allowed us to identify sources for the case studies in most of the cities. Also, interviewees have been kind enough to not only provide new contacts but also reorientate us to other sources for more specific details.

After giving a brief description of the research and of the agenda-building models, the interviews were based on the following set of questions:

- Existence of previous plans or/and attempts to deal with public transportation issues
- Identification of the initiation stage:
  - Who was the initiator?
  - What were the triggers?
- The initiator relations with decision-makers, transportation authorities and the public
- The position of the initiator towards the issue:
  - Were solutions already envisioned?
  - Was the project still considering alternatives?
- Expansion of the problem to the other actors:
  - What were the transportation authority's reactions?
  - How the decision-makers felt about the process?
- How the issue was expanded
  - Were there consultations led?
  - How the transportation authority got involved?
  - How the initiator got access to the formal agenda?
- Public interests groups:
  - Was there any opposition?
  - How was it overcome?
- The presence of a policy entrepreneur among the decision-makers:
  - Who and what was his influence?
  - At what stage did his support become crucial?
- Position of the person interviewed

#### **4.4. References**

*Cobb, Ross and Ross, 1977: Agenda-Building as a Comparative Political Process, Cobb R., Ross J-K., Ross M. H., 1977*

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# Chapter 5: Mobilization Model: Case Studies

## 5.1. Strasbourg, France

### 5.1.1. Preferential Treatment Description and Historic



Map 1: Strasbourg, France<sup>14</sup>

	<b>Length</b>	<b>Miscellaneous</b>
Bus	288 km	7 km on priority right-of-way 4 lines in service running on 2 right-of-ways
Tramway	22.6 km	

Table 4: Strasbourg's Preferential Treatment<sup>15</sup>

Public transportation in Strasbourg involves the "Communauté Urbaine de Strasbourg" or the Strasbourg Metropolitan Authority (CUS) and the "Compagnie des Transports Strasbourgeois" (CTS), the operator. CUS, created in 1969, gathers under its jurisdiction 27 municipalities and is in charge of the planning and policy making.

<sup>14</sup> Source: Compagnie des Transports Strasbourgeois (2000)

<sup>15</sup> Source: Jane's Urban Transport System 2002-2003

In 1994, the first line (10 km of tramway) was put into service, followed in 2000 by 12.6 km of the second line.

### **5.1.2. Initial Model**

#### *Initiation*

The first model started in the 70's after the first Oil Crisis when public powers looked at public transportation to limit the oil dependency. In 1974, the CUS approved the principle of developing a priority route networks.

#### *Specification*

In 1976, the CUS approved the draft plans of a first tramway line. At this time, the city opted for preferential treatment. But it was only in 1983 that plans for a tramway system were submitted. Nevertheless, in 1985, studies were ordered to compare the tramway and the underground light rail. The CUS decision-makers traveled in different cities comparing systems, particularly Nantes that had already implemented the tramway and Lille that had chosen an underground light rail<sup>16</sup> technology called "Véhicule Automatique Léger"(VAL). The same year, the previous process collapsed, as the tramway technology was rejected in favor of an underground light rail similar to the VAL. From 1985 to 1989, surveys and studies were led to establish detailed plans for the light rail. We can see that the initial model is a mobilization model but with very little support as there was no policy entrepreneur.

### **5.1.3. Mobilization Model**

#### *Initiation*

Catherine Trauttman, who would later be the policy entrepreneur, got elected in 1989. During the municipal campaign of 1989, transportation issues reached back the public agenda and Trauttman's team campaigned for the tramway, arguing that the cost and the civil work's impacts would be lower.

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<sup>16</sup> In this case, Lille chose a subway but with lower capacity than conventional heavy rail technology (thus the name light rail). It should not be considered as preferential treatment as it is not at-grade.

### *Specification*

The newly elected entrepreneur ordered new studies on the tramway in June 1989, dropping for good the light rail. In November of the same year, the CUS approved the plans of the first line. The specification phase occurred during the municipal campaign when Trauttman defended the tramway solution as a way not only to tackle the growing congestion but also to reshape the urban fabric.

### *Expansion and Strategies*

The tramway project encountered strong opposition from two interest groups: the automobilist lobby and the retailers. A public debate was organized in the city and Holec (Holec, 1998) describes the consultation process whose main goal was to explain the project to the communities and the neighborhoods in order to limit opposition. Also CTS organized more than 70 meetings on the bus network restructuring. These meetings gathered customers association, CTS managers and elected officials. The opposition was not completely removed; nevertheless the public globally accepted the project.

### *Entrance*

Following the consultation process, the project went on without major delays, as it must be remembered that it was legitimized by the 1989 elections. In 1992, the traffic crossing the city center was stopped for the public works and never re-allowed. Following the opening of the first line, the main opposition groups, the retailers, acknowledged the positive impacts for their business, supporting the expansion of the network.

#### **5.1.4. Organizational Approach**

##### *Issue Recognition and Adoption*

It is not absolutely clear why Catherine Trauttman rejected the light rail, putting the tramway back on the table. It seems that during the visits in other cities, the example of Nantes convinced Trauttman to go for preferential treatment in addition to a favorable cost/benefit analysis.

### *Setting Priorities*

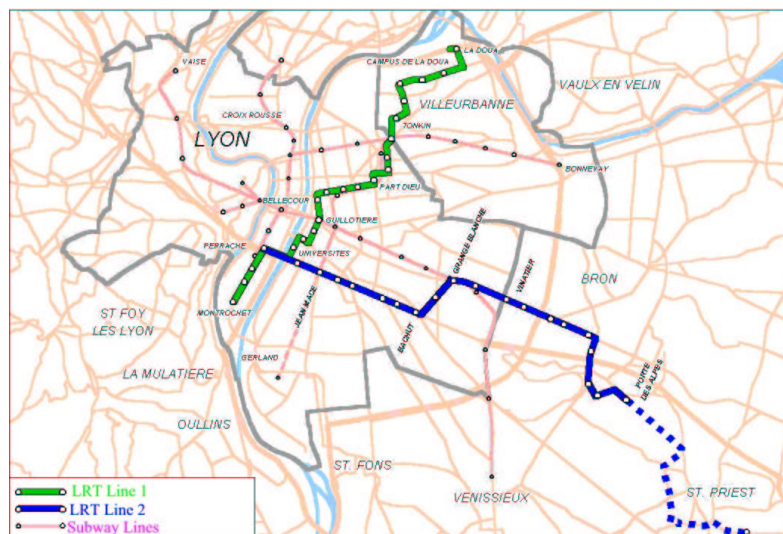
Transportation issues were a major theme of the municipal campaign of 1989. Thus, the governing team established preferential treatment as a priority in their tenure. The opening of the first line in November 1994, five months before the next elections appeared as mandate's outcome.

### *Issue Maintenance*

The second line opened during the second tenure in 2000 but Trauttman also ensured that the potential next mayor (to be elected in 2001) would keep on developing the network. Further studies were ordered by the administration and a third line scheduled in 2006.

## **5.2. Lyon, France**

### **5.2.1. Preferential Treatment Description and Historic**



Map 2: Lyon, France<sup>17</sup>

<sup>17</sup> Source: SYTRAL, [www.isis.tm.fr](http://www.isis.tm.fr)

	<b>Length</b>	<b>Miscellaneous</b>
Bus	1 132 km	Exclusive right-of-way: 77.4 km  In service since January 2001 4 lines and a funicular
Trolleybus	54 km	
Tramway	18.7 km <sup>18</sup>	
Metro	27.5 km	

*Table 5: Lyon's Preferential Treatment<sup>19</sup>*

In addition to four levels of government in the general decision-making process in France – the State, the Region, the Department and the Cities – the COURLY (COmmunauté URbaine de LYon) creates a new level of power between the Department and the Cities. The COURLY is legally a community of cities in charge of the metropolitan area. However, its influence had been limited due to the political conflicts in which cities defended their own interests and therefore blocked the entire dialogue process. Another stakeholder in Lyon is the SYTRAL (SYndicat de TRansports de l'Agglomération Lyonnaise), the transportation authority. The peculiarity of this transportation authority is that it is composed by elected officials (from the COURLY) and by technocrats (from technical departments of the State and the Industry).

### **5.2.2. 1990: The Failure of the Inside access model**

#### *Initiation and Specification*

In the 80's, following the LOTI act, Lyon started its PDU by a planning exercise in order to tackle the growing traffic problem. The process rapidly collapsed because the different cities were trying to attract the state investments without building any coherency at the metropolitan level. Moreover, the State abandoned its financial support.

In 1989, under the leadership of the mayor Michel Noir, the transportation issues came back on the politic agenda. In 1990, the COURLY adopted a report elaborated by its technical department, giving support to a greater space for public transportation in the city. The COURLY also dedicated a large amount of money for the transportation sector (around a billion euros). At the same time, SYTRAL adopted the principle of intermediary network "Hippocampe" based on tramway technology.

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<sup>18</sup> Source: L'état des TCSP en service en mars 2001, GART

### *Expansion and Strategies*

The COURLY reacted negatively to the proposition, arguing on the integration in the urban setting and refusing to decrease the road capacity. Furthermore, Noir wanted to replace Lyon in a European context and pushed for the creation of two additional subway lines. Jouve and Purenne (Jouve and Purenne, 2000) describe how Noir imposed the subway solution to the detriment of the tramway project developed by the SYTRAL. In this case the transportation policy entrepreneur Noir happened to be not supporting preferential treatment and the project never reached the formal agenda.

#### **5.2.3. 1995: The Mobilization Model**

##### *Initiation*

After the first failure, SYTRAL kept its plans on the concept of intermediary networks but never succeed to restart the process. In 1995, a new team got elected with Raymond Barre as mayor of Lyon and president of the COURLY. Also the composition of the COURLY assembly became more coherent. Christian Philip, first deputy of Barre, got in charge of the SYTRAL with the objective to redefine Lyon's transportation policy. The new policy entrepreneur Philip entrusted the Plan de Déplacement Urbain (PDU) or Urban Mobility Plan (cf. paragraph 8.5.1) conception to SYTRAL the same year. At this point, we can assert that the initial inside access model was taken over by a mobilization model, led by Philip. Indeed, the second attempt was still based on the SYTRAL work and re-initiated by Philip.

##### *Specification*

In order to elaborate the PDU, SYTRAL consulted different actors of the community, elected officials and technical services. Indeed, a broad consultation was led through the communities and neighborhoods. Moreover, work groups were set to make a diagnostic of the city. Three aspects were evaluated:

- Public transportation and traffic
- Priority to Transit

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<sup>19</sup> Source: Jane's Urban Transport System 2002-2003



- Environment and non-motorized modes

The main PDU objectives were the following:

- Capacity freezing of penetrating axes, capacity decreasing of transversal axes
- Creation of plans of 30-km/h areas (traffic calming) in the next decade
- Public transportation reorganization on the main axes in order to increase level-of-service and the supply

Moreover, the PDU was setting quantified modal shares goals, described in table .

	Reference Situation 1995	Business as Usual	PDU Objectives
Percentage of Public Transportation	20.6%	-	22.5% in 2005
Auto Modal Share of Motorized Trips	77%	80%	74% in 2007

Table 6: PDU Objectives in terms of modal share<sup>20</sup>

### *Expansion and Strategies*

Funding was the main argument in the expansion and strategies phases. As the PDU was being developed, different actors expressed their participation conditions. The Department expressed its opposition to further investments in subways, after costs overran during the implementation of the last two lines of subways. At the same time, the State fixed its participation through the Idrac Act: 15% for subway and 40% for light rail. It appeared that the intermediary network would gather a broader consensus among the actors. In 1996, the Loi sur l'Air (Clean Air Act) set the relations between the different actors. As Lyon was already complying with the LOTI and benefiting from the State support, the Clean Air Act removed the State financial participation and hurt more the process by removing a major financial support.

Philip, supported by a political consensus, pushed to give transit full priority, relying on intermediary systems. A contract was established between the different actors and the technological choice was set to LRT. In October 1997, the PDU was approved, setting a network of 12 LRT lines.

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<sup>20</sup> Source: Suivi National des PDU, Comité GART, CERTU de suivi des PDU

### *Entrance*

Philip pushed for fast implementation of 2 lines in 2 years. Indeed, the next city elections were in 2001 and the transportation policy was one of the campaign themes for Philip, a potential successor of Barre. Although one of the lines was consensual, the second was very controversial and the project had to accommodate the different political interests. As a result, the commercial speed of the line was considerably reduced. There were no real opposition to the process, except retailers who were worried about the consequences of public works and the limitation of parking space. The PDU was elaborated on discussions with the neighborhoods, limiting the NIMBY (Not In My Backyard) feelings.

Eventually the first two lines were opened in January 2001. Even though, the implementation was successful, the population was a little disappointed by the LRT, as they were expecting a capacity and a speed of a heavy rail.

#### **5.2.4. Organizational Approach**

##### *Issue Recognition and Adoption*

Elected officials had acknowledged the traffic problem in Lyon since the 80's. The previous attempt from SYTRAL proved the influence of the technocrats in the decision-making process. It is likely that Philip got involved earlier than 1995, as he got involved in transportation themes more generally. However, it remains unclear whether his choices were politically motivated (achievability in the tenure).

##### *Setting Priorities*

Philip revived the process as soon as the city council nominated him in charge of transportation. His entrepreneurship was not really as an advocate of preferential treatment but as a supporter of the initiator, the technocrats. Giving the elaboration of the PDU to the authority that expressed the need of intermediary networks appeared as a political support. Philip also relied on the PDU – that was not mandatory before 1996 – to gather the consensus he needed.

### Issue Maintenance

Although the PDU offered a convenient way to involve the different stakeholders, Christian Philip had to make sure that the process did not slow down. Indeed, Jouve and Purenne (Jouve and Purenne, 2000) write that Philip, a potential successor of Raymond Barre, was bidding on the city's transportation policy as an election program. The city election in 2001 appeared as a deadline to Philip project: 2 lines in 2 years.

## 5.3. Curitiba, Brazil

### 5.3.1. Preferential Treatment Description and Historic



Map 3: Curitiba, Brazil<sup>21</sup>

<sup>21</sup> Source: IPPPUC

	<b>Length</b>	<b>Miscellaneous</b>
Bus	1 271 km	Reserved Corridors: 53.7 km Feeders: 294 km

*Table 7: Curitiba's Preferential Treatment<sup>22</sup>*

Capital city of the State of Parana, Curitiba has incrementally built its transit system over the last 30 years. In 1974, the first 20 kilometers of bus exclusive lanes were implemented and rapidly grew. In 1979, the concept of Integrated Transit Network was developed and the radial transit system was structured and reinforced by interdistrict lines. In the 80's, the system reached its capacity. First, the city upgraded its system by putting into service bi-articulated buses and tube stations (Picture 5), then implemented in 1991 the Direct Line service (express service buses). The city was designed on the "Trinary Road System" (Picture 6):

- The central artery are dedicated to public transportation (red on picture 6)
- Two right-of-ways next the central artery are dedicated to cars (red on picture 6)
- A block away, a one-way street is dedicated to direct line service (blue and green on picture 6).



*Picture 5: Bus at a Tube Station<sup>23</sup>*



*Picture 6: Trinary Road System<sup>24</sup>*

<sup>22</sup> Source: Jane's Urban Transport System 2002-2003

<sup>23</sup> Source: IPPUC Instituto de Planejamento Urbano de Curitiba, [www.ippuc.org.br](http://www.ippuc.org.br)

<sup>24</sup> Ibid

### **5.3.2. Initial Model**

#### *Initiation and Specification*

In 1943, the Agache plan, the first plan establishing Curitiba's transportation priorities, pointed out the problem raised by motorization growth. Indeed, it stipulated the necessity to accommodate the future explosion of the automobile market and it suggested the creation of arterial highways in order to accommodate the future traffic. Right-of-ways were bought by the city but the works never started and the plans remains on the paper due to a lack of resources.

In 1965, the "Plano Diretor de Curitiba" or Curitiba Master Plan was created to tackle the traffic problems. However, it adopted the completely opposite solution of the Agache plan: building the city around the transportation network through the strict control of the urban development along designated corridors. The city would grow linearly, not as the common radial model. The "Instituto de Planejamento Urbano de Curitiba" (IPPUC) was created to develop the Master Plan.

#### *Expansion and Strategies*

Although it has been exhaustively developed. The Master Plan was not implemented by decision-makers and stayed on the shelves until 1971.

### **5.3.3. Mobilization Model**

#### *Expansion and Strategies*

From 1965 to 1969, Jaime Lerner, a civil engineer who studied architecture and planning in France, joined the IPPUC team. In 1971, Lerner was elected/appointed at the head of the city. One of his first decisions was to transfer powers to the IPPUC to start the implementation of the Master Plan. At this point, Lerner launched the implementation with strong commitments, describing it as an emergency or a war against cars. The aims were clear:

- Control the urban growth
- Integrate urban functions
- Give full priority to transit
- Limit traffic and pollution

He imposed his vision in order to build the transit system: "Fast and cheap are still the best solutions for Curitiba". Thanks to the fast implementation and the success of transportation system, Lerner insured the continuity of the policy choice and that the next elected officials would follow the movement, as legislation forbade a mayor to rerun. However, Lerner came back to power at several occasions, improving and developing the system (mayor from 1979-1983, 1989-1993 and governor from 1995-1999).

### *Entrance*

In order to understand the scope of Lerner leadership, we must describe briefly the Brazilian situation. Indeed, the country was not governed democratically at the national level with the military coup in 1964 that confiscated the power from the civilians. There was at this time censorship and really poor political opposition. Nevertheless, in 1967 the current constitution was adopted and the power was returned to the civilians in 1985. Lerner really took advantage of this lack of opposition. At this time, the main interest group opposed to the process was the car drivers. Cervero (Cervero, 1998a) explains in more details how Lerner imposed his policy (i.e. destructing roads and creating instead pedestrian-friendly areas).

### **5.3.4. Organizational Approach**

#### *Issue Recognition and Adoption*

Looking at decision-maker's point of view, it is likely that Lerner, thanks to his background, got involved before he joined the IPPUC. Having personally participated in the planning of the system, Lerner adopted the issue during his time at the IPPUC.

#### *Setting Priorities*

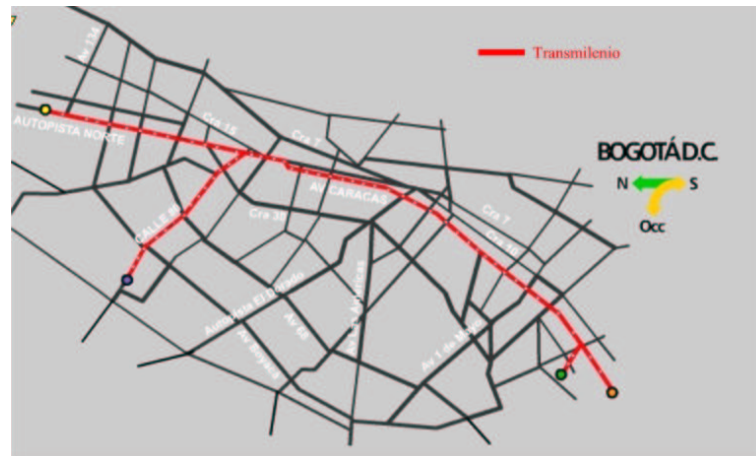
We have seen that Lerner gave to the IPPUC the powers to implement the plan, thus giving high priority to transportation policy as soon as he got nominated. Setting priorities was also an issue because of the impossibility for the mayor to be re-elected consecutively.

### *Issue Maintenance*

The policy entrepreneur, Lerner avoided any delays in the implementation opting for cheap and technologically feasible projects: buses were chosen because of the flexibility its offers and limited capital investments. When the system got in place, we can say that Curitiba became victim of its success. The capacity had to be increased several times and new services (express routes) were introduced to scope the growing demand. The maintenance was really an issue before the implementation.

## **5.4. Bogotá, Colombia**

### **5.4.1. Preferential Treatment Description and Historic**



Map 4: *Transmilenio in Bogotá, Colombia*<sup>25</sup>

Bus	<b>Length</b> 35.6 km	<b>Miscellaneous</b> Only the Bus Exclusive Lanes
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Table 8: *Bogotá's Preferential Treatment*<sup>26</sup>

In December 2000, Transmilenio, a Bus Rapid Transit, started operations in Bogotá. Initiated by Mayor Enrique Peñalosa at the beginning of its mandate in 1998, the city and private operators built and organized the transit system. Three sections have been completed in less than three years. The previous system, composed by bus private operators and small jitneys companies, has been integrated in the feeder system.

<sup>25</sup> Source: [www.transmilenio.gov.co](http://www.transmilenio.gov.co)

<sup>26</sup> Source: Millennium database

### **5.4.2. The Subway Project**

Bogotá had discussed the construction of a transit system for a long time. Building a subway to provide heavy capacity transportation was already on the public agenda in the 40's. Ardila (Ardila, 2002) described the more recent attempts to implement the subway solution. In 1980, a feasibility study was ordered and the transportation institutions were reformed to start the construction of the infrastructure but the political change during the following elections stopped the entire project due to the lack of strategies and planning of the previous administration. In 1986, the new government refocused on the subway option in ordering studies to a private consultant. However, the technical difficulties and the high cost pushed the city to renounce. At the same time, a group of engineers and planners studied the alternative implementation of a bus transit system, based on the ones developed at the same period in Quito (Ecuador) and Curitiba (Brazil) concluding to the financial and technical feasibility. The project did not draw much political attention, as leaders strongly believed in the metro. Later in 1990, another attempt from the city government failed because of the cost and the lack of resources. Eventually in 1994 the new mayor ordered a planning, always considering the subway solution. It failed once again: the delays prevented the implementation.

### **5.4.3. Mobilization Model**

#### *Initiation*

In 1998, Enrique Peñalosa Londoño was elected mayor of Bogotá. Although not holding a transportation background, Peñalosa had long been considering preferential treatment to scope traffic problems in the Colombian capital city. The following article, written by Peñalosa himself in 1985, is particularly relevant to understand his vision of public transportation.



### ***How to reorganize transportation<sup>27</sup>***

*10 millions Colombians find everyday a slow and inconvenient public transportation system. Nights and weekends, the transportation supply is completely inadequate, which seriously affect the quality of life. In the poor and distant neighborhoods, there are no buses. We suggest here that it is possible to improve radically the quality if urban transportation in Colombia, based on a complete reorganization of the current transportation system, with major investments projects.[...]*

#### ***The subway is not the solution.***

*A transportation expert would say: "Take this city, with given transportation flows and given number miles. Then, we suggest an optimal transportation system. But, we do not take into account the streets. They are for the cars."*

*Within this frame, it is necessary in terms of elevated monorails, subways, etc. However, if we give priority of the street to transit then it is possible to design an excellent system of public transportation, based fundamentally on buses and trolleybuses and possibly on at-grade trains [...] Today, public transportation is slow for the following reasons:*

- 1. the buses struggle for the passengers, due to the superposition of routes in the same right-of-ways,*
- 2. the autos obstruct the bus flow*
- 3. there are a excessive number of intersections in the principal streets.*

#### ***The system we suggest***

*More than the massive investments, the solution to transportation problem requires an administrative reorganization and most of all a political decision. The prerequisite for the reorganization is the creation of a unique Transportation Authority (ETU) at the city level, in charge of fixing and contracting the routes, determining the type of equipments to be used, supervising the existing public transportation entities, orienting the traffic organization and the investments in road infrastructures.[...]*

*The radical solution of public transportation must be in the next government program. It is technically and financially possible to offer a good service at a low cost. It requires only giving to public transportation the priority it deserves, as a mechanism to improve quality of life, and the political decision to reach the necessary reforms.*

### ***Specification***

During the campaign, Peñalosa insisted on the subway alternative. However, right after his election, he created two offices in charge of planning the potential subway construction or the potential bus system. Rapidly, the first office concluded that the subway was not feasible for financial reasons. Henceforth, the administration focused on the bus alternative by setting a planning team and starting the design the system. Peñalosa also set a task force of 12 persons to study in more depth the BRT options.

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<sup>27</sup> Source: Cómo reorganizar el transporte, El Espectador, Enrique Peñalosa Londoño 06/02/85

### *Expansion and Strategies*

During the expansion phase, the policy entrepreneur had to deal with two interest groups: the automobile drivers and the "colectivos" operators. Car drivers were an influent interest group in terms of transportation policy. Unhappy to see the roads being dedicated to public transportation, they tried unsuccessfully to impeach Peñalosa. As an expansion strategy, the mayor organized a referendum to establish his authority. Two propositions were submitted to the "Bogotanos".

**Proposition 1: Annual Car Free Day**  
*The institution of an annual Car Free Day for the city, after the experience of February the 24<sup>th</sup>, 2001*

**Proposition 2: Pico y Placa - 2015**  
*Creation of a firm legal framework to support the phased elimination of all peak hour car traffic in the city, building in increments on the existing 'Pico y Placa' scheme and to be completed as of 2015.*

*Figure 15: Referendum on Car Use<sup>28</sup>*

The mayor answered to the drivers' interest group that he would resign if the first proposition scored less than 60%.

<b>Annual Car Free Day</b>			<b>Pico y Placa – 2015</b>		
Yes	791,867	63.20%	Yes	521,106	51.25%
No	329,597	26.30%	No	348,713	34.30%
Blank ballots	131,589	10.50%	Blank ballots	146,855	14.45%

*Table 9: Results from the Referendums<sup>29</sup>*

The referendum was definitely implemented to rally support for a policy that was threatening the interests of a minority. The second source of concerns was the colectivos. Bogotá had relied for a long time on jitney services as public transportation and colectivos operators felt threatened by a mass transit system. Peñalosa negotiated with them and ultimately convinced them to integrate the system as a feeder service.

### *Entrance*

The entrance did not raise any major concerns as the mayor insured constituency for his project and contained the opposition groups. The financial aspect was also smooth as

<sup>28</sup> Source: Ecoplan, [www.ecoplan.org](http://www.ecoplan.org)

<sup>29</sup> Source: Ecoplan, [www.ecoplan.org](http://www.ecoplan.org)

Peñalosa enjoyed sufficient funds through the city budget and a tax plan, avoiding him the needs of foreign investments.

#### **5.4.4. Organizational Approach**

##### *Issue Recognition and Adoption*

The previous article showed that the issue recognition was very early. Indeed, Peñalosa admitted the influence of the Curitiba and Quito in developing a solution for Bogotá. Peñalosa had long in mind the choice of the surface preferential treatment instead of the underground metropolitan. However, he did base his election campaign on the metro alternative. Some argue that it was mainly for political tactic, knowing the controversy around preferential treatment.

##### *Setting Priorities*

During his tenure, the mayor launched a broad program of urban renewal, including public and green spaces, transit system and land use policy. The implementation of Transmilenio was one of the highest priority because it was on the top of the public agenda. Indeed, most of the congestion in Bogotá was the results of the colectivos, running quite chaotically. The previous failures of the metro projects, in contrast with the opening of the metro of Medellin in 1995, started to pressure the decision-makers.

##### *Issue Maintenance*

Issue maintenance was also an issue because mayors cannot seek two consecutive terms. Thus, Peñalosa had only four years to implement its vision and to convince the population. Once the system was scheduled to open within Peñalosa's tenure, the expansion of the system (only 3 trunks were put into service in 2000) was an issue. The second proposition of the referendum allowed him to address the issue. The results insured that the following mayor could not reject or postpone the development of the network.

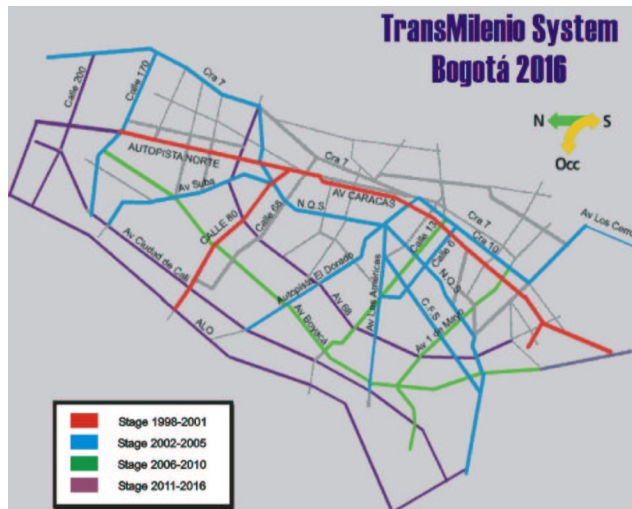


Figure 16: The Different Stage of Transmilenio<sup>30</sup>

As seen in figure 16, many other sections are already planned to provide an integrate and redundant system to the city by the year 2016.

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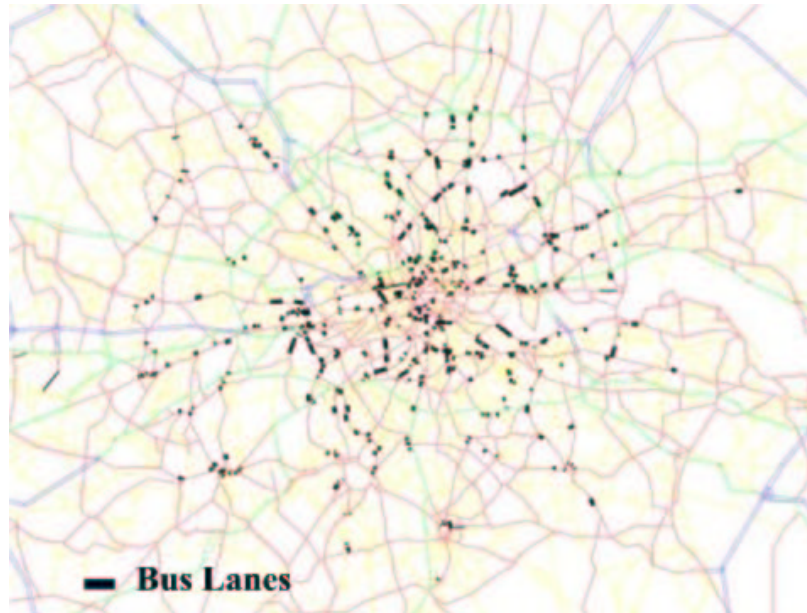
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## Chapter 6: Inside Access Models: Case Studies

### 6.1. London, United Kingdom

#### 6.1.1. Preferential Treatment Description and Historic



Map 5: London, United Kingdom<sup>31</sup>

	<b>Length</b>	<b>Miscellaneous</b>
Bus Lanes	156 km	499 traffic priority introduced since 1982

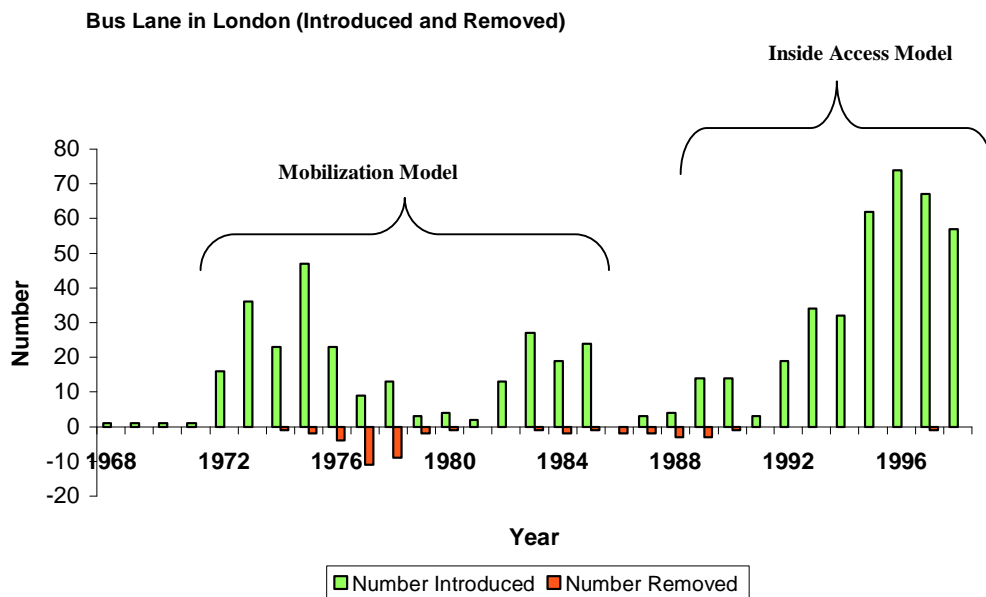
Table 10: London's Preferential Treatment<sup>32</sup>

The implementation of preferential treatment in London followed two phases corresponding to two agenda-building models. From 1973 to 1986, the mobilization model allowed the introduction of 229 bus lanes. Then from 1994 to nowadays, 432 bus lanes were introduced following the inside access model (Figure 17).

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<sup>31</sup> Source: 2001 Morning Peak Road Network, Bus Lane, Greater London, Area, Transport for London

<sup>32</sup> Source: Quality Bus Corridors – A Tool For Better Attractiveness, Kevin Gardner, International Conference - Maastricht, 7-9 February 2001, «Innovation in Road Public Transport», UITP



*Figure 17: Bus Lane in London<sup>33</sup>*

### **6.1.2. Mobilization Model 1964-1986**

#### *Initiation and Specification*

In the 1960's, the London Government set a gamut of measures to increase road capacity – mainly constructions of urban highways – under the pressure of the highway lobby. At this time there was a political split on the policies to tackle the growing congestion: the Labour Party supporting public transportation whereas the Conservative Party supporting the car alternative. Bus lanes started to be implemented in 1968, more as an experimentation. In 1973, the election of the Labour Party to the Greater London Council (GLC) shifted the attention to the public transportation.

#### *Expansion and Strategies*

In the early 1980's, the GLC published "Changing the Balance" report, where it stated its will to favor cheap and efficient public transportation for the next five years. The first phase of bus lane implementations had been the generalization of the experimentation started in 1968 under the political leadership of the GLC. As we said earlier, 229 bus lanes were introduced until 1986, with the implementation of traffic priority in 1982.

Unfortunately in 1986, the central government abolished the GLC and the preferential treatment policy decreased dramatically. Indeed, from 1986 to 1990 only 11 bus lanes were implemented.

### **6.1.3. Inside Access Model 1992-...**

#### *Initiation and Specification*

Following the abolition of the GLC, the transportation authorities were dismantled: the highways prerogatives were given to the London boroughs and a public transportation strategic body was set the London Transport (LT). In the late 1980's, the congestion put back transportation issues on the public agenda and LT published the "Green Route" report stating once again the benefit of preferential treatment.

#### *Expansion and Strategies*

In 1992, LT, in close co-operation with 11 boroughs, started bus lane demonstration projects in three corridors (South and West London, Uxbridge Road, North Docklands), an equivalent of 89 kilometers of bus exclusive right-of-way.

#### *Entrance*

The success of the demonstration projects (because it drastically improved running time and schedule adherence) led the LT to launch the London Bus Priority Network (LBPN) in 1994. Afterwards in 1996, the 33 boroughs of London participated in allowing the implementation of preferential treatment on 45 km (over 869 km of the network, 313 bus lanes). Following the election of the Labour Party at the National Government, a White Paper on UK transportation was published "A New Deal for Transport: Better for Everyone". It particularly focused on the necessity to favor bus priority and gave support to local initiatives. The LBPN initiative was extended to 22 km (over 505 km) of Priority Route Network (PRN), roads owned by the central government. In 2000, following the reinstatement of a central government: the Greater London Authority (GLA), Transport for London was created as the transportation arm of the GLA, in charge of the bus network. The election of Ken Livingstone as a mayor of London, after a campaign focused

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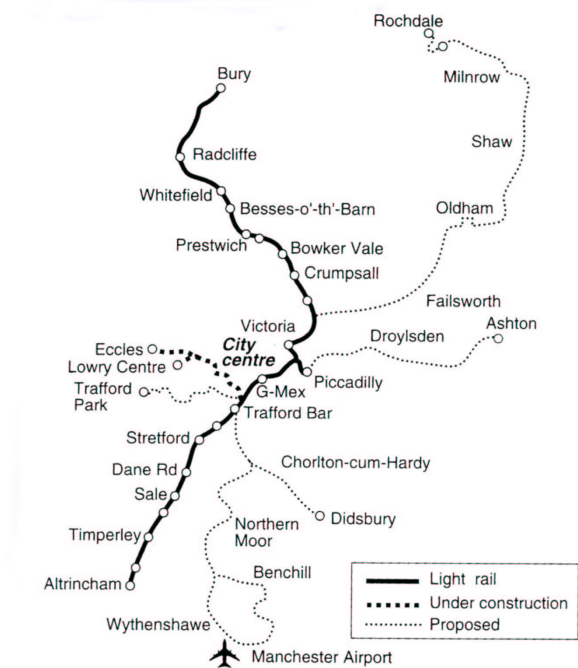
<sup>33</sup> Source: Ibid



on transportation issues, has since speeded the development of preferential treatment. Indeed, Livingston promised during his campaign to improve public transportation but not having the control of the Underground, he could only focus on the surface network to achieve his campaign program.

## 6.2. Manchester, United Kingdom

### 6.2.1. Preferential Treatment Description and Historic



Map 6: Manchester, United Kingdom<sup>34</sup>

LRT	Length 36.6 km	Miscellaneous
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Table 11: Manchester's Preferential Treatment<sup>35</sup>

In Manchester, the GMPTE (Greater Manchester Passenger Transport Executive) is the main body in charge of public transportation. It is also associated to the PTA (Passenger Transport Authority), composed of elected officials responsible for the policy-making. The GMPTE was created in 1969 under the name of PTE Selnec, became the GMPTE in 1974 and came under the trusteeship of the newly created PTA in 1986.

<sup>34</sup> Source: Jane's Urban Transport System 2002-2003

<sup>35</sup> Source: UITP

### **6.2.2. Inside Access Model**

#### *Initiation*

There was an extensive heavy rail network in Manchester, mainly at-grade, which shut down in the mid-1960. Based on Toronto experience, a study "Manchester Rapid Transit" was commissioned in 1966-67 to a private consultant. It recommended that the old network should be reconverted into a subway; however the project was too expensive for the city. In 1972, the "Selneec Transportation Study" executed by the highway authority looked at all forms of transportation possible – with the exception of LRT – for the city of Manchester. It recommended the upgrade of the current rail network with underground structures in the city center. PTE took part to the study reluctantly, but eventually accepted it as it was dealing to the whole Manchester area, whereas the Manchester Rapid Transit had focused only on the city of Manchester. Independently, the PTE issued a long-term planning report the same year suggesting for the first time the LRT option. In 1973, the Selneec Transportation Study got the parliamentary power (the approval of the MP's) but the central government refused to fund the project, which was definitely abandoned.

In 1974, the Greater Manchester Council (GMC) was created, replacing some 70 local authorities. Three years after, the conservatives won the elections, marking a total change in policy. Indeed, all the public transportation projects were stopped and the elected officials fought fiercely against any attempts to limit car use (like pedestrian areas). Nevertheless, in 1980, under the pressure of a business association, which convinced the politicians of the benefits of pedestrian areas, the GMC changed its policy. No measures were taken to balance the decrease of road capacity, but the congestion eased, convincing part of the public. On the other hand, an amateur group campaigned in 1975 for the implementation of the LRT, after publishing a report encouraging the Light Rail option. In 1981, the Labour Party came back to power, decided to tackle the transportation issue.

#### *Specification*

In 1982-1983 a joint study was commissioned to look at the economics of the different alternatives. The study suggested three options:

- a. Heavy Rail
- b. Guided Bus system
- c. A LRT either exclusively at-grade or a mix of underground and at-grade

Tony Young, at the time Principal Planning Officer at the GMPTE, was the one to push in favor of the LRT. He believed that LRT was the solution for Manchester, as it was much cheaper and quicker than the heavy rail. He also thought that the at-grade solution was not so controversial – as the pedestrian areas already convinced the public – and that the LRT would run on existing right-of-ways and on some bus lanes already implemented in the city center.

### *Expansion and Strategies*

In 1983, the GMPTE organized a field trip for the councilors and the planners in Germany, France, Netherlands, Switzerland and the USA (San Diego) to evaluate the bus and the LRT option. At the same time, councilor Andrew Fender, Chairman of the Greater Manchester Committee (in charge of the overall strategic planning for the GMC) became more and more involved in supporting the LRT. Already convinced and enthusiastic about the LRT (Tony Young declared that in the early 1980's, Fender was spending most of his time with him at the GMPTE to work on the project). However, he could not turn the process into a mobilization model, but instead convinced his fellows to go for the LRT. In 1985, GMPTE and Fender organized a second field trip in Toronto, Calgary and Portland, but Fender's good understanding of the issue already convinced the other councilors.

### *Entrance*

In 1984, a bill was deposited for the project in the city center (in 1985 for the old right-of-ways) to the Parliament. The project went through parliament committees for evaluation. Some interest groups objected the scheme in principle but mainly for property rights. The objections were withdrawn after the GMPTE reached an agreement to protect the property rights. The project was approved in 1988 by the Parliament. The process did not encounter fierce objections mainly because of the GMC initiative in mid-1970. Indeed, it set the Greater Manchester Transportation Consultative Committee gathering a wide

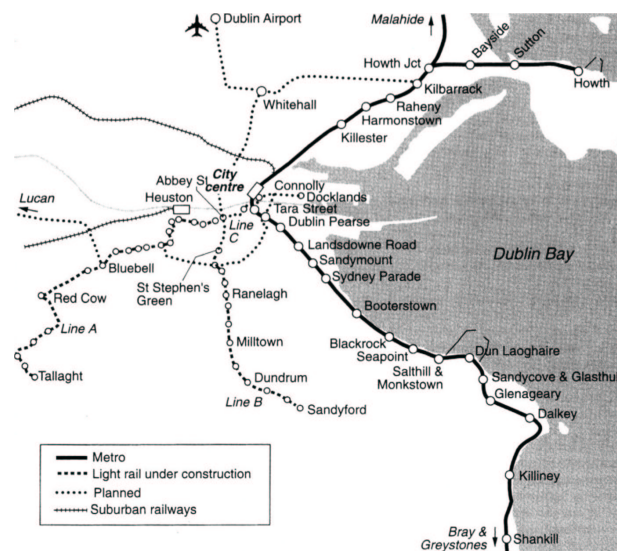
range of bodies related to transportation. Even though not mandatory, the GMPTE organized a parallel stakeholders consultation to the parliamentary procedure. During the consultation, automobilists associations gave their support for the project after talks with the highway department on traffic priorities.

It is worth noting that in 1986, the Central Government abolished the GMC and the GMPTE continued the project with the PTA.

In 1992, the first line was put into service and an extension was commissioned but under the Transport Work Act, giving more autonomy and avoiding the parliamentary procedure.

### 6.3. Dublin, Eire

#### 6.3.1. Preferential Treatment Description and Historic



Map 7: Dublin, Eire<sup>36</sup>

	<b>Length</b>	<b>Miscellaneous</b>
Bus	885 km	26.2 km on priority right-of-way, 9 QBC
LRT (Planned)		2 lines to be delivered in 2003, 4-5 to be implemented

Table 12: Dublin's Preferential Treatment<sup>37</sup>

In the 1980's, Dublin authorities started a broad planning initiative that has resulted in the implementation of numbers of transportation policies. It includes the construction of a

<sup>36</sup> Source: Jane's Urban Transport System 2002-2003

LRT network and the implementation of Quality Bus Corridors (QBC). The QBC are measures to enhance the bus level-of-service through exclusive lanes, traffic priorities...

### **6.3.2. Inside Access Model**

#### *Initiation*

Since the 1970's, a lot of planning had been done in Dublin with very few implementations. With the perception that traffic was getting worse and that public transportation modal share was steadily declining, the Irish government set in 1988 the Dublin Transportation Review Group. For three months, the Group (composed of various government departments, local authorities and Coras Iompair Eirann) worked under the leadership of civil engineers. It recommended that a major study should be done in the greater area with a 20-year strategy and a 5-year implementation plan.

#### *Specification*

Hereafter, between 1990 and 1991, the Group gathered technical experts, agencies' representatives and individuals to carry the recommendations. It stated three objectives:

- A 20-year multimodal strategy,
- A 5-year Investment and Implementation Program (1994-1999),
- On-going planning process.

The philosophy of the Group then differed from previous planning exercise in focusing on the city rather than transportation: "What city should be built?" and "What transportation system would be appropriate?" A massive public consultation was launched through mass media, public meetings, workshops... 330 000 households were surveyed on what should be envisioned for Dublin. At this point, the population expressed its concerns about the car-oriented city, acknowledging the growing congestion. Hence, the Group developed the Interim Strategy in 1992. A second public information/consultation was organized to explain the strategy and get feedbacks from the citizens. The final report with technical appendixes was submitted to the government

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<sup>37</sup> Source: Ibid

in 1994. The Strategy of Dublin Area was adopted in mid-1995. The DTI recommendations for public transportation included:

- Establishment of Quality Bus Corridors, to increase the quality of service
- Implementation of a LRT

### *Expansion and Strategies*

As the DTI also specified, the Dublin Transportation Office (DTO) was set to implement the Strategy in November 1995 and effectively started in March 1996. Among its prerogatives, the DTO has to coordinate all transportation activities with 7 different Departments (Environment, Transportation, Finance, Justice and Road Authorities), to monitor the activities (to keep the DTI Strategy) and to start the planning process (with an update every 5 years).

Nevertheless, the long-term strategy had forecast a little growth in travel demand in Dublin, but in 1993 the Irish economy started a great expansion cycle, worsening even more the current situation. The DTI drafted a short-term action plan, including 150 more buses with subsidies and a quick implementation of the QBC.

### *Entrance*

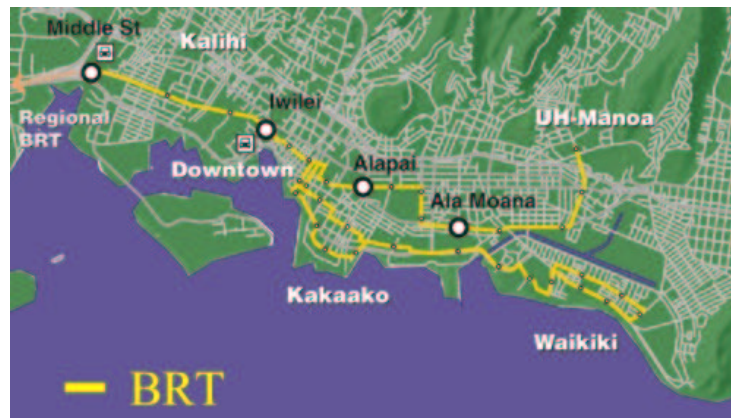
How the DTO executives won the government confidence to implement the QBC is quite unusual. In 1996, during a dinner with the Prime Minister, the DTO was asked to plan the Christmas situation (when the congestion is particularly critical) and to implement measures to cope it. In a month, the DTO produced a plan and achieved to cope the usual Christmas disaster. Since, the DTO executives have been meeting once a month with the Cabinet Subcommittee on Infrastructures with the Prime Minister and other senior Ministers, setting the committee's agenda according to their own agenda. To implement the QBC, the DTO organized on each corridor a consultation with the public and local authorities. The first four corridors were implemented quite easily, without any opposition but the following one encountered fierce opposition in the media, as it was passing through a rich neighborhood. The DTO and the different agencies stood strong with the feeling that losing this corridor could jeopardize the whole project. It was a

major success with 160% increase in ridership (including 60% of former car users) and the public definitively accepted the implementation of the QBC.

Eventually in 2000, the Platform for Change started with the goal of a complete public transportation integration. It would ultimately replace the DTO as a unique agency in charge of planning transportation and land use, and of continuing the DTI's mission.

## 6.4. Honolulu, USA

### 6.4.1. Preferential Treatment Description and Historic



Map 8: Hawaii, USA<sup>38</sup>

BRT	<b>Miscellaneous</b> Expected to be implemented in 2006
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Table 13: Hawaii's Preferential Treatment<sup>39</sup>

Even though preferential treatment has not yet been physically implemented, the Honolulu City Council recently approved funding for the first BRT line – ratifying the public process – from Iwilei to Waikiki via Kakaako Makai, for the 2003 fiscal year. This line could be operational within three years.

### 6.4.2. Inside Access Model

#### *Initiation*

In 1995, the City Council rejected (by only one vote of difference) a LRT project submitted by the City Department of Transportation. Even though federal money was

<sup>38</sup> Source: [www.oahutrans2k.com](http://www.oahutrans2k.com)

secured, political opposition and lack of support from the bus drivers prevent the project to pass. The environmental threat and the growing congestion started to be problematic. In July 1997, the City Council also abolished the Honolulu Public Transit Authority, created in 1992. On the island, there had been no real political will in public transportation before Mayor Jeremy Harris' vision: the island needed Public Transportation for 21<sup>st</sup> century.

### *Specification*

Hereafter, an intensive planning process – the Oahu Trans 2K – was launched in the fall of 1998 as the transportation component of the Honolulu City & County Vision Process. The philosophy of this planning exercise was to define the need of the communities. In fall 1998, Round 1 scanned all the previous transportation planning. It also consulted communities to bring some inputs to the project. A Draft Islandwide Mobility Concept Plan was developed based on Round 1. In winter 1998, Round 2 presented the Draft Islandwide Mobility Concept Plan to the communities in order to refine it. At this stage it became clear that the communities were not supporting any rail option as they were against any tax raises. Indeed, the difficult topology of the region would have imposed a heavy financial burden in capital investments. In spring 1999, Round 3 was the occasion to present the final version of the Islandwide Mobility Concept Plan and the alternatives studied in the Major Investment Study / Environmental Impact Statement (MIS/EIS). They were three alternatives described in the document:

- No-Build
- Transportation System Management
- Bus Rapid Transit

### *Expansion and Strategies*

In March 1999, independently to the consultation process, City Express (a limited bus service) was successfully implemented in increasing the level-of-service. Planning and community consultations had been led prior to the experience. This project allowed the

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<sup>39</sup> Source: Ibid



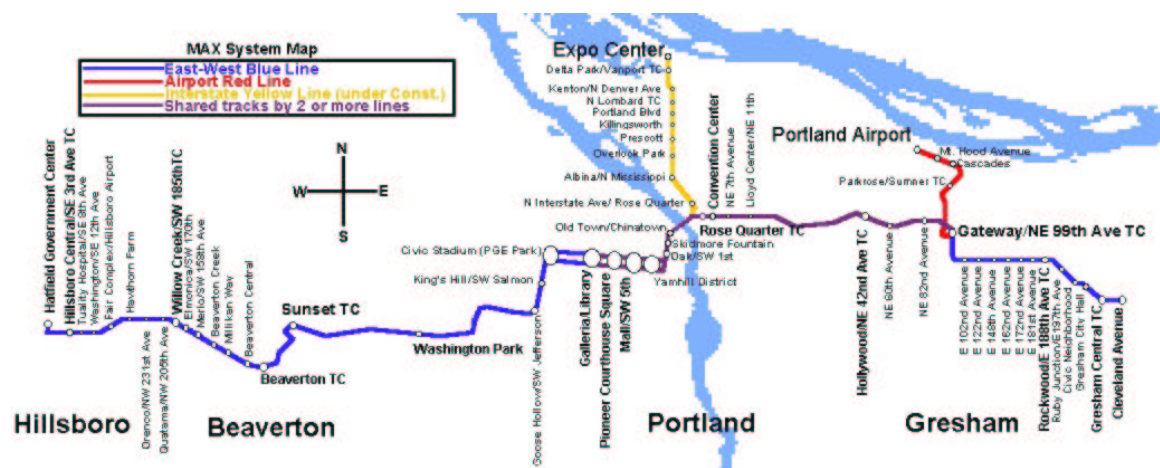
city to apply for the Federal Transit Administration BRT Consortium in the summer 1999. During Round 4, in fall 1999, the results of the MIS/EIS were presented to the community. A consultation was launched on the technical part of the project and the BRT alternative was eventually chosen, aiming at the potential federal funds. A last round in August 2001 gave the opportunity to present to the public the latest version of the BRT project.

### Entrance

The overall reaction to the process was positive. Strong supports rose, like the University and the City Board. The opposition groups were limited to rail enthusiasts, hoping to save car space but with very few constituency. The Mayor who started the process got briefed and set the guidelines, but not really acted as a policy entrepreneur. The funding for phase 1 should be passed this year and the City Department of Transportation Service is starting technical studies on traffic priority and infrastructure.

## 6.5. Portland, USA

### 6.5.1. Preferential Treatment Description and Historic



Map 9: Portland, USA<sup>40</sup>

	<b>Length</b>	<b>Miscellaneous</b>
Bus	1,350 km	Exclusive right-of-way: 2.9 km
LRT	104.5 km	9.3 km to be opened in 2004

*Table 14: Portland's Preferential Treatment<sup>41</sup>*

In 1958, the last streetcar ran in Portland. In 1962, the City voters refused the public ownership of Portland Transit system. In 1969, the private company went bankrupted and Portland City Council created Tri-Met, a public funded transit company. In 1986, Tri-Met started the operation of the first LRT line (Metropolitan Area Express, MAX). A second line (Westside) opened in 1998, followed in 2001 by the MAX line to the airport.

### **6.5.2. Inside Access Model**

#### *Initiation*

In 1969, a regional transportation plan called for a massive highway network. In 1972, the Mount Hood Freeway preliminary studies showed a heavy cost for limited infrastructure (6.4 km for \$400 million in 1974). It also asked for the removal of one percent of Portland housing stock. With a central area already congested, the public raised concerns during community meetings about bringing new cars in downtown. Facing the potential impacts, the Portland City Council withdrew its support to the project. The Governor of Oregon then appointed a group, the Transportation Task Force to elaborate a new policy.

#### *Specification*

In 1973, Tri-Met led independently a study to elaborate a transportation plan. Quickly looking at the different alternatives, it recommended the implementation of a bus system with dedicated lanes and traffic priority over a period of 15 years. It was during this study that the concept of transit centers was first established. Nevertheless, the Transportation Task Force (TTF) published the Interim Transportation Plan (ITP) where it recognized the impossibility to accommodate unrestrained car use. Instead, it suggested providing the

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<sup>40</sup> Source: <http://www.geocities.com/ortraxandroads/systemmap.html>

<sup>41</sup> Source: Jane's Urban Transport System 2002-2003

highway network for off-peak use and developing high-capacity transitways to accommodate the extra peak-hour demand.

At the same time, the LRT technology emerged on the public agenda. First a group advocated for the return of streetcars. On the other hand, the State Public Utility Commission commissioned an elementary study that recommended LRT with the existing rail facilities.

The Mount Hood Freeway was meant to improve the situation on the Eastside of Portland, but the withdraw of the project pushed the TTF to apply for the Interstate Transfer Program: the money that would have been spent on highways could be used in transit projects instead. The focus went on the Banfield Freeway and the ITP wanted to spend some money in limited road capacity improvements and planned a busway.

### *Expansion and Strategies*

The project went through public consultation and in 1975 the Oregon Transportation Department and Tri-Met made a technical study. At this point, the concept of transit center appeared to be crucial. Indeed, the previous bus system was an old-fashioned radial network and the Tri-Met suggestion was to improve the connectivity in reorganizing the system into high-capacity links between the transit centers and a low-capacity feeder sub-system. The enthusiasm of the public, Tri-Met and the City staff influenced the project to include LRT, as it was supported by the forecast. The studies, including all alternatives, lasted 2 years and in 1978 it recommended capacity improvements on Banfield Freeway and the construction of 24 km of LRT.

### *Entrance*

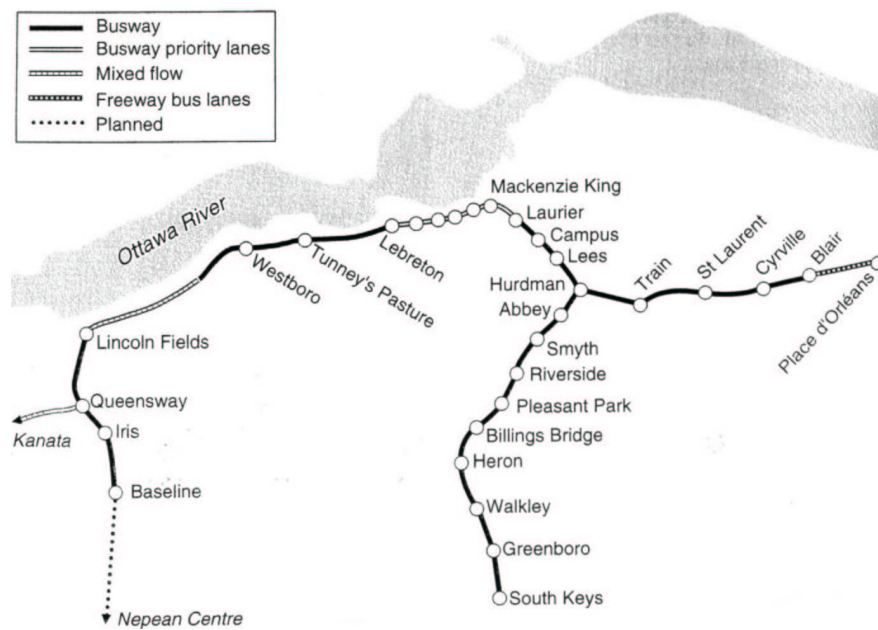
The project was adopted by the State of Oregon in 1978 providing 17% of the funding. The Federal Government provided the other 83% in 1980. The public having been largely consulted, the project encountered very few opposition. The traffic priority raised some concerns among the City Traffic Department but the policy clearly stated that the LRT would stop only at stations. The politicians were also overall supportive, due to the consensus that the Columbia Region Association of Government, the powerful metropolitan authority, imposed. Mayor Goldsmith and Governor Straub were quite

enthusiast about the project. The following Governor Atiyeh, who was against when he got elected, rapidly changed its mind and gave his full support to the project.

Banfield's county (Multnomah) was the first to be served by the LRT. The second county (Washington) delayed its studies until the opening of the first line and eventually opened its line 12 years after the success of the first line. The last county could not build its line because of the statewide vote against (other counties inhabitants were unwilling to pay more tax for a system they would not use). Instead the Airport line was constructed with private funds. Eventually the line in construction (Interstate Yellow line) was funded with local money and the federal money that was not spent on the airport line.

## 6.6. Ottawa, Canada

### 6.6.1. Preferential Treatment Description and Historic



Map 10: Ottawa, Canada<sup>42</sup>

	Length	Miscellaneous
Bus	2 591 km	On priority right-of-way: 31 km Exclusive lanes: 12.5km Busways (fully grade-separated): 2 km

Table 15: Ottawa's Preferential Treatment<sup>43</sup>

<sup>42</sup> Source: Jane's Urban Transport System 2002-2003

Ottawa is the capital city of Canada and one of the 11 municipalities of the Regional Municipality of Ottawa-Carleton (RMOC). In 1969, the Canadian Parliament established the Regional Municipality of Ottawa-Carleton in order to control the urban sprawl. The major roles attributed to the RMOC were planning, infrastructure investments and providing regional services. In 1972, the RMOC created OC Transpo (Ottawa-Carleton Regional Transit Commission) to exclusively operate public transportation in its perimeter. Planned in the early 70's, 31 kilometers of Transitway were achieved in 1996, completing the existing bus network.

The transitway is composed of rapid lines, where full priority is given. The express and the feeder run to collect riders into the sprawled suburbs, an already developed pattern in Ottawa.

#### **6.6.2. Initial Model**

##### *Initiation*

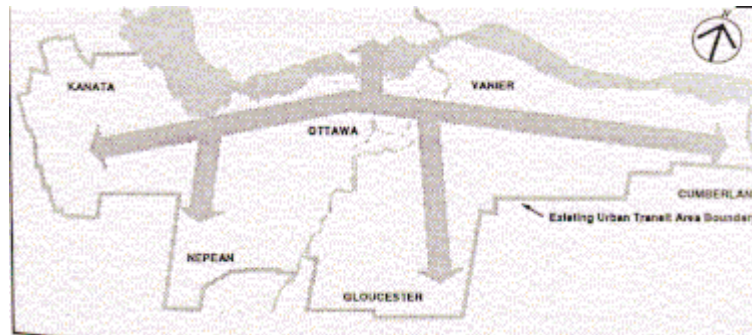
In 1969, the Canadian Parliament established a new elected body in charge of the metropolitan area: the RMOC. Among other things, it had the obligation to create an extensive land use plan, which would ultimately define the Region's orientations towards land use and public transportation policies.

##### *Specification*

During the 60's and the 70's, the public became a fierce opponent to highways projects like in most of the major North-American cities. As the Regional Municipality organized public consultations to elaborate its plan, the public had expressed its will to freeze road capacity and the final plan, approved in October 1974, gave the direction for land use and public transportation policies. Cervero (Cervero, 1998b) pointed out that RMOC focused on creating a comprehensive plan on the development of the metropolitan area. The plan adopted a strategy of a multicenter city linked by transitways. The following figure shows the spatial distribution of the centers and the transitways.

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<sup>43</sup> Source: Jane's Urban Transport System 2002-2003



*Figure 18: The Region Plan*<sup>44</sup>

Without any technological choice set, the RMOC really integrated land use and transportation in the plan. Indeed, Cervero detailed the future zoning and the location of employments. The different centers would be composed of mixed activities and would include at least 5000 jobs in a 400-meter range of the transitway. Further technical studies were ordered to set the technological choice. In 1975, the Regional Municipality Transportation Department made an appraisal study to determine what the city could afford, definitely rejecting the heavy rail option. In 1978, the technical study recommended Busway or LRT.

### *Expansion and Strategies*

The implementation strategy was to define the technical choice. Indeed, the RMOC Transportation Department wanted the fastest implementation to start the Transit-Oriented Development. The RMOC was unwilling to spend a lot of money in capital investments. Thorough studies were made corridor by corridor to compare LRT and Busway, and the bus appeared much cheaper and more flexible to implement. Busways could be staged, that is to say that small trunks could be used while waiting for the all system to be opened. One of the goals was to minimize the number of transfers, thus the bus routes would play the role of feeder as well as rapid and express. Therefore, the RMOC chose the bus as a physical link between the nodes.

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<sup>44</sup> Source: *Busway and the Hybrid Metropolis: Ottawa. The Transit Metropolis*, Robert Cervero, 1998

### *Entrance*

The municipalities' mayors supported the busway project as well the Chair Transportation Committee and the Chair Region Committee. The public also gave its support because it was convinced by an early example of busway implemented by OC Transpo. They were very little opposition in principle, partly because people could remember streetcars running not long ago (they stopped service in 1959). The only opposition to rise was during the corridors studies in which communities participated to the drawing of the alignments.

## **6.7. References**

### **London**

*Interview with Kevin Gardner, Head of the Bus Priority Unit, Transport for London, 08/06/2002*

*Quality Bus Corridors – A Tool For Better Attractiveness, Kevin Gardner, International Conference - Maastricht, 7-9 February 2001, «Innovation in Road Public Transport», UITP*

### **Manchester**

*Financing Light Rail, Case Studies, International Light Rail Commission, 49<sup>th</sup> International Congress Stockholm 1991, International Association for Public Transportation (UITP)*

*Interview with Roger Hall, Former Director of Projects and Former Deputy Director General, GMPTE, 08/21/2002*

*Interview with Tony Young, Former Senior Planner, GMPTE, 08/21/2002*

### **Dublin**

*The Dublin Transportation Initiative, Ciarán de Burca, Streets and Traffic Department Civic offices, [www.epe.be/workbooks/tcui/example10.htm](http://www.epe.be/workbooks/tcui/example10.htm)*

*Interview with Derry O'Leary, Strategic Planning Manager, Dublin Bus, 08/26/2002*

*Interview with John Henry, Director- Chief Executive, Dublin Transportation Office  
08/27/2002*

### **Honolulu**

*Interview with Paul Steffens, Public Transit Division Chief; Department of  
Transportation Services, 08/28/2002*

*Oahu Trans2K, [www.oahutrans2K.com](http://www.oahutrans2K.com)*

### **Portland**

*Financing Light Rail, Case Studies, International Light Rail Commission, 49<sup>th</sup>  
International Congress Stockholm 1991, International Association for Public  
Transportation (UITP)*

*Interview with Joe Fox, Former Civil Engineering Manager of Tri-MET, 09/04/2002*

### **Ottawa**

*Cervero, 1998b: Busway and the Hybrid Metropolis: Ottawa, Canada. The Transit  
Metropolis, Robert Cervero, 1998*

*Interview with John Bonsall, Former Director of Transportation Planning, RMOC and  
Former Director of Planning, OC Transpo, 09/03/2002*



# Chapter 7: Outside Initiative Models: Case Studies

## 7.1. Zurich, Switzerland

### 7.1.1. Preferential Treatment Description and Historic



Map 11: Zurich, Switzerland<sup>45</sup>

	<b>Length</b>	<b>Miscellaneous</b>
Bus	111.9 km	On priority right-of-way: 12.5 km
Trolleybus	41 km	
Tramway	108.9 km	

Table 16: Zurich's Preferential Treatment<sup>46</sup>

Zurich transit system is mainly operated by the VBZ (Verkehrsbetriebe Zürich), a municipal corporation enjoying a great autonomy. However in 1990, the ZVV (Zürcher

<sup>45</sup> Source: EMTA

<sup>46</sup> Source: Jane's Urban Transport System 2002-2003

Verkehrsverbund) was created to supervise the regional planning and the coordination between all the transportation actors in the Canton. Extremely dense, Cervero (Cervero, 1998a) described the transit system as the juxtaposition of three networks:

- a line-haul system supported by the S-Train (commuter rail) connecting the main urban centers
- a line haul system of buses and intercity rail between the main stations
- a dense tram coverage within each urban center.

The density and the redundancy of the system provide frequent service so that no one is further than half a kilometer of public transportation and the average waiting time is less than five minutes during weekdays.

### **7.1.2. Initial Model**

#### *Initiation and Specification*

In Zurich, the environment was considered to be a major concern on the public agenda. We would argue that it was more the quality of life in a broader sense. Environment is part of it, as well as urban patterns, congestion. Zurich citizens were aware that automobiles were breaking down their way of life, through sprawl and car dependency, and imposing heavy external costs to the society. Since the beginning of the century the city has been moving with a dense tramway system but car-created congestion was slowing significantly the public transportation. Environment groups were long advocating for a mitigation of car use but it was not before 1973 that the issue got on the formal agenda.

#### *Expansion and Strategies*

In 1961 the city council, supported by most of the political parties, approved and put to referendum a plan aimed at burying the tram system in order to release it from congestion. The population rejected the proposal, worried about the financial cost. The Swiss democracy holds a peculiarity: Swiss cherish referendum, as they are consulted many times during the years on important issues. In the city of Zurich, investments over the threshold of 10 million Swiss Francs (US\$ 7 million in 1998) require a referendum

approval. In 1973, environmental groups submitted to the public the following referendum.

***Public Campaign of 18 June 1973 for the Promotion of Public Transit<sup>47</sup>***

*At the expense of the investment fund, a credit of 200 million francs will be approved to permit, in the course of the ten years following the referendum, at a rate of 15 to at most 25 million francs per year, the financing of structural additions and improvements to the network of the transportation company of the City of Zurich, which will serve exclusively and substantially to eliminate interference by private traffic and internal problems within the companies, so that the vehicles of the VBZ can travel along their lanes or tracks virtually as fast as possible... Such directives cover the provision of separate tram and bus lanes, the construction and conversion of the important traffic intersections entirely to meet the requirements of the VBZ and pedestrians.*

*The municipal parliament advises the voters to reject the proposal.*

The political class opted for an increase in highway capacity to release congestion and suggested a rejection of the transit solution. The public massively voted for the proposition, contradicting completely the politicians' will. Financing infrastructure is the main point to understand the decision-making process that occurred in Zurich. The two referendums were rejected because of the financial burden. Joost (Joost, 1994) explains that the contradiction between the citizens and their elected officials is due to the misrepresentation of the population. Elected officials are generally men over 40, a market predominantly dominated by the automobile mode; therefore they tend to be biased when they opt for a solution to solve transportation. The focusing event was here the referendum and most of all, the city's budget related to this referendum. The particularity of Zurich, which allows such outside initiative models, is the frequency and the easy access of this focusing event.

### *Entrance*

During referendums, politicians or other groups suggest and citizens decide. If the politicians, first, disagreed with their bases, they did not wait long to back the new plan for the city. Ernst Joost, Deputy Director of Zurich Transportation Authority commented on the politicians' reaction: *"The politics accepted the result, and worked hard to realize the intentions of the referendum."* Indeed, in 1975 a parliamentary resolution reasserted

that priority should be given to public transportation. Also, one must remember that giving transit priority was not an easy task at that time. Giving back the full priority needed a complete development in terms of technology. The city overcame the barrier in investing massively in a traffic signal center to control most of the city traffic light, in order to speed up transit. Speeding up transit was not the only measure to make public transportation more attractive. Cervero (Cervero, 1998c) detailed the decision-maker actions following the referendum results. The city implemented a capacity management program for parking and road capacity. On the other hand, they reduced drastically the number parking places. Eventually, they froze the city road capacity: any new additional road capacity had to be removed and transfer to transit in another parts of the city. In addition, the city imposed automobile restrictions by traffic calming in residential neighborhoods.

## **7.2. References**

### **Zurich**

*Cervero, 1998c: Creating First-Class Transit with Transit-first Policies: Zurich, Switzerland. The Transit Metropolis, Robert Cervero, 1998*

*Joost, 1994: Economy and Ecology are no Contradictions, Three messages from Zürich concerning the new transport policy, Lecture given to the Norwegian Society of Chartered Civil Engineers at the Norwegian Institute of Technology in Trondheim, Ernst Joos, 1994*

*Interview with Ernst Joost, 2001*

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<sup>47</sup> Source: Creating First-Class Transit with Transit-first Policies, Zurich, Switzerland. The Transit Metropolis, Robert Cervero, 1998

## Chapter 8: Analysis

### 8.1. Hypotheses

The analysis of the 11 case studies can help us to confirm or invalidate the six hypotheses we initially postulated. Table 17 summarizes the different models that have been identified in each city and we will come back on each hypothesis to see what we can conclude on their validity.

	<b>Mobilization Model</b>	<b>Inside Access</b>	<b>Outside Initiative</b>
<b>Cities</b>	<i>London (1964-1986)</i> Strasbourg Lyon Curitiba Bogotá	London (1992-...) Manchester Dublin Honolulu Portland Ottawa	Zurich

*Table 17: Case Studies' Models Summary*

#### 8.1.1. Hypothesis 1

*"The implementation will rise an important opposition from the public and the stakeholders"*

Preferential treatment may appear controversial; however in the 11 case studies, the opposition did not compromise the policies. There were indeed some opposition from more or less influent interest groups, but the general public never rejected the principles of preferential treatment. If there was some opposition, it was only during the designing part of the projects when the community inputs could have conflicted with the technical requirements. The better illustration remains Dublin where the public was quite enthusiastic about the QBC implementation and only one corridor was subject to a fierce opposition, which eventually got overcome.

#### 8.1.2. Hypotheses 2

*"A policy entrepreneur in the decision-making body is necessary and sufficient to implement preferential treatment"*

In Strasbourg, Lyon, Curitiba and Bogotá, the policy entrepreneur's role was crucial. Nevertheless, hypothesis 2 is clearly wrong: London, Dublin, Honolulu, Portland and

Ottawa clearly prove that a policy entrepreneur is not necessary to implement preferential treatment. Manchester's case, with the emergence of an enthusiast decision-maker – with very little direct leverage – seems to show that he helped in giving credit to the process, but was neither sufficient nor necessary. Also, Zurich illustrates that the public can even contradict the decision-makers and impose its will to implement preferential treatment on them.

### **8.1.3. Hypothesis 3**

*"There would be a mobilization scheme (that might follow other models) in the public policy-making process to achieve the preferential treatment implementation"*

Since the hypothesis 2 is violated, hypothesis 3 is also wrong for the majority of the cities we studied. It remains valid for cities that opted for the mobilization models, as the policy entrepreneur converted a failed inside access model into a successful mobilization model.

### **8.1.4. Hypothesis 4**

*"Inside access model, alone, cannot have significant impacts on implementation"*

Most of the cities have implemented preferential treatment with inside access patterns. Manchester, Dublin, Honolulu, Portland and Ottawa implemented their policies only adopting the inside access model; furthermore London adopted the reverse pattern that we expected: first mobilization then inside access. We can also notice that all types of preferential treatment have been implemented with inside access models: bus lanes, traffic priority, BRT or LRT.

### **8.1.5. Hypothesis 5**

*"Outside initiative model remains rare"*

Hypothesis 5 seems to be true as we could only Zurich has been able to follow this model. It seems that outside initiative patterns require either easy access ways for groups to put issues on the public agenda or a great constituency. The referendum in Switzerland might be one of the few ways to achieve it for transportation issues. We are not sure that a larger number of case studies would have allowed us to identify more outside initiative models.

### **8.1.6. Hypothesis 6**

*"Transportation authorities' roles are limited to providing their planning and technical expertise during the process"*

The role of transportation authorities is indeed relatively limited. None clearly initiated the policy-making process. However, some brought more than expertise. Two scenarios can be defined in function of the agenda-building model.

On the one hand, in mobilization models in Strasbourg, Lyon and Curitiba the local public transportation agencies supervised the technical studies of a choice already set. In Bogotá, there was even no public transportation institution. With strong leadership, the transit authorities had no needs to step up.

On the other hand, for inside access models, even though the case studies show that transportation authorities were seldom the initiator, some were influent in the mode choice. Indeed, the transportation authorities had to wait for an opportunity window and afterwards could orientate the issue towards preferential treatment (in Honolulu, Dublin, Ottawa, Portland or Manchester); the exception being London, where the LT relaunched the implementation.

## **8.2. Stakeholders**

The starting point of the analysis is to take a closer look at the different actors involved in the policy-making process. We can identify four categories of stakeholders that have in a way or another took part in the agenda setting: the transportation agencies, the authorities, the decision-makers and the public.

### **8.2.1. Public Transportation Agencies**

Public transportation authorities' roles in preferential treatment remain mixed and ambiguous. Indeed, transit or/and planning agencies' emergence in the agenda-building process is various and a distinction must be made between the operating and planning part of the agencies. Operators were seldom involved in the process, except if they were also in charge of the planning (e.g. Tri-Met in Portland). Moreover, the implementations of preferential treatment have incurred either the creation of new operators or the

reorganization of the current ones. On the other hand, the planning authorities were much more involved in the matter. We will look in greater details the issues of planning in paragraph 8.4.

### **8.2.2. Authorities**

#### *Local Authorities*

Local authorities appear to be the most enthusiast and supportive institutions involved in preferential treatment implementation because they would indeed get the direct effects of an improvement of public transportation in their neighborhoods. Nevertheless, they also have limited influence when building a network. The most revealing case is of course London, which after 1992 implemented the LBPN with the cooperation of boroughs only. Also, the case of Portland particularly underlines the support of local authorities: the first two LRT corridors, supported by their respective counties, were confirmed by the local public vote; however the last line in the third county – which was not implemented – was rejected because submitted to a regional referendum: the other counties withdrew their support and refused to pay for a project they would not benefit. Eventually, pilot projects, coordinated with municipalities, are a tremendous argument to extend supports to a broader scale. Honolulu, Ottawa and London have been able to convince the decision-makers and the public in implementing geographically limited but successful pilot projects.

#### *Metropolitan Authorities*

On the other hand, metropolitan authorities' support for preferential treatment was not as clear as local authorities' support. First, the metropolitan authorities have several times derailed the implementation due to the lack of consensus. For example in Lyon, the COURLY was not able to set a coherent policy orientation during the first attempt to implement preferential treatment, leading to a failure. Nevertheless, supportive metropolitan authorities have considerably speeded up and strengthened projects. When the COURLY eventually reached a consensus, Lyon's LRT got implemented in less than 2 years. The CUS in Strasbourg, the RMOC in Ottawa and the Columbia Region



Association of Government in Portland also proved to be a catalyst for the project's entrance.

### 8.2.3. Decision-Makers

The attitudes of decision-makers are very mixed towards preferential treatment: some being very enthusiastic (becoming in some case entrepreneur), other very skeptical. Actually in the case studies, decision-makers did not act as partisan on the subject. The left-wing parties implemented LRT in Strasbourg and the right followed, the contrary happened in Lyon. In Portland, successive governors ultimately supported the implementation of the LRT. However, London may be the exception because the Labour Party has been more favorable than the Conservatives.

On the other hand, Zurich is unique in providing us elements of thoughts on decision-makers. Indeed, the public disapproved skeptical decision-makers in the 1973 referendum and Joost (Joost, 1994) sees in it, the discrepancy between citizens and elected officials. According to him, the gap in Zurich was due to the fact that officials are generally males over 40: an automobile-dominated market segment. Another survey in France confirms the existence of such a gap. The following table (table 18) summarizes the results of a poll ordered by several transportation organisms:<sup>48</sup>

	Citizens	Elected Officials	Citizens according Elected Officials
1996	72%	68%	27%
2001	69%	84%	43%

*Table 18: Percentage of Positive Answers to the question: "To improve traffic conditions, should we limit car use?"*

Even though we find that the gap in France has decreased for the last five years, it is clear that there remains a strong gap between the decision-makers and the public in general. Unfortunately, such surveys are not available for the other cities, but the role of public consultation that will be examined later testifies in favor of this gap.

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<sup>48</sup> Les Déplacements Urbains en Province: un climat favorable aux transports publics, TNSOFRES

#### 8.2.4. Public

As stated earlier, the public was not opposed to the implementation of preferential treatment, at least in principles, and the main reason behind this fact is the organization of public consultations. The opposition was concentrated among interest groups – with low constituency – and neighborhoods negotiating the technical and physical implementations. The next paragraph details the role of consultation in winning the public's supports.

### 8.3. **Public Consultations**

In 9 cities out of 11 (all but Curitiba and London), public consultations were organized prior to the implementation. Two types of public consultations can be distinguished:

- A local consultation of the public neighboring the implementation (along the corridors) insured the public's feedbacks towards the alignments
- A global consultation, involving the whole city's opinion on the principles of preferential treatment.

The next table (table 19) details which consultations took place in the different cities.

<b>Local</b>	<b>Global</b>
Strasbourg	Strasbourg
Lyon	Lyon
-	Bogotá
Manchester	Manchester
Dublin	Dublin
-	Honolulu
-	Portland
Ottawa	-
-	Zurich

*Table 19: Types of Public Consultations Held in the Case Studies*

Local consultations mostly focused on technical aspects of the corridors. Most of the time, they were community meetings to get the neighborhoods' inputs but also to soften the NIMBY effects through dialogue.

On the other hand, some cities have organized citywide consultations:

- Portland, Bogotá and Zurich put the issue to referendum,
- Dublin organized a major survey to define its need,

- Strasbourg, Lyon and Manchester organized community meetings for all citizens (not only in the corridors' perimeter).

Global consultations were not only aimed at explaining the citizens the will of the decision-makers, but also to legitimate the policy. This is particularly true for Bogotá where the referendum supported the policy entrepreneur and for Zurich where the public rejected the city plans for an underground network.

Eventually, global consultations can bring in addition to legitimacy, inputs on the city desired by the citizen. For example, Dublin and Honolulu opted for preferential treatment, following the public interests expressed in the survey or in the community meetings. In Portland the consultations reoriented the technical choice from bus lanes to LRT.

## **8.4. Planning**

Planning exercise is a quite interesting issue in the agenda-building process applied to preferential treatment. It is particularly relevant on three points: the relations with previous planning efforts, the principle of planning and the planning means.

### **8.4.1. Previous Transportation Planning**

One common thing that we found among the different cities is that planning preferential treatment reset all the previous plans. It is true that in Lyon or Bogotá, there had been some flavor of preferential treatment before the implementation, but their consequences were minor. For London's second implementation process, there was no additional planning from the first period, because the second stage really continued the first mobilization model.

The plans that preceded the preferential treatment planning appeared to be much more superficial and unrealistic (specially in financial terms). The most striking story is the Bogotá's subway project: four different governments ordered studies and plans without achieving any implementation. Also, the case of Dublin is particularly relevant: lot of planning but very few implementations over the years.

Generally, there had been a strong shift in the planning orientation: Portland and Curitiba dropped highways for LRT; Bogotá, Manchester, Lyon and Strasbourg moved from underground rail to at-grade systems.

Dublin is the only city that has tried to resolve this planning issue. When establishing the transportation strategy for Dublin, the necessity of an on-going planning process was included to avoid the recurrence of plans without implementation. In addition to a long-term plan (20 years), five-year plans were also to be drawn in order to update the strategy with the evolution of the city.

#### 8.4.2. Transportation Planning or City Planning?

Another interesting learning from the case studies is the essence of planning. In other words, what underlying issues were driving the planning exercise? From the eleven cities studied, two different streams can be determined:

1. Transportation Planning
2. City Planning

In the first case, the whole issue of preferential treatment was to improve the public transportation network. The second stream implied a broader sense of planning: "what type of city must be developed?" Table 20 sorts the case studies in function of their planning essence.

<b>Transportation Planning</b>	<b>City Planning</b>
Lyon London	Strasbourg Honolulu Manchester Portland Dublin Bogotá Curitiba Ottawa

*Table 20: Type of Planning Led in the Case Studies*

Only Lyon and London focused their plans on the transportation issues. Not surprisingly to see that they are also the two cities that already had a subway network, therefore a culture of public transportation.

In the other cities, the planning of preferential treatment was strongly correlated to the planning of a new type of city. Within this stream, we can also distinguish several approaches:

- In Curitiba, Portland, Ottawa and Dublin, the central question of city planning preceded the transportation issue. First the actors agreed on the desirable shape of the city, then they focused on building the transportation system that would fitted the best in their city's plans;
- In Manchester, Strasbourg, Honolulu and Bogotá, the transportation and city planning came simultaneously. The city would change with the construction of the system; this is to say that the transportation tool was the vector of change for the city.

In the lasts stream, only Bogotá and Curitiba explicitly set up the urban planning concerns first. In the other cities, the implementations of preferential treatment were the catalyst of a desire to reshape the urban fabric. The quality of life concerns rose only explicitly during or after the physical implementation.

### 8.4.3. Planning Actors

An interesting finding from the case studies is the distribution of the planning roles. Table 21 identifies and summarizes the authorities that led the planning of the preferential treatment.

<b>Local/Metropolitan Authorities</b>	<b>Public Transportation Agencies</b>	<b>Land Use Agencies</b>
Strasbourg (CUS) Bogotá London (GLC) Honolulu Portland Ottawa (RMOC)	Lyon (SYTRAL) London (LT) Manchester (GMPTE) Dublin (DTO)	Curitiba (IPPUC)

*Table 21: Organs Responsible for the Planning*

It is hard to find a pattern according the agenda-building models when looking at the planning actors. A lot of planning was carried out by authorities' departments mostly because their public transportation agencies were not entitled to. Indeed Bogotá, Honolulu, Strasbourg and Ottawa had either no transit agencies or only operators; Portland had created Tri-Met very lately. On the other hand, in Lyon, London and

Manchester, the transit authorities were explicitly responsible for planning and took actively part in the process. In Dublin, the DTO was created as a direct consequence of the DTI to plan the transportation in the city. Eventually, Curitiba appears as an exception as it is a land use agency that planned transportation, which is quite logic given that Curitiba was building the city to fit into the transportation system.

The logic behind those choices might seem unclear but we can say that the agency in charge of the planning was either close to the policy entrepreneur (in Strasbourg, Curitiba and Bogotá) or institutionally legitimate (SYTRAL, RMOC or LT). Eventually, it is very unlikely to see the operator takes the role, as generally they do not have the human and knowledge resources for such tasks.

## **8.5. The French National Policies**

Two French cities offer relevant case studies in terms of preferential treatment implementation, thus it is useful to give first a brief background of the national policy before analyzing it. Indeed, Strasbourg and Lyon moved towards preferential treatment at different periods with different national legislative background and it is interesting to understand the influence of the national policies on the local public policy-making process.

### **8.5.1. Legislative Background**

#### *Decentralization Process, Emergence of Local Powers*

France had always concentrated its political decisions in Paris, leaving very few initiatives to the local powers. However, in 1982 the national government passed the Decentralization Act, aiming at strengthening local powers by attributing them broader responsibilities, among others in transportation. From this time, the government also passed a gamut of acts orienting the local transportation policy. 4 levels of government in France are in charge of transportation:

- The National Government,
- The Region,
- The Department,
- The City.

The multiplicity of powers at a regional scale (between the city, the department and the region) was then a source of confusion due to a lack of global coherence.

### *Loi d'Orientation des Transports Intérieurs (LOTI)*

Shortly after the Decentralization Act, the government adopted the "Loi d'Orientation des Transports Intérieurs (LOTI)" or Domestic Transportation Orientation Act defining an extensive transportation policy. The LOTI set the principle of "the right to transportation for all" and the necessity of mode choice. It also emphasized strongly on the public transportation. The cities or municipalities associations were designed to organize urban public transportation, through the "Autorités Organisatrices" or Transportation Authorities inside the "Périmètre de Transports Urbains (PTU)" or Urban Transportation Perimeter. The government also allocated funds for these responsibilities in allowing the cities to collect a tax: Versement Transport (VT). Already implemented in Paris since 1977, it is a tax imposed on firms with more than 9 employees that are located in the PTU. Finally, the LOTI included the necessity of a medium range intermodal planning through the creation of the "Plan de Déplacements Urbains" (PDU) or Urban Mobility Plan. However, the lack of incentives and obligations limited the scope of the PDU.

### *Loi sur l'Air*<sup>49</sup>

In 1996, the increasing congestion and pollution problems in urban centers led the French government to reform the LOTI by the "Loi sur l'Air" or Clean Air Act. The initiatives of the PDU were not meeting the expectations; therefore the act imposed the creation of a PDU for every municipality with more than 100 000 inhabitants before 2000. Moreover, the Loi sur l'Air defined strong orientation for the PDU:

- Decrease of the automobile traffic
- Development of mass transit and alternative non-polluting modes (like walking and cycling)
- Organization of parking supply inside the PTU, depending on the right-of-ways hierarchy

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<sup>49</sup> Loi sur l'Air 30-12-96

- Incentives for employers to favor public transportation and car-pooling

Public aids are now conditioned on the elaboration of the PDU by local governments.

### *Solidarité et Renouvellement Urbain (SRU)*<sup>50</sup>

The "Solidarité et Renouvellement Urbain" (SRU) Act or Solidarity and Urban Renew was adopted in 2000 aiming at renovating the urban policies by combining for the first time urban, housing and mobility matters, inside the perimeter of the town. The act translates the State's will to promote a more coherent local policy. The Act introduces the notion of sustainable development at the urban scale. It tackles the constant urban sprawl and the accessibility equity in the cities structures.

On its mobility component, it strengthens a sustainable mobility policy. It makes changes in the urban planning by the establishment of the "Plan Local d'Urbanisme" (PLU) or Local Urbanism Plan that must be put in compatibility with PDU.

### **8.5.2. A National Policy to Support Local Authorities**<sup>51</sup>

The French government had limited its local transportation policies to financing infrastructure and technology development. However, with the implementation of the legislative context, its position completely shifted from imposing to supporting.

### *The Inefficiency of the LOTI Act*

Although it emphasized on the matter of public transportation, the LOTI Act was not giving very specific means and actions. As a matter of facts, it was quite ahead of its time: it suggested a multimodal planning when most of the policies were still sector-based, hence the inefficiency. 45 cities established a PDU after the LOTI Act was passed, with 50% subsidies by the government. As the funding for public transportation projects was conditioned on the PDU, it became more or less a tool to justify expenses. The subsidies were stopped in 1986, with the return of the right to the power and never came

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<sup>50</sup> Loi nE 2000-1208 du 13 décembre 2000. Promulgation de la loi relative à la solidarité et au renouvellement urbain, Communiqué de presse 14/12/200.

<sup>51</sup> Interview with Chantal Duchene



back even after the left retook the power in 1988. Nevertheless, the LOTI Act also implemented 6 pilot projects on urban transportation, including Nantes and Grenoble.

### *Nantes and Grenoble: Success Stories*

Nantes was the first city in France to reopen a tramway line in 1986, and Grenoble followed shortly after, in 1987. Both benefited from the pilot projects but also from entrepreneurial mayors, who achieved to implement successfully preferential treatment. This appears to be the trigger: Nantes and Grenoble showed to the State that they wanted autonomy on developing their city and they no longer wanted the State to impose its technological and expensive projects. As the local authorities had started to organize themselves, they also asked not to limit the PDU to infrastructure but to expand it to urban policy-making.

### *Loi sur l'Air: To Redefine the LOTI Act*

After the municipal elections in 1989, with the emergence of new mayoral teams, cities – including Strasbourg and Lyon – consulted the State's technical services to launch a new urban policy-making and the PDU surfaced back. In 1994, as we mentioned in Lyon's case study, the Circulaire Idrac<sup>52</sup> set the State subventions to only 15% for Heavy Rail but 40% for LRT (or other surface preferential treatment). Since 1993, the government had launched a broad consultation with local authorities to improve the LOTI and the experiences in Nantes and Grenoble strengthened the decentralized authorities' position. Eventually in 1996 the Loi sur l'Air was passed with a broad political consensus, like the LOTI. Furthermore, the lawmakers all agreed not only to control car traffic but also to decrease it. It is worth pointing out that the preferential treatment was included in an environmental act only because of the parliamentary agenda (the transportation act that preceded focused on European deregulation issues).

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<sup>52</sup> Circulaire Idrac: It is a decree named after Mme Idrac, Director of Direction des Transports Terrestres (DTT), who wrote it.

### 8.5.3. Towards a Generalization of Preferential Treatment

The main lesson from the national policies in France is the evolution of the State position in the process. It moved from imposing to supporting. Nantes and Grenoble's experiences were quite difficult to replicate in other cities and the French government recognized that trying to impose policies was ineffective. Instead of trying to generalize the cases of Nantes and Grenoble, the government built a framework to allow the local authorities to develop their own initiatives through the availability of funds and by providing the necessary technical expertise. Moreover, the framework got reinforced in 2000 with the SRU to include land use planning to the transportation.

Consequently, the CERTU (Centre d'Etudes sur les Réseaux, les Transports et l'Urbanisme) has listed 41 projects of preferential treatment in 25 French cities in July 2002. The national framework has indeed converted transit preferential treatment from a pioneer cities' policy into the dominant model.

One of the trends underlying this fact is that the PDU now offers a useful tool to decision-makers and technocrats. The TNSOFRES survey<sup>53</sup> also addresses this issue.

	Citizens	Elected Officials	Technicians
2001	37%	55%	55%

*Table 22: Percentage of Positive Answers to the question: "Will we succeed to limit car use in cities by the year 2010?"*

According to the survey, table 22 shows that elected officials and technicians feel more confident in achieving a more general mitigation of car use than citizens, mainly because they are more confident in the PDU process.

## 8.6. **Other National Policies**

### 8.6.1. The Irish Initiative

The National Initiative (DTI) launched by the Irish government – with the support of European funding – made up the focusing event for transportation policy in Dublin. It was not aimed at resolving the capital's transportation problem; it was more focused on creating an environment where local stakeholders could address transportation and

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<sup>53</sup> Les Déplacements Urbains en Province: un climat favorable aux transports publics, TNSOFRES

broader issues. In a certain sense, it is comparable to the PDU process in France in building a supportive network; but much more punctual.

### **8.6.2. The British National Context**

On the contrary, the British legislative context had not been in favor of the implementation of preferential treatment – until lately. The abolishment of the metropolitan authorities in 1986 (GMC and GLC) weakened the current policy-making process. The mobilization model in London stopped as a result and turned into an inside access model with the cooperation of the boroughs. In Manchester, the 1986 Act dissolved a crucial actor (the GMC) in the process. What happened in Great Britain is exactly the contrary of the other European evolutions (among other France) where the local authorities are pushed to concentrate into metropolitan authorities. However, the case studies may show that a metropolitan authority is important but London and Manchester proves that it is not an absolute necessity. We have to admit that the policy-making process gets harder when we look at the implementation in London; nevertheless strong emphasis on municipalities' cooperation can overcome this problem. Eventually, the new legislation reestablishing central authorities (TfL and the GLA in London) is now creating a much more favorable context for the implementation preferential treatment.

## **8.7. *Benchmarking***

### **8.7.1. Experiences From Other Cities**

It happens that benchmarking played a significant role in Manchester, Strasbourg, Lyon and Bogotá. Indeed, during the policy-making process, decision-makers from Manchester and Strasbourg made field trips to other cities to evaluate preferential treatment. In Lyon, it is likely that the experiences in Nantes, Strasbourg and Grenoble (only 90 km from Lyon) have pushed the decision-makers to think about LRT. In Bogotá, Enrique Peñalosa explicitly wrote in 1985 that Bogotá needed a system like Quito or Curitiba.

This type of benchmarking is particularly efficient to convince decision-makers because preferential treatment is no more a concept in their mind, but a successful policy. Indeed, when decision-makers are to compare heavy modes with preferential treatment that performs at the same level-of-service, they tend to support the most feasible project. In

Strasbourg, the underground Light Rail which had been on the agenda was definitely removed after elected officials found that that at-grade LRT could bring the same level-of-service for much less money. The same happened in Manchester, where councilors had the opportunity to compare LRT, BRT and Heavy Rail systems in Europe and North America.

### **8.7.2. The FTA and the E.U.**

There is also another type benchmarking that the case studies points out. In Europe and in the U.S.A., respectively the European Commission and the FTA gave supports to the idea of preferential treatment.

First, the European Commission issued the European White Paper on Transportation (European White Paper, 2001), which gives a general sense of the European transportation policy, supporting the idea of giving priority to public transportation networks. Only carrying recommendations, the White Paper is generally perceived as a reference for E.U. members, trying to promote change through best practices around the continent. Obviously, the impacts of the White Paper on local agendas are not triggering new policies; nevertheless it brings some legitimacy and cities can broach the subject serenely.

On the other hand, FTA BRT Consortium was launched to promote the implementation of BRT in the USA, mainly following Curitiba's experience. Several pilot projects in U.S. cities were funded through this program. It also created a network to support technically transportation authorities by favoring contacts between cities and by pushing to share the information on the projects. The interviewee in Honolulu clearly admitted that the FTA's opportunity had been crucial for the implementation of a BRT, as it helped on the financial and the technical aspects.

## **8.8. *Funding***

### **8.8.1. An Omnipresent Constraint**

It is not surprising to find that financial investments were in almost all cases an issue (except in Dublin). All the cities were confronted with budget constraints, but several situations can be distinguished.

First, Lyon and London were already running an underground heavy rail network. Lyon had already faced overrun costs in the subway implementation and was not willing at all to spend any huge amount of money for limited infrastructures. London Underground was built well before the WWII, when capital investments were affordable for a large city. The decision-makers acknowledge that the heavy rail expansion, though efficient in dense areas, would bring only marginal benefits at a high price.

On the other hand, Manchester, Portland, Ottawa and Strasbourg have in a way or in another made financial comparison between the different modes. The affordability of the infrastructure was a recurrent issue during the policy-making process in those cities. The decision-makers eventually accepted the trade-offs between financial feasibility and political feasibility.

Also, the financial burden translated into tax rise was also crucial in the rationalization of investments. Honolulu, Zurich and Portland saw their citizen clearly refused any rise in taxes to finance an expensive public transportation system.

Finally, Bogotá and Curitiba's BRT were implemented mainly on the financial arguments. Both cities, in developing countries, could not afford an expensive rail system, and a bus system was the only alternative that would not have outrageously indebted the cities.

Cobb and Coughlin (Cobb and Coughlin, 1997) are raising the issue of affordability in transportation projects. Looking at the Maglev projects, they points out that a cheap scheme is much more attractive than an expensive one. Moreover, heavy financial burden tends to be the easiest way to derail transportation projects. It is particularly true in the case studies where cities looking at the heavy rail option all dropped the projects for cost reasons.

### **8.8.2. The FTA and the E.U.**

The FTA and the European Union also played a role – quite limited though – in the financial aspects of preferential treatment. In Honolulu, the funds made available by the FTA through the BRT Consortium strengthened the process to implement preferential treatment. The availability of federal money was alleviating the city's and the citizen's financial burden. On the other hand, the Dublin Transportation Initiative was 85% funded

by the E.U. Although the funding was limited to the planning stage (and not in the infrastructure), Dublin moved through a process of identifying the city's needs. It can be noticed that Dublin is the only city not to have face strong budget constraints, given that the Irish government was willing to spend money to improve transportation in the capital city.

## **8.9. *Triggers, Focusing Events and Policy Windows***

The agenda-building theory puts a strong emphasis on the external factors that influence the process such as triggers, focusing events or policy windows. The different case studies bring interesting elements to these peculiar aspects of agenda setting.

### **8.9.1. Triggers**

Triggers are definitely hard to identify in the process. In fact, even the initiator of the process himself often is hard to identify. For the 11 case studies, none of the triggers has been identified in any models. Only in mobilization models it can be inferred about triggers, because the initiator can, in those cases, also be the policy entrepreneur. In Strasbourg and in Bogotá, we can assume that benchmarking with other cities acted as triggers on the policy entrepreneurs.

### **8.9.2. Focusing Events**

On the other hand, focusing events are more easily identifiable. As a matter of facts, there are quite homogenous in the different cities. Environment or/and congestion seem to have reach the public agenda in all the cities. Indeed, urban transportation is nowadays related to the environment and quality of life issues: growing congestion, air pollution... In addition to that, the budget constraint has also been a strong focusing event in some cities. For example, in Honolulu, the FTA consortium appeared also as the focusing event by bringing a solution to the financial issue. Eventually, in the Irish capital, the Dublin Transportation Initiative played the role of a focusing event in creating an opportunity for transportation actors to bring new ideas on the agenda.

### **8.9.3. Policy Windows**

Due to the limited number of mobilization models, we have not been able to spot many policy windows. However, there were some interesting situations. In Bogotá and Strasbourg, it is definitely the policy entrepreneur's elections; indeed the campaigns took the entrepreneurial policy on the public agenda and got legitimized by the elections. In Curitiba, it is hard to talk about a policy window; Lerner just imposed his vision without any warnings or dialogues. In Lyon, the entrepreneur did not need a policy windows as the process was much more consensual than the other mobilization models.

### **8.10. *Developing Countries: The Cases of Curitiba and Bogotá***

Curitiba and Bogotá are the only developing cities that we were able to write a case study on. Even if we used the same methodology to dissect their policy-making process, there remains a structural difference that arose in the case studies: the stakes do not bear the same weights. The underlying reason is that the public transportation constituency is much stronger in developing countries. Schafer and Victor (Schafer and Victor, 1998) showed that the level of income could explain the level of motorization. The richer a country gets, the higher the traffic volume is. Furthermore, the mobility shifted at the same time to cars in urban centers. In developing countries, the majority of people are still relying on public transportation.

It is not to say that car-drivers in developing countries are less influential; on the contrary, car-owners generally belong to the upper class of the population, and often are the one holding the power. Nevertheless their proportion in the population is much lower than in developed countries' cities.

Thus, when analyzing Bogotá and Curitiba, the structural difference is that cars are not as present in the people life as in other developed cities (in 1998, 58% of the "Bogotanos" were public transportation users<sup>54</sup>). The car lobby is of course influential but its constituency is weaker than public transportation users'. The case of Bogotá is particularly relevant where Peñalosa organized a referendum to legitimate his action

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<sup>54</sup> Source: Millennium Cities Database, UITP, 2001. The percentage only takes into account the mode share between motorized modes.

against the car lobby, which pushed to impeach him. In developed countries, it would hardly be replicable because the majority of people are already sitting in cars.

## **8.11. References**

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*Cobb, Ross and Ross, 1977: Agenda-Building as a Comparative Political Process, Cobb R.W., Ross J-K., Ross M. H., 1977*

*European White Paper, 2001: White Paper, European Transport Policy for 2010: A Time To Decide, European Commission, 2001*

*Joost, 1994: Economy and Ecology are no Contradictions, Three messages from Zürich concerning the new transport policy, Lecture given to the Norwegian Society of Chartered Civil Engineers at the Norwegian Institute of Technology in Trondheim, Ernst Joos, 1994*

*Les Déplacements Urbains en Province: un climat favorable aux transports publics, TNSOFRES: Survey by TNSOFRES for ADEME, CERTU, GART, UTP. Public Survey includes 1008 persons living in cities with more than 30 000 habitants and Elected Officials include 180 Mayors and Councilors. Survey period is between May 28 and June 7, 2001*

*Interview with Chantal Duchene, Groupement des Autorités Responsable de Transport, 10/18/2002. Chantal Duchene was working at CERTU in the 1980's and helped to draw up the Circulaire Idrac. In addition, she wrote part of the Loi sur l'Air on public transportation.*

*Loi sur l'Air 30-12-96*



*Loi nE 2000–1208 du 13 décembre 2000. Promulgation de la loi relative à la solidarité et au renouvellement urbain, Communiqué de presse 14/12/200.*

*Schafer and Victor, 1998: The future mobility of the world population, Schafer A., Victor D., 1998, Transportation Research Part A 34 (2000) 171-205, page 196*

## **Chapter 9: Conclusion**

### **9.1. Why the Mobilization Model is not the Dominant Model**

Cobb, Ross and Ross (Cobb, Ross and Ross, 1977) expects the two following hypotheses in the model patterns:

- "The greater the concentration of wealth and status in a society, the more likely the inside initiative pattern will predominate"
- "The more hierarchical a society, the more likely the mobilization pattern will predominate"

Looking at preferential treatment context and the agenda-building theory, it was also expected that the mobilization model would predominate, however the case studies proved us wrong. Are Cobb, Ross and Ross' hypotheses wrong? No, the case studies tend to show that the preferential treatment context is generally misunderstood. There are two main reasons why our hypotheses were not verified. The first one is theoretical, in other words related to the models; the second one is in the order of practicality: what is the current transit reality with respect to implementation.

### **9.2. Theoretical Issues**

#### **9.2.1. A Mobilization Model but Without a Policy Entrepreneur?**

A new kind of models surfaces in the case studies. Indeed, there were several cities that initiated their policy-making process by the decision-makers, without anyone in particular being an entrepreneur. In London (1962-1986), Manchester, Ottawa, Portland, Dublin and Honolulu, the body of decision-makers agreed with quite a consensus to support preferential treatment implementation. Afterwards, the process turned either into an inside access if the transportation authority took over or kept going as a mobilization model in London. This last case brings new arguments to the agenda-setting theoretical hypotheses in sense that it combines two of the models.

#### **9.2.2. Mixing Mobilization and Inside Access Models**

Cobb, Ross and Ross (Cobb, Ross and Ross, 1977) envisioned that agenda-building theory could include a mixture of the three models identified earlier. The case of London

between 1962 and 1986 now points out that most of the other cities did not strictly followed only one model. We represent on figure 19 the different cities on a scale ranging from a pure mobilization model to a pure inside access one.

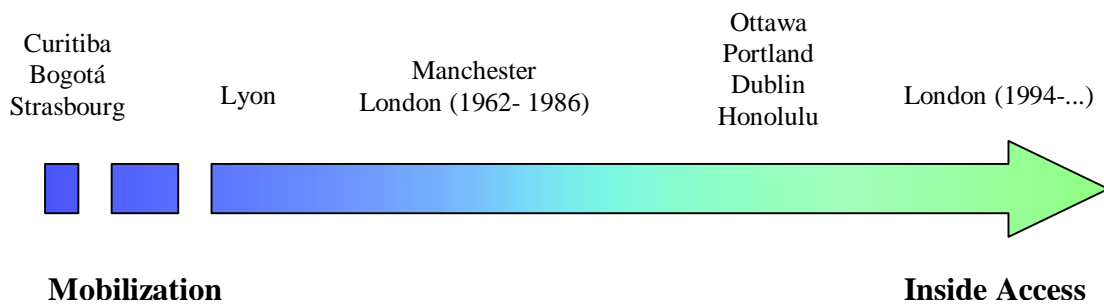


Figure 19: Case Studies in the Gamut of Models

It happens that the majority of models includes a mix of the theoretical models.

Curitiba, Bogotá and Strasbourg could be classified unambiguously as mobilization models, because of a strong leadership in the process. On the other hand, Lyon's entrepreneur did not support the process alone because he relied on the SYTRAL.

The current process in London is the only one that could be classified as inside access. In the other cities included in the inside access chapter, there was an action from the decision-makers that initiated the process: the DTI, Harris' vision in Honolulu or the actions taken by the regional elected body in Ottawa and Portland.

Eventually, the most ambiguous cases are Manchester and London (1962-1986); hitherto they were respectively classified as inside access and mobilization but in Manchester the GMC led the process (yet relying on the GMPTE) and in London there was no policy entrepreneur identified.

### 9.3. Practical Issues

#### 9.3.1. Transportation: a growing concern for the citizens

In the hypotheses, we assumed that preferential treatment was an unpopular measure and that the policy-makers would encounter fierce opposition to any policy limiting car use. It might have been true two decades ago, but nowadays, urban transportation issues are

becoming a growing source of concerns. The survey done by the TNSOFRES in France confirms this trend:<sup>55</sup>

	Citizens	Elected Officials
1996	58%	72%
2001	72%	81%

*Table 23: Percentage of Positive Answers to the question: "Transportation and traffic, a growing problem?"*

The case studies give some elements of answer to why transportation is getting more attention from the public. The underlying issue of urban quality of life drives these growing public concerns. Indeed, the environment and the congestion are often related to the public transportation issue and tend to catch the attention of a broader segment of the population. On the other hand, the argument of increasing road capacity is losing support because the public recognizes the unsustainability of this solution: the continuous increase in road capacity never really scoped the congestion issue. Portland Zurich's citizens found out relatively early, in the 1970's, and this feeling tends to spread to other cities. The survey by TNSOFRES also shows that French citizens are also aware of the car limits in the urban context.

	Citizens	Elected Officials
2001	70%	75%

*Table 24: Percentage of Positive Answers to the question: "Cars in cities have more disadvantages than benefits?"*

### **9.3.2. Towards an integration of transportation issues**

The other hypothesis that can lead to erroneous judgment is to think that urban transportation policy is hierarchical and clustered. It used to be, when public transportation and highway policies were completely independent processes, run by rival agencies. Nevertheless, the case studies points out that cities are moving towards an integrated policy in urban transportation. This has resulted into better relations between the different institutions. The strongest example is the PDU in France that really imposed an intermodal planning for major cities. Moreover, in the Dublin the establishment of the DTO expressed the political will to concentrate the transportation policies (at least the

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<sup>55</sup> Les Déplacements Urbains en Province: un climat favorable aux transports publics, TNSOFRES

coordination) into a single agency. In London, the period of institutional breaking up is now leaving the place to a stronger public transportation agency (TfL) and a centralized metropolitan authority (GLA). Was the preferential treatment responsible for this trend? Responsible seems a little strong, but surely it acted as a catalyst. Indeed, managing the implementation of preferential treatment needs institutional cooperation but the trend can be broadened to other public transportation systems.

## **9.4. Further Research**

### **9.4.1. The Absence of Outside Initiative Case Studies**

Zurich was not considered here because of its singular characteristics. If we had found more outside initiative cases, mixed with other types of models, we would have been able to integrate a third dimension to our scale. A further research could include such models in looking at policy closely related to preferential treatment, such as pedestrian areas or urban tolls.

### **9.4.2. Inside Access Entrepreneurs?**

This thesis points out that entrepreneurs can arise from non-decision-making groups. An interesting follow-up would be to focus on how people inside an administration could achieve subsequent policy-making towards the implementation.

### **9.4.3. The American Exceptionalism**

Further investigations could be led on the situation in the USA. Unfortunately, only Portland and Honolulu' case studies brought elements of thoughts on an American perspective. Nevertheless, the multiplication of preferential treatment in San Diego, San Francisco, Los Angeles, Cleveland or Pittsburg seems to testify against the American peculiarity. To our knowledge, none of the cities quoted above followed a mobilization model – that we can expect because of the fragmentation of decision-making, main source of exceptionalism.

#### **9.4.4. Quantifying The Policy**

An interesting perspective would be the link between policy analysis and operational improvements. With enough cases and data availability, future works could isolate the effects of preferential treatment (with respect to policy) on transit ridership, commercial speed, level-of-service...

#### **9.4.5. Agenda-Building Models For Other Topics**

Eventually, the framework of agenda-building models offers a strong methodology to make some research on policies related to public transportation. Some further researches using agenda-buildings models could bring significant knowledge on issues such as parking, pedestrian areas, zoning...

### **9.5. References**

*Cobb, Ross and Ross, 1977: Agenda-Building as a Comparative Political Process, Cobb R.W., Ross J-K., Ross M. H., 1977*

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## Acronyms

AVL:	Automated Vehicle Location
BRT:	Bus Rapid Transit
COURLY:	COmmunauté URbaine de LYon
CTS:	Compagnie des Transports Strasbourgeois
CUS:	Communauté Urbaine de Strasbourg
DTI:	Dublin Transportation Initiative
DTO:	Dublin Transportation Office
ELTIS:	European Local Transport Information Service
FTA:	Federal Transit Authority
GLA:	Greater London Authority
GLC:	Greater London Council
GMC:	Greater Manchester Council
GMPTE:	Greater Manchester
GPS:	Global Positioning System
IPPUC:	Instituto de Planejamento Urbano de Curitiba
ITP:	Interim Transportation Plan
LBNP:	London Bus Priority Network
LOTI:	Loi d'Orientation des Transports Intérieurs
LRT:	Light Rail Transit
LT:	London Transport
MAX:	Metropolitan Area Express
MIS/EIS:	Major Investment Study / Environmental Impact Statement
MPO:	Metropolitan Planning Authority
OC Transpo:	Ottawa-Carleton Regional Transit Commission
PRN:	Priority Route Network
PTA:	Passenger Transport Authority
QBC:	Quality Bus Corridor
RMOC:	Regional Municipality of Ottawa-Carleton
SRU:	Solidarité et Renouvellement Urbain
SYTRAL:	SYndicat de TRansports de l'Agglomération Lyonnaise

TfL: Transport for London  
TTF: Transportation Task Force  
UITP: Union Internationale des Transports Publics (International Association for  
Public Transport)  
VBZ: Verkehrsbetriebe Zürich  
ZVV: Züricher Verkehrsverbund